

Mark P. Meyer

SELECTED COAL DEPOSITS IN ALASKA

By Mark P. Meyer

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NOTICE

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CONTENTS

	<u>Page</u>
Abstract	1
Introduction	1
Acknowledgments	1
Organization of directory	1
Deposit selection	3
History of coal mining in Alaska	3
Current coal development in Alaska	4
Major coalfields of Alaska	6
Northern Alaska Coalfield	6
Lisburne Coalfield	6
Chicago Creek Coalfield	6
Nulato Coalfield	6
Rampart Coalfield	7
Eagle-Circle Coalfield	8
Nenana Coalfield	8
Jarvis Creek Coalfield	8
Little Tonzona Coalfield	8
Broad Pass Coalfield	8
Beluga-Yentna Coalfield	8
Matanuska Coalfield	8
Kenai Coalfield	9
Bering River Coalfield	9
Chignik Coalfield	9
Herendeen Bay Coalfield	9

CONTENTS--Continued

	<u>Page</u>
Infrastructural and institutional factors affecting coal mining in Alaska	9
Utilities	9
Electricity	9
Natural gas	9
Oil	10
Water	10
Coal	10
Transport	10
Railroad	10
Road	10
Air	12
Marine highway	12
River	12
Coal transportation modes	12
Leasing	12
Federal	12
State	14
Taxation	16
Federal	16
Coal depletion allowance	16
Impact-related taxes	16
State mining license tax	16
Markets in Alaska	17

CONTENTS--Continued

	<u>Page</u>
Markets outside Alaska	17
Abstracts of selected coal deposits in Alaska	19
References	341
Bibliography	369

ILLUSTRATIONS

1. Major coalfields in Alaska	2
2. Electrical transmission systems in Alaska	11
3. Major railroad and highway systems in Alaska	13
4. Location map of selected coal deposits in Alaska	pocket

TABLES

1. Identified and hypothetical coal resources of Alaska	4
2. Coal production in Alaska, 1880-1985	5
3. Major coalfields in Alaska	7
4. Active coal leases in Alaska	15
5. Deposit abstract index of selected coal deposit in Alaska	20

UNIT OF MEASURE ABBREVIATIONS USED IN THIS REPORT

Btu	British thermal unit
Btu/lb	British thermal units per pound
d	day
h	hour
ha	hectare
Km	Kilometer
Km ²	Square kilometer
kV	kilovolt
kWh	kilowatt hour
lb	pound
m	meter
m ³	cubic meter
Mmt	million metric tons
mt	metric tons
mt/d	metric tons per day
mt/yr	metric tons per year
MWe	megawatt
st	short ton
st/d	short tons per day
st/yr	short tons per year
%	percent

SELECTED COAL DEPOSITS IN ALASKA: A MINERALS AVAILABILITY SYSTEM DIRECTORY

By Mark P. Meyer¹

ABSTRACT

This U.S. Bureau of Mines publication presents salient information in abstract form on 247 coal deposits in Alaska. Coverage includes currently producing deposits and deposits that appear to have commercial production potential. Data are taken from coal properties identified by the U.S. Bureau of Mines minerals availability program and by a literature search. Infrastructural and institutional factors affecting coal development in Alaska are also discussed.

INTRODUCTION

In September 1985, the U.S. Bureau of Mines (Bureau) Alaska Field Operations Center (AFOC) began a 2-year project to update the Bureau's minerals availability data base on coal in Alaska. The minerals availability program was initiated in 1971 to provide current appraisals of the engineering and the economic availability of minerals for consideration in the formulation of domestic and foreign policies.

Deposit data are obtained from many sources including published and unpublished Bureau reports, records, and files; U.S. Geological Survey (USGS) bulletins, professional papers, and other reports; technical and professional journals; State and Federal agency publications; proprietary company reports; and information obtained from knowledgeable individuals.

The intent of this report is to present salient information on the principal coal deposits in Alaska. This report also contains a summary of historical and current coal mining activity in Alaska and brief discussions of Alaska's infrastructural and institutional factors affecting mineral development.

ACKNOWLEDGEMENTS

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Special gratitude is extended to the staff of the Bureau's AFOC, Anchorage, AK. Particular thanks go to Robert B. Hoekzema, supervisory physical scientist and to Denise A. Herzog, mining engineer, for providing support and direction to the author.

ORGANIZATION OF DIRECTORY

This publication is organized into two principal sections: an introductory section and a site-specific deposit abstract section. The introductory section presents background information on the coal mining industry in Alaska, the major coal fields of Alaska (fig. 1), and a description of the existing infrastructural and institutional factors that affect the commercial development of Alaska's coal resources. This last subsection briefly discusses the power utilities, transportation, leasing, taxation, and markets in and outside of Alaska.

The larger section of the publication contains site-specific deposit data abstracts. It is composed of single-page summaries of information pertaining to selected coal deposits in Alaska. The summaries are listed by USGS quadrangle and by the name of the property and its location. They are intended to report deposit information

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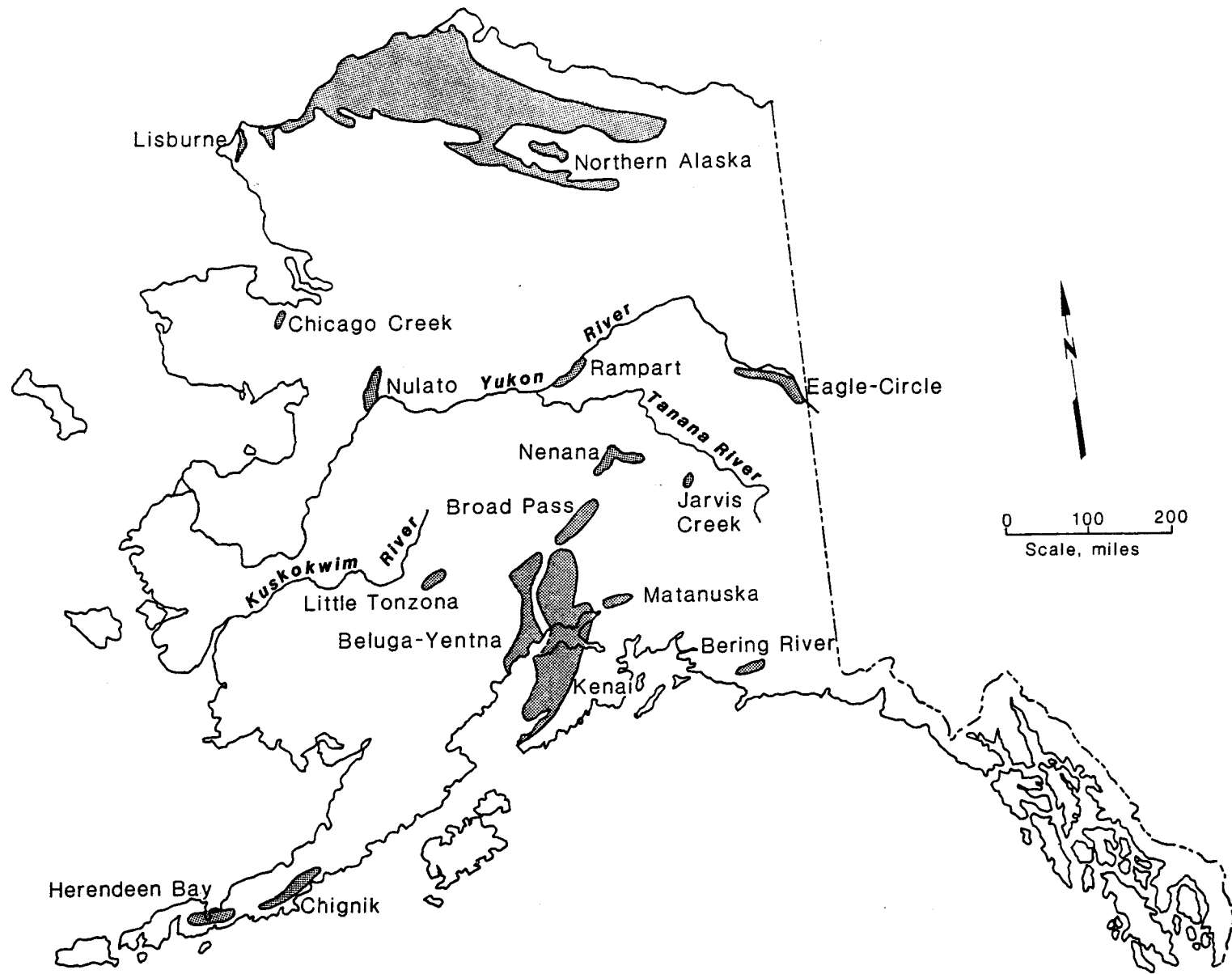


FIGURE 1. -- Major coalfields in Alaska (Source: Reference 273)

available through 1987. It is important to note that the status, ownership, and other data may change.

Each abstract is composed of the following subject areas: deposit name and coal type, location and ownership (if known), geology, development, published reserve-resources, and references. Within each subject area there are several individual data elements. Not all data elements are reported for each deposit because proprietary data have been omitted and some data either cannot be determined or are not available. The International System of Units (SI) of measurement is used throughout the deposit abstracts except for published reserve-resources. The reserve-resource data are reported in terms and units of the cited publication. The reference section includes bibliographic references for the deposit, the USGS 1:250,000 quadrangle, and the Bureau's minerals availability data base sequence number (MAS). The sequence number is a 10-digit number that is unique to the deposit and allows rapid retrieval of relevant data from the MAS data base.

An extensive but not exhaustive reference section follows the deposit abstracts. This reference section provides the reader with additional sources of information about the deposits described in the report. Also, a bibliography section is included to provide the reader with reports that contain general, non-site-specific data about coal.

DEPOSIT SELECTION

This publication is a directory of selected coal deposits in Alaska. Deposit coverage reflects the Bureau's work conducted under the minerals availability program. From September 1985 to July 1987, the Bureau reviewed 247 selected coal deposits. Of these deposits, 51 were identified in already published sources (table 1). The site-specific deposit abstract section contains more detailed information concerning these deposits.

HISTORY OF COAL MINING IN ALASKA

Small quantities of coal were used by Alaskan natives and by many early explorers. In 1786, Captain Nathaniel Portlock, an English trader, was the first white man to report finding coal in Alaska at Coal Cove on the Kenai Peninsula near Homer, Alaska. The first coal mine in Alaska was opened in 1855 by a Finnish mining engineer named Enoch Furuhjelm for the Russian-American Co. at English Harbor (now Port Graham) on the Kenai Peninsula (320)². The coal was used by Russian steamers and American whaling ships. After the purchase of the Alaska Territory by the United States in October 1867, many small mines opened throughout Alaska, but most had closed by 1902 (298). Only a few small mines in isolated areas continued any operations, usually in support of local placer mining. The Coal Land Act of 1873 was extended to Alaska in 1900, opening surveyed lands for coal claims. At that time there were few land surveys in Alaska. In 1904, a second coal land law was passed by Congress to open all lands to coal claims, but locations were limited to four claims totaling 260 ha. These laws created political pressure on President Theodore Roosevelt, who withdrew all coal lands in Alaska from entry in 1906 by executive decree. Starting in 1914, the U.S. Navy began investigating coal from the Bering River Coalfield and from Chickaloon, in the Matanuska Coalfield. Chickaloon coal was successfully tested aboard the U.S.S. Maryland in 1914 (320). The Alaska Leasing Act was also enacted in 1914, but its regulations were not issued until 1916 (298).

Significant coal mining began in 1917 after construction of the Alaska Railroad began in 1916. Mines were opened in the Matanuska and Nenana Coalfields to supply coal to the U.S. Navy, the Alaska Railroad, and communities along the railbelt (298). Approximately one-third of the 35 Mmt of Alaskan coal produced from 1880 to 1985 is estimated to have been mined from the Healy Creek area of the Nenana Coalfield. The Suntrana Mine on Healy Creek produced coal continuously from 1922 to 1962, when a fire forced its closure. Another third of Alaska's coal was produced from Usibelli Coal Mine at Poker Flats on Lignite Creek (Nenana Coalfield). The remaining third was produced from the Matanuska Coalfield (8.3 Mmt) and elsewhere in Alaska (266). Historical coal production peaked in 1965 with a total of 871,379 mt mined (table 2).

Starting in 1924, the U.S. Navy began to convert coal-burning ships to oil. In the period following 1946, the major Alaskan users of coal switched to alternative energy sources. The Alaska Railroad started converting to

²Underlined numbers in parentheses refer to items in the list of references preceding the bibliography.

diesel locomotives in 1946. In 1968 the Anchorage-area powerplants, including the military bases, converted to Cook Inlet natural gas. This caused the closure of the Matanuska coal mines with the exception of small-scale production for local heating (298).

TABLE 1. - Identified and hypothetical coal resources of Alaska,
million short tons

	Identified	Undiscovered
Northern Alaska..	150,000	4,000,000
Lisburne.....	¹	¹
Beluga-Yentna....	11,110	34,800
Nenana.....	7,025	11,505
Little Tonzona...	1,500	3,000
Kenai.....	320	1,535,000
Chignik.....	230	1,500
Matanuska.....	150	500
Herendeen Bay....	130	1,500
Bering River.....	110	3,500
Jarvis Creek.....	75	175
Broad Pass.....	50	500
Eagle-Circle.....	10	100
Chicago Creek....	5	10
Nulato.....	NR	50
Rampart.....	NR	50
Other deposits...	85	2,835
Total.....	170,800	5,595,025

NR Not reported.

¹See Northern Alaska.

Source: Reference 273.

CURRENT COAL DEVELOPMENT IN ALASKA (80)

Currently, the only producing coal mine in Alaska is the Usibelli Coal Mine in the Nenana Coalfield. In 1985 the Usibelli Coal Co. signed a 15-year contract with Sun Eel Shipping Co. (408) to export 679,000 mt of coal per year to the Korean Electric Power Co. (KEPCO) in Honam, Republic of Korea (80). Usibelli coal is also used at the Golden Valley Electrical Association mine-mouth power plant in Healy, which supplies electrical

TABLE 2. - Coal production in Alaska, 1880-1985

Year	st	Year	st	Year	st
1880..	NA	1916..	12,676	1952..	686,218
1881..	NA	1917..	54,275	1953..	861,471
1882..	NA	1918..	75,816	1954..	666,618
1883..	NA	1919..	60,894	1955..	639,696
1884..	NA	1920..	61,111	1956..	726,801
1885..	NA	1921..	76,817	1957..	842,000
1886..	NA	1922..	79,275	1958..	759,000
1887..	NA	1923..	119,826	1959..	660,000
1888..	NA	1924..	99,663	1960..	722,471
1889..	NA	1925..	82,868	1961..	736,831
1890..	¹ 6,076	1926..	87,300	1962..	871,379
1891..	1,083	1927..	104,300	1963..	853,398
1892..	871	1928..	126,100	1964..	744,942
1893..	923	1929..	100,600	1965..	983,182
1894..	488	1930..	120,100	1966..	927,145
1895..	1,687	1931..	105,900	1967..	924,549
1896..	712	1932..	102,700	1968..	750,435
1897..	2,673	1933..	96,200	1969..	667,179
1898..	2,652	1934..	107,500	1970..	549,473
1899..	2,264	1935..	119,425	1971..	698,000
1900..	2,855	1936..	136,600	1972..	² 668,000
1901..	2,740	1937..	131,600	1973..	694,000
1902..	3,052	1938..	159,230	1974..	700,000
1903..	2,717	1939..	146,250	1975..	766,000
1904..	1,824	1940..	173,970	1976..	706,000
1905..	4,334	1941..	238,960	1977..	685,000
1906..	6,061	1942..	260,893	1978..	730,000
1907..	10,689	1943..	289,232	1979..	750,000
1908..	4,066	1944..	348,375	1980..	750,000
1909..	3,430	1945..	297,644	1981..	800,000
1910..	2,250	1946..	366,809	1982..	830,000
1911..	1,850	1947..	361,220	1983..	803,000
1912..	1,205	1948..	407,906	1984..	849,161
1913..	2,312	1949..	433,533	1985..	1,370,000
1914..	1,190	1950..	421,455		
1915..	1,629	1951..	494,333		

NA Not available

¹Total for 1980 includes coal production from 1880-1891.

²1972-1984 evaluations are estimates.

Source: Reference 80.

energy to the Fairbanks area and southward to Homer. The Usibelli Coal Co. serving Alaska since 1945 currently has long-term contracts with Ft. Wainwright Army Base, Eielson Air Force Base, Clear Air Force Base, Fairbanks Municipal Utility System, University of Alaska-Fairbanks, and Reliable Coal of Healy, Alaska. Average yearly production is approximately 882,000 mt for in-State use. Interest in coal development in Alaska is continuing, and the following five companies are currently evaluating coal properties.

The Delta Coal Co. continued a feasibility study on its property at Little Gold Creek in the Jarvis Creek Coalfield. Plans call for mining 55,000 mt/yr over a 20-year mine life.

Diamond Alaska Coal Co. is continuing work on engineering and environmental designs, acquiring financing, and developing sales contracts for its coal deposits in the Beluga Coalfield. Plans call for producing 2.2 Mmt/yr with a potential increase in production up to 11 Mmt/yr.

Placer U.S. Inc. is continuing feasibility studies on its coal deposits located in the Beluga Coalfield. Production of 1.1 Mmt/yr is planned. Talks have been held with the Electric Power Development Corp. of Japan in the development of markets for its coal.

Hawley Resources Properties and Rocky Mountain Energy continued feasibility and development studies on its coal properties in the Matanuska Coalfield. Preliminary mine-feasibility studies were conducted with Signal Energy Systems on development of a 150-MWe mine-mouth power plant.

Bering Development Corp. continued feasibility studies on the exportation of 0.6 to 1.6 Mmt/yr of coal from the Bering River Coalfield.

MAJOR COAL FIELDS OF ALASKA (265, 273)

Alaska's 16 major coalfields are shown on figure 1 and listed in table 3. The coals are Cretaceous to Tertiary in age and range in rank from anthracite to lignite.

NORTHERN ALASKA COALFIELD

The Northern Alaska Coalfield is the largest in Alaska, underlying 77,700 km² along the north slope of the Brooks Range. The coals occur primarily in the Cretaceous Corwin Formation.

They range in rank from subbituminous in the northern portion to bituminous in the southern portion. Some coking coals occur within this coalfield. Individual coalbeds ranging from 4.5 to 12 m thick are characteristic of the group and occur in flat-lying to gently dipping structures.

LISBURNE COALFIELD

The Lisburne Coalfield occupies an area of approximately 500 km² in northwestern Alaska. The coals occur primarily in the Paleozoic Kapaloak Formation with minor amounts occurring in the Cretaceous Corwin Formation. The coals are bituminous in rank and occur in beds generally less than 2 m thick. The beds are generally folded and faulted into complex geologic structures.

CHICAGO CREEK COALFIELD

The Chicago Creek Coalfield on the Seward Peninsula occupies an area of less than 100 km². Coal occurs in the Tertiary Kugruk Formation and is lignite in rank. One coalbed up to 24 m thick has been reported dipping from 45° to 70° in a graben structure.

NULATO COALFIELD

The Nulato Coalfield covers an area of up to 390 km² along the Yukon River in western Alaska. Bituminous to subbituminous coal occurs in the Cretaceous Kaltag Formation. Coking coal occurs in minor amounts in this coalfield. The coalbeds are generally less than 1.2 m thick and have been folded and faulted into locally complex structures.

TABLE 3. - Major coalfields in Alaska

Coalfield	Area km ²	Formation name	Formation age	Coal rank	Thickness m
Northern Alaska.	77,700	Corwin.....	Cretaceous.	Subbitu. -bitum.	4.5-12
Beluga- Yentna.	15,500	Tyonek, Beluga, & Sterling.	...do.....	...do...	6
Kenai.....	5,200	Beluga & Sterling.	...do.....	Subbitu.	0.8-6
Herendeen Bay.	2,800	Chignik & Bear Lake.	Cretac. & Tertiary.	Bitum... Lignite.	0.6
Nenana....	2,600	Suntrana & Healy Ck.	Cretaceous.	Subbitu.	6
Eagle- Circle.	2,100	...do.....	...do.....	...do...	6.7
Matanuska.	1,800	Chickaloon.	...do.....	Bitum.- anthra.	0.6-12
Bering River.	780	Kushtaka...	...do.....	...Do...	1.8-9
Lisburne..	550	Kapaloak & Corwin.	Paleozoic & Cretac.	Bitum...	2
Little Tonzona.	520	Unnamed....	...do.....	...do...	1.5-6
Chignik...	390	Chignik....	Cretaceous.	Subbitu. -bitum.	2
Nulato....	390	Kaltag.....	...do.....	...do...	1.2
Rampart...	260	Unnamed....	Tertiary...	...do...	1.5
Broad Pass.	100	...do.....	...do.....	Subbitu. -lign.	1.5-3
Chicago Creek.	100	Kugruk.....	...do.....	Lignite.	24
Jarvis Creek.	100	Healy Ck...	...do.....	...do...	3

Shown on figure 1.

Source: Reference 268, 273.

RAMPART COALFIELD

The Rampart Coalfield covers an area of approximately 260 km² in central Alaska. Coal occurs in an unnamed Tertiary coal-bearing unit that ranges in rank from subbituminous to bituminous. The coalbeds are less than 1.5 m thick and are steeply dipping.

EAGLE-CIRCLE COALFIELD

The Eagle-Circle Coalfield occupies an area of 2,100 km² along the upper Yukon River in eastern Alaska. Coal occurs in an unnamed Tertiary coal-bearing unit and ranges in rank from subbituminous to bituminous. Minor amounts of coking coal occur in the Eagle area of this coalfield. The coalbeds are generally thin with one 6.7 m thick bed occurring in broad, open folds.

NENANA COALFIELD

The Nenana Coalfield covers an area of approximately 2,600 km² trending east-west along the northern flank of the Alaska Range in central Alaska. Coal primarily occurs in the Suntrana and Healy Creek Formations of the Tertiary coal-bearing unit, which is up to 900 m thick. The coal is subbituminous in rank and occurs as seams up to 18 m thick. The coalbeds occur in moderately dipping fault blocks and gentle folds.

The bulk of Alaska's coal production is currently mined from this coalfield. Three seams in the Suntrana Formation, the 3, 4, and 6, each averaging 6 m thick, are being mined at the Usibelli Coal Mine.

JARVIS CREEK COALFIELD

The Jarvis Creek Coalfield makes up the eastern portion of the Nenana Coalfield. The field occupies an area of less than 100 km². Coal occurs in the Tertiary Healy Creek Formation and is subbituminous in rank. The coalbeds are gently dipping and are less than 3 m thick in an isolated structural basin.

LITTLE TONZONA COALFIELD

The Little Tonzona Coalfield occupies an area of 520 km² in southwestern Alaska. Coal occurs in an unnamed Tertiary coal-bearing unit and is subbituminous in rank. The coalbeds are generally 1.5 to 6 m thick; however, one 30 m thick bed is reported. The structure of the field is low-angle fault blocks and minor folds.

BROAD PASS COALFIELD

The Broad Pass Coalfield occupies an area of 100 km² in northern south-central Alaska. Coalbeds occur in an unnamed Tertiary coal-bearing unit. Coal ranges from subbituminous to lignite in rank. The beds range in thickness from 1.5 to 3 m and occupy a narrow graben structure.

BELUGA-YENTNA COALFIELD

The Beluga-Yentna Coalfield occupies an area of 15,500 km² in south-central Alaska. Coal occurs primarily in the Cretaceous Tyonek Formation with lesser deposits in the Cretaceous Beluga and Sterling Formations. Coal ranges from subbituminous to lignite in rank. The coalbeds are generally 6 m thick with one bed reported to be more than 15 m thick. Beds are in flat-lying to broad, gentle folds with minor localized faults.

Currently, this coalfield has the highest development potential of recoverable coal resources in Alaska (table 1). Development work is being done in this field with the possibility of two mines being opened in the early 1990's.

MATANUSKA COALFIELD

The Matanuska Coalfield occupies an area of approximately 1,800 km² in south-central Alaska. Coal occurs in the 900 m thick Tertiary Chickaloon Formation. Coal ranges in rank from bituminous in the southwest to anthracite in the northeast with some high-quality coking-quality coal occurring in the Chickaloon area. Up to 30 coalbeds range from 0.6 to 12 m thick in an east-west trending canoe-shaped syncline. This coalfield ranks second in historic coal production with 8.3 Mmt of bituminous coal mined prior to 1968 (266).

KENAI COALFIELD

The Kenai Coalfield occupies an area of over 5,200 km² covering the western Kenai Peninsula and extending offshore beneath Cook Inlet. Coal occurs in the Cretaceous Beluga and Sterling Formations and are subbituminous in rank. The coalbeds range from 0.8 to 6 m thick and are flat-lying to gently dipping in structure.

BERING RIVER COALFIELD

The Bering River Coalfield occupies an area of 780 km² in south-central Alaska. Coal occurs in the Cretaceous Kushtaka Formation and ranks from bituminous to anthracite with minor amounts of coking coal present. The coalbeds range from 1.8 to 9 m thick, occur in pod- or lens-shaped structures and are structurally complex.

CHIGNIK COALFIELD

The Chignik Coalfield occupies an area of 390 km² in the Alaska Peninsula. Coal occurs in the Cretaceous Coal Valley Member of the Chignik Formation, ranging from bituminous to subbituminous in rank. The beds are less than 2 m thick and have moderate dips.

HERENDEEN BAY COALFIELD

The Herendeen Bay Coalfield occupies an area of 2,800 km² on the Alaska Peninsula. Coal occurs in the Cretaceous Chignik and Tertiary Bear Lake Formations. Coal in the Chignik Formation is bituminous in rank and in the Tertiary Bear Lake Formation is lignite in rank. Coal occurs in 17 beds that are usually less than 0.6 m thick and are moderately folded and faulted.

INFRASTRUCTURE AND INSTITUTIONS AFFECTING COAL MINING IN ALASKA

Infrastructural and institutional factors that affect coal mining in Alaska include utilities, transport, leases, taxation, and markets inside and outside of Alaska.

UTILITIES

Utilities serving Alaska's communities include electricity, natural gas, oil, water, and coal.

Electricity

Alaska's electricity is provided by centralized systems along the area from Fairbanks to Homer, and by decentralized systems in the rural areas. Electrical power is generated by utilities, industry, the military, and independent operators in rural and isolated areas. The utilities account for 67% (1,374 MWe) of the installed capacity, industry for 23% (485 MWe), and national defense 10% (205 MWe) (6). Figure 2 shows the electrical transmission systems in Alaska.

Natural Gas

Alaska's natural gas is produced in two areas of the State: the northern coastal region at Barrow and Prudhoe Bay, and the Cook Inlet region. The northern coastal region contains 1,024 trillion m³ of proven reserves, and the Cook Inlet region contains 106 trillion m³ of proven reserves (6).

Cook Inlet gas is used for thermal and electrical generation for residential, commercial, and industrial users in south-central Alaska. Natural gas from the South Barrow gasfield supplies Point Barrow.

Oil

Alaska's oil is not extensively used by Alaska's larger utilities because they are supplied with natural gas. Nearly all of Alaska's oil is exported. Some oil is refined in Alaska at Nikiski on the Kenai peninsula and at Fairbanks. Diesel fuel is used extensively in rural communities for generation of electricity.

Water

Alaska's large hydropotential is largely untapped and undeveloped. Currently, hydropower is being produced at Eklutna Lake north of Anchorage for use along the Fairbanks-Homer area, and at Snettisham Lake in southeast Alaska, providing power for the Juneau area.

Coal

Alaska has identified and hypothetical coal resources that exceed 6.35 trillion mt of coal (273). Table 1 lists the identified and hypothetical resources of the major coalfields in the State.

Coal in Alaska is mostly bituminous in rank, with occurrences of anthracite-grade coal in the Matanuska and Bering River Coalfields. Coking coal is present in minor amounts in the Northern Alaska, Eagle-Circle, Nulato, Matanuska, and Bering River Coalfields. The Matanuska Coalfield contains the highest quality coking coal in Alaska (329).

TRANSPORT

Transportation infrastructure and the major population centers developed in response to the economic growth in mines, petroleum, timber, defense, fisheries, and government. The population centers are the hubs of the transportation networks by which people and goods are moved into and out of the rural communities. Thus, Alaska uses modes of transportation that in turn control the development of the State. Alaska's transportation system is extremely diverse because it must move people and goods over great distances using land, air, and water.

Railroad

Alaska is served by one operating railroad, the Alaska Railroad, owned and operated by the State of Alaska. Construction of the Alaska Railroad was authorized by the U.S. Congress in 1914 and completed in 1924. The railroad was purchased by the State of Alaska in 1985.

The railroad is a vital all-weather link connecting the port cities of Whittier, Seward, and Anchorage with Fairbanks and the coal deposits of the Nenana Coalfield. The railroad has 750 km of track running from Seward to Fairbanks via Anchorage (fig. 3) and also has 105 km of branch lines, some connected with the Nenana Coalfield.

At the present time, the Alaska Railroad is the major coal transport system within Alaska. The railroad connects the Usibelli Coal Mine near Healy to the Fairbanks-Nenana Valley area markets, to the Anchorage-Cook Inlet area, and to the Seward coal-loading facilities. Trucks transport the coal from the railroad yards and coal-holding facilities to individual users not along the railroad (425).

Road

Early roads and trails in Alaska were constructed to haul supplies to mining camps. These early routes followed Native trails or were constructed by miners, the U.S. Army, or the Alaska Road Commission. The Alaska road system contains 6,000 km of highways, roads, and streets (as shown on figure 3). The system connects the major population centers and provides access to the continental United States via the Alcan Highway. Jurisdiction of the roads is controlled by the Federal Government, the State of Alaska, and local governments.

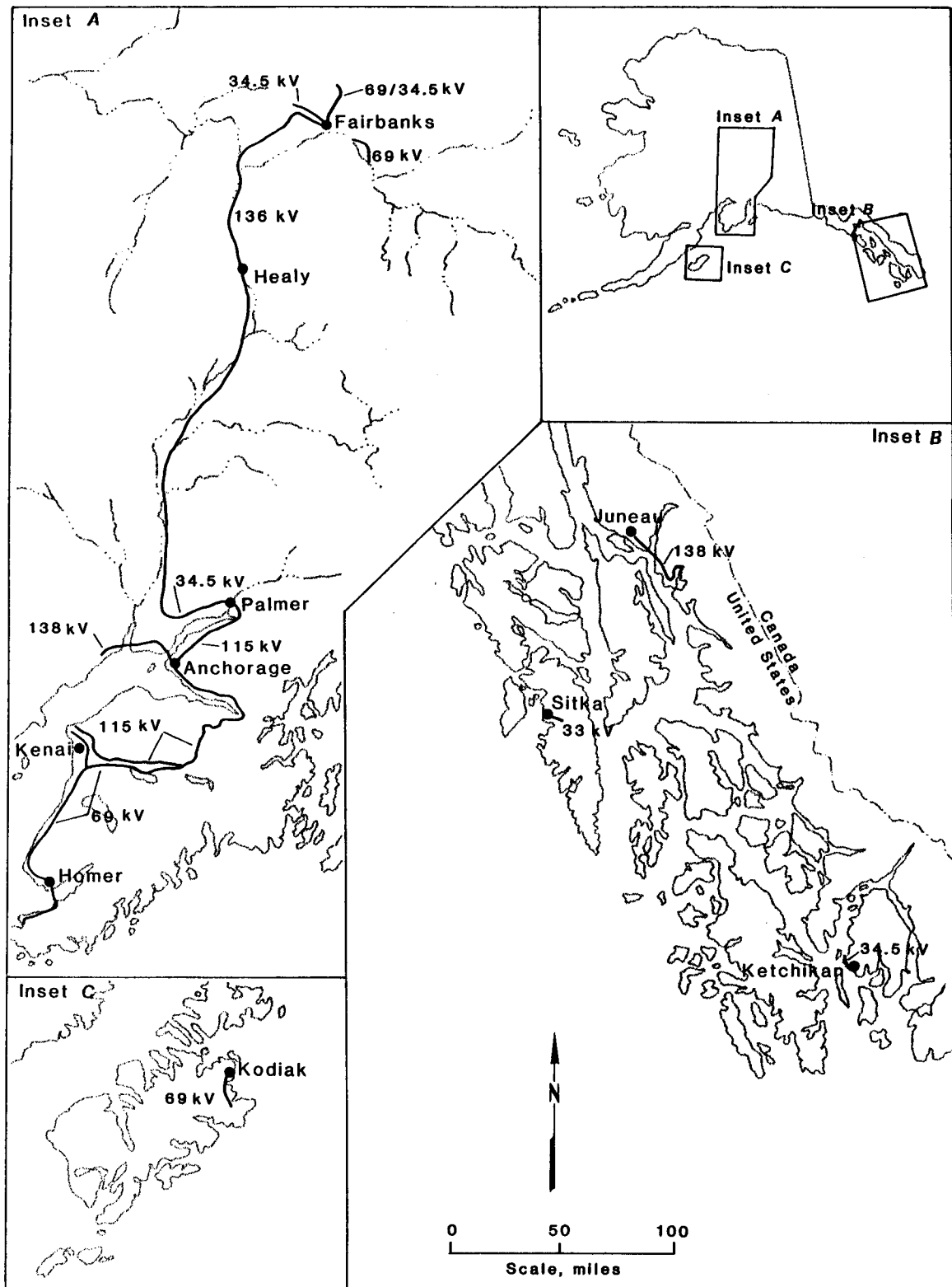


FIGURE 2. — Electrical transmission systems in Alaska
 (Source: Alaska Power Administration)

Air

Alaska's air transport system provides a vital link between the major population centers and rural Alaska. Alaska's large and sparsely populated land mass and the limited availability of alternative transport in rural areas play a major role in the development of air transport. Air transport has proven extremely flexible, diverse, and unique in meeting the requirements in Alaska.

Alaska has approximately 1,000 airports: 195 in private use and 805 open to the public. International and regional airports such as those at Anchorage, Fairbanks, Juneau, Nome, and Deadhorse meet Federal Aviation Administration (FAA) requirements. Some smaller community airports and airstrips are mainly unimproved and may not meet FAA requirements. Many lakes throughout the State are used by floatplanes and are not under the jurisdiction of the FAA.

Marine Highway

The Alaska Marine Highway System serves some coastal communities in southeast Alaska that are not connected by road or railroad networks. Service is provided to those communities along Alaska's coastline from Ketchikan to Seward. Anchorage, Whittier, and Valdez are the major ice-free port cities in central Alaska. The northern port cities, including Nome and Barrow, and the interior port cities of Bethel and Fairbanks, are seasonal, depending upon commercial activity and ice-free conditions.

Alaska relies heavily on marine transport as its primary means of cargo movement within the State and also to and from markets in the west coast of the United States and in foreign countries. Transported materials include bulk fertilizer, coal, consumer goods, food, minerals, petroleum, seafoods, and wood products.

River

The first extensive transport system in Alaska was by boat along the State's major rivers. This influenced the settlement of Alaska, especially along the Yukon and Kuskokwim Rivers. Alaska's rivers are used to transport low-value, high-volume materials (gravel, fuel oil) to communities during the ice-free summer months.

Coal Transportation Modes

Coal transport modes include river and ocean going-barges, ocean-going ships, trucks, railroad coverage, and powerlines (delivering coal-produced electricity from a mine-mouth powerplant). Future coal transport modes could include the use of slurry pipelines and belt conveyors. In Alaska, there is great potential for the use of any combination of the above transportation modes in moving coal from the mine to the user.

To efficiently develop coal mines within Alaska, the State's transportation network must greatly expand. Developing a transportation network throughout Alaska will play an important part in the development of Alaska's coal and other mineral resources. Although some known coal deposits occur close to existing transportation corridors, the bulk of the coal resources occur within regions having little or no transportation infrastructure.

LEASING (47, 51, 137, 300, 420)

The Federal Government and the State of Alaska lease lands in Alaska for coal development. The Federal Government has issued 1 lease and the State of Alaska has issued 44 active leases to 12 parties as of January 6, 1986 (table 4).

Federal

Coal leases in Alaska are offered on federally managed lands under the Federal Coal Leasing Amendments Act of 1976 (amending 30 U.S.C. 181 et. seq.). Coal on Federal lands is leased competitively at not less than fair market value. The major provisions of the Federal coal-leasing program are listed below.

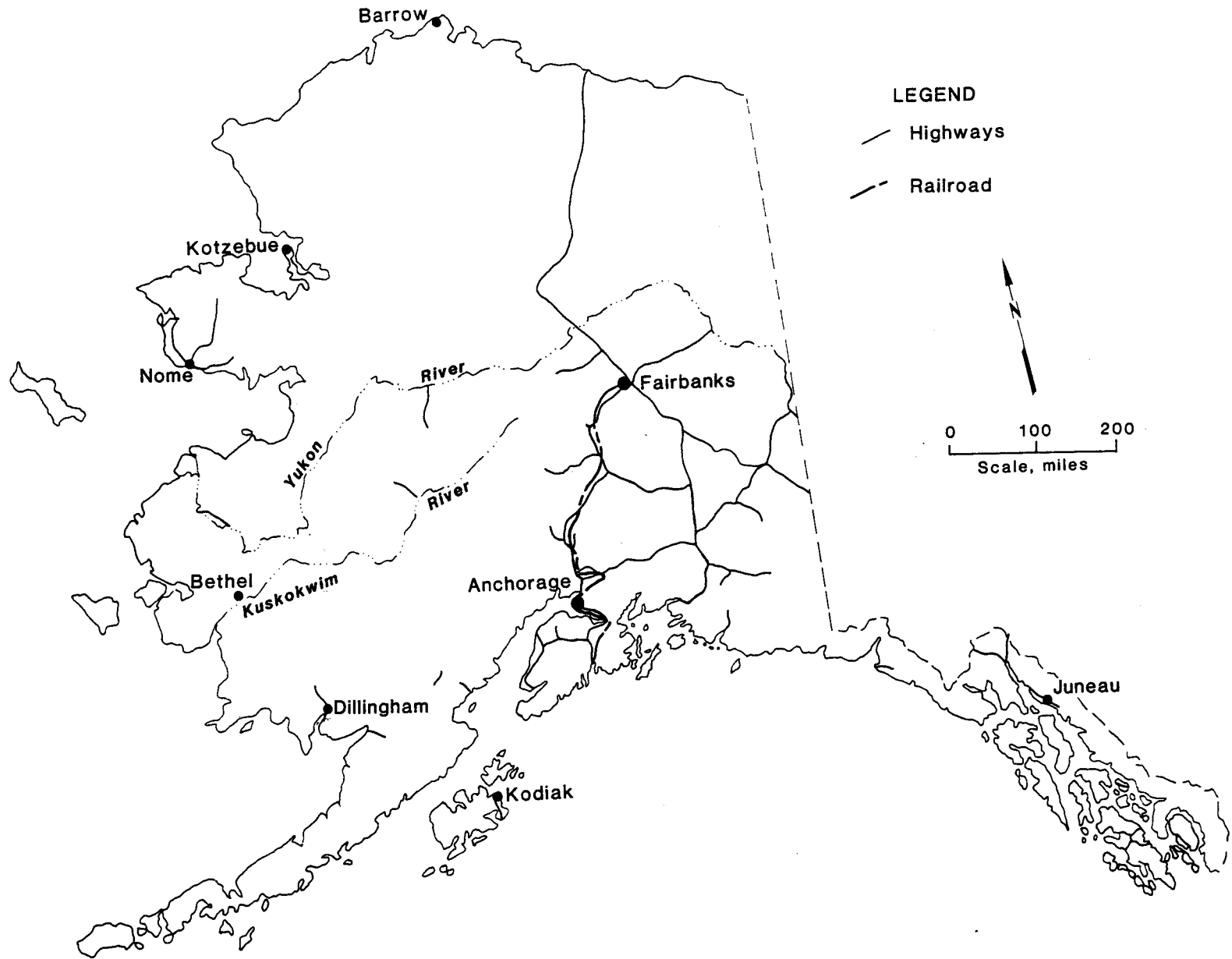


FIGURE 3. — Major railroad and highway systems in Alaska.

An exploration license is required and is issued for a 2-year period. Although the license may not be extended, it can be terminated and then reissued. This license carries no preferential right to a lease.

Rentals of not less than \$1.21/ha per year are required. Minimum royalty rate (based on gross value at the mine mouth) of 12.5% is imposed for surface mining, and a minimum royalty rate of 8% is imposed for underground mining. In certain cases of underground mining, a minimum royalty rate of no less than 5% may be allowed.

Lease terms are for 20 years and for so long thereafter as coal is produced annually in commercial quantities. Leases not producing in commercial quantities at the end of 10 years are terminated.

At least half the hectares offered competitively in any 1 year must be leased under a deferred-bonus bidding system, payable in five equal installments, making it easier for small companies to compete. No person or corporation may hold more than 40,470 ha of leases. A lease bond shall be furnished for each lease in an amount determined by the authorized officer.

A portion of all Federal coal royalties must be paid to the State in which the leased lands are located to provide public services and to mitigate community impact. Alaska is the only State that is entitled to 90% of all royalties collected by the Federal Government on lands within the State; other States are entitled to 50%³. A reasonable number of leasing tracts must be reserved and offered to lease to public bodies and/or small businesses in compliance with the Small Business Act.

State

The State of Alaska offers lands for leasing for the development of coal under the State's coal-leasing program as contained in Alaska Statute 38.05.150 (51). The major provisions of the coal-leasing program are listed below.

No person may hold more than 18,649 ha (two townships) of coal leases and/or permits on State lands. Additional land (up to 2,072 ha) may be leased if the applicant can demonstrate that the additional lands are economically necessary to that business operation. Coal lands are divided into tracts of 16 ha or multiples of 16 ha for leasing purposes.

Prospecting permits may be issued when prospecting or exploration work is necessary to determine the existence or workability of coal deposits. Prospecting permits may not exceed 2,072 ha and may not be issued for more than a 2-year term. If within 2 years the permittee demonstrates that the lands contain coal in commercial quantities and submits a coal recovery plan, the permit is converted to a lease. No specified lease term is required by State statute. Leases are continued indefinitely so long as there is diligent development and continued operation of the mine. If not obtained through conversion of prospecting permits, leases may be awarded to qualified applicants either through competitive bidding or noncompetitive means as determined by the commissioner, Department of Natural Resources (DNR).

The minimum royalty rate that may be charged is 6 cents/mt; no ceiling on the royalty rate is specified. Actual royalty rates charged have ranged from 6 cents/mt to 39 cents/mt.

Until 1978, royalty rates were usually 5.5 cents/mt to 17 cents/mt. Since early 1979, most royalty rates have been set at 39 cents/mt. Royalty rates, once established, are effective for a period of not more than 20 years, at which time they must be reassessed and may be renegotiated at the discretion of the commissioner. Although several of the State leases have been in existence for over 20 years, their royalty rates have not been readjusted since the inception of the lease. Rental fees may not be less than 10 cents/ha for the first year of the lease, increasing to a 20 cents/ha minimum for the second through fifth years, and with rentals not less than 40 cents/ha for each year thereafter.

The commissioner may waive, suspend, or reduce the royalty or rental on an entire leasehold or any tract

³This allocation is established in Public Law 94-579, Federal Land Policy and Management Act of 1976, Section 317. Alaska Statute (AS) 43.05.210 earmarks 37.5% of these revenues for the construction and maintenance of roads or for the support of public education. The other 52.5% may be allocated by the legislature for whatever purposes it chooses.

TABLE 4. - Active coal leases in Alaska

Lessee	Property	Coalfield
FEDERAL		
Delta Coal Co.....	Little Gold Creek...	Jarvis Creek.
STATE		
Am. Exploration & Mining Co.	Evan Jones.....	Matanuska.
Bass, R.D. Trust, W.H. Hunt, & S. Wilson.	Beluga 1.....	Beluga.
Beluga Coal Co.....	Capps, Center Ridge, Lone Ridge, & Threemile Ck. deposits.	...do...
Carrol, C.D., E.H. Corey, Jr., J.D. Lander, W. Sczudlo, and T.W. Somers.	Lignite Creek Coal..	Nenana.
Gore, R.W.	Castle Mountain Mine.	Matanuska.
Grey, H.J., & L.M.	Coffee Creek.....	Beluga.
Hawley Resource Properties.	Baxter, Buffalo, Howard-Jesson, Premier, & Rawson Mines, Wishbone Hill.	Matanuska.
Mobile Mineral Resources.	Canyon & Johnson Creeks.	Yentna.
Renshaw, D.E.	Suntrana Mine.....	Matanuska.
Rock Springs Royalty Co.	Knob Creek Complex, North & South Evan Jones Mines.	...do...
Shallit, G.B., & M.L., and Brigham Young University.	Cripple Creek Mine, Cripple Creek West.	Nenana.
Usibelli Coal Mine, Inc.	Caribou & Moose Seams, Roth-Taylor Mine, Upper Healy Creek Mine, Usibeli Coal Mine.	...do...

Source: Reference 8.

whenever, in the commissioner's judgment, it is necessary to do so to promote development or when the lease cannot be successfully operated under Alaska Statute 38.05.140(d).

Lease revenues are allocated in the following manner: 25% to the Permanent Fund, 5% to the Renewable Resource Fund, 1.5% to the Mental Health Fund, 0.5% to the Public School Fund, and the remainder to the General Fund. Prior to the fulfillment of the State's obligation on June 30, 1980, 2% had been allocated to the

Alaska Native Claims Settlement. All monies allocated to the Permanent Fund go directly into that fund. Monies allocated to the other funds must, in turn, be appropriated to those funds by the legislature.

TAXATION

Both the Federal Government and the State tax coal mining in Alaska (51).

Federal

The Federal Government has two major aspects in Federal tax policy that affect coal production: the coal depletion allowance and impact-related production tax.

Coal Depletion Allowance

The coal depletion allowance compensates a coal production company for the declining value of its property as coal is produced. Depletion is the conceptual equivalent of depreciation. It is a non cash "expense" that reduces taxable income, and hence is a tax liability for a firm. Because depletion reduces its tax payments, the firm has more cash to invest in its business. A company may be showing little or no income, but it may enjoy a strong cash position because of the depletion allowance.

When a property is leased, the tax benefit of the depletion allowance is shared between the firm mining the land and the lessor. Depletion is calculated for Federal taxes on a cost or percentage basis. The firm is required to use the method that provides the largest deduction. Under the cost method, an initial estimate of the maximum unit production of a coal property is determined. This amount is divided into the adjusted cost basis of the property to determine the amount of cost depletion per unit. This per unit cost is multiplied by the amount of annual production to determine the amount of depletion allowable for that year.

For instance, if a property could be expected to produce 110 Mmt of coal and the firm paid \$110 million in lease bonuses for the economic rights to the resource, the cost depletion allowed would be \$1.00/mt. If the firm mines 11 Mmt in its next year, then it could reduce its taxable income by \$11 million in depletion. As estimates of the productive capacity of the field change, the amount of cost depletion per unit is adjusted.

A simpler method of calculating depletion is as a percentage of revenues. Using the percentage depletion method, an operator's allowance is defined as a specified percentage of its revenues. In the case of coal, the law specifies a depletion allowance of 10%. In other words, 10% of production revenues may be subtracted from total revenues in a calculation of taxable income.

Impact-Related Taxes

There are two coal production taxes levied by the Federal Government that are intended to relieve specific adverse impact on coal production. These are the taxes for Black Lung Disease Fund and the Abandoned Mine Land Fund. Receipts from the former tax are dedicated to the relief of black lung victims. This tax is levied at a rate of 55 cents/mt for underground coal and 28 cents/mt for strip-mined coal. In addition, there is a 72 cents/mt reclamation tax. Proceeds from this tax are applied to solving the problems created by unsound mining practices that were followed before the passage of the Surface Mining and Reclamation Act in 1977.

State Mining License Tax

In addition to the State corporate income tax, Alaska has one other levy which directly affects coal companies: the Mining License Tax (MLT). The provisions of the MLT are found in Alaska Statute 43.65 (51). The MLT is a tax on the net income from mining operations and lease royalties. In the MLT, mining is defined as "the ordinary treatment process (defined as "cleaning, breaking, sizing, and loading for shipment") normally applied by mine owners and operators to obtain the commercially marketable product."

The MLT is levied on the net income from mining operations and lease royalties (to private parties). If a

company or lessor has more than one income-producing property, it must be aggregated for tax purposes. No tax is levied on a firm with a net income less up to \$40,000. For firms with net incomes over \$40,000, the following schedule applies:

<u>Net Income</u>	<u>Tax Rate Applied</u>
From \$40,001 to \$50,000	3%
From \$50,001 to \$100,000	\$1,500 plus 5% of excess over \$50,000
Over \$100,000	\$4,000 plus 7% of excess over \$100,000

Net income is calculated differently for mining income and royalty income. The net income from a mining operation is equal to the revenues from coal sales less deductions for operating expenses and an allowance for depletion of the resource. The lessor's net income from royalty payments is calculated as the revenues from royalties less the lessor's share of the depletion allowance.

The total amount of depletion allowable under the MLT is 10% of the gross income (revenues) from the property, not to exceed 50% of net income calculated without respect to depletion. The total amount of depletion is divided between the mine operator and the lessor, based on the amount of royalty payments. The lessor is able to subtract 10% of royalty payments to compute the net income and is allowed no other deductions. The mining operator takes the remaining depletion allowance.

Mine operators and lessors are exempt from the MLT for 3.5 years after production begins from a new mining operation. The DNR certifies when such production begins. Private lessors, primarily the Native corporations, would not be taxed for rents received prior to production or during production. Their tax liability is limited only to royalties received after the 3.5-year exemption period. Obviously, none of these provisions applies to royalty income received by the State.

MARKETS IN ALASKA

The Alaskan markets for coal are those that currently use coal for power generation, and those areas that have the potential for future use of coal.

Coal users at the present time are located in the Fairbanks-Nenana Valley area and the Anchorage-Cook Inlet area, which constitute the railbelt area. The users include the military, which uses coal for space heating and thermal generation at its bases in Eielson, Clear, and Wainwright. Nonmilitary users include the University of Alaska--Fairbanks, the thermal electric plant in Healy that supplies electricity to the Fairbanks-Homer areas, and the Fairbanks thermal electric plant that supplies local electricity needs (164).

Potential market areas are the communities dependent upon diesel electrical generation, including those in the Copper River Valley, along the Yukon and Kuskokwim Rivers, and in northern Alaska. Communities close to coal deposits could be potential users under the right economic conditions. Additional coal-fired powerplants within the Fairbanks-Homer area (164) represent one alternative to the demise of the proposed Susitna hydroelectric dam. These could include mine-mouth powerplants in the Nenana and/or Matanuska Coalfields.

MARKETS OUTSIDE ALASKA

Exports of Alaskan coal started in 1984 with the first shipment of coal to the Republic of Korea. The Usibelli Coal Mine which is near Healy made three shipments of steam coal totaling 40,553 mt to KEPCO (164), and shipped a total of 679,000 mt in 1985 (80) in its first year of a 15-year contract. Competing Canadian and Australian producers also supplying KEPCO with coal will require negotiations for a new Usibelli contract if coal prices are to remain competitive. The Republic of Korea is currently developing new powerplants that can use Alaskan (low sulfur) coal. These powerplants could develop an increased demand for Alaskan coal.

Other Pacific Rim countries including Japan and Taiwan are potential markets for Alaskan steam coal because they import large quantities of coal and other fuels to meet their energy demands. The Republic of Korea and Japan are considering the cutback or shutdown of domestic coal production. This would leave even more room

for Alaskan coal to increase its share of coal imported into the Republic of Korea and Japan. These potential markets are being pursued actively by Alaskan coal companies and the State of Alaska.

ABSTRACTS OF SELECTED COAL DEPOSITS IN ALASKA

As previously stated, the largest section of this publication consists of single-page site-specific deposit summaries for 247 selected coal deposits in Alaska. Table 5 serves as an index for the following section of site-specific deposit abstracts. Deposit locations are shown on figure 4 (in pocket).

TABLE 5. - Deposit abstract index of selected coal deposits in Alaska

Map No. ¹	Deposit name	Map No. ¹	Deposit name
1....	Point Collier.	40...	Hunter Creek.
2....	Kuk River 1.	41...	Chicago Creek.
3....	Kuk River 2.	42...	Wallin Coal Mine.
4....	Kuk River 3.	42...	Superior Coal Mine.
5....	Kugrua River.	43...	Sinuk River.
6....	Kugrua River 1.	44...	Naskak.
7....	Peard Bay.	45...	Koyuk River.
8....	Meade River 3.	46...	Wilson Creek.
9....	Meade River 1.	47...	Tramway Bar.
10...	Meade River Prospect.	48...	Coal Creek-Dahl River.
11...	Meade River Mine 2.	49...	Hodzana River.
12...	Meade River Mine.	50...	Fishhook Bend.
13...	Meade River 2.	51...	Mission Creek.
14...	Kigalik River.	52...	American Creek.
15...	Ikpikpuk River.	53...	Wolf Creek.
16...	Killik River.	54...	Chicken Creek.
17...	Colville River.	55...	Copper Creek Coal.
18...	Awuna River 2.	56...	Washington Creek.
19...	Awuna River.	57...	Nation River Coal.
20...	Utukok River.	58...	Bonanza Creek.
21...	Kokolik River.	59...	Coal Creek-Yukon River.
22...	Tepsako River.	60...	Drew Mine.
23...	Epizeka Anticline.	61...	Hunter.
24...	Eskimo Mine.	62...	Rampart.
25...	Kukpowruk River.	63...	The Pallisades.
26...	Deadfall Syncline.	64...	Melozitna River.
27...	Cape Beaufort.	65...	Quartz Creek.
28...	Cape Sabine.	66...	Poorman Creek II.
29...	Thetis Mine.	67...	Iditarod Mine.
29...	Corwin Bluff.	68...	Innoko River 1.
30...	Corwin Mine.	69...	Innoko River 2.
31...	Niak.	70...	Nahochlatilten Mine.
32...	Cape Lewis.	71...	Koyukuk Island.
33...	Cape Dyer.	72...	Pickart Mine.
34...	Kukpuk River.	73...	Nulato Coal Bed.
35...	Cape Thompson.	74...	Busch Mine.
36...	Kallarichuk River.	75...	Blatchford Mine.
37...	Kobuk River.	76...	Adolph Muller Prospect.
38...	Hockley Hills-North	77...	Old Woman.
39...	Singauruk River.	78...	Steamboat Slough.

¹Map numbers refer to locations on figure 4.

TABLE 5. - Deposit abstract index of selected coal deposits in Alaska--Continued

Map No. ¹	Deposit name	Map No. ¹	Deposit name
79...	Williams Mine.	110..	Cripple Creek West.
80...	Coal Creek Mine.	110..	French Creek.
81...	Anvik River.	110..	Suntrana Creek.
82...	Alaskan Commercial Co.	111..	Gold Run Pass No. 2.
83...	Blackburn Mine.	111..	Gold Run Pass No. 1.
84...	Halls Rapids.	112..	Moose Seam.
85...	Stuyahok River.	112..	Caribou Seam.
86...	Nelson Island.	113..	Nenana River Coal.
87...	North Fork Eek River.	113..	Mile 363 Mine.
88...	Big River.	114..	California Creek South.
89...	Cheeneetnuk River.	115..	Lynn Mine.
90...	Windy Fork-Kuskokwim R.	116..	California Creek.
91...	Little Tonzona River.	117..	Tatlanika.
92...	Johnson Creek.	118..	Mystic Creek.
93...	Canyon Creek.	119..	Coal Creek.
94...	Short Creek.	120..	Little Gold Creek Coal.
95...	Bluff Creek.	121..	Chisna Coal.
96...	Coal Creek.	121..	California.
97...	Coal Creek.	122..	Fourth of July Creek.
97...	Broad Pass.	123..	Lignite Creek.
98...	W.E. Dunkle Mine.	124..	Casement Glacier.
99...	Stony Moose Divide.	125..	Sullivan.
100..	Sable Mountain.	125..	Brightman & Degroff.
100..	Polychrome Mountain.	125..	Meade & Mitchell Seam.
101..	Teklanika River.	125..	Diamond Island.
101..	Sushana.	125..	Harkrader Coal.
101..	Sanctuary River.	125..	Unnamed Mine 3.
102..	Savage River.	125..	Lighter Creek.
103..	Hines Creek.	125..	Unnamed Mine 2.
104..	Yanert Coal Mine.	125..	Davis Creek.
105..	Mile 353 Prospect.	125..	Unnamed Mine 1.
106..	Dry Creek Coal.	126..	Sepphagen.
107..	Peterson Mine.	126..	Firestone Mine.
108..	Moody Creek.	127..	Murder Cove.
109..	Lignite Creek.	127..	Point Gardiner.
109..	Usibeli Coal Mine.	128..	Coal Creek.
110..	Healy Creek Adits.	129..	Lituya Bay Claim.
110..	Upper Healy Creek Mine.	130..	Dalton Mine.
110..	Roth-Taylor Mine.	131..	Duktoth River.
110..	Cripple Creek Mine.	132..	Wardall Ridge.

¹Map numbers refer to locations on figure 4.

TABLE 5. - Deposit abstract index of selected coal deposits in Alaska--Continued

Map No. ¹	Deposit name	Map No. ¹	Deposit name
132..	Canyon Creek.	144..	Baxter Mine.
132..	Clear Creek 1.	144..	Rawson Mine.
132..	Carbon Mountain.	144..	Wishbone Hill.
132..	Second Berg Lake.	145..	Barrett, Lohnes, etel.
132..	Fourth Berg Lake.	146..	Bartholf.
132..	Bering River.	147..	Houston Coal Co.
132..	Hartline Mine.	147..	Houston West.
133..	Trout Creek.	148..	Yentna River.
133..	Clear Creek 2.	149..	Susitna Station.
133..	Lake Charlotte.	150..	Eagle River Mine.
134..	Bering River Coal N.	151..	Alaska Peat.
134..	Leeper Tunnel Site.	152..	Capps Deposit.
134..	Tokun Creek.	153..	Center Ridge Deposit.
134..	Carbon Creek Complex.	153..	Lone Ridge Deposit.
134..	Sheperd Creek.	154..	Beluga River.
134..	Kentucky Mine.	154..	Coffee Creek.
134..	Nevada Creek Tunnel.	155..	Threemile Ck. Deposit.
135..	Bering River Coal S.	155..	Beluga 1.
135..	McDonald Mine.	156..	Tyonek Creek.
135..	Bering Lake Tunnel.	157..	Falls Creek.
136..	Boulder Creek Coal.	158..	Ninilchik.
137..	Anthracite Ridge.	159..	Troublesome Creek.
138..	Chickaloon.	160..	Diamond Creek.
138..	Coal Creek.	160..	Bluff Point.
138..	Matanuska River Coal.	161..	Mine Camp.
139..	Castle Mountain Mine.	161..	Homer.
140..	Red Mountain.	162..	Bradley.
140..	Young Creek.	163..	Curtis Seam.
140..	Kings River.	163..	Fritz Creek.
141..	Carpenter Creek.	164..	Falls Creek.
142..	William Rhinhart.	164..	Eastland Canyon.
143..	Evan Jones.	164..	Cottonwood Creek.
143..	Eska Mine.	165..	Aurora.
143..	Knob Creek Complex.	166..	Coal Cove.
143..	South Evan Jones Mine.	167..	Amalik Bay.
143..	North Evan Jones Mine.	168..	Ayakulik River.
144..	Premier Mine.	169..	Sitkinak Island East.
144..	Doherty Mine.	170..	Sitkinak Island West.
144..	Howard-Jesson.	171..	Hook Bay Mine.
144..	Buffalo Mine.	172..	Thompson Valley 2.

¹Map numbers refer to locations on figure 4.

TABLE 5. - Deposit abstract index of selected coal deposits in Alaska--Continued

Map No. ¹	Deposit name	Map No. ¹	Deposit name
172..	Thompson Valley 1.	175..	Herendeen Bay.
172..	Thompson Valley 3.	175..	Johnson Tunnel.
173..	Whalers Creek Mine.	176..	Coal Harbor.
174..	Chignik Bay Coal.		

¹Map numbers refer to locations on figure 4.

POINT COLLIER

Map No: 1

Alternate

Ocean Beach

LOCATION-OWNERSHIP

Quadrangle..... Wainwright.
Mining district.. Do.
Coalfield..... Northern Alaska.
Elevation..... 7.5 m.
Topography..... Beach.
Domain..... Native.

Owner..... Unknown.
Operator..... Do.

General location.. 3.2 km southwest
of Wainwright.

Meridian..... Umiat.
Tract..... Sec. 34, T 15 N, R 32 W.
Latitude..... 70°36'37" N.
Longitude..... 160°06'20" W.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships... Deposit covered
by Beaufort Sea.
Coking ability..... Not reported.
Heating value..... 10,000-12,920 Btu/lb (145).
Composition, %:
Ash..... 3.8-4.7.
Sulfur..... 0.5-0.6.
Moisture..... 18.8.
Volatile matter.... 32.5-42.0.
Fixed carbon..... 44.9-58.0.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Distance to water supply.. Less than 5 km.
Road requirement..... Do.
Distance to power supply.. Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 3.2 km.
Destination..... Wainwright.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 174, 185, 265, 273, 316,
320, 358.

USGS quadrangle maps... Wainwright, C-2.
USBM sequence number... 0020020001.

KUK RIVER 1

Map No: 2

Alternate names: Wainwright Mine, Kuk Lagoon

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Wainwright
Mining district.. Do.
Coalfield..... Northern Alaska.
Elevation..... 15 m.
Topography..... Gentle slope.
Domain..... Native.

Owner..... Unknown.
Operator..... Do.

General location.. On east shore of Kuk
Lagoon 12 km southeast
of Wainwright.
Meridian..... Umiat.
Tract..... Sec. 14, T 14 N, R 31 W.
Latitude..... 70°33'37" N.
Longitude..... 159°48'58" W.

GEOLOGY

Formation name.... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 3° E, 7° W.
coal seam.
Coal seam average
dimensions, m.
Length..... 308.
Width..... Not reported.
Thickness..... 1.5.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,760-12,810 Btu/lb (145).
Composition, %:
Ash..... 3.2-4.0.
Sulfur..... 0.3-0.5.
Moisture..... 20.7.
Volatile matter... 31.8-41.7.
Fixed carbon..... 44.3-58.3.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Surface-underground.

Year of discovery.. 1889.
Discovery method... Unknown.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Several hundred
metric tons per year.

Distance to water supply.. 0.3 km.
Road requirement..... Do.
Distance to power supply.. 12 km.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 12 km.
Destination..... Wainwright.

PUBLISHED RESERVES-RESOURCES

Kuk River (Wainwright) area: Reserves; 1,457.7 million short tons (122).
47 million short tons (strippable).

REFERENCES

1, 15-16, 35, 48, 58-59, 64, 73, 86,
122, 130, 133, 141, 145-146, 154, 167,
169, 174, 185, 191, 235, 241, 258, 265,
273, 290, 316, 320, 332, 335, 337, 355,
358, 368, 376-391, 398, 415, 417, 425.

USGS quadrangle maps... Wainwright, C-2.

USBM sequence number... 0020020002.

KUK RIVER 2

Map No: 3

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Wainwright.
Mining district.. Do.
Coalfield..... Northern Alaska.
Elevation..... 5 m.
Topography..... Gentle slope.
Domain..... Native.

Owner..... Unknown.
Operator..... Do.

General location.. On east shore of
Kuk Lagoon 22.5 km
Southeast of Wainwright.
Meridian..... Umiat.
Tract..... Sec. 35, T 13 N, R 31 W.
Latitude..... 70°26'36" N.
Longitude..... 159°48'30" W.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 28° W, 5° E.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.2.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,470-13,100 Btu/lb (415).
Composition, %:
Ash..... 2.0-3.1.
Sulfur..... 0.2-0.4.
Moisture..... 24.3-25.7.
Volatile matter... 30.0-41.9.
Fixed carbon..... 42.3-58.5.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1889.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Several metric tons
per year.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 22.5 km.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 22.5 km.
Destination..... Wainwright.

PUBLISHED RESERVES-RESOURCES

Kuk River (Wainwright) area: Reserves; 1,457.7 million short tons (122).
47 million short tons (strippable).

REFERENCES

1, 35, 48, 58-59, 73, 122, 133, 145,
154, 174, 185, 213, 273, 316, 320,
358, 377-378, 382-389, 391, 398,
415, 417.

USGS quadrangle maps... Wainwright, B-2.

USBM sequence number... 0020020003.

KUK RIVER 3

Map No: 4

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Wainwright.
Mining district.. Do.
Coalfield..... Northern Alaska.
Elevation..... 2 m.
Topography..... Gentle slope.
Domain..... BLM-administrated.

Owner..... Unknown.
Operator..... Do.

General location.. On east shore of
Kuk Lagoon 26 km
SE of Wainwright.
Meridian..... Umiat.
Tract..... Sec. 06, T 12 N, R 31 W.
Latitude..... 70°25'13" N.
Longitude..... 159°51'25" W.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 40° W, 5° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.6.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,230-13,000 Btu/lb (48).
Composition, %:
Ash..... 2.3-3.1.
Sulfur..... 0.2-0.3.
Moisture..... 26.7.
Volatile matter... 29.1-41.0.
Fixed Carbon..... 41.9-59.0.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1889.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... 1940.
Annual production... Several metric tons
per year.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 26 km.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 26 km.
Destination..... Wainwright.

PUBLISHED RESERVES-RESOURCES

Kuk River (Wainwright) area: Reserves; 1,457.7 million short tons (122).
47 million short tons (Strippable).

REFERENCES

1, 35, 48, 57-59, 73, 122, 133, 145,
154, 185, 213, 265, 273, 316, 320,
358, 377-378, 382-391, 398, 415,
417, 421.

USGS quadrangle maps... Wainwright, B-2.

USBM sequence number... 0020020004.

KUGRUA RIVER

Map No: 5

Alternate names: Kugrua River 2

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Wainwright.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 5 m.
Topography..... Flat-lying.
Domain..... BLM-administrated.

General location.. On north shore of
Kugrua River 30 km
east of Wainwright.
Meridian..... Umiat.
Tract..... Sec. 05, T 15 N, R 28 W.
Latitude..... 70°40'37" N.
Longitude..... 159°10'12" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... 305.
Width..... Not reported.
Thickness..... 1.7.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,780-12,410 Btu/lb (146).
Composition, %:
Ash..... 7.7-12.0.
Sulfur..... 0.3-0.7.
Moisture..... 17.8-20.2.
Volatile matter... 31.9-44.3.
Fixed carbon..... 40.5-55.9.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 30 km.

Initial production.. Not reported.
Past production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Strippable reserves: 27 million short tons (122).

REFERENCES

35, 122, 145-146, 185, 191, 265,
273, 316, 320, 358, 398, 417.

USGS quadrangle maps... Wainwright, C-1.

USBM sequence number... 0020020005.

KUGRUA RIVER 1

Map No: 6
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Wainwright.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 5 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. On east shore of
Kugrua River 30 km
northeast of Wainwright.
Meridian..... Umiat.
Tract..... Sec. 13, T 16 N, R 29 W.
Latitude..... 70°44'19" N.
Longitude..... 159°15'52" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %: (1).
Ash..... 7.7.
Sulfur..... 0.7.
Moisture..... Not reported.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 30 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 35, 185, 265, 273, 316, 320,
417.

USGS quadrangle maps... Wainwright, C-1.
USBM sequence number... 0020020007.

PEARD BAY

Map No: 7

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Meade River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 3 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. Between Peard and
Kugrua Bays.

Meridian..... Umiat.
Tract..... Sec. 35, T 17 N, R 26 W.
Latitude..... 70°47'18" N.
Longitude..... 158°38'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 40° W,
coal seam. Not reported.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,140-12,410 Btu/lb (146).
Composition, %:
Ash..... 6.2-7.7.
Sulfur..... 0.5-0.7.
Moisture..... 20.2.
Volatile matter... 32.6-44.3.
Fixed carbon..... 41.0-55.7.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 32 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Peard Bay district: Reserves; 840.2 million short tons (122).

REFERENCES

1, 16, 86, 122, 135, 145-146, 167,
174, 185, 265, 273, 316, 320, 332,
358, 398, 417.

USGS quadrangle maps... Meade River, D-5.
USBM sequence number... 0020030003.

MEADE RIVER 3

Map No: 8
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Meade River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 19 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. 18 km north of
Meade River.

Meridian..... Umiat.
Tract..... Sec. 29, T 15 N, R 21 W.
Latitude..... 70°37'38" N.
Longitude..... 157°22'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw Prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.3 km.
Road requirement..... 0.6 km.
Distance to power supply.. 18 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 135, 185, 265, 273, 316, 320,
417.

USGS quadrangle maps... Meade River, C-3.
USBM sequence number... 0020030006.

MEADE RIVER 1

Map No: 9

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Meade River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 8 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. 19 km north of
Meade River.

Owner..... Unknown.
Operator..... Do.

Meridian..... Umiat.
Tract..... Sec. 28, T 15 N, R 21 W.
Latitude..... 70°37'40" N.
Longitude..... 157°18'50" W.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 19 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 136, 145, 174, 185, 265, 273,
316, 320, 417.

USGS quadrangle maps... Meade River, C-3.
USBM sequence number... 0020030002.

MEADE RIVER PROSPECT

Map No: 10
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Meade River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 12 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. 23 km northeast
of Meade River.

Meridian..... Umiat.
Tract..... Sec. 20, T 15 N, R 20 W.
Latitude..... 70°38'00" N.
Longitude..... 157°07'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.9.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 10,470-12,960 Btu/lb (146).
Composition, %:
Ash..... 2.9-3.5.
Sulfur..... 0.6-0.7.
Moisture..... 16.3.
Volatile matter... 33.8-41.8.
Fixed carbon..... 47.0-58.2.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1.0 km.
Road requirement..... 2.8 km.
Distance to power supply.. 23 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 35, 135, 145-146, 174, 185,
265, 273, 316, 320, 417.

USGS quadrangle maps... Meade River, C-2.
USBM sequence number... 0020030005.

MEADE RIVER MINE 2

Map No: 11
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Meade River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 18 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 16 km northeast
of Meade River.

Meridian..... Umiat.
Tract..... Sec. 07, T 13 N, R 20 W.
Latitude..... 70°30'00" N.
Longitude..... 157°08'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.5 km.
Road requirement..... 6 km.
Distance to power supply.. 16 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... 1,653 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 16 km.
Destination..... Meade River.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 135, 185, 265, 273, 316, 320,
417.

USGS quadrangle maps... Meade River, C-2.

USBM sequence number... 0020030007.

MEADE RIVER MINE

Map No: 12

Alternate names: Alaska Native Service

Commodity: Subbituminous & bituminous

LOCATION-OWNERSHIP

Quadrangle..... Meade River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 15 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 0.8 km southwest
of Meade River.

Meridian..... Umiat.
Tract..... Sec. 19, T 13 N, R 21 W.
Latitude..... 70°27'47" N.
Longitude..... 157°22'55" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Horizontal, 1° E.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.7.
Depth..... 7.6.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating values..... 10,330-12,780 Btu/lb (146).
Composition, %:
Ash..... 4.8-5.6.
Sulfur..... 0.6-0.7.
Moisture..... 14.4.
Volatile matter... 33.5-41.4.
Fixed carbon..... 47.3-58.6.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1923.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 0.8 km.
Distance to power supply.. 0.8 km.

Initial production.. 1943.
Last production..... 1964.
Past production..... Not reported.
Annual production... Up to 2,205 mt/yr.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 96.5 km.
Destination..... Barrow.

PUBLISHED RESERVES-RESOURCES

Measured reserves; 68,000 short tons (1946) (358).

REFERENCES

16, 35, 82, 122, 135-136, 141, 145, 154, 167,
174, 183, 185, 191, 258, 265, 273, 285, 316,
316, 320, 332, 335, 337, 358, 361, 367, 398,
335, 337, 358, 361, 367, 398, 417-419.

USGS quadrangle maps... Meade River, B-3.

USBM sequence number... 0020030001.

MEADE RIVER 2

Map No: 13
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Meade River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 15 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. 24 km southeast
of Meade River.

Meridian..... Umiat.
Tract..... Sec. 12, T 11 N, R 21 W.
Latitude..... 70°18'52" N.
Longitude..... 157°04'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 24 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

16, 35, 135, 174, 185, 265, 273,
316, 320, 417.

USGS quadrangle maps... Meade River, B-2.
USBM sequence number... 0020030004.

KIGALIK RIVER

Map No: 14
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Lookout Ridge.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 152 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 22 km northeast
of Birthday Pass.

Meridian..... Umiat.
Tract..... Sec. 20, T 01 S, R 17 W.
Latitude..... 69°20'00" N.
Longitude..... 156°04'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam averages
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 398, 417.

USGS quadrangle maps... Lookout Ridge, B-1.

USBM sequence number... 0020110002.

IKPIKPUK RIVER

Map No: 15

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Ikpikpuk River.
Mining district.. Barrow.
Coalfield..... Northern Alaska.
Elevation..... 61 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. At Little Supreme Bluff.

Meridian..... Umiat.
Tract..... Sec. 30, T 03 N, R 12 W.
Latitude..... 69°35'10" N.
Longitude..... 154°55'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.0.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,970-12,440 Btu/lb (146).
Composition, %:
Ash..... 6.3-20.9.
Sulfur..... 0.3-0.6.
Moisture..... 8.4-15.0.
Volatile matter... 26.0-34.0.
Fixed carbon..... 41.3-59.1.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.
Road requirement..... 1.0 km.
Distance to power supply.. Onsite.

Year of discovery.. 1930.
Discovery method... Exploration.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Ikpikpuk River District: Reserves; 2,623.9 million short tons (122).
Strippable - 88 million short tons.

REFERENCES

1, 16, 35, 122, 130, 145-146,
174, 185, 191, 265, 273, 316,
320, 332, 398, 417.

USGS quadrangle maps... Ikpikuk River, C-4.

USBM sequence number... 0020120005.

KILLIK RIVER

Map No: 16
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Ikpikuk River.
Mining district.. Colville.
Coalfield..... Northern Alaska.
Elevation..... 213 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 2 km south of
Puirlik Bluff.

Meridian..... Umiat.
Tract..... Sec. 18, T 05 S, R 08 W.
Latitude..... 69°00'45" N.
Longitude..... 153°52'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.6.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,450-10,110 Btu/lb (146).
Composition, %:
Ash..... 11.8-14.1.
Sulfur..... 0.3.
Moisture..... 16.4.
Volatile matter... 29.9-35.7.
Fixed carbon..... 41.9-50.2.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1924.
Discovery method... Exploration.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 44, 145-146, 174, 185, 265,
273, 316, 320, 398, 417, 422.

USGS quadrangle maps... Ikpikuk River, A-2.
USBM sequence number... 0020120003.

COLVILLE RIVER

Map No: 17
Alternate names: None

Commodity: Bituminous & subbituminous A

LOCATION-OWNERSHIP

Quadrangle..... Ikpikuk River.
Mining district.. Colville.
Coalfield..... Northern Alaska.
Elevation..... 213 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. Across from mouth
of Kurupa River.

Meridian..... Umiat.
Tract..... Sec. 28, T 04 S, R 13 W.
Latitude..... 69°03'50" N.
Longitude..... 155°03'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of East-west, 45° S.
coal seam.
Coal seam average
dimensions, m.
Length..... 6.1.
Width..... Not reported.
Thickness..... 0.76.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 11,825 Btu/lb (16).
Composition, %:
Ash..... 2.4.
Sulfur..... 0.7.
Moisture..... 8.8.
Volatile matter... 33.7.
Fixed carbon..... 55.1.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1886.
Discovery method... Exploration.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Colville River District: Reserves; Bituminous - 7,222.3 million short tons (122).
Subbituminous - 11,489.1 million short tons.
Strippable reserves; Bituminous - 179 million short tons.
Subbituminous - 386 million short tons.

REFERENCES

16, 35, 52, 62, 64, 122, 130, 133,
136, 185, 191, 235, 241, 265, 273,
316, 320, 332, 367, 398, 417, 423.

USGS quadrangle maps... Ikpikuk River, A-4.

USBM sequence number... 0020120004.

AWUNA RIVER 2

Map No: 18
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Ikpikuk River.
Mining district.. Colville.
Coalfield..... Northern Alaska.
Elevation..... 244 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 76 km west of
Puirlik Bluff.

Meridian..... Umiat.
Tract..... Sec. 07, T 05 S, R 16 W.
Latitude..... 69°01'40" N.
Longitude..... 155°47'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.1.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Year of discovery.. 1924.
Discovery method... Exploration.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 316, 320, 367,
398.

USGS quadrangle maps... Ikpikuk River, A-5.

USBM sequence number... 0020120001.

AWUNA RIVER

Map No: 19
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Lookout Ridge.
Mining district.. Colville.
Coalfield..... Northern Alaska.
Elevation..... 244 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 18 km south of
Birthday Pass.

Meridian..... Umiat.
Tract..... Sec. 18, T 04 S, R 19 W.
Latitude..... 69°05'50" N.
Longitude..... 156°33'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.0.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 1.6 km.
Road requirement..... 9.6 km.
Distance to power supply.. Onsite.

Year of discovery.. 1924.
Discovery method... Exploration.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 316, 320, 398.

USGS quadrangle maps... Lookout Ridge, A-1.

USBM sequence number... 0020110001.

UTUKOK RIVER

Map No: 20
Alternate names: None

Commodity: Subbituminous & bituminous

LOCATION-OWNERSHIP

Quadrangle..... Wainwright.
Mining district.. Do.
Coalfield..... Northern Alaska.
Elevation..... 15 m.
Topography..... Flat-lying.
Domain..... Native.

General location.. 9 km from mouth
of Utukok River.

Owner..... Unknown.
Operator..... Do.

Meridian..... Umiat.
Tract..... Sec. 28, T 8 N, R 41 W.
Latitude..... 70°00'49" N.
Longitude..... 162°08'30" W.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.9.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 11,850-13,500 Btu/lb (117).
Composition, %:
Ash..... 7.6-8.0.
Sulfur..... 0.2-0.3.
Moisture..... 4.6.
Volatile matter... 36.2-41.2.
Fixed carbon..... 51.6-58.8.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1923.
Discovery method... Exploration.

Distance to water supply.. 0.2 km.
Road requirement..... 9 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Utukok River district: Reserves; 44,738.1 million short tons (Subbituminous) (122).
2,737.9 million short tons (Bituminous).

REFERENCES

21, 35, 84, 86, 117, 122, 191,
213, 273, 316, 332, 334, 361,
367, 373, 376-377, 398, 417,
421, 423, 425, 454, 469.

USGS quadrangle maps... Wainwright, A-6.

USBM sequence number... 0020020006.

KOKOLIK RIVER

Map No: 21

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Lay.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 5 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 3 km east of
Point Lay.

Meridian..... Umiat.
Tract..... Sec. 30, T 05 N, R 42 W.
Latitude..... 69°45'16" N.
Longitude..... 162°58'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.4 km.
Road requirement..... Do.
Distance to power supply.. 3 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 85, 117, 122, 191, 273, 316,
332, 334, 354, 367, 398, 417,
454, 458.

USGS quadrangle maps... Point Lay, D-2.
USBM sequence number... 0020090004.

TEPSAKO RIVER

Map No: 22

Alternate names: Kokolik River

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Lay.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 17 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 29 km east of
Point Lay.

Meridian..... Umiat.
Tract..... Sec. 29, T 05 N, R 42 W.
Latitude..... 69°45'10" N.
Longitude..... 162°25'44" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 3.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 11,888-13,610 Btu/lb (415).
Composition, %:
Ash..... 2.8-3.1.
Sulfur..... 0.4.
Moisture..... 10.5.
Volatile matter... 37.3-43.0.
Fixed carbon..... 49.4-57.0.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 29 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 35, 117, 185, 265, 273, 316,
320, 415, 417.

USGS quadrangle maps... Point Lay, D-1.

USBM sequence number... 0020090003.

EPIZETKA ANTICLINE

Map No: 23
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Lay.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 17 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 8 km above the mouth of
the Kukpowruk River.

Meridian..... Umiat.
Tract..... Sec. 21, T 03 N, R 45 W.
Latitude..... 69°36'00" N.
Longitude..... 162°56'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 11,910-13,600 Btu/lb (117).
Composition, %:
Ash..... 2.5-2.8.
Sulfur..... 0.4-0.5.
Moisture..... 9.9.
Volatile matter... 31.5-35.9.
Fixed carbon..... 56.1-64.1.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.3 km.
Road requirement..... Do.
Distance to power supply.. 19 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

117, 145, 174, 185, 265, 273,
316, 320.

USGS quadrangle maps... Point Lay, C-2.
USBM sequence number... 0020090005.

ESKIMO MINE

Map No: 24

Alternate names: Kukpowruk River

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Lay.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 61 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 52 km southeast
of Point Lay.

Meridian..... Umiat.
Tract..... Sec. 28, T 01 S, R 44 W.
Latitude..... 69°19'28" N.
Longitude..... 162°33'33" W.

Owner..... Morgan Coal Company.
Operator..... J.S. Robbins and Associates.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 85° W, 7-12° N.
coal seam.
Coal seam average
dimensions, m.
Length..... 152.4.
Width..... Not reported.
Thickness..... 6.6.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Good.
Heating value..... 13,100-13,830 Btu/lb (458).
Composition, %:
Ash..... 2.4-7.0.
Sulfur..... 0.2-0.4.
Moisture..... 3.2-4.4.
Volatile matter... 32.0-39.1.
Fixed carbon..... 50.0-58.6.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.2 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Kukpowruk coal basin: Strippable; Measured & Indicated - 16.9 million short tons (218).
Inferred - 98.4 million short tons.
Underground; Measured & Indicated - 100 million short tons.

REFERENCES

68, 185, 218, 265, 273, 316,
320, 458, 460.

USGS quadrangle maps... Point Lay, B-1.

USBM sequence number... 0020090006.

KUKPOWRUK RIVER

Map No: 25
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Lay.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 76 m.
Topography..... Rolling hills.
Domain..... Native.

Owner..... Morgan Coal Company.
Operator..... Unknown.

General location.. 50 km east-northeast
of Cape Beaufort.

Meridian..... Umiat.
Tract..... Sec. 23, T 03 S, R 45 W.
Latitude..... 69°09'50" N.
Longitude..... 162°42'40" W.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 85° W, 7-12° N.
coal seam.
Coal seam average
dimensions, m.
Length..... 152.
Width..... Not reported.
Thickness..... 6.1.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Good.
Heating value..... 11,800-15,300 Btu/lb (117).
Composition, %:
Ash..... 2.0-10.4.
Sulfur..... 0.1-0.5.
Moisture..... 0.8-10.5.
Volatile matter... 29.1-43.0.
Fixed carbon..... 49.4-66.6.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Year of discovery.. 1923.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Kukpowruk coal basin: Strippable; Measured & Indicated - 16.9 million short tons (218).
Inferred - 98.4 million short tons.
Underground; Measured & Indicated - 100 million short tons.

REFERENCES

1, 16, 21, 35, 57, 59, 84, 86, 117,
122, 145-146, 174, 185, 191, 196,
213, 218, 220, 223, 265, 273, 316,
320, 327-328, 332, 335, 354-355, 361,
367, 373, 376, 394, 398, 415, 417,
421, 425, 454, 458, 460.

USGS quadrangle maps... Point Lay, A-2.

USBM sequence number... 0020090002.

DEADFALL SYNCLINE

Map No: 26
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Lay.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 73 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 31 km northeast
of Cape Beaufort.

Meridian..... Umiat.
Tract..... Sec. 24, T 03 S, R 47 W.
Latitude..... 69°09'52" N.
Longitude..... 163°09'41" W.

Owner..... North Slope Borough.
Operator..... Arctic Slope Regional Corporation.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 4.0.
Depth 1-10.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 10,675-13,209 Btu/lb (22).
Composition, %:
Ash..... 5.53-21.71.
Sulfur..... 0.06-0.64.
Moisture..... 2.6-7.93.
Volatile matter... Not reported.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1.6 km.
Road requirement..... 10.7 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Reserves: Measured 15.81 million short tons (22).
Inferred 59 million short tons.

REFERENCES

22-23, 80, 164, 273, 316, 427,
433.

USGS quadrangle maps... Point Lay, A-2.

USBM sequence number... 0020090007.

CAPE BEAUFORT

Map No: 27

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Lay.
Mining district.. Wainwright.
Coalfield..... Northern Alaska.
Elevation..... 15 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. At Cape Beaufort
on the Chukchi Sea.

Meridian..... Umiat.
Tract..... Sec. 08, T 05 S, R 50 W.
Latitude..... 69°01'19" N.
Longitude..... 163°50'09" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 45° E, 20° SW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Yes.
Heating value..... 8,720-13,830 Btu/lb (458).
Composition, %:
Ash..... 4.0-19.8.
Sulfur..... 0.1-0.7.
Moisture..... 6.3-19.8.
Volatile matter... 21.9-42.6.
Fixed carbon..... 36.7-72.3.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.
Road requirement..... 9 km.
Distance to power supply.. Onsite.

Year of discovery.. 1826.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Cape Beaufort district: Resources; Measured 3.5 million short tons (191).
Indicated 312 million short tons.
Inferred 686 to 936 million short tons.

REFERENCES

21, 35, 79, 84, 86, 117, 122, 130,
164, 185, 191, 265, 273, 316, 320,
322, 327, 330, 332, 335, 355, 365,
398, 417, 428, 454, 458.

USGS quadrangle maps... Point Lay, A-4.

USBM sequence number... 0020090001.

CAPE SABINE

Map No: 28

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... De Long Mtns.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 4 m.
Topography..... Steep cliff.
Domain..... Native.

General location.. 65 km east of
Cape Lisburne.

Meridian..... Umiat.
Tract..... Sec. 24, T 06 S, R 54 W.
Latitude..... 68°54'26" N.
Longitude..... 164°36'52' W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 80° E, 20-40° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.2.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Development deposit.
Type of operation.. Surface.
Year of discovery.. 1826.
Discovery method... Exploration.

Distance to water supply.. 1.0 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

7, 130, 133, 185, 265, 273, 316,
320, 354, 355, 398, 417.

USGS quadrangle maps... De Long Mtns., D-5.

USBM sequence number... 0020180010.

THETIS MINE

Map No: 29

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... De Long Mtns.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 15 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 6.8 km west of
Cape Sabine.

Meridian..... Umiat.
Tract..... Sec. 30, T 06 S, R 54 W.
Latitude..... 68°53'20" N.
Longitude..... 164°50'45" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 60° W, 20° SW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 6,487-10,467 Btu/lb (332).
Composition, %:
Ash..... 5.8-31.1.
Sulfur..... 0.3-0.8.
Moisture..... 12.0-15.7.
Volatile matter... 25.0-44.0.
Fixed carbon..... 29.2-58.8.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. 1888.
Discovery method... Exploration.

Distance to water supply.. 0.1 km.
Road requirement..... 1.0 km.
Distance to power supply.. Onsite.

Initial production.. 1888.
Last production..... 1901.
Past production..... 1,102 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 1.0 km.
Destination..... Local use
and ships.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

130-133, 185, 265, 273, 316, 320,
332, 364, 398, 417.

USGS quadrangle maps... De Long Mtns., D-5.

USBM sequence number... 0020180005.

CORWIN BLUFF

Map No: 29

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... De Long Mtns.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 15 m.
Topography..... Steep cliff.
Domain..... Native.

Owner..... Unknown.
Operator..... Do.

General location.. 16 km west of
Cape Sabine.

Meridian..... Umiat.
Tract..... Sec. 34, T 06 S, R 55 W.
Latitude..... 68°53'00" N.
Longitude..... 164°58'35" W.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 75° W, 30-40° SW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.76.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 0.96 (Fuel ratio) (133).
Composition, %:
Ash..... 4.33.
Sulfur..... 0.4.
Moisture..... 13.55.
Volatile matter... 41.30.
Fixed carbon..... 40.80.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. 1826.
Discovery method... Exploration.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... A few metric tons.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 0.1 km.
Destination..... Local use
and ships.

PUBLISHED RESERVES-RESOURCES

Corwin Bluff district: Identified reserves; Indicated - 56 million short tons (189).
Inferred - 926 million short tons.

REFERENCES

21, 35, 84, 86, 122, 130, 133, 185,
189, 265, 273, 316, 320, 332, 335,
355, 361, 365, 373, 394, 398, 417,
454.

USGS quadrangle maps... De Long Mtns., D-5.

USBM sequence number... 0020180008.

CORWIN MINE

Map No: 30

Alternate names: Corwin Trading Co.,
Arctic Development Co., E.L. West Coal

Commodity: High volatile B bituminous
High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Hope.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 8 m.
Topography..... Gentle slope.
Domain..... BLM-administrated.

General location.. 43.5 km east of
Cape Lisburne.

Meridian..... Umiat.
Tract..... Sec. 02, T 07 S, R 56 W.
Latitude..... 68°52'13" N.
Longitude..... 165°08'20" W.

Owner..... Mary G. Schofield.
Operator..... Unknown.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 75° W, 48° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.5.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 8,175-11,876 Btu/lb (332).
Composition, %:
Ash..... 7.1-19.7.
Sulfur..... 0.2-0.6.
Moisture..... 5.7-13.9.
Volatile matter... 32.6-45.9.
Fixed carbon..... 36.5-59.8.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Year of discovery.. 1826.
Discovery method... Exploration.

Initial production.. 1879.
Past production..... 1923.
Past production..... 2,866 mt.
Annual production... Not reported.

Process rate..... Not reported.
Product type..... Coal.
Distance shipped..... Unknown.
Destination..... Local use
and ships.

PUBLISHED RESERVES-RESOURCES

Corwin Bluff district: Identified reserves; Indicated - 56 million short tons (191).
Inferred - 926 million short tons.

REFERENCES

15, 59, 117, 130, 133, 136, 185,
189, 265, 273, 292, 316, 320,
332, 361, 365, 394, 398, 417,
421, 432, 458.

USGS quadrangle maps... Point Hope, D-1.

USBM sequence number... 0020170004.

NIAK

Map No: 31

Alternate names: Niak Creek

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Hope.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 60 m.
Topography..... Steep cliff.
Domain..... State.

General location.. 6.4 km south of
Cape Lisburne.

Meridian..... Umiat.
Tract..... Sec. 21, T 07 S, R 60 W.
Latitude..... 68°49'06" N.
Longitude..... 166°11'20" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.4.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 4.97 (Fuel ratio) (133).
Composition, %:
Ash..... 2.94.
Sulfur..... Not reported.
Moisture..... 3.77.
Volatile matter... 15.64.
Fixed carbon..... 77.65.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Pre 1904.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 1.0 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

133, 185, 265, 273, 316, 320,
398, 417.

USGS quadrangle maps... Point Hope, D-2.
USBM sequence number... 0020170003.

CAPE LEWIS

Map No: 32
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Hope.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 60 m.
Topography..... Steep bluff.
Domain..... State.

General location.. 17.7 km south of
Cape Lisburne.

Meridian..... Umiat.
Tract..... Sec. 33, T 08 S, R 60 W.
Latitude..... 68°42'07" N.
Longitude..... 166°11'25" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Corwin.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 75° E, 40° N.
coal seam.
Coal seam average
dimensions, m.
Length..... 804.7.
Width..... Not reported.
Thickness..... 1.2.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 3.32 (Fuel ratio) (133).
Composition, %:
Ash..... 3.0.
Sulfur..... 0.96.
Moisture..... 5.51.
Volatile matter... 21.16.
Fixed carbon..... 70.33.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

130, 133, 185, 265, 273, 316, 320,
398, 417.

USGS quadrangle maps... Point Hope, C-3.
USBM sequence number... 0020170002.

CAPE DYER

Map No: 33
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Hope.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 60 m.
Topography..... Steep cliff.
Domain..... State.

General location.. 25.7 km south
of Cape Lisburne.

Meridian..... Umiat.
Tract..... Sec. 21, T 09 S, R 61 W.
Latitude..... 68°39'00" N.
Longitude..... 166°13'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kapaloak.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.3.
Depth..... Outcrop.

Formation age..... Paleozoic.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 14,000 Btu/lb (354).
Composition, %: (133).
Ash..... 2.81.
Sulfur..... Not reported.
Moisture..... 1.71.
Volatile matter... 15.62.
Fixed carbon..... 79.86.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1900.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. 1900.
Last production..... Do.
Past production..... 1.1 mt.
Annual production... Not reported.

Process rate..... Not reported.
Product type..... Coal.
Distance shipped..... 0.1 km.
Destination..... A ship.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

130, 133, 141, 185, 265, 269, 273,
316, 320, 354, 398, 417.

USGS quadrangle maps... Point Hope, C-3.
USBM sequence number... 0020170001.

KUKPUK RIVER

Map No: 34
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Hope.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 26 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 39 km northeast
of Point Hope.

Meridian..... Umiat.
Tract..... Sec. 14, T 12 S, R 60 W.
Latitude..... 68°24'30" N.
Longitude..... 165°54'26" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kapaloak.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Paleozoic.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. 1826.
Discovery method... Unknown.

Distance to water supply.. 0.3 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... A few metric tons.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 39 km.
Destination..... Point Hope
whaling station.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

130, 133, 185, 265, 273, 316, 320,
398, 417.

USGS quadrangle maps... Point Hope, B-2.

USBM sequence number... 0020170007.

CAPE THOMPSON

Map No: 35

Alternate names: Eegikruttoosook Creek

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Point Hope.
Mining district.. Lisburne.
Coalfield..... Northern Alaska.
Elevation..... 46 m.
Topography..... Steep slope.
Domain..... State.

Owner..... Unknown.
Operator..... Do.

General location.. 42 km southeast
of Point Hope.

Meridian..... Kateel River.
Tract..... Sec. 27, T 32 N, R 32 W.
Latitude..... 68°08'40" N.
Longitude..... 165°58'00" W.

GEOLOGY

Formation name.... Kapaloak.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Paleozoic.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1826.
Discovery method... Unknown.

Initial production.. Not reported.
Last production.... Do.
Past production.... A few metric tons.
Annual production... Not reported.

Distance to water supply.. 0.1 km.
Road requirement..... 1.0 km.
Distance to power supply.. Onsite.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 42 km.
Destination..... Point Hope
whaling station.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

130, 133, 185, 265, 273, 316, 320,
354, 398, 417.

USGS quadrangle maps... Point Hope, A-2.

USBM sequence number... 0020170006.

KALLARICHUK RIVER

Map No: 36

Alternate names: None

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Baird Mountains.
Mining district.. Kiana.
Coalfield..... Unnamed.
Elevation..... 30 m.
Topography..... Gently rolling.
Domain..... National Park.

General location.. 7 km northwest of the
junction of the Kobuk River.

Meridian..... Kateel River.
Tract..... Sec. 05, T 20 N, R 05 W.
Latitude..... 67°10'00" N.
Longitude..... 159°48'48" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 45° E, 45° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.5.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 5,788-12,585 Btu/lb (123)
Composition, %:
Ash..... 12.97-37.62.
Sulfur..... 0.38-1.43.
Moisture..... 13.20-17.15.
Volatile matter... 23.30-45.00.
Fixed carbon..... 28.38-56.46.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.5 km.
Road requirement..... 7 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

123, 273, 314, 393, 417, 421.

USGS quadrangle maps... Baird Mtns., A-2.

USBM sequence number... 0020270025.

KOBUK RIVER

Map No: 37

Alternate names: Haralan Mine, Kiana

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Baird Mtns.
Mining district.. Kiana.
Coalfield..... Unnamed.
Elevation..... 122 m.
Topography..... Gently rolling.
Domain..... National Park.

Owner..... Unknown.
Operator..... Do.

General location.. 1.6 km below the
Kallarichuk River.

Meridian..... Kateel River.
Tract..... Sec. 32, T 20 N, R 05 W.
Latitude..... 67°05'30" N.
Longitude..... 159°47'50' W.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.6.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,200-10,500 Btu/lb (265).
Composition, %:
Ash..... 7.0-35.0.
Sulfur..... 0.4-1.1.
Moisture..... Not reported.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. 1886.
Discovery method... Unknown.

Initial production.. 1908.
Last production..... 1932.
Past production..... 204 mt.
Annual production... Not reported.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... Unknown.
Destination..... Inmachuk.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 35, 73, 109, 185, 237, 265,
273, 314, 320, 355, 382, 397,
417.

USGS quadrangle maps... Baird Mtns., A-2.
USBM sequence number... 0020270019.

HOCKLEY HILLS-NORTH

Map No: 38
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Selawik.
Mining district.. Kiana.
Coalfield..... Unnamed.
Elevation..... 155 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 34 km northwest of
Selawik.

Meridian..... Kateel River.
Tract..... Sec. 21, T 17 N, R 08 W.
Latitude..... 66°51'28" N.
Longitude..... 160°26'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 20° E, 40° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.03.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 5,196-13,031 Btu/lb (124).
Composition, %:
Ash..... 58.67-59.54.
Sulfur..... 0.25.
Moisture..... 1.46.
Volatile matter... 11.11-27.87.
Fixed carbon..... 28.78-72.13.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.2 km.
Road requirement..... Do.
Distance to power supply.. 34 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

81, 124, 129, 273, 314, 417.

USGS quadrangle maps... Selawik, D-3.

USBM sequence number... 0020360009.

SINGAURUK RIVER

Map No: 39

Alternate names: Hockley Hills-South

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Selawik.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 92 m.
Topography..... Gently rolling.
Domain..... Native.

Owner..... Unknown.
Operator..... Do.

General location.. 26 km northwest of Selawik.

Meridian..... Kateel River.
Tract..... Sec. 14, T 16 N, R 08 W.
Latitude..... 66°47'08" N.
Longitude..... 160°20'18" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 40° E, 30° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.73.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 4,125-12,590 Btu/lb (124).
Composition, %:
Ash..... 11.81-58.29.
Sulfur..... 0.24-0.68.
Moisture..... 9.013-15.86.
Volatile matter... 16.51-43.93.
Fixed carbon..... 21.07-64.84.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 26 km.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

81, 124, 129, 262, 314, 417.

USGS quadrangle maps... Selawik, D-3.

USBM sequence number... 0020360010.

HUNTER CREEK

Map No: 40
Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Kotzebue.
Mining district.. Fairhaven.
Coalfield..... Unnamed.
Elevation..... 53 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 21 km east of Deering.

Meridian..... Kateel River.
Tract..... Sec. 04, T 07 N, R 17 W.
Latitude..... 66°01'55" N.
Longitude..... 162°15'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 2.0 km.
Distance to power supply.. 21 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

108, 129, 185, 265, 273, 320,
417.

USGS quadrangle maps... Kotzebue, A-1.
USBM sequence number... 0020350004.

CHICAGO CREEK

Map No: 41

Alternate names: Kugruk Coal Mine

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Bendeleben.
Mining district.. Fairhaven.
Coalfield..... Chicago Creek.
Elevation..... 40 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 23 km southeast of Deering.

Meridian..... Kateel River.
Tract..... Sec. 22, T 06 N, R 18 W.
Latitude..... 65°54'10" N.
Longitude..... 162°25'24" W.

Owner..... NANA Regional Corporation.
Operator..... Denali Drilling, Inc.

GEOLOGY

Formation name.... Kugruk.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 8° W, 53° W.
coal seam.
Coal seam average
dimensions, m.
Length..... 1,524.
Width..... 31.7.
Thickness..... 26.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 6,000-6,000 Btu/lb (198, 415).
Composition, %:
Ash..... 7.1-8.86.
Sulfur..... 0.8.
Moisture..... 33.8-37.73.
Volatile matter... 24.14-39.9.
Fixed carbon..... 19.2-29.27.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1902.
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.
Road requirement..... 13 km.
Distance to power supply.. Onsite.

Initial production.. 1908.
Last production..... 1911.
Past production..... 121,252 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 28 km.
Destination..... Candle.

PUBLISHED RESERVES-RESOURCES

Demonstrated reserves; 4.5 million short tons (80).

REFERENCES

15, 21, 35, 44, 52, 54, 68, 71, 78,
80, 108, 113, 145, 163-166, 174,
188, 197-198, 224, 286, 290, 354-355,
368, 373-374, 377-378, 382-388, 390-391,
395, 398, 415, 417, 421, 427, 433, 462.

USGS quadrangle maps... Bendeleben, D-1.

USBM sequence number... 0020440088.

WALLIN COAL MINE

Map No: 42
Alternate names: George Wallin Mine,
Kugruk Mine

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Bendeleben.
Mining district.. Fairhaven.
Coalfield..... Chicago Creek.
Elevation..... 34 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 31 km southeast of Deering.

Meridian..... Kateel River.
Tract..... Sec. 10, T 05 N, R 13 W.
Latitude..... 65°50'55" N.
Longitude..... 162°25'47" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 15° W, 67-70° SW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 21.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,583-12,762 Btu/lb (180).
Composition, %:
Ash..... 5.17-6.44.
Sulfur..... 1.21-1.61.
Moisture..... 19.74.
Volatile matter... 36.25-48.28.
Fixed carbon..... 38.84-51.72.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1902.
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.
Road requirement..... 21 km.
Distance to power supply.. Onsite.

Initial production.. 1914.
Last production..... 1918.
Past production..... 11,023 mt.
Annual production... 28-110 mt/yr.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 28 km.
Destination..... Candle.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

108-109, 113, 180, 197-198, 237, 273,
286, 366, 374, 376, 400, 415, 417.

USGS quadrangle maps... Bendeleben, D-1.

USBM sequence number... 0020440160.

SUPERIOR COAL MINE

Map No: 42
Alternate names: Kugruk

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Bendeleben.
Mining district.. Fairhaven.
Coalfield..... Chicago Creek.
Elevation..... 43 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 30 km southwest of Deering.

Meridian..... Kateel River.
Tract..... Sec. 15, T 05 N, R 18 W.
Latitude..... 65°50'18" N.
Longitude..... 162°26'04" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kugruk.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 4° E, 78° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 16.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (113).
Ash..... 3.85.
Sulfur..... 0.68.
Moisture..... 24.92.
Volatile matter... 38.15.
Fixed carbon..... 33.58.

DEVELOPMENT

Current status..... Development deposit.
Type of operation.. Underground.
Year of discovery.. 1902.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 20 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 28 km.
Destination..... Candle.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

57-58, 73, 113, 185, 188, 265,
273, 286, 320, 355, 374, 417.

USGS quadrangle maps... Bendelben, D-1.
USBM sequence number... 0020440159.

SINUK RIVER

Map No: 43

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nome.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 76 m.
Topography..... Gently rolling.
Domain..... Native.

Owner..... Unknown.
Operator..... Do.

General location.. 5.6 km northeast of Sinuk.

Meridian..... Kateel River.
Tract..... Sec. 05, T 09 S, R 36 W.
Latitude..... 64°44'00" N.
Longitude..... 165°55'20" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal seam average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone encloses ore.

Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 5.6 km.
Distance to power supply.. Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

134, 185, 200, 265, 273, 320,
354, 417.

USGS quadrangle maps... Nome, C-2.

USBM sequence number... 0020520059.

NASKAK

Map No: 44

Alternate names: Naskak Camp Prospect

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... St. Lawrence.
Mining district.. Bering Sea Region.
Coalfield..... Unnamed.
Elevation..... 20 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 19 km southeast of Gambell.

Meridian..... Kateel River.
Tract..... Sec. 19, T 21 S, R 66 W.
Latitude..... 63°39'00" N.
Longitude..... 171°29'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 19 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

178, 185, 265, 273, 313, 320,
341.

USGS quadrangle maps... St. Lawrence.
USBM sequence number... 0020610015.

KOYUK RIVER

Map No: 45
Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Norton Bay.
Mining district.. Koyuk.
Coalfield..... Unnamed.
Elevation..... 76 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 1.5 km north of Koyuk.

Meridian..... Kateel River.
Tract..... Sec. 29, T 06 S, R 12 W.
Latitude..... 64°56'45" N.
Longitude..... 161°09'55" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kaltag-Nulato.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Clay lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Pre 1909.
Discovery method... Unknown.

Distance to water supply.. 1.5 km.
Road requirement..... Do.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

104, 108, 113, 165, 185, 265, 269,
273, 320, 396, 417, 421, 427.

USGS quadrangle maps... Norton Bay, D-5.
USBM sequence number... 0020540009.

WILSON CREEK

Map No: 46

Alternate names: Kiwalik River

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Candle.
Mining district.. Koyuk.
Coalfield..... Unnamed.
Elevation..... 207 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 66 km southeast of Candle.

Meridian..... Kateel River.
Tract..... Sec. 32, T 01 S, R 13 W.
Latitude..... 65°21'30" N.
Longitude..... 161°23'10" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unknown.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1919.
Discovery method... Exploration.

Distance to water supply.. 0.1 km.
Road requirement..... 13 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

103, 108, 113, 185, 187, 265,
273, 311, 320, 417.

USGS quadrangle maps... Candle, B-5.

USBM sequence number... 0020450044.

TRAMWAY BAR COAL

Map No: 47

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Wiseman.
Mining district.. Koyukuk.
Coalfield..... Unnamed.
Elevation..... 323 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 3 km northeast of
Tramway Bar.

Meridian..... Fairbanks.
Tract..... Sec. 05, T 26 N, R 13 W.
Latitude..... 67°06'45" N.
Longitude..... 150°27'39" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 2.7.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 7,263-12,559 Btu/lb (179).
Composition, %:
Ash..... 35.79-38.23.
Sulfur..... 0.14-0.25.
Moisture..... 6.38.
Volatile matter... 24.29-41.99.
Fixed carbon..... 33.54-58.01.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1899.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 3 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 3 km.
Destination..... Tramway Bar.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 80, 131, 160, 169, 179, 185,
205, 265, 273, 316, 326, 335, 337,
365-366, 372, 398, 417, 421.

USGS quadrangle maps... Wiseman, A-1.
USBM sequence number... 0020300068.

COAL CREEK - DALL RIVER

Map No: 48

Alternate names: Dall River Coal

Commodity: Lignite & subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Beaver.
Mining district.. Yukon Flats.
Coalfield..... Unnamed.
Elevation..... 180 m.
Topography..... Gently rolling.
Domain..... National Wildlife
Refuge.
Owner..... Unknown.
Operator..... Do.

General location.. 49 km northwest of Stevens
Village.
Meridian..... Fairbanks.
Tract..... Sec. 03, T 17 N, R 11 W.
Latitude..... 66°19'25" N.
Longitude..... 149°51'15" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 3.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,821-11,671 Btu/lb (34).
Composition, %:
Ash..... 4.63-5.22.
Sulfur..... Not reported.
Moisture..... 11.21.
Volatile matter... 43.10-51.22.
Fixed carbon..... 41.06-48.78.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1902.
Discovery method... Exploration.
Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 1.6 km.
Distance to power supply.. 49 km.
Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

21, 34-35, 75, 131, 179, 185,
262, 265, 273, 320, 393, 417,
421, 464.

USGS quadrangle maps... Beaver, B-6.
USBM sequence number... 0020400002.

HODZANA RIVER

Map No: 49

Alternate names: The Mudbank

Commodity: Lignite A & subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Beaver.
Mining district.. Yukon Flats.
Coalfield..... Unnamed.
Elevation..... 183 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 56 km northwest of Beaver.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 35, T 22 N, R 04 W.
Latitude..... 60°41'30" N.
Longitude..... 148°21'30" W.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Mudstone lies under ore.
Coking ability..... Poor.
Heating value..... 7,466-11,850 Btu (34).
Composition, %:
Ash..... 9.80-13.46.
Sulfur..... Not reported.
Moisture..... 19.54-27.20.
Volatile matter... 19.71-31.29.
Fixed carbon..... 43.29-68.71.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1902.
Discovery method... Exploration.
Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 20 km.
Distance to power supply.. 56.3 km.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

21, 34, 75, 179, 273, 417, 464.

USGS quadrangle maps... Beaver, C-3.

USBM sequence number... 0020400003.

FISHHOOK BEND

Map No: 50

Alternate names: Porcupine River, Colleen Basin

Commodity: Lignite A

LOCATION-OWNERSHIP

Quadrangle..... Colleen.
Mining district.. Sheenjek.
Coalfield..... Unnamed.
Elevation..... 183 m.
Topography..... Gently rolling.
Domain..... National Wildlife
Refuge.
Owner..... Unknown.
Operator..... Do.

General location.. On bluff northeast of
Henry Martin Island.
Meridian..... Fairbanks.
Tract..... Sec. 31, T 28 N, R 26 E.
Latitude..... 67°12'22" N.
Longitude..... 142°06'20" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 5,155-10,849 Btu/lb (179).
Composition, %:
Ash..... 18.47-27.99.
Sulfur..... Not reported.
Moisture..... 34.02.
Volatile matter... 28.09-59.12.
Fixed carbon..... 19.42-40.88.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.
Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

34, 179, 273.

USGS quadrangle maps... Colleen, A-3.

USBM sequence number... 0020330005.

MISSION CREEK

Map No: 51

Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Eagle.
Mining district.. Do.
Coalfield..... Eagle-Circle.
Elevation..... 442 m.
Topography..... Steep cliff.
Domain..... Native.

General location.. 1 km north of Eagle.

Meridian..... Fairbanks.
Tract..... Sec. 25, T 01 S, R 32 E.
Latitude..... 64°48'02" N.
Longitude..... 141°12'28" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Conglomerate lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.7 km.
Road requirement..... 1.5 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 50, 131-132, 172, 179, 185,
265, 273, 279, 320, 417.

USGS quadrangle maps... Eagle, D-1.

USBM sequence number... 0020600010.

AMERICAN CREEK

Map No: 52
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Eagle.
Mining district.. Do.
Coalfield..... Eagle-Circle.
Elevation..... 335 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 4 km southwest of Eagle.

Meridian..... Fairbanks.
Tract..... Sec. 11, T 01 S, R 32 E.
Latitude..... 64°45'42" N.
Longitude..... 141°14'44" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... 0.96 (Fuel ratio) (131).
Composition, %:
Ash..... 16.53.
Sulfur..... 3.40.
Moisture..... 6.75.
Volatile matter... 39.13.
Fixed carbon..... 37.59.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1897.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 4 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

50, 131-132, 172, 179, 185, 265,
273, 279, 320, 417.

USGS quadrangle maps... Eagle, D-1.

USBM sequence number... 0020600089.

WOLF CREEK

Map No: 53
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Eagle.
Mining district.. Do.
Coalfield..... Eagle-Circle.
Elevation..... 587 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 8 km southwest of Eagle.

Meridian..... Fairbanks.
Tract..... Sec. 08, T 02 S, R 32 E.
Latitude..... 64°45'13" N.
Longitude..... 141°21'02" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Slate encloses ore.

Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.2 km.
Road requirement..... 4 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

50, 131, 172, 179, 185, 265, 273,
320, 417.

USGS quadrangle maps... Eagle, D-1.

USBM sequence number... 0020600100.

CHICKEN COAL

Map No: 54

Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Eagle.

Mining district.. Fortymile.

Coalfield..... Unnamed.

Elevation..... 579 m.

Topography..... Gently rolling.

Domain..... State.

General location.. 1 km northwest of Eagle.

Meridian..... Copper River.

Tract..... Sec. 31, T 27 N, R 18 E.

Latitude..... 64°04'45" N.

Longitude..... 141°56'30" W.

Owner..... George A. Esterbrook.

Operator..... Do.

GEOLOGY

Formation name.... Unnamed.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 65° E, 90°.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 6.7.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Not reported.

Coking ability..... Do.

Heating value..... 8,330-11,850 Btu/lb (146).

Composition, %:

Ash..... 4.2-13.5.

Sulfur..... 0.4-0.6.

Moisture..... 12.6-23.1.

Volatile matter... 30.8-40.6.

Fixed carbon..... 35.7-54.6.

DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. Unknown.

Discovery method... Do.

Initial production.. 1930.

Last production..... 1940.

Past production..... Not reported.

Annual production... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 1 km.

Distance to power supply.. Do.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 1 km.

Destination..... Chicken.

PUBLISHED RESERVES-RESOURCES

No reported reserve-resource information.

REFERENCES

15, 35, 145-146, 172, 174, 179, 185,
265, 273-274, 277, 279, 320, 334, 355,
361, 368, 388, 391, 400, 417, 421.

USGS quadrangle maps... Eagle, A-2.

USBM sequence number... 0020600112.

COPPER CREEK COAL

Map No: 55

Alternate names: Charley Creek Prospect

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Eagle.
Mining district.. Circle.
Coalfield..... Unnamed.
Elevation..... 701 m.
Topography..... Gently rolling.
Domain..... National Park.

Owner..... Jim Henderson.
Operator..... Unknown.

General location.. 100 km west of Eagle.

Meridian..... Fairbanks.
Tract..... Sec. 10, T 01 S, R 22 E.
Latitude..... 64°50'37" N.
Longitude..... 143°18'15" W.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.
Coking ability..... Do.
Heating value..... 11,230-11,470 Btu/lb (146).
Composition, %:
Ash..... 23.1-23.6.
Sulfur..... 0.6.
Moisture..... 2.1.
Volatile matter... 20.8-21.3.
Fixed carbon..... 54.0-55.1.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 100 km.
Distance to power supply.. Onsite.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

61, 145-146, 172, 174, 185, 265,
273, 320, 417.

USGS quadrangle maps... Eagle, D-5.
USBM sequence number... 0020600155.

WASHINGTON CREEK

Map No: 56

Alternate names: Alaska Coal & Coke Co.,
N.B. La Brie, Stanford, Pratt, Layman, & Jewett

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Charley River.
River.
Mining district.. Eagle.
Coalfield..... Do.
Elevation..... 427 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 16 km south of the Yukon

Meridian..... Fairbanks.
Tract..... Sec. 20, T 04 N, R 27 E.
Latitude..... 65°09'30" N.
Longitude..... 142°18'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone encloses ore.
Coking ability..... Not reported.
Heating value..... 6,440-9,080 Btu/lb (34).
Composition, %:
Ash..... 4.80-28.80.
Sulfur..... Not reported.
Moisture..... 19.30-20.50.
Volatile matter... 25.60-37.60.
Fixed carbon..... 26.30-37.10.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1897.
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.
Road requirement..... 16 km.
Distance to power supply.. Onsite.

Initial production.. 1897.
Last production..... Do.
Past production..... 5.5 mt.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 16 km.
Destination..... Riverboat.

PUBLISHED RESERVES-RESOURCES

Hypothetical resources; 100 million short tons (136,355).

REFERENCES

34-35, 49, 52, 64, 66, 131-132,
136, 179, 185, 265, 273, 279,
320, 355, 417, 421.

USGS quadrangle maps... Charley River, A-3.

USBM sequence number... 0020510026.

NATION RIVER COAL

Map no: 57

Alternate names: Alaska Commercial Co.,
Nation River Mine, W.E. Williams

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Charley River.
Mining district.. Eagle-Circle.
Coalfield..... Do.
Elevation..... 457 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 2 km from the Yukon River.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 05, T 04 N, R 30 E.
Latitude..... 65°12'30" N.
Longitude..... 141°40'30" W.

GEOLOGY

Formation name..... Nation River.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 60° E, 40° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... 3.96.
Width..... Not reported.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Tertiary (?).
Rock relationships.. Sandstone lies over ore.
Conglomerate lies under ore.
Coking ability..... Good.
Heating value..... 1.39 (Fuel ratio) (131).
Composition, %:
Ash..... 3.04.
Sulfur..... 2.98.
Moisture..... 1.39.
Volatile matter... 40.02.
Fixed carbon..... 55.55.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1897.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 2 km.
Distance to power supply.. Onsite.

Initial production.. 1897.
Last production..... 1898.
Past production..... 2,315 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 160 km.
Destination..... Dawson.

PUBLISHED RESERVES-RESOURCES

Hypothetical resources; 50 million short tons (191).

REFERENCES

15, 35, 49, 52, 62, 64, 131-132,
179, 185, 191, 235, 241, 268-269,
273, 279, 320, 355, 361, 373, 417,
421, 425.

USGS quadrangle maps... Charley River, A-2.

USBM sequence number... 0020510029.

BONANZA CREEK

Map No: 58

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Charley River.
Mining district.. Eagle-Circle.
Coalfield..... Do.
Elevation..... 274 m.
Topography..... Gently rolling.
Domain..... National Park.

General location.. 3.5 km from the
Charley River.

Meridian..... Fairbanks.
Tract..... Sec. 29, T 05 N, R 25 E.
Latitude..... 65°13'35" N.
Longitude..... 142°39'05" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sanstone encloses ore.

Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 3.5 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

49, 131-132, 179, 273, 417, 421.

USGS quadrangle maps... Charley River, A-4.

USBM sequence number... 0020510035.

COAL CREEK - YUKON RIVER

Map No: 59
Alternate names: None

Commodity: Subbituminous & lignite

LOCATION-OWNERSHIP

Quadrangle..... Charley River.
Mining district.. Circle.
Coalfield..... Eagle-Circle.
Elevation..... 277 m.
Topography..... Gently rolling.
Domain..... National Park.

General location.. 1.6 km. from the mouth of
Coal Creek.

Meridian..... Fairbanks.
Tract..... Sec. 19, T 06 N, R 23 E.
Latitude..... 65°20'18" N.
Longitude..... 143°06'02" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone encloses ore.
Coking ability..... Not reported.
Heating value..... 6,160-10,320 Btu/lb (34).
Composition, %:
Ash..... 9.40-18.00.
Sulfur..... Not reported.
Moisture..... 30.90-51.40.
Volatile matter... 29.30-53.80.
Fixed carbon..... 25.10-46.20.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.5 km.
Road requirement..... 4.5 km.
Distance to power supply.. Do.

Initial production.. 1920.
Last production..... 1930.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 4.5 km.
Destination..... Coal Creek.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

34, 49, 52, 61, 64, 131-132, 136,
191, 273, 279, 334, 354-355, 361,
417, 425.

USGS quadrangle maps... Charley River, B-5.
USBM sequence number... 0020510036.

DREW MINE

Map No: 60

Alternate names: Miller Mine, Pioneer

Commodity: Lignite & subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Livengood.
Mining district.. Melozitna.
Coalfield..... Rampart.
Elevation..... 91 m.
Topography..... Steep cliff.
Domain..... Native.

General location.. 61 km northwest of
Livengood.

Meridian..... Fairbanks.
Tract..... Sec. 27, T 10 N, R 11 W.
Latitude..... 65°40'13" N.
Longitude..... 149°49'35" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 30° E, 80° S.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.97.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sanstone encloses ore.
Coking ability..... Not reported.
Heating value..... 5,560-12,360 Btu/lb (179).
Composition, %:
Ash..... 4.64-43.40.
Sulfur..... 0.33.
Moisture..... 6.24-19.00.
Volatile matter... 23.10-48.80.
Fixed carbon..... 24.30-57.90.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1895.
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. 1897.
Last production..... 1900.
Past production..... 1,323 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 0.1 km.
Destination..... Riverboat use.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

15, 34-35, 118, 131-132, 179,
185, 265, 273, 275, 279, 320,
324, 417, 432.

USGS quadrangle maps... Livengood, C-6.
USBM sequence number... 0020490115.

HUNTER

Map No: 61
Alternate names: Minook Creek

Commodity: Lignite A

LOCATION-OWNERSHIP

Quadrangle..... Tanana.
Mining district.. Rampart.
Coal Field..... Do.
Elevation..... 107 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 5 km southeast of Rampart.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 30, T 08 N, R 12 W.
Latitude..... 65°29'09" N.
Longitude..... 150°06'00" W.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° E, 20-50° S.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone encloses ore.

Coking ability..... Not reported.
Heating value..... 0.87 (Fuel ratio) (179).
Composition, %:
Ash..... 5.83.
Sulfur..... Not reported.
Moisture..... 11.21.
Volatile matter... 44.32.
Fixed carbon..... 38.64.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Pre 1903.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 5 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

131, 179, 185, 265, 273, 275,
320, 417.

USGS quadrangle maps... Tanana, B-1.

USBM sequence number... 0020480086.

RAMPART

Map No: 62
Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Tanana.
Mining district.. Rampart.
Coalfield..... Do.
Elevation..... 152 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. On the south side of the
Yukon River 3 km below
Rampart.
Meridian..... Fairbanks.
Tract..... Sec. 25, T 08 N, R 13 W.
Latitude..... 65°29'34" N.
Longitude..... 150°10'58" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone encloses ore.
Coking ability..... Poor.
Heating value..... 0.86 (Fuel ratio) (131).
Composition, %:
Ash..... 7.26.
Sulfur..... Not reported.
Moisture..... 16.43.
Volatile matter... 41.09.
Fixed carbon..... 53.22.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Underground.
Year of discovery.. Pre 1902.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 3 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 3 km.
Destination..... Rampart.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

52, 64, 67, 131-132, 136, 179, 185,
265, 269, 273, 275, 320, 361, 417.

USGS quadrangle maps... Tanana, B-1.
USBM sequence number... 0020480099.

THE PALISADES

Map No: 63

Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Melozitna.
Mining district.. Hot Springs.
Coalfield..... Unnamed.
Elevation..... 137 m.
Topography..... Gently rolling.
Domain..... State.

General location.. On south side of the Yukon
River 17 km above Birches.

Meridian..... Kateel River.
Tract..... Sec. 30, T 04 S, R 28 E.
Latitude..... 65°06'40" N.
Longitude..... 153°11'58" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Pre 1902.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

129, 131-132, 188, 205, 265, 273,
315, 320, 417.

USGS quadrangle maps... Melozitna, A-1.

USBM sequence number... 0020470004.

MELOZITNA RIVER

Map No: 64

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Ruby.
Mining district.. Melozitna.
Coalfield..... Unnamed.
Elevation..... 149 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 30 km northeast of Ruby.

Meridian..... Kateel River.
Tract..... Sec. 06, T 06 S, R 18 E.
Latitude..... 64°59'59" N.
Longitude..... 155°18'05" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unknown.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal seam average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.76.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.

Distance to water supply.. 0.5 km.
Road requirement..... Do.
Distance to power supply.. 30 km.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... A few metric tons.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 30 km.
Destination..... Ruby.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

106, 115-116, 179, 205, 273, 417.

USGS quadrangle maps... Ruby, D-5.

USBM sequence number... 0020560067.

QUARTZ CREEK

Map No: 65

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Ruby.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 91 m.
Topography..... Low lying.
Domain..... State.

General location.. 53 km southeast of Ruby.

Meridian..... Kateel River.
Tract..... Sec. 03, T 14 S, R 19 E.
Latitude..... 64°18'02" N.
Longitude..... 155°04'05" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal seam average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... 30.5.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 53 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

33, 106, 116, 179, 273, 280-281,
417.

USGS quadrangle maps... Ruby, B-5.

USBM sequence number... 0020560068.

POORMAN CREEK II

Map No: 66

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Ruby.
Mining district.. Innoko.
Coalfield..... Unnamed.
Elevation..... 91 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 80 km south of Ruby.

Meridian..... Kateel River.
Tract..... Sec. 09, T 17 S, R 16 E.
Latitude..... 64°01'37" N.
Longitude..... 155°45'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal seam average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volitlie matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 1 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... A few metric tons.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 1 km.
Destination..... Placerville.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 53-58, 73-74, 76, 106, 114, 116, 162,
179, 185, 233, 265, 273, 276, 280, 320,
377-379, 390-391, 399-400, 417.

USGS quadrangle maps... Ruby, A-6.
USBM sequence number... 0020560042.

IDITAROD MINE

Map No: 67

Alternate names: None

Commodity: Anthracite

LOCATION-OWNERSHIP

Quadrangle..... Iditarod.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 241 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 8 km southeast of
Iditarod.
Meridian..... Seward.
Tract..... Sec. 28, T 28 N, R 47 W.
Latitude..... 62°29'00" N.
Longitude..... 158°00'52" W.

Owner..... William Knox & Charles Krutsinger.
Operator..... Unknown.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 38° E, 80° SE.
coal sseam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.57.
Depth..... 9.0.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Slate lies under ore.
Coking ability..... Not reported.
Heating value..... 14,297-15,323 Btu/lb (281).
Composition, %:
Ash..... 5.19-5.27.
Sulfur..... 0.79-0.84.
Moisture..... 1.33-1.52.
Volatile matter... 7.69-8.24.
Fixed carbon..... 85.60-91.76.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1914.
Discovery method... Unknown.

Distance to water supply.. 1.5 km.
Road requirement..... 1.0 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

53, 145-146, 170, 174, 179, 185,
265, 273, 276, 280-281, 320, 366,
375, 392, 400, 417, 421.

USGS quadrangle maps... Iditarod, B-5.
USBM sequence number... 0020730033.

INNOKO RIVER 1

Map No: 68
Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Ophir.
Mining district.. Innoko.
Coalfield..... Unnamed.
Elevation..... 35 m.
Topography..... Low-lying.
Domain..... National Wildlife
Refuge.
Owner..... Unknown.
Operator..... Do.

General location.. 83 km northwest of Ophir.

Meridian..... Kateel River.
Tract..... Sec. 14, T 05 E, R 22 S.
Latitude..... 63°35'00" N.
Longitude..... 157°50'40" W.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Slate lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 10,470-11,020 Btu/lb (146).
Composition, %:
Ash..... 14.5-15.3.
Sulfur..... 0.3.
Moisture..... 5.0.
Volatile matter... 30.0-31.6.
Fixed carbon..... 50.5-53.1.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 174, 179, 230, 273, 417.

USGS quadrangle maps... Ophir, C-4.

USBM sequence number... 0020640044.

INNOKO RIVER 2

Map No: 69

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Holy Cross.
Mining district.. Iditarod.
Coalfield..... Unnamed.
Elevation..... 22 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 46 km northeast of Anvik.

Meridian..... Seward.
Tract..... Sec. 34, T 32 N, R 54 W.
Latitude..... 62°49'10" N.
Longitude..... 159°22'44" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.
Coking ability..... Do.
Heating value..... 10,470-11,020 Btu/lb (146).
Composition, %:
Ash..... 14.5-15.3.
Sulfur..... 0.3.
Moisture..... 5.0.
Volatile matter... 30.0-31.6.
Fixed carbon..... 50.5-53.1.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 174, 179, 185, 262, 265,
320, 417, 421.

USGS quadrangle maps... Holy Cross, D-1.

USBM sequence number... 0020720003.

NAHOCLATILTEN MINE

Map No: 70

Alternate names: Louden Mine, Yukon River-Louden

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nulato.
Mining district.. Hughes.
Coalfield..... Unnamed.
Elevation..... 61 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 21 km southeast of Galena.

Meridian..... Kateel River.
Tract..... Sec. 32, T 09 S, R 12 E.
Latitude..... 64°40'00" N.
Longitude..... 156°31'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 55-60° E, 65° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... 91.4.
Width..... Not reported.
Thickness..... 0.6.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Good.
Heating value..... 10,170-11,430 Btu/lb (131).
Composition, %:
Ash..... 2.6-2.8.
Sulfur..... 0.4.
Moisture..... 7.9-8.5.
Volatile matter... 37.0-41.7.
Fixed carbon..... 51.9-58.3.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 21 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

45, 105, 115, 131-132, 179, 185,
265, 273, 312, 320, 395, 417,
421.

USGS quadrangle maps... Nulato, C-2.
USBM sequence number... 0020550010.

KOYUKUK ISLAND

Map No: 71
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nulato.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 43 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 38 km northwest of Galena.

Meridian..... Kateel River.
Tract..... Sec. 10, T 07 S, R 06 E.
Latitude..... 64°54'07" N.
Longitude..... 157°38'07" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal body average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 1.4 (Fuel ratio) (131).
Composition, %:
Ash..... 12.95.
Sulfur..... Not reported.
Moisture..... 4.47.
Volatile matter... 34.32.
Fixed carbon..... 48.26.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 38 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

45, 64, 105, 131, 185, 265, 273,
312, 320, 335, 354, 355, 454.

USGS quadrangle maps... Nulato, D-4.
USBM sequence number... 0020550013.

PICKART MINE

Map No: 72

Alternate names: Yukon River-Nulato

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nulato.

Mining district.. Anvik.

Coalfield..... Nulato.

Elevation..... 137 m.

Topography..... Gently rolling.

Domain..... Native.

General location.. 18 km northeast of
Nulato.

Meridian..... Kateel River.

Tract..... Sec. 19, T 07 S, R 05 E.

Latitude..... 64°51'40" N.

Longitude..... 157°55'00" W.

Owner..... Pickart brothers, Alaskan Commercial Company.

Operator..... W.E. Williams.

GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 75° E, 35° N.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 0.76.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Sandstone lies over ore.

Shale lies under ore.

Coking ability..... Good.

Heating value..... 2.03-2.37 (Fuel ratio) (131).

Composition, %:

Ash..... 6.62-22.64.

Sulfur..... 0.56-0.6.

Moisture..... 1.02-2.22.

Volatile matter... 24.76-27.33.

Fixed carbon..... 50.38-65.03.

DEVELOPMENT

Current status..... Past producer.

Type of operation.. Surface-underground.

Year of discovery.. Unknown.

Discovery method... Do.

Initial production.. 1898.

Last production..... 1902.

Past production..... Not reported.

Annual production... Do.

Distance to water supply.. 0.1 km.

Road requirement..... Do.

Distance to power supply.. 18 km.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 0.1 km.

Destination..... Riverboats.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 45, 105, 115, 131-132, 179,
185, 205, 265, 273, 312, 320,
334, 354-355, 395, 417, 454.

USGS quadrangle maps... Nulato, D-4.

USBM sequence number... 0020550009.

NULATO COAL BED

Map No: 73

Alternate names: Nulato Mine

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nulato.
Mining district.. Anvik.
Coalfield..... Nulato.
Elevation..... 152 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 20 km north of Nulato.

Meridian..... Kateel River.
Tract..... Sec. 09, T 07 S, R 04 E.
Latitude..... 64°54'02" N.
Longitude..... 158°04'01" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 10° E, 40° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.76.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone encloses ore.

Coking ability..... Not reported.
Heating value..... 13,350-13,730 Btu/lb (146).
Composition, %:
Ash..... 4.9-5.0.
Sulfur..... 0.9.
Moisture..... 2.8.
Volatile matter... 22.5-23.1.
Fixed carbon..... 69.8-71.9.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 9 km.
Distance to power supply.. 20 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 15, 21, 45, 78, 105, 115, 131, 136,
141, 145-146, 174, 179, 265, 269, 273,
312, 334, 373, 395, 403, 417, 454.

USGS quadrangle maps... Nulato, D-5.
USBM sequence number... 0020550014.

BUSCH MINE

Map No: 74

Alternate names: Bush Mine, Yukon River-Nulato

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nulato.

Mining district.. Anvik.

Coalfield..... Nulato.

Elevation..... 122 m.

Topography..... Gently rolling.

Domain..... Native.

General location.. 6.5 km southwest of
Nulato.

Meridian..... Kateel River.

Tract..... Sec. 26, T 09 S, R 03 E.

Latitude..... 64°41'10" N.

Longitude..... 158°13'30" W.

Owner..... Unknown.

Operator..... Do.

GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 28° E, 40° W.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.4.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Sandstone encloses ore.

Coking ability..... Poor.

Heating value..... 1.76 (Fuel ratio) (131).

Composition, %:

Ash..... 7.33.

Sulfur..... 0.44.

Moisture..... 11.17.

Volatile matter... 29.48.

Fixed carbon..... 52.02.

DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Initial production.. 1903.

Last production..... Do.

Past production..... 441 mt.

Annual production... Do.

Distance to water supply.. 1.0 km.

Road requirement..... Do.

Distance to power supply.. 6.5 km.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 6.5 km.

Destination..... Nulato.

PUBLISHED RESERVES-RESOURCES

No reported reserve-resource information.

REFERENCES

35, 45, 105, 115, 131-132, 179,
185, 205, 265, 273, 312, 320,
395, 417.

USGS quadrangle maps... Nulato, C-5.

USBM sequence number... 0020550008.

BLATCHFORD MINE

Map No: 75

Alternate names: Blatsford Mine, Yukon River-Nulato

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nulato.
Mining district.. Anvik.
Coalfield..... Nulato.
Elevation..... 152 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 14.5 km southwest of
Nulato.

Meridian..... Kateel River.
Tract..... Sec. 17, T 10 S, R 03 E.
Latitude..... 64°37'13" N.
Longitude..... 158°18'00" W.

Owner..... Northern Commercial Company.

Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° E, 45-55° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... 6.1.
Width..... Not reported.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Fair.
Heating value..... 13,350-14,460 Btu/lb (115).
Composition, %:
Ash..... 2.22-5.0.
Sulfur..... 0.52-0.9.
Moisture..... 1.36-2.8.
Volatile matter... 22.44-24.3.
Fixed carbon..... 69.8-75.7.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Year of discovery.. 1866.
Discovery method... Prospecting.

Initial production.. 1900.
Last production..... 1913.
Past production..... 331 mt.
Annual production... 110 mt.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 14.5 km.
Destination..... Nulato
and riverboats.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 45, 105, 115, 131-132, 145,
174, 179, 185, 265, 273, 312,
320, 395, 417, 454.

USGS quadrangle maps... Nulato, C-5.

USBM sequence number... 0020550007.

ADOLPH MULLER PROSPECT

Map No: 76

Alternate names: Kaltag Prospect, Yukon River-Kaltag Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Nulato.
Mining district.. Anvik.
Coalfield..... Nulato.
Elevation..... 183 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 6 km south of Kaltag
Station.

Meridian..... Kateel River.
Tract..... Sec. 04, T 15 S, R 01 E.
Latitude..... 64°12'55" N.
Longitude..... 158°40'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N-W, 30° N.
coal seam.
Coal seam average
dimensions, m.
Length..... 61.
Width..... Not reported.
Thickness..... 1.4.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone encloses ore.

Coking ability..... No.
Heating value..... 9,470-13,250 Btu/lb (115).
Composition, %:
Ash..... 21.5-23.1.
Sulfur..... 0.5-0.7.
Moisture..... 7.0.
Volatile matter... 24.3-34.0.
Fixed carbon..... 47.2-66.0.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1.0 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 45, 105, 115, 145, 174, 185,
205, 265, 273, 320, 417.

USGS quadrangle maps... Nulato, A-6.
USBM sequence number... 0020550005.

OLD WOMAN

Map No: 77

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Norton Bay.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 122 m.
Topography..... Gently rolling.
Domain..... BLM-administrated.

General location.. 122 km southeast of Koyuk.

Meridian..... Kateel River.
Tract..... Sec. 27, T 16 S, R 05 W.
Latitude..... 64°04'41" N.
Longitude..... 159°38'35" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unknown.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 5.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 2.5 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

104, 179, 205, 273.

USGS quadrangle maps... Norton Bay, A-2.

USBM sequence number... 0020540010.

STEAMBOAT SLOUGH

Map No: 78
Alternate names: Eightmile Point

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 30 m.
Topography..... Flat-lying.
Domain..... BLM-administrated.

General location.. 74 km southwest of Kaltag.

Meridian..... Kateel River.
Tract..... Sec. 35, T 18 S, R 03 W.
Latitude..... 63°53'33" N.
Longitude..... 159°10'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 55° E, 20° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale Lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

107, 115, 179, 205, 273.

USGS quadrangle maps... Unalakleet, D-1.

USBM sequence number... 0020630009.

WILLIAMS MINE

Map No: 79

Alternate names: Whelp and Thein,
Thein Mine, W.E. Williams

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 99 m.
Topography..... Steep slope.
Domain..... State.

General location.. 80 km southwest of Kaltag.

Meridian..... Kateel River.
Tract..... Sec. 22, T 19 S, R 03 W.
Latitude..... 63°50'08" N.
Longitude..... 159°13'12" W.

Owner..... Clemens Thein (1900)/W.E. Williams (1902).

Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° W, 45° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... 122.
Thickness..... 0.99.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone encloses ore.
Conglomerate encloses ore.
Coking ability..... Poor.
Heating value..... 1.22-1.55 (Fuel ratio) (131).
Composition, %:
Ash..... 3.53-8.63.
Sulfur..... 0.4-0.53.
Moisture..... 6.15-7.17.
Volatile matter... 33.05-46.46.
Fixed carbon..... 49.86-51.15.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Year of discovery.. 1897.
Discovery method... Unknown.

Initial production.. 1900.
Last production..... 1902.
Past production..... 1,874 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 0.1 km.
Destination..... Riverboat.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

45, 107, 115, 131-132, 179, 185,
265, 273, 320, 417, 454.

USGS quadrangle maps... Unalakleet, D-1.
USBM sequence number... 0020630004.

COAL MINE CREEK

Map No: 80

Alternate names: Mine Creek, Unalakleet

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 46 m.
Topography..... Gently rolling.
Domain..... Native.

General location.. 14 km south of Unalakleet.

Meridian..... Kateel River.
Tract..... Sec. 14, T 20 S, R 11 W.
Latitude..... 63°45'00" N.
Longitude..... 160°45'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... 9,430-12,530 Btu/lb (146).
Composition, %:
Ash..... 4.2-8.2.
Sulfur..... 0.3-0.6.
Moisture..... 10.7-18.0.
Volatile matter... 41.8-55.5.
Fixed carbon..... 33.5-44.5.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. 1897.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 14 km.
Distance to power supply.. Do.

Initial production.. 1918.
Last production..... 1934.
Past production..... 331 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 100 km.
Destination..... Nome and
St. Michaels.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 35, 107, 109, 141, 145-146,
185, 237, 265, 273, 310, 320,
355, 382-385, 417, 427.

USGS quadrangle maps... Unalakleet, C-4.

USBM sequence number... 0020630001.

ANVIK RIVER

Map No: 81

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.

Mining district.. Anvik.

Coalfield..... Unnamed.

Elevation..... 320 m.

Topography..... Gently rolling.

Domain..... BLM-administrated.

General location.. 45 km southeast of
Unalakleet.

Meridian..... Kateel River.

Tract..... Sec. 14, T 22 S, R 08 W.

Latitude..... 63°35'19" N.

Longitude..... 160°09'15" W.

Owner..... Jens Squalmie.

Operator..... Unknown.

GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of
coal seam. Not reported.

Coal seam average
dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... 1.8.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Sandstone lies over ore.
Shale lies under ore.

Coking ability..... Not reported.

Heating value..... Do.

Composition, %:

Ash..... Do.

Sulfur..... Do.

Moisture..... Do.

Volatile matter... Do.

Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 45 km.

Distance to power supply.. Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

107, 131, 179, 186, 203, 205,
273, 417.

USGS quadrangle maps... Unalakleet, C-3.

USBM sequence number... 0020630008.

ALASKAN COMMERCIAL COMPANY

Map No: 82

Alternate names: Coal Mine No. 1

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 69 m.
Topography..... Steep slope.
Domain..... BLM-administrated.

General location.. 102 km northeast of Anvik.

Meridian..... Kateel River.
Tract..... Sec. 19, T 22 S, R 04 W.
Latitude..... 63°33'45" N.
Longitude..... 159°31'00" W.

Owner..... Alaskan Commercial Company.
Operator..... W.E. Williams.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 60° W, 35° SW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.8.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone encloses ore.
Coking ability..... Poor.
Heating value..... 12,010-13,820 Btu/lb (115).
Composition, %:
Ash..... 4.91-9.5.
Sulfur..... 0.21-0.4.
Moisture..... 3.6-4.82.
Volatile matter... 33.8-38.9.
Fixed carbon..... 53.1-61.1.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1897.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. 1898.
Last production..... Do.
Past production..... 992 mt.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 0.1 km.
Destination..... Riverboat.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 107, 115, 131, 179, 185, 265,
273, 320, 417, 454.

USGS quadrangle maps... Unalakleet, C-2.
USBM sequence number... 0020630003.

BLACKBURN MINE

Map No: 83

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.

Mining district.. Anvik.

Coalfield..... Unnamed.

Elevation..... 31 m.

Topography..... Gently rolling.

Domain..... BLM-administrated.

General location.. 81 km northeast of Anvik.

Meridian..... Kateel River.

Tract..... Sec. 26, T 24 S, R 05 W.

Latitude..... 63°22'42" N.

Longitude..... 159°33'45" W.

Owner..... Unknown.

Operator..... Do.

GEOLOGY

Formation name..... Kaltag.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of coal seam. Not reported.

Coal seam average dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... 0.9.

Depth..... Outcrop.

Formation age..... Cretaceous.

Rock relationships.. Not reported.

Coking ability..... Do.

Heating value..... Do.

Composition, %:

Ash..... Do.

Sulfur..... Do.

Moisture..... Do.

Volatile matter... Do.

Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Distance to water supply.. 0.1 km.

Road requirement..... Do.

Distance to power supply.. Onsite.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 179, 185, 205, 265, 273, 320, 417.

USGS quadrangle maps... Unalakleet, B-2.

USBM sequence number... 0020630007.

HALLS RAPIDS

Map No: 84

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Unalakleet.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 30 m.
Topography..... Gentle slope.
Domain..... BLM-administrated.

General location.. 48 km northeast of Anvik.

Meridian..... Kateel River.
Tract..... Sec. 10, T 28 S, R 06 W.
Latitude..... 63°04'55" N.
Longitude..... 159°47'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kaltag.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... 61.
Width..... Not reported.
Thickness..... 0.15.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Tuffs enclose ore.

Coking ability..... Poor.
Heating value..... 1.35 (Fuel ratio) (131).
Composition, %:
Ash..... 2.81.
Sulfur..... 0.42.
Moisture..... 8.23.
Volatile matter... 37.88.
Fixed carbon..... 51.08.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1897.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 48 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

107, 131, 179, 185, 205, 265,
273, 320, 417.

USGS quadrangle maps... Unalakleet, A-2.

USBM sequence number... 0020630002.

STUYAHOK RIVER

Map No: 85

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Holy Cross.
Mining district.. Anvik.
Coalfield..... Unnamed.
Elevation..... 38 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. 48 km southwest of Anvik.

Meridian..... Seward.
Tract..... Sec. 33, T 26 N, R 62 W.
Latitude..... 62°18'28" N.
Longitude..... 160°46'08" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal seam average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

179, 262, 417.

USGS quadrangle maps... Holy Cross, B-4.

USBM sequence number... 0020720008.

NELSON ISLAND

Map No: 86

Alternate names: None

Commodity: Bituminous & subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Nunivak Island.

Mining district.. Bethel.

Coalfield..... Unnamed.

Elevation..... 152 m.

Topography..... Steep slope.

Domain..... Native.

Owner..... Unknown.

Operator..... Do.

General location.. 3 km northeast of
Tanunak.

Meridian..... Seward.

Tract..... Sec. 22, T 06 N, R 91 W.

Latitude..... 60°36'03" N.

Longitude..... 165°13'39" W.

GEOLOGY

Formation name..... Unnamed.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of
coal seam. Not reported.

Coal seam average
dimensions, m.

Length..... Do.

Width..... Do.

Thickness..... 0.46.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Siltstone encloses ore.

Coking ability..... Not reported.

Heating value..... 9,910-15,130 Btu/lb (146).

Composition, %:

Ash..... 14.2-32.3.

Sulfur..... 0.4-0.8.

Moisture..... 1.6-3.9.

Volatile matter... 19.1-31.5.

Fixed carbon..... 47.1-75.0.

DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1900.

Discovery method... Unknown.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Distance to water supply.. 1.5 km.

Road requirement..... 3 km.

Distance to power supply.. Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 35, 144-146, 174, 185, 265,
273, 320, 417, 421, 454.

USGS quadrangle maps... Nunivak Island, C-1.

USBM sequence number... 0020890001.

NORTH FORK OF EEK RIVER

Map No: 87

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Bethel.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 183 m.
Topography..... Low-lying.
Domain..... National Wildlife
Refuge.

Owner..... H. Oman, B. Smith, E. McGan, G. McIntire, and D. McPherson.
Operator..... Unknown.

General location.. 89 km southeast of Bethel.

Meridian..... Seward.
Tract..... Sec. 21, T 01 N, R 66 W.
Latitude..... 60°09'54" N.
Longitude..... 160°44'45" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Graywacke lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1912.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 201, 204, 273, 312, 320,
417.

USGS quadrangle maps... Bethel, A-5.

USBM sequence number... 0020910018.

BIG RIVER

Map No: 88
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... McGrath.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 244 m.
Topography..... Low-lying.
Domain..... BLM-administrated.

General location.. 80 km southeast of
McGrath.

Meridian..... Seward.
Tract..... Sec. 21, T 25 N, R 32 W.
Latitude..... 62°15'00" N.
Longitude..... 155°15'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 20 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

59, 72, 158, 179, 185, 265, 273,
320-321, 364, 392, 417.

USGS quadrangle maps... McGrath, A-5.

USBM sequence number... 0020740051.

CHEENEETNUK RIVER

Map No: 89

Alternate names: None

Commodity: Subbituminous & bituminous

LOCATION-OWNERSHIP

Quadrangle..... McGrath.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 330 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 101 km south of McGrath.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 08, T 22 N, R 32 W.
Latitude..... 62°01'08" N.
Longitude..... 155°11'20" W.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect

Year of discovery.. 1965.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 33 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

158, 179, 266, 269, 273, 321,
361, 371, 417.

USGS quadrangle maps... McGrath, A-5.

USBM sequence number... 0020740054.

WINDY FORK - KUSKOKWIM RIVER

Map No: 90

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... McGrath.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 434 m.
Topography..... Gentle slope.
Domain..... BLM-administrated.

General location.. 92 km southeast of
McGrath.

Meridian..... Seward.
Tract..... Sec. 24, T 27 N, R 27 W.
Latitude..... 62°25'22" N.
Longitude..... 154°10'58" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 23° E, 37-40° S.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 3,968-12,711 Btu/lb (372).
Composition, %:
Ash..... 29.9-64.0.
Sulfur..... 0.1-0.8.
Moisture..... 1.9-4.0.
Volatile matter... 18.7-76.9.
Fixed carbon..... 8.9-53.7.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

21, 158, 179, 267-269, 273,
361, 370-372, 417.

USGS quadrangle maps... McGrath, B-3.
USBM sequence number... 0020740053.

LITTLE TONZONA RIVER

Map No: 91

Alternate names: Brazil Creek, Knee Deep
Creek, Deepbank Creek

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... McGrath.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 680 m.
Topography..... Gentle slope.
Domain..... BLM-administrated.

General location.. 38 km northeast of
Farewell Lake Lodge.

Meridian..... Seward.
Tract..... Sec. 27, T 31 N, R 20 W.
Latitude..... 62°45'17" N.
Longitude..... 150°00'18" W.

Owner..... Canadian Superior Exploration Company.
Operator..... Doyon, Ltd.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 73° E, 47-63° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 38.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Siltstone lies under ore.
Coking ability..... Not reported.
Heating value..... 7,663-11,277 Btu/lb (268).
Composition, %:
Ash..... 10.84-13.75.
Sulfur..... 1.11-1.63.
Moisture..... 21.21.
Volatile matter... 37.59-55.33.
Fixed carbon..... 30.36-44.67.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.
Road requirement..... 35 km.
Distance to power supply.. Onsite.

Year of discovery.. 1902.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Resources: estimated; 1,500 million short tons (269).

REFERENCES

21, 158, 179, 191, 193, 265-266,
268-269, 273, 321, 335, 337, 355,
361, 370-372, 417.

USGS quadrangle maps... McGrath, D-1.

USBM sequence number... 0020740055.

JOHNSON CREEK

Map No: 92

Alternate names: Canyon Creek

Commodity: Subbituminous & lignite

LOCATION-OWNERSHIP

Quadrangle..... Talkeetna.
Mining district.. Yentna.
Coalfield..... Beluga-Yentna.
Elevation..... 226 m.
Topography..... Low-lying.
Domain..... State.

General location.. 77 km southwest of
Petersville.

Meridian..... Seward.
Tract..... Sec. 31, T 23 N, R 14 W.
Latitude..... 62°02'28" N.
Longitude..... 151°54'25" W.

Owner..... Mobil Mineral Resources, Inc.
Operator..... Do.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 18° W, 16-20°
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 7.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 5,400-9,450 Btu/lb (46).
Composition, %:
Ash..... 6-40.
Sulfur..... 0.1-0.2.
Moisture..... 20.0-30.0.
Volatile matter... Not reported.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 25 km.
Distance to power supply.. Outcrop.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Resources: Identified; 500 million short tons (46).

REFERENCES

8, 36, 46, 78-79, 102, 269,
272-273, 339, 355, 417.

USGS quadrangle maps... Talkeetna, A-4.

USBM sequence number... 0020750001.

CANYON CREEK

Map No: 132

Alternate names: Johnson Creek

Commodity: Subbituminous C & lignite

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Yentna.
Coalfield..... Beluga-Yentna.
Elevation..... 470 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 30 km southwest of
Skwentna.

Meridian..... Seward.
Tract..... Sec. 07, T 20 N, R 13 W.
Latitude..... 61°50'18" N.
Longitude..... 151°42'28" W.

Owner..... Mobil Mineral Resources, Inc.
Operator..... Do.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N.18° W, 10-15° E.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 8.5.
Depth..... 61.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Conglomerate lies under ore.
Coking ability..... Not reported.
Heating value..... 5,400- 9,450 Btu/lb (46).
Composition, %:
Ash..... 6-40.
Sulfur..... 0.1-0.2.
Moisture..... 20-30.
Volatile matter... Not reported.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1.0 km.
Road requirement..... 9 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Reserves: Identified; 500 million short tons (46).

REFERENCES

8, 36, 46, 78-79, 102, 165,
269, 272-273, 417.

USGS quadrangle maps... Tyonek, D-5.

USBM sequence number... 0020840040.

SHORT CREEK

Map No: 94

Alternate names: Cache or Short Creek Mine,

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Talkeetna.
Mining district.. Yentna.
Coalfield..... Beluga-Yentna.
Elevation..... 520 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 14 km west of Petersville.

Meridian..... Seward.
Tract..... Sec. 36, T 28 N, R 10 W.
Latitude..... 62°28'50" N.
Longitude..... 151°02'22" W.

Owner..... Cache Creek Dredging Co.
Operator..... Do.

GEOLOGY

Formation name.... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 2 km.
Distance to power supply.. Onsite.

Initial production.. 1916.
Last production..... 1918.
Past production..... Not reported.
Annual production... Do.

Process rate..... 22 mt/d.
Product type..... Coal.
Distance shipped..... 14 km.
Destination..... Petersville.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

91, 102, 161, 185, 236, 265,
273, 278, 320, 339, 361, 392,
400, 417.

USGS quadrangle maps... Talkeetna, B-3.
USBM sequence number... 0020750035.

BLUFF CREEK

Map No: 95

Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Talkeetna.
Mining district.. Yentna.
Coalfield..... Beluga-Yentna.
Elevation..... 600 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 24 km northeast of
Petersville.

Meridian..... Seward.
Tract..... Sec. 23, T 30 N, R 07 W.
Latitude..... 62°40'40" N.
Longitude..... 150°31'55" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 5 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

102, 185, 265, 273, 320, 339, 417.

USGS quadrangle maps... Talkeetna, C-2.

USBM sequence number... 0020750036.

COAL CREEK

Map No: 96
Alternate name: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Mt. McKinley.
Mining district.. Kantishna.
Coalfield..... Nenana.
Elevation..... 1219 m.
Topography..... Rugged.
Domain..... National Park.

General location.. 41 km southwest of Toklat
Ranger Station.

Meridian..... Fairbanks.
Tract..... Sec. 36, T 18 S, R 17 W.
Latitude..... 63°18'23" N.
Longitude..... 150°42'57" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1.2 km.
Road requirement..... 15 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

72, 89, 101, 185, 273, 318, 320,
340, 417.

USGS quadrangle maps... Mt. McKinley, B-2.
USBM sequence number... 0020660046.

COAL CREEK

Map No: 97

Alternate names: Accolade Mines, Inc.,
Coal Creek Mine Complex

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonfield.
Coalfield..... Broad Pass.
Elevation..... 732 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 22 km southwest of Cantwell.

Meridian..... Fairbanks.
Tract..... Sec. 23, T 19 S, R 09 W.
Latitude..... 63°15'11" N.
Longitude..... 149°12'15" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... Not reported.
Heating value..... 6,395-11,100 Btu/lb (335).
Composition, %:
Ash..... 14.07-19.63.
Sulfur..... 0.15-0.26.
Moisture..... 28.32.
Volatile matter... 33.53-58.20.
Fixed carbon..... 24.08-41.80.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 2 km.

Initial production.. 1920.
Last production..... mid 1940's.
Past production..... 2,866 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 2 km.
Destination..... Railroad.

PUBLISHED RESERVES-RESOURCES

Resources: Strippable; 100,000 short tons (43).

REFERENCES

3, 19, 43, 72, 87, 95, 185, 234,
265, 268, 270, 273, 320, 323,
356-357, 361.

USGS quadrangle maps... Healy, B-5.

USBM sequence number... 0020670130.

BROAD PASS

Map No: 97

Alternate names: Broad Pass Mine Complex,
Archie Lewis Tunnel

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Broad Pass.
Elevation..... 671 m.
Topography..... Flat lying.
Domain..... Native.

General location.. 25 km southwest of Cantwell.

Meridian..... Fairbanks.
Tract..... Sec. 27, T 19 S, R 09 W.
Latitude..... 63°14'15" N.
Longitude..... 149°15'20" W.

Owner..... Broad Pass Coal and Development Co.
Operator..... W.A. Havner.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Horizontal, 2-9° S.
coal seam.
Coal seam average
dimensions, m.
Length..... 243.8.
Width..... Not reported.
Thickness..... 2.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... 5,720-11,670 Btu/lb (146).
Composition, %:
Ash..... 10.6-29.7.
Sulfur..... 0.2-0.5.
Moisture..... 21.8-35.8.
Volatile matter... 27.8-58.2.
Fixed carbon..... 20.7-46.3.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 1 km.

Initial production.. 1920.
Last production..... 1922.
Past production..... 1,306 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 2 km.
Destination..... Railroad.

PUBLISHED RESERVES-RESOURCES

Broad Pass field: Measured reserves; 10 million short tons (78).
Indicated reserves; 50 million short tons.
Hypothetical reserves: 500 million short tons.

REFERENCES

1, 3, 19, 21, 35, 43, 57-58, 73, 78,
136, 145-146, 174, 177, 185, 191, 193,
265, 268-269, 273, 320, 334-335, 342,
354-355, 361, 417, 421.

USGS quadrangle maps... Healy, A-5.

USBM sequence number... 0020670131.

W.E. DUNKLE COAL MINE

Map No: 98

Alternate names: Costello Creek Coal Mine,
Dunkle Camp Creek, Coal Creek, Camp Creek

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonfield.
Coalfield..... Unnamed.
Elevation..... 808 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 32 km southwest of Cantwell.

Meridian..... Fairbanks.
Tract..... Sec. 18, T 19 S, R 10 W.
Latitude..... 63°16'13" N.
Longitude..... 149°31'40" W.

Owner..... Henry Stevens and Frank Wells.
Operator..... Unknown.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 30° E, 10-12° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... 365.8.
Width..... Not reported.
Thickness..... 1.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Conglomerate lies under ore.
Coking ability..... No.
Heating value..... 9,700-13,580 Btu/lb (146).
Composition, %:
Ash..... 6.0-15.5.
Sulfur..... 0.4-0.8.
Moisture..... 14.3-18.8.
Volatile matter... 32.0-46.8.
Fixed carbon..... 36.9-55.8.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1911.
Discovery method... Prospecting.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 32 km.

Initial production.. 1940.
Last production..... 1954.
Past production..... 70,547 mt.
Annual production... Not reported.

Process rate..... Not reported.
Product type..... Coal.
Distance shipped..... Not reported.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Reserves: Measured; 33,670 short tons (351).
Indicated; 232,120 short tons.
Inferred; 134,480 short tons.

REFERENCES

1-3, 26, 35, 89, 91, 98, 145-146,
174, 185, 193, 234, 268, 270, 273,
303, 320, 334-335, 337, 342, 349,
351, 354-355, 367-368, 391, 402-403,
417, 421.

USGS quadrangle maps... Healy, B-6.

USBM sequence number... 0020670192.

STONY MOOSE DIVIDE

Map No: 99

Alternate names: Stony Creek West Fork,
Moose Creek Divide

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Mt. McKinley.
Mining district.. Kantishna.
Coalfield..... Nenana.
Elevation..... 1067 m.
Topography..... Rugged.
Domain..... National Park.

General location.. 16 km southwest of Toklat
Ranger Station.

Meridian..... Fairbanks.
Tract..... Sec. 12, T 17 S, R 15 W.
Latitude..... 63°27'21" N.
Longitude..... 150°21'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 80° E, 55° S.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 3.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale encloses ore.

Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 0.5 km.
Road requirement..... 4.5 km.
Distance to power supply.. Onsite.

Year of discovery.. 1919.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

89, 91, 93, 97, 101, 185, 211, 273,
289, 320, 340, 416-417.

USGS quadrangle maps... Mt. McKinley, B-1.
USBM sequence number... 0020660011.

SABLE MOUNTAIN

Map No: 100

Alternate names: Mile Post 39 Mt. McKinley
National Park

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Kantishna.
Coalfield..... Nenana.
Elevation..... 1067 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. 51 km southwest of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 31, T 15 S, R 11 W.
Latitude..... 63°34'00" N.
Longitude..... 149°46'05" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 80° W, 60° S.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 4.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sand encloses ore.
Gravel encloses ore.
Coking ability..... No.
Heating value..... 6,610 Btu/lb (416).
Composition, %:
Ash..... 9.3.
Sulfur..... 0.3.
Moisture..... 32.0.
Volatile matter... 34.6.
Fixed carbon..... 24.1.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.
Road requirement..... 1.0 km.
Distance to power supply.. 51 km.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 89, 185, 211, 265, 270,
273, 320, 416.

USGS quadrangle maps... Healy, C-6.
USBM sequence number... 0020670078.

POLYCHROME MOUNTAIN

Map No: 100

Alternate names: Polychrome Mine,
Alaska Road Commission, Mile Post 42
Mt. McKinley National Park

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Kantishna.
Coalfield..... Nenana.
Elevation..... 1097 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 56 km southwest of Healy.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 11, T 16 S, R 12 W.
Latitude..... 63°32'19" N.
Longitude..... 149°49'35" W.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° E, 30° S.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... 91.4.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... 9,050-12,500 Btu/lb (146).
Composition, %:
Ash..... 5.7-7.3.
Sulfur..... 0.5-0.6.
Moisture..... 21.8.
Volatile matter... 36.9-50.9.
Fixed carbon..... 35.6-49.1.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 56 km.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... Unknown.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 89, 145-146, 174, 185, 211,
264-265, 273, 289, 320, 416-417.

USGS quadrangle maps... Healy, C-6.

USBM sequence number... 0020670079.

TEKLANIKA RIVER

Map No: 101
Alternate names: None

Commodity: Bituminous & subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Kantishna.
Coalfield..... Nenana.
Elevation..... 701 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. 30 km southwest of Healy.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 29, T 13 S, R 10 W.
Latitude..... 63°45'49" N.
Longitude..... 149°32'35" W.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 7,150-7,631 Btu/lb (416).
Composition, %:
Ash..... 5.8-9.7.
Sulfur..... 0.2-0.3.
Moisture..... 27.8-28.7.
Volatile matter... 36.0-39.8.
Fixed carbon..... 25.6-26.6.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 5.5 km.
Distance to power supply.. 30 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 35, 43, 89, 93, 185, 211,
265, 268-269, 273, 289, 320, 354,
416, 427.

USGS quadrangle maps... Healy, D-6.
USBM sequence number... 0020670072.

SUSHANA

Map No: 101
Alternate names: None

Commodity: Bituminous & subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Kantishna.
Coalfield..... Nenana.
Elevation..... 762 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 37 km southwest of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 28, T 13 S, R 11 W.
Latitude..... 63°45'13" N.
Longitude..... 149°41'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel encloses ore.
Sand encloses ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (1).
Ash..... 8.2.
Sulfur..... 0.3.
Moisture..... Not reported.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.5 km.
Road requirement..... 9.5 km.
Distance to power supply.. 37 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 43, 93, 185, 211, 265,
268, 270, 273, 320, 416-417.

USGS quadrangle maps... Healy, D-6.

USBM sequence number... 0020670073.

SANCTUARY RIVER

Map No: 101
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 610 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 28 km southwest of Healy.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 16, T 13 S, R 10 W.
Latitude..... 63°47'16" N.
Longitude..... 149°30'15" W.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 6,560-6,810 Btu/lb (416).
Composition, %:
Ash..... 13.2.
Sulfur..... 0.3.
Moisture..... 28.6-30.9.
Volatile matter... 32.4-35.5.
Fixed carbon..... 22.7-23.5.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 7 km.
Distance to power supply.. 28 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 43, 89, 93, 185, 211, 265,
268, 270, 273, 289, 320, 416-417.

USGS quadrangle maps... Healy, D-6.

USBM sequence number... 0020670166.

SAVAGE RIVER

Map No: 102
Alternate names: None

Commodity: Bituminous & Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 914 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. 20 km southwest of Healy.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 21, T 13 S, R 09 W.
Latitude..... 63°46'07" N.
Longitude..... 149°18'58" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 20° E, 10° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone encloses ore.

Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1.2 km.
Road requirement..... 4.3 km.
Distance to power supply.. 20 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 35, 43, 89, 93, 95, 97, 185,
211, 265, 268, 270, 273, 289, 320,
416-417, 441.

USGS quadrangle maps... Healy, D-5.

USBM sequence number... 0020670071.

HINES CREEK

Map No: 103
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonfield.
Coalfield..... Nenana.
Elevation..... 914 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 18 km southwest of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 15, T 14 S, R 08 W.
Latitude..... 63°42'15" N.
Longitude..... 149°05'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.q
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.

Distance to water supply.. 1 km.
Road requirement..... 2 km.
Distance to power supply.. 18 km.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 95, 185, 265, 270, 273, 320,
421.

USGS quadrangle maps... Healy, C-5.

USBM sequence number... 0020670069.

YANERT COAL MINE

Map No: 104

Alternate names: Yanert Mine, Mile 341,
Mt. McKinley Bituminous Coal Mine

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 671 m.
Topography..... Gently rolling.
Domain..... National Park.

General location.. 24 km southeast of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 02, T 15 S, R 07 W.
Latitude..... 63°38'43" N.
Longitude..... 148°50'24" W.

Owner..... Mt. McKinley Bituminous Coal Corp.
Operator..... Do.

GEOLOGY

Formation name..... Cantwell.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 70° W, 40-60° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Conglomerate lies under ore.
Coking ability..... Not reported.
Heating value..... 10,590-14,220 Btu/lb (146).
Composition, %:
Ash..... 11.9-19.9.
Sulfur..... 0.4-0.8.
Moisture..... 4.2-7.7.
Volatile matter... 11.4-26.4.
Fixed carbon..... 56.8-73.6.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.

Distance to water supply.. 0.5 km.
Road requirement..... 1.6 km.
Distance to power supply.. 24 km.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. 1923.
Last production..... 1924.
Past production..... 106 mt.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 115 km.
Destination..... Nenana.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 59, 95, 145-146, 173-174, 185,
199, 211, 265, 268, 270, 273, 320,
334, 354-355, 381, 403, 416-417,
421, 454.

USGS quadrangle maps... Healy, C-4.

USBM sequence number... 0020670058.

MILE 353 PROSPECT

Map No: 105
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 640 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. 6 km south of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 08, T 13 S, R 07 W.
Latitude..... 63°48'00" N.
Longitude..... 148°57'52" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... No.
Heating values..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.

Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 0.6 km.
Distance to power supply.. 6 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 185, 265, 270, 273, 320, 417,
441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670191.

DRY CREEK COAL

Map No: 106

Alternate names: Diamond Strip Mine,
Otto Lake Mine, Ringstead Mine

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 625 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 5 km southwest of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 35, T 12 S, R 08 W.
Latitude..... 63°49'40" N.
Longitude..... 149°03'17" W.

Owner..... Diamond Coal Company.
Operator..... Gus Parris, Otto Maki, James Norris.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 66° W, 35° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 12.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Clay lies under ore.
Coking ability..... Not reported.
Heating value..... 8,480-12,135 Btu/lb (219).
Composition, %:
Ash..... 6.5-40.0.
Sulfur..... 0.1.
Moisture..... 8.3-34.3.
Volatile matter... 32.7-65.5.
Fixed carbon..... 17.6-41.2.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.

Distance to water supply.. 1 km.
Road requirement..... Existing.
Distance to power supply.. 5.5 km.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. 1943.
Last production..... 1946.
Past production..... 45,578 mt.
Annual production... 1943-7,095 mt,
1946-38,482 mt.

Process rate..... 74 mt/d.
Product type..... Coal.
Distance shipped..... 180 km.
Destination..... Fairbanks.

PUBLISHED RESERVES-RESOURCES

Reserves: Measured; 29,800 short tons; (359)
Inferred; 19,700 short tons.

REFERENCES

1, 3, 33, 87, 93, 95, 185, 193,
211, 219, 234, 265, 268, 270, 320,
359, 416-417, 421, 442, 444.

USGS quadrangle maps... Healy, D-5.

USBM sequence number... 0020670067.

PETERSON MINE

Map No: 107

Alternate names: New Mine, Healy River Coal Corp

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonfield.
Coalfield..... Nenana.
Elevation..... 457 m.
Topography..... Flat lying.
Domain..... State.

General location.. 1 km south of Healy.
Meridian..... Fairbanks.
Tract..... Sec. 29, T 12 S, R 07 W.
Latitude..... 63°51'00" N.
Longitude..... 148°57'55" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 1 km.

Initial production.. 1920.
Last production..... 1922.
Past production..... 35,273 mt.
Annual production... Not reported.

Process rate..... Not reported.
Product type..... Coal.
Distance shipped..... Not reported.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 185, 234, 265, 268, 270, 273,
320, 417, 441.

USGS quadrangle maps... Healy, D-4.
USBM sequence number... 0020670190.

MOODY CREEK

Map No: 108

Alternate names: Sugar Loaf No. 1

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonfield.
Coalfield..... Nenana.
Elevation..... 610 m.
Topography..... Rugged.
Domain..... State.

General location.. 9 km southeast of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 01, T 13 S, R 07 W.
Latitude..... 63°49'06" N.
Longitude..... 148°48'13" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Cantwell.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Conglomerate lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 5.1 km.
Distance to power supply.. 5.5 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 95, 185, 265, 270, 273, 320,
441, 444.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670052.

LIGNITE CREEK COAL

Map No: 109

Alternate names: Calderhead Mine, Arctic

Coal Co. Mine, Hosanna Creek, Hoseanna Creek

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.

Mining district.. Bonnifield.

Coalfield..... Nenana.

Elevation..... 457 m.

Topography..... Gently rolling.

Domain..... State.

General location.. 9 km northeast of Healy.

Meridian..... Fairbanks.

Tract..... Sec. 35, T 11 S, R 07 W.

Latitude..... 63°55'01" N.

Longitude..... 148°51'58" W.

Owner..... Carroll, Corey, Lander, Sczudlo, and Somers.

Operator..... Arctic Coal Company.

GEOLOGY

Formation name..... Suntrana.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of coal seam. Flat-lying, 6° N.

Coal seam average dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 12.2.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.

Clay lies under ore.

Coking ability..... Not reported.

Heating value..... 7,570-11,820 Btu/lb (146).

Composition, %:

Ash..... 9.5-12.9.

Sulfur..... 0.2-0.3.

Moisture..... 26.5.

Volatile matter... 35.8-55.9.

Fixed carbon..... 28.2-44.1.

DEVELOPMENT

Current status..... Past producer.

Type of operation.. Surface.

Year of discovery.. Late 1800's.

Discovery method... Unknown.

Initial production.. 1919.

Last production..... 1921.

Past production..... Not reported.

Annual production... Do.

Distance to water supply.. 1.0 km.

Road requirement..... Existing.

Distance to power supply.. 7 km.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... Unknown.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 24, 30, 35, 37, 46, 54, 57-58,
72, 74, 87, 89-90, 92-93, 95, 131,
136, 145-146, 159, 169, 174, 185, 193,
211, 219, 229, 244-245, 268, 270, 320,
323, 333, 355, 361, 366, 416-417, 421,
441, 445-449, 461.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670064.

USIBELLI COAL MINE

Map No: 109

Alternate names: Usibelli Strip, Gold Run
Pass, Poker Flats, Two Bull Ridge

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 492 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 5.5 km northeast of Healy.

Owner..... Usibelli Coal Mine, Inc.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 14, T 12 S, R 06 W.
Latitude..... 63°54'30" N.
Longitude..... 148°55'35" W.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of East-west, 10-30° S.
coal seam.
Coal seam average Seams 3,4,& 6.
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 6.
Depth..... Outcrop - 42.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... 7,022-12,124 Btu/lb (268).
Composition, %:
Ash..... 7.66-22.32.
Sulfur..... 0.12-0.28.
Moisture..... 23.61-25.68.
Volatile matter... 32.80-55.28.
Fixed carbon..... 26.54-46.78.

DEVELOPMENT

Current status..... Producer.
Type of operation.. Surface.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Do.
Mill location..... On-site.
Mill status..... Active.
Mill method..... Crusher.

Initial production.. 1943.
Last production..... Present.
Past production..... 17.8 Mmt.
Annual production... 1.8 Mmt.

Process rate..... 1.6 Mmt/d
Product type..... Coal.
Distance shipped..... 583 km.
Destination..... Fairbanks and Seward.

PUBLISHED RESERVES-RESOURCES

Reserves: All leases; 250 million short tons (357).
Poker Flats; 28 million short tons (153).
Two Bull Ridge; 38 million short tons (153).

REFERENCES

1, 3-5, 7, 19, 21, 24-25, 33, 35, 43,
78-80, 127, 136, 138-140, 151, 153,
164-165, 184, 189-193, 195, 207, 211,
219, 225, 234, 255, 257-259, 265-266,
268-270, 272-273, 285, 302-303, 305,
328, 333-335, 337, 342-343, 345, 354-355,
361-362, 369, 404, 407, 414, 416-417, 425,
427-428, 433-436, 441, 449, 470.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670090.

HEALY CREEK ADITS

Map No: 110
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 655 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 19 km east of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 07, T 12 S, R 05 W.
Latitude..... 63°52'59" N.
Longitude..... 148°35'44" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of East-west.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. 0.5 km.
Road requirement..... 4 km.
Distance to power supply.. 19 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 26, 33, 35, 43-44, 63, 72-73,
87, 89-91, 93, 95, 136, 145, 169-170,
174, 193, 211, 265, 268, 270, 273, 291,
320, 333, 355, 361, 366, 416-417, 441,
445-447.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670183.

UPPER HEALY CREEK MINE

Map No: 110
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 693 m.
Topography..... Flat-lying.
Domain..... State.

General location.. 17 km east of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 13, T 12 S, R 06 W.
Latitude..... 63°52'46" N.
Longitude..... 148°37'50" W.

Owner..... Usibelli Coal Mine, Inc.
Operator..... Unknown.

GEOLOGY

Formation name.... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of East-west, 35° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating value..... 8,290-12,160 Btu/lb (146).
Composition, %:
Ash..... 4.4-6.1.
Sulfur..... 0.2.
Moisture..... 27.4.
Volatile matter... 34.7-50.9.
Fixed carbon..... 33.5-49.1.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 3 km.
Distance to power supply.. 17 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 35, 43-44, 145-146, 174, 185,
265, 270, 273, 320, 354, 417, 442,
445-448.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670184.

ROTH-TAYLOR MINE

Map No: 110

Alternate names: Roth & Manley, Alaska
Cannel Coal Corp., Coal Leasing Block No. 28

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonfield.
Coal Creek..... Nenana.
Elevation..... 640 m.
Topography..... Steep slope.
Domain..... State.

General location.. 15 km east of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 14, T 12 S, R 06 W.
Latitude..... 63°52'26" N.
Longitude..... 148°40'26" W.

Owner..... Usibelli Coal Mine, Inc.
Operator..... Unknown.

GEOLOGY

Formation name.... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of East-west, 30-45° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 15.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating value..... 8,390-13,130 Btu/lb (146).
Composition, %:
Ash..... 3.3-12.1.
Sulfur..... 0.1-0.3.
Moisture..... 16.2-24.3.
Volatile matter... 37.9-52.5.
Fixed carbon..... 29.0-48.1.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 15 km.

Initial production.. 1923.
Last production..... 1924.
Past production..... 827 mt.
Annual production... 1923 - 176 mt,
1924 - 650 mt.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 187 km.
Destination..... Fairbanks.

PUBLISHED RESERVES-RESOURCES

Resources: Measured; 50,800 short tons (234).
Indicated; 13,100 short tons.
Inferred; 342,900 short tons.

REFERENCES

1, 3, 26, 33, 43, 92, 145-146,
174, 185, 234, 265, 270, 273,
290, 320, 377, 379-381, 402,
417, 421, 441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670185.

CRIPPLE CREEK MINE

Map No: 110

Alternate names: Healy Fork

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 579 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 13 km east of Healy on
Cripple Creek.

Meridian..... Fairbanks.
Tract..... Sec. 15, T 12 S, R 06 W.
Latitude..... 63°52'13" N.
Longitude..... 148°42'40" W.

Owner..... Grace, Ben, & Mary L. Shallit, & Brigham Young University.
Operator..... Unknown.

GEOLOGY

Formation name.... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° E, 35° N.
coal seam.
Coal seam average
dimensions, m.
Length..... 71.1.
Width..... Not reported.
Thickness..... 5.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating value..... 6,540-12,200 Btu/lb (146).
Composition, %:
Ash..... 4.1-24.3.
Sulfur..... 0.1-0.4.
Moisture..... 23.9-25.9.
Volatile matter... 31.2-58.7.
Fixed carbon..... 24.9-48.4.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 13 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 583 km.
Destination..... Fairbanks.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 24, 43, 145-146, 174, 185,
234, 265, 270, 273, 320, 417, 441.

USGS quadrangle maps... Healy, D-4.
USBM sequence number... 0020670186.

CRIPPLE CREEK WEST

Map No: 110
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 678 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 12 km east of Healy on
Cripple Creek.

Meridian..... Fairbanks.
Tract..... Sec. 21, T 12 S, R 06 W.
Latitude..... 63°51'57" N.
Longitude..... 148°43'50" W.

Owner..... Grace, Ben, & Mary L. Shallit, & Brigham Young University.
Operator..... Unknown.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° E, 40° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 5.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating Value..... 6,540-12,180 Btu/lb (146).
Composition, %:
Ash..... 8.5-24.3.
Sulfur..... 0.2-0.4.
Moisture..... 23.9-25.9.
Volatile matter... 31.2-58.7.
Fixed carbon..... 24.9-44.4.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. 1.3 km.
Road requirement..... 0.5 km.
Distance to power supply.. 12 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 145-146, 174, 185, 265, 270,
273, 320, 417, 441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670187.

FRENCH CREEK

Map No: 110

Alternate names: French Gulch

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 503 m.
Topography..... Steep slope.
Domain..... State.

General location.. 10 km east of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 20, T 12 S, R 06 W.
Latitude..... 63°51'53" N.
Longitude..... 148°45'39" W.

Owner..... Usibelli Coal Mine, Inc.
Operator..... Do.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 6.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 10 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 33, 43, 185, 265, 270, 273,
320, 417, 441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670188.

SUNTRANA MINE

Map No: 110

Alternate names: New Suntrana (Hill) Mine,
Old Suntrana Mine, Healy River Coal Corp.

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonfield.
Coalfield..... Nenana.
Elevation..... 510 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 6 km east of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 23, T 12 S, R 07 W.
Latitude..... 63°51'32" N.
Longitude..... 148°52'37" W.

Owner..... Daniel E. Renshaw.
Operator..... Unknown.

GEOLOGY

Formation name.... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° E, 27-33° N.
coal seam.
Coal seam average
dimensions, m.
Length..... 19,000.
Width..... Not reported
Thickness..... 8.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... 7,290-13,180 Btu/lb (146).
Composition, %:
Ash..... 3.5-16.5.
Sulfur..... 0.1-0.6.
Moisture..... 18.2-29.3.
Volatile matter... 34.7-59.1.
Fixed carbon..... 27.6-49.2.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 6 km.

Initial production.. 1922.
Last production..... 1962.
Past production..... Not reported.
Annual production... Do.

Process rate..... 300 mt/d.
Product type..... Coal.
Distance shipped..... 187 km.
Destination..... Fairbanks, Cordova,
and Anchorage.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 20, 26, 33, 35, 44, 91, 136,
145-146, 174, 185, 193-194, 211, 219,
243, 257, 265, 267-268, 270, 273, 290,
303, 320, 333, 336, 354, 361, 367-368,
377-378, 381, 383, 387, 402, 416-417,
421, 441, 444-445, 449-450.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670189.

GOLD RUN PASS NO. 2

Map No: 111
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 686 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 14 km northeast of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 03, T 12 S, R 06 W.
Latitude..... 63°54'32" N.
Longitude..... 148°42'31" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. 1 km.
Road requirement..... 9 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 185, 265, 270, 273, 320, 417,
441.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670181.

GOLD RUN PASS NO. 1

Map No: 111
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 879 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 15 km northeast of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 02, T 12 S, R 06 W.
Latitude..... 63°54'08" N.
Longitude..... 148°42'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. 2.1 km.
Road requirement..... 2 km.
Distance to power supply.. 15 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 185, 265, 268, 270, 273, 320,
356, 417.

USGS quadrangle maps... Healy, D-4.

USBM sequence number... 0020670182.

MOOSE SEAM

Map No: 112
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 594 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 14 km northeast of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 28, T 11 S, R 06 W.
Latitude..... 63°56'15" N.
Longitude..... 148°44'52" W.

Owner..... Usibelli Coal Mine, Inc.
Operator..... Unknown.

GEOLOGY

Formation name.... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 6.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... 8,953-12,627 Btu/lb (268).
Composition, %:
Ash..... 7.68-9.77.
Sulfur..... 0.15-0.21.
Moisture..... 16.81-21.42.
Volatile matter... 36.02-50.81.
Fixed carbon..... 34.88-49.19.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 6 km.
Distance to power supply.. 14 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 185, 234, 265, 268, 270, 273,
320, 333, 337, 441.

USGS quadrangle maps... Healy, D-4.
USBM sequence number... 0020670102.

CARIBOU SEAM

Map No: 112
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 700 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 14 km northeast of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 28, T 11 S, R 06 W.
Latitude..... 63°56'07" N.
Longitude..... 148°43'50" W.

Owner..... Usibelli Coal Mine, Inc.
Operator..... Unknown.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 5.06.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... 8,567-12,464 Btu (269).
Composition, %:
Ash..... 9.34-11.96.
Sulfur..... 0.13-0.20.
Moisture..... 21.93.
Volatile matter... 35.88-52.20.
Fixed carbon..... 32.85-47.80.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. 1 km.
Road requirement..... 8 km.
Distance to power supply.. 14 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 185, 265, 268, 270, 273, 320,
333, 337, 441.

USGS quadrangle maps... Healy, D-4.
USBM sequence number... 0020670150.

NENANA RIVER COAL

Map No: 113
Alternate names: Burns Mine,
Alaska RR Mile 362

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 366 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 5 km northwest of Healy.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 06, T 12 S, R 06 W.
Latitude..... 63°53'57" N.
Longitude..... 149°00'30" W.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... 610.
Width..... Not reported.
Thickness..... 1.5.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 8,080-11,240 Btu/lb (146).
Composition, %:
Ash..... 3.6-5.1.
Sulfur..... 0.2.
Moisture..... 28.2.
Volatile matter... 34.5-48.1.
Fixed carbon..... 33.7-46.8.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.5 km.
Road requirement..... 0.1 km.
Distance to power supply.. 6 km.

Initial production.. 1919.
Last production..... Do.
Past production..... 8,047 mt.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 87 km.
Destination..... Nenana.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 55, 74, 78, 95, 145-146, 174, 185, 245,
265, 268, 270, 273, 320, 417,442, 456.

USGS quadrangle maps... Healy D-5.
USBM sequence number... 0020670063.

MILE 363 MINE

Map No: 113

Alternate names: Mt. McKinley Park
Station Prospect

Commodity: High volatile A bituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 412 m.
Topography..... Flat-lying.
Domain..... State.

General location.. 6 km northwest of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 01, T 12 S, R 08 W.
Latitude..... 63°54'32" N.
Longitude..... 149°01'18" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal body average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.
Coking ability..... No.
Heating value..... 13,250-13,600 Btu/lb (146).
Composition, %:
Ash..... 9.3-9.6.
Sulfur..... 0.3.
Moisture..... 2.6.
Volatile matter... 35.7-36.7.
Fixed carbon..... 52.4-53.7.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.5 km.
Road requirement..... Do.
Distance to power supply.. 6 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 3, 74, 91, 145-146, 174, 185, 211, 265,
270, 273, 320, 355, 416-417, 442.

USGS quadrangle maps... Healy, D-5.
USBM sequence number... 0020670180.

CALIFORNIA CREEK SOUTH

Map No: 114
Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.
Mining district.. Bonfield.
Coalfield..... Nenana.
Elevation..... 671 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 99 km southwest of Fairbanks.

Meridian..... Fairbanks.
Tract..... Sec. 27, T 10 S, R 06 W.
Latitude..... 64°01'12" N.
Longitude..... 148°41'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Flat-lying.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 3.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel encloses ore.
Coking ability..... Not reported.
Heating value..... 4,710-11,760 Btu/lb (146).
Composition, %:
Ash..... 15.8-43.5.
Sulfur..... 0.2-0.8.
Moisture..... 25.7-38.2.
Volatile matter... 23.8-60.5.
Fixed carbon..... 16.4-48.2.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 3 km.
Distance to power supply.. 21 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

California Creek area: Inferred resources; 200 million short tons (88).

REFERENCES

87, 89, 95, 145-146, 185, 265, 273,
317, 320, 417, 421, 468.

USGS quadrangle maps... Fairbanks, A-4.
USBM sequence number... 0020580140.

LYNN MINE

Map no: 115

Alternate names: Mile 387

Commodity: Subbituminous & lignite

LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 213 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 103 km southeast of Fairbanks.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 12, T 08 S, R 09 W.
Latitude..... 64°14'02" N.
Longitude..... 149°15'30" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 5 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... 2,205 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... Unknown.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

74, 95, 185, 265, 273, 317, 320,
417, 439.

USGS quadrangle maps... Fairbanks, A-5.

USBM sequence number... 0020580138.

CALIFORNIA CREEK

Map No: 116
Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 457 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 88 km southwest of Fairbanks.

Owner..... Unknown.
Operator..... Do.

Meridian..... Fairbanks.
Tract..... Sec. 15, T 09 S, R 06 W.
Latitude..... 64°07'56" N.
Longitude..... 148°44'08" W.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Flat-lying.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 3.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel encloses ore.
Coking ability..... Not reported.
Heating value..... 4,710-11,760 Btu/lb (146).
Composition, %:
Ash..... 15.8-43.5.
Sulfur..... 0.2-0.8.
Moisture..... 25.7-38.2.
Volatile matter... 23.8-60.5.
Fixed carbon..... 16.4-48.2.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 23 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

California Creek area: Inferred resources; 200 million short tons (88).

REFERENCES

87, 89, 95, 145-146, 185, 265, 273,
317, 320, 417, 421, 438.

USGS quadrangle maps... Fairbanks, A-4.
USBM sequence number... 0020580139.

TATLANIKA

Map No: 117

Alternate names: Tatlanika Creek

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Fairbanks.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 488 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 82 km southwest of Fairbanks.

Meridian..... Fairbanks.
Tract..... Sec. 24, T 09 S, R 04 W.
Latitude..... 64°07'16" N.
Longitude..... 148°14'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Suntrana.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 2.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Gravel encloses ore.
Coking ability..... Not reported.
Heating value..... 7,290-11,720 Btu/lb (146).
Composition, %:
Ash..... 18.1-22.6.
Sulfur..... 0.3-0.4.
Moisture..... 19.7.
Volatile matter... 37.6-60.2.
Fixed carbon..... 24.6-39.8.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 54 km.
Distance to power supply.. 44 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

95, 145-146, 185, 265, 273, 317,
320, 417, 421, 437.

USGS quadrangle maps... Fairbanks, A-3.
USBM sequence number... 0020580141.

MYSTIC CREEK

Map No: 118
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Healy.
Mining district.. Bonnifield.
Coalfield..... Nenana.
Elevation..... 1044 m.
Topography..... Steep slope.
Domain..... State.

General location.. 54 km northeast of Healy.

Meridian..... Fairbanks.
Tract..... Sec. 14, T 11 S, R 02 W.
Latitude..... 63°58'05" N.
Longitude..... 147°53'13" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 4.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 45 km.
Distance to power supply.. 54 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Mystic Creek Field: resources; High assurance; 10 million short tons (269).
Moderate assurance; 25 million short tons.
Low assurance; 50 million short tons.

REFERENCES

3, 30, 72, 87-95, 185, 266, 268-269,
273, 320, 323, 361, 417, 440.

USGS quadrangle maps... Healy, D-2.

USBM sequence number... 0020670094.

COAL CREEK

Map No: 119

Alternate names: Clearwater Creek

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.
Mining district.. Valdez Creek.
Coalfield..... Unnamed.
Elevation..... 1280 m.
Topography..... Steep slope.
Domain..... BLM-administrated.

General location.. 75 km east of Paxson.

Meridian..... Fairbanks.
Tract..... Sec. 15, T 20 S, R 04 E.
Latitude..... 63°11'01" N.
Longitude..... 146°56'46" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 3.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.
Coking ability..... Not reported.
Heating value..... 10,000-12,930 Btu/lb (346).
Composition, %:
Ash..... 8.5-9.9.
Sulfur..... 0.3.
Moisture..... 14.1.
Volatile matter... 40.3-52.0.
Fixed carbon..... 37.1-48.0.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 14 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 346, 350, 361,
417.

USGS quadrangle maps... Mt. Hayes, A-6.

USBM sequence number... 0020680026.

LITTLE GOLD CREEK COAL

Map No: 120

Alternate names: Jarvis Creek Coal Mine,
Delta River, Ruby Creek, Ober Creek,
V.M. Smith, Sargent Creek, Little Gold Creek

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.
Mining district.. Delta River.
Coalfield..... Nenana.
Elevation..... 853 m.
Topography..... Gentle slope.
Domain..... BLM-administrated.

General location.. 71 km north of Paxson.

Meridian..... Fairbanks.
Tract..... Sec. 31, T 14 S, R 11 E.
Latitude..... 63°39'46" N.
Longitude..... 145°41'51" W.

Owner..... Delta Coal Company.
Operator..... Do.

GEOLOGY

Formation name..... Healy Creek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of NNW, 5-10°.
coal seam.
Coal seam average
dimensions, m.
Length..... 1,371.6.
Width..... 121.9.
Thickness..... 3.1.
Depth..... 11.9.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Claystone lies under ore.
Coking ability..... No.
Heating value..... 7,800-9,500 Btu/lb (265).
Composition, %:
Ash..... 5.0-15.0.
Sulfur..... 0.3-1.5.
Moisture..... 20.0-25.0.
Volatile matter... 35.0-45.0.
Fixed carbon..... 25.0-35.0.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1950.
Last production..... 1972.
Past production..... 5,512 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 201 km.
Destination..... Fairbanks.

PUBLISHED RESERVES-RESOURCES

Resources: High assurance; 30 million short tons (268).
Moderate assurance; 85 million short tons.
Low assurance; 175 million short tons.

REFERENCES

1, 17, 21, 35, 78-80, 110, 136, 164-165,
171, 185, 191, 211, 265-266, 268-270, 273,
282-283, 287, 299, 305, 320, 328, 333,
337, 354-355, 361, 416-417, 420-421, 425,
427-428, 433, 446-447, 455.

USGS quadrangle maps... Mt. Hayes, C-4.

USBM sequence number... 0020680017.

CHISNA COAL

Map No: 121

Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.
Mining district.. Chistochina.
Coalfield..... Unnamed.
Elevation..... 280 m.
Topography..... Steep slope.
Domain..... State.

General location.. 9 km northeast of Chisna.

Meridian..... Fairbanks.
Tract..... Sec. 30, T 20 S, R 16 E.
Latitude..... 63°08'49" N.
Longitude..... 144°45'22" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 0.32 (Fuel ratio) (262).
Composition, %:
Ash..... 4.28.
Sulfur..... Not reported.
Moisture..... 15.91.
Volatile matter... 60.35.
Fixed carbon..... 19.46.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 9 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 262-264, 265, 273, 320.

USGS quadrangle maps... Mt. Hayes, A-2.

USBM sequence number... 0020680082.

CALIFORNIA

Map No: 121
Alternate names: Slate Creek

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Mt. Hayes.
Mining district.. Chistochina.
Coalfield..... Unnamed.
Elevation..... 1219 m.
Topography..... Steep slope.
Domain..... State.

General location.. 10.5 km north of Chisna.

Meridian..... Fairbanks.
Tract..... Sec. 22, T 20 S, R 15 E.
Latitude..... 63°10'05" N.
Longitude..... 144°50'25" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 10.5 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 128, 185, 214, 265, 272,
320, 417.

USGS quadrangle maps... Mt. Hayes, A-2.
USBM sequence number... 0020680085.

FOURTH OF JULY CREEK

Map No: 122
Alternate names: None

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... McCarthy.
Mining district.. Nizina.
Coalfield..... Unnamed.
Elevation..... 1798 m.
Topography..... Steep Slope.
Domain..... National Park.

General location.. 15 km northwest of McCarthy.

Meridian..... Copper River.
Tract..... Sec. 24, T 04 S, R 12 E.
Latitude..... 61°30'48" N.
Longitude..... 143°08'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Frederika.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Horizontal.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1.5 km.
Road requirement..... 15 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

54, 185, 226, 265, 273, 293,
296-297, 320, 417.

USGS quadrangle maps... McCarthy, C-6.

USBM sequence number... 0020870114.

LIGNITE CREEK

Map No: 123

Alternate names: Coal Creek, Rocker Creek

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... McCarthy.
Mining district.. Chisana.
Coalfield..... Unnamed.
Elevation..... 1219 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. 59 km southeast of Chisna.

Meridian..... Copper River.
Tract..... Sec. 16, T 01 N, R 24 E.
Latitude..... 61°52'28" N.
Longitude..... 141°00'20" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Frederika.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (294).
Ash..... 8.8.
Sulfur..... Not reported.
Moisture..... 14.85.
Volatile matter... 47.20.
Fixed carbon..... 29.15.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 17 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

88, 96, 185, 226, 258, 265, 273,
289, 294-295, 320, 417.

USGS quadrangle maps... McCarthy, D-1.
USBM sequence number... 0020870121.

CASEMENT GLACIER COAL

Map No: 124

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Juneau.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 61 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. 58 km north of Gustavus.

Meridian..... Copper River.
Tract..... Sec. 07, T 34 S, R 57 E.
Latitude..... 58°56'05" N.
Longitude..... 135°58'57" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1959.
Discovery method... Unknown.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 227, 265, 273, 320.

USGS quadrangle maps... Juneau, D-6.

USBM sequence number... 0021120180.

SULLIVAN

Map No: 125

Alternate names: Point Sullivan Coal,
Sullivan Island.

Commodity: Lignite & bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 3 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 1.5 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 31, T 50 S, R 68 E.
Latitude..... 57°30'05" N.
Longitude..... 134°33'25" W.

Owner..... Unknown.

Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 200.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Do.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 417, 430,
432, 469.

USGS quadrangle maps... Sitka, C-2.
USBM sequence number... 0021140169.

BRIGHTMAN & DEGROFF

Map No: 125
Alternate names: Lighter Creek

Commodity: Lignite & bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 3 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 6.5 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 27, T 50 S, R 68 E.
Latitude..... 57°30'50" N.
Longitude..... 134°28'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 348, 417,
430, 432, 469.

USGS quadrangle maps... Sitka, C-2.
USBM sequence number... 0021140170.

MEADE & MITCHELL SEAM

Map No: 125

Alternate names: Lighter Creek 2

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 3 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 9 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 23, T 50 S, R 68 E.
Latitude..... 57°31'15" N.
Longitude..... 134°26'45" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal seam average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Do.

Initial production.. 1896.
Last production..... Do.
Past production..... A few mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 9 km.
Destination..... Angoon.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 348, 417,
430, 432, 469.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140171.

DIAMOND ISLAND

Map No: 125

Alternate names: None

Commodity: Lignite & bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 3 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 11 km northeast of Angoon.

Meridian..... Copper River.
Tract..... Sec. 12, T 50 S, R 68 E.
Latitude..... 57°32'57" N.
Longitude..... 134°25'25" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 10 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 469.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140172.

HARKRADER COAL

Map No: 125

Alternate names: McClusky Mine, Admiralty
Island Coal Co., SE Alaska Coal Co.,
Kanalku Bay Coal

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 3 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 8 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 35, T 50 S, R 68 E.
Latitude..... 57°29'55" N.
Longitude..... 134°26'45" W.

Owner..... Robert Hurley & others.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Flat-lying.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.76.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies under ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 9,930-14,210 Btu/lb (146).
Composition, %:
Ash..... 21.4-24.6.
Sulfur..... 0.9-1.7.
Moisture..... 3.8-6.4.
Volatile matter... 34.3-48.6.
Fixed carbon..... 36.3-52.9.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. 1928.
Last production..... 1932.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 128 km.
Destination..... Juneau.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 15, 145-146, 174, 185, 265,
273, 320, 348, 373, 379-386, 388-390,
417, 430, 432, 469.

USGS quadrangle maps... Sitka, B-2.

USBM sequence number... 0021140215.

UNNAMED MINE 3

Map No: 125
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 30 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 9 km northeast of Angoon.

Meridian..... Copper River.
Tract..... Sec. 14, T 50 S, R 68 E.
Latitude..... 57°31'55" N.
Longitude..... 134°26'47" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 10 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140226.

LIGHTER CREEK

Map No: 125
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 18 m.
Topography..... Gentle slope.
Domain..... National Wilderness.

General location.. 7 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 23, T 50 S, R 68 E.
Latitude..... 57°31'22" N.
Longitude..... 134°27'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140227.

UNNAMED MINE 2

Map No: 125
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 34 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 7 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 23, T 50 S, R 68 E.
Latitude..... 57°31'01" N.
Longitude..... 134°27'13" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of coal seam. Not reported.
Coal seam average dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140278.

DAVIS CREEK

Map No: 125

Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 31 m.
Topography..... Gentle slope.
Domain..... National Wilderness.

General location.. 8 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 26, T 50 S, R 68 E.
Latitude..... 57°30'25" N.
Longitude..... 134°26'47" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140229.

UNNAMED MINE 1

Map No: 125
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 12 m.
Topography..... Flat-lying.
Domain..... National Wilderness.

General location.. 5 km east of Angoon.

Meridian..... Copper River.
Tract..... Sec. 33, T 50 S, R 68 E.
Latitude..... 57°30'04" N.
Longitude..... 134°30'13" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, C-2.

USBM sequence number... 0021140230.

SEPPHAGEN

Map No: 126
Alternate names: None

Commodity: Lignite & Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 3 m.
Topography..... Gentle slope.
Domain..... National Wilderness.

General location.. 4 km east of Killisnoo.

Meridian..... Copper River.
Tract..... Sec. 04, T 51 S, R 68 E.
Latitude..... 57°28'40" N.
Longitude..... 134°30'15" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1895.
Discovery method... Unknown.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 348, 417,
430, 432, 469.

USGS quadrangle maps... Sitka, B-2.

USBM sequence number... 0021140167.

FIRESTONE MINE

Map No: 126
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 15 m.
Topography..... Gentle slope.
Domain..... National Wilderness.

General location.. 3 km southeast of Angoon.

Meridian..... Copper River.
Tract..... Sec. 05, T 50 S, R 68 E.
Latitude..... 57°28'30" N.
Longitude..... 134°32'52" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1880.
Last production..... Do.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 3 km.
Destination..... Angoon.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Sitka, B-2.

USBM sequence number... 0021140225.

MURDER COVE

Map No: 127

Alternate names: Datewell Mine

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 152 m.
Topography..... Gentle slope.
Domain..... National Wilderness.

General location.. 2 km northwest of Tye.

Meridian..... Copper River.
Tract..... Sec. 35, T 55 S, R 68 E.
Latitude..... 57°03'45" N.
Longitude..... 134°33'40" W.

Owner..... Admiralty Coal & Fuel Company.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.5.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 11,200-11,880 Btu/lb (146).
Composition, %:
Ash..... 17.1-18.1.
Sulfur..... 0.3.
Moisture..... 5.7.
Volatile matter... 30.3-32.1.
Fixed carbon..... 46.9-49.8.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1868.
Discovery method... Unknown.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 77, 145-146, 174, 185, 222,
224, 265, 273, 320, 348, 373,
417, 430, 467-469.

USGS quadrangle maps... Sitka, A-2.

USBM sequence number... 0021140164.

POINT GARDINER

Map No: 127
Alternate names: None

Commodity: Bituminous

LOCATION-OWNERSHIP

Quadrangle..... Sitka.
Mining district.. Admiralty.
Coalfield..... Unnamed.
Elevation..... 10 m.
Topography..... Gentle slope.
Domain..... National Wilderness.

General location.. 49 km south of Angoon.

Meridian..... Copper River.
Tract..... Sec. 16, T 56 S, R 68 E.
Latitude..... 57°01'50" N.
Longitude..... 134°36'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kootznahoo.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320.

USGS quadrangle maps... Sitka, A-2.

USBM sequence number... 0021140231.

COAL CREEK

Map No: 128

Alternate names: Coal Creek Coal, Lituya Bay Coal

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Mt. Fairweather.
Mining district.. Juneau.
Coalfield..... Unnamed.
Elevation..... 152 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. South side of Lituya Bay.

Meridian..... Copper River.
Tract..... Sec. 29, T 37 S, R 48 E.
Latitude..... 58°37'50" N.
Longitude..... 137°31'45" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Cenotaph.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (227).
Ash..... 29.0-29.7.
Sulfur..... 0.5.
Moisture..... 2.4.
Volatile matter... 34.6-35.5.
Fixed carbon..... 34.0-34.8.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

77, 185, 227, 265, 273, 320, 417.

USGS quadrangle maps... Mt. Fairweather, C-5.

USBM sequence number... 0021110019.

LITUYA BAY COAL CLAIM

Map No: 129

Alternate names: Coal Creek

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Mt. Fairweather.
Mining district.. Juneau.
Coalfield..... Unnamed.
Elevation..... 30 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 15 km northwest of
Lituya Bay.

Meridian..... Copper River.
Tract..... Sec. 18, T 36 S, R 46 E.
Latitude..... 58°44'37" N.
Longitude..... 137°47'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Cenotaph.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (227).
Ash..... 29.0-29.7.
Sulfur..... 0.5.
Moisture..... 2.4.
Volatile matter... 34.6-35.5.
Fixed carbon..... 34.0-34.8.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

77, 185, 227, 265, 273, 320, 373,
417.

USGS quadrangle maps... Mt. Fairweather, C-6.
USBM sequence number... 0021110120.

DALTON MINE

Map No: 130

Alternate names: Dalton Tunnel, Esker Stream

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Yakatat.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 99 m.
Topography..... Gentle slope.
Domain..... National Park.

General location.. 43 km north of Yakatat.

Meridian..... Copper River.
Tract..... Sec. 17, T 23 S, R 33 E.
Latitude..... 59°55'40" N.
Longitude..... 139°47'30" W.

Owner..... Jack Dalton/Jewell Brothers & Associates.
Operator..... Do.

GEOLOGY

Formation name..... Kulthieth.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale encloses ore.

Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1891.
Discovery method... Prospecting.

Distance to water supply.. 0.1 km.
Road requirement..... 4 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 319-320, 411-412, 417.

USGS quadrangle maps... Yakatat, D-5.

USBM sequence number... 0021080012.

DUKTOTH RIVER

Map No: 131

Alternate names: Yakataga

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Duktoth River.

Elevation..... 610 m.

Topography..... Steep slope.

Domain..... Native.

Owner..... Unknown.

Operator..... Do.

General location.. 29 km north of Cape
Yakataga.

Meridian..... Copper River.

Tract..... Sec. 25, T 18 S, R 17 E.

Latitude..... 60°19'30" N.

Longitude..... 142°27'00" W.

GEOLOGY

Formation name..... Kulthieth.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 80° E, 35° N.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.2.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale encloses ore.

Coking ability..... Not reported.

Heating value..... Do.

Composition, %: (146).

Ash..... 23.5-23.7.

Sulfur..... 0.7.

Moisture..... 1.0.

Volatile matter... 11.5-11.6.

Fixed carbon..... 64.0-64.7.

DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. Unknown.

Discovery method... Do.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 25 km.

Distance to power supply.. 29 km.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

52-53, 145-146, 170, 174, 185,
239, 265, 273, 284, 320, 366,
417.

USGS quadrangle maps... Bering Glacier, B-4.

USBM sequence number... 0020970014.

WARDALL RIDGE

Map No: 132

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Bering River.

Elevation..... 122 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 39 km northeast of Katalla.

Meridian..... Copper River.

Tract..... Sec. 10, T 17 S, R 08 E.

Latitude..... 60°25'00" N.

Longitude..... 143°58'00" W.

Owner..... Unknown.

Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 65° E, 45° NW.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.7.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale lies over ore.

Sandstone lies under ore.

Coking ability..... Not reported.

Heating value..... 12,360-14,680 Btu/lb (146).

Composition, %:

Ash..... 1.2-7.3.

Sulfur..... 0.6-0.7.

Moisture..... 3.1-5.3.

Volatile matter... 15.6-18.5.

Fixed carbon..... 70.3-82.6.

DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1896.

Discovery method... Unknown.

Initial production.. Not reported.

Last production.... Do.

Past production.... Do.

Annual production... Do.

Distance to water supply.. 1 km.

Road requirement..... 5 km.

Distance to power supply.. Onsite.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 170, 174, 185, 239, 265,
273, 320, 366, 417, 421.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970015.

CANYON CREEK

Map No: 132

Alternate names: Davis Camp, Davis Mine

Commodity: Anthracite

High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Bering River.

Elevation..... 244 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 43 km northeast of Katalla.

Meridian..... Copper River.

Tract..... Sec. 01, T 17 S, R 08 E.

Latitude..... 60°25'52" N.

Longitude..... 143°55'30" W.

Owner..... Unknown.

Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 80° E, 35° W.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.4.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale lies over ore.

Sandstone lies under ore.

Coking Ability..... Not reported.

Heating value..... 11,890-15,200 Btu/lb (146).

Composition, %:

Ash..... 9.2-15.5.

Sulfur..... 0.6-0.8.

Moisture..... 7.4-7.8.

Volatile matter... 6.9-8.9.

Fixed carbon..... 71.3-91.2.

DEVELOPMENT

Current status..... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1896.

Discovery method... Unknown.

Initial production.. Not reported.

Last production..... Do.

Past production..... Do.

Annual production... Do.

Distance to water supply.. 0.1 km.

Road requirement..... 5 km.

Distance to power supply.. Onsite.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

39, 57, 73, 145-146, 174, 185,
224, 237-239, 241, 244, 246, 248,
265, 273, 320, 400, 417.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970016.

CLEAR CREEK 1

Map No: 132

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.

Mining district.. Yakataga.

Coalfield..... Bering River.

Elevation..... 488 m.

Topography..... Steep slope.

Domain..... Native.

General location.. 40 km northeast of Katalla.

Meridian..... Copper River.

Tract..... Sec. 03, T 17 S, R 08 E.

Latitude..... 60°25'25" N.

Longitude..... 143°59'00" W.

Owner..... Unknown.

Operator..... Do.

GEOLOGY

Formation name.... Kushtaka.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 90° E, 67° N.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 2.7.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Shale lies over ore.

Sandstone lies under ore.

Coking ability..... Not reported.

Heating value..... 12,350-15,830 Btu/lb (146).

Composition, %:

Ash..... 1.7-13.5.

Sulfur..... 0.6-3.4.

Moisture..... 1.2-6.6.

Volatile matter... 8.7-14.6.

Fixed carbon..... 71.5-90.7.

DEVELOPMENT

Current status.... Exploration prospect.

Type of operation.. Prospect.

Year of discovery.. 1896.

Discovery method... Unknown.

Distance to water supply.. 0.1 km.

Road requirement..... 7 km.

Distance to power supply.. Onsite.

Initial production.. Not reported.

Last production.... Do.

Past production.... Do.

Annual production... Do.

Process rate..... Not reported.

Product type..... Do.

Distance shipped..... Do.

Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

39, 145-146, 174, 185, 224, 239, 241,
248, 265, 273, 320, 417, 421.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970017.

CARBON MOUNTAIN

Map No: 132
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 427 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 44 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 06, T 17 S, R 09 E.
Latitude..... 60°25'40" N.
Longitude..... 143°53'50" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 80° W, 20-25° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lie over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 12,140-15,490 Btu/lb (146).
Composition, %:
Ash..... 2.1-14.9.
Sulfur..... 0.6-1.4.
Moisture..... 3.0-13.9.
Volatile matter... 5.0-11.4.
Fixed carbon..... 73.9-91.7.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 6 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

39, 145-146, 174, 185, 224, 238-239,
241, 244, 246, 248, 265, 273, 320,
361, 417.

USGS quadrangle maps... Bering Glacier, B-8.
USBM sequence number... 0020970019.

SECOND BERG LAKE

Map No: 132
Alternate names: None

Commodity: Anthracite

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 427 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 48 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 33, T 16 S, R 09 E.
Latitude..... 60°26'50" N.
Longitude..... 143°50'00" W.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 85° W, 32° NE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (146).
Ash..... 4.9-5.1.
Sulfur..... 1.1.
Moisture..... 3.7.
Volatile matter... 5.4-5.6.
Fixed carbon..... 86.0-89.3.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 11 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 174, 185, 224, 239, 241,
248, 265, 273, 320, 417.

USGS quadrangle maps... Bering Glacier, B-8.
USBM sequence number... 0020970020.

FOURTH BERG LAKE

Map No: 132
Alternate names: Sheep Creek

Commodity: Anthracite

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 366 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 51 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 22, T 16 S, R 09 E.
Latitude..... 60°28'10" N.
Longitude..... 143°48'00" W.

GEOLOGY

Formation name.... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 76° W, 55° SW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (146).
Ash..... 20.5-22.2.
Sulfur..... 2.9-3.1.
Moisture..... 7.7.
Volatile matter... 5.8-6.3.
Fixed carbon..... 66.0-71.5.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 1 km.
Road requirement..... 14 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Past production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 174, 185, 224, 239, 241,
248, 265, 273, 320, 417.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970021.

BERING RIVER

Map No: 132
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 305 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 35 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 22, T 17 S, R 08 E.
Latitude..... 60°23'00" N.
Longitude..... 143°59'55" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 4.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 11,000-15,000 Btu/lb (78).
Composition, %:
Ash..... 2-18.
Sulfur..... 0.1-1.0.
Moisture..... 1-8.
Volatile matter... 13-17.
Fixed carbon..... 65-91.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 2 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Bering River field: Resources; Identified; 110 million short tons (80).
Hypothetical; 3,500 million short tons.

REFERENCES

35, 44, 52, 62, 68, 78-80, 238-239,
244, 246, 273, 357, 361, 417, 421.

USGS quadrangle maps... Bering Glacier, B-8.
USBM sequence number... 0020970024.

HARTLINE MINE

Map No: 132

Alternate names: Partline Mine

Commodity: Anthracite

LOCATION-OWNERSHIP

Quadrangle..... Bering Glacier.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 549 m.
Topography..... Steep slope.
Domain..... BLM-administrated.

General location.. 42 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 36, T 17 S, R 08 E.
Latitude..... 60°26'42" N.
Longitude..... 143°55'23" W.

GEOLOGY

Formation name.... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 7 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 239, 265, 273, 320, 417.

USGS quadrangle maps... Bering Glacier, B-8.

USBM sequence number... 0020970025.

TROUT CREEK MINE

Map No: 133

Alternate names: Cunningham Prospect

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 137 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 36 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 07, T 17 S, R 08 E.
Latitude..... 60°25'14" N.
Longitude..... 144°03'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 65° E, 38° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... 182.9.
Width..... Not reported.
Thickness..... 2.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 13,870-15,730 Btu/lb (146).
Composition, %:
Ash..... 3.0-10.4.
Sulfur..... 0.6-0.7.
Moisture..... 1.0-2.7.
Volatile matter... 16.2-18.5.
Fixed carbon..... 72.3-82.6.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. 1896.
Discovery method... Unknown.

Initial production.. 1905.
Last production..... Do.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 36 km.
Destination..... Katalla.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

39, 145-146, 174, 185, 211, 224,
239, 246, 248, 265, 273, 320, 328,
416-417, 454.

USGS quadrangle maps... Cordova, B-1.
USBM sequence number... 0020960087.

CLEAR CREEK 2

Map No: 133

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 335 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 36 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 21, T 17 S, R 08 E.
Latitude..... 60°23'00" N.
Longitude..... 144°00'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 65° E, 49° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 12,350-15,830 Btu/lb (146).
Composition, %:
Ash..... 1.7-13.5.
Sulfur..... 0.6-3.4.
Moisture..... 1.2-6.6.
Volatile matter... 8.7-14.6.
Fixed carbon..... 71.5-90.7.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 2 km.
Road requirement..... 1 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

34, 145-146, 174, 185, 224, 239,
273, 320, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960088.

LAKE CHARLOTTE

Map No: 133
Alternate names: Charlotte Seam

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 76 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 33 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 04, T 17 S, R 07 E.
Latitude..... 60°25'58" N.
Longitude..... 144°10'18" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 12° E, 72° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 6,883 Btu/lb (238).
Composition, %:
Ash..... 20.72.
Sulfur..... 0.55.
Moisture..... 0.68.
Volatile matter... 17.87.
Fixed carbon..... 60.73.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Underground.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 7 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 238-239, 241, 246, 273, 320,
417.

USGS quadrangle maps... Cordova, B-1.
USBM sequence number... 0020960099.

BERING RIVER COAL N.

Map No: 134

Alternate names: Bering River Coal Co.,
Cunningham Claim, Shield's Prospect,
Kushtaka Ridge, Carbon Camp, Carbon Ridge

Commodity: High volatile B bituminous
Anthracite

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 518 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 30 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 22, T 17 S, R 07 E.
Latitude..... 60°23'26" N.
Longitude..... 144°09'16" W.

Owner..... Chugach Alaska Corporation.
Operator..... Bering Development Corporation.

GEOLOGY

Formation name.... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 40° E, 45° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not determined.
Heating value..... 5,500-15,750 Btu/lb (146).
Composition, %:
Ash..... 1.8-59.0.
Sulfur..... 0.3-5.3.
Moisture..... 1.0-9.4.
Volatile matter... 13.0-17.0.
Fixed carbon..... 65.0-91.0.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 1.5 km.
Road requirement..... 13 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Reserves: Identified; 58 million short tons (164).

REFERENCES

7, 10, 13, 15, 21, 35, 39, 44, 64,
53-58, 136, 145-146, 164-165, 174,
185, 211, 224, 235. 237-239, 341-342,
244, 246, 248, 265-266, 269, 273, 320,
328, 354-357, 361, 377-387, 389-390,
400, 405, 410, 416-417, 425, 427-428,
433, 454.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960054.

LEEPER TUNNEL SITE

Map No: 134
Alternate names: Nevada Creek

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 244 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 29 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 21, T 17 S, R 07 E.
Latitude..... 60°23'15" N.
Longitude..... 144°11'05" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 90° E, 78° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 5.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Slight.
Heating value..... 14,171-15,761 Btu/lb (224).
Composition, %:
Ash..... 6.06-6.31.
Sulfur..... 1.11-1.16.
Moisture..... 4.01.
Volatile matter... 12.46-13.85.
Fixed carbon..... 77.47-86.15.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 0.8 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 224, 239, 241, 265, 273,
320, 331, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960091.

TOKUN CREEK

Map No: 134
Alternate names: Tokum Creek

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 229 m.
Topography..... Steep slope.
Domain..... National Forest.

General location.. 25 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 23, T 17 S, R 06 E.
Latitude..... 60°23'00" N.
Longitude..... 144°16'51" W.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 78° W, 40° NE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (146).
Ash..... 10.3-10.8.
Sulfur..... 1.1-1.2.
Moisture..... 4.4.
Volatile matter... 12.0-12.5.
Fixed carbon..... 73.3-76.7.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. 0.1 km.
Road requirement..... 6 km.
Distance to power supply.. Onsite.

Year of discovery.. 1896.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 25 km.
Destination..... Katalla.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 174, 185, 224, 239, 241,
248, 265, 273, 320, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960093.

CARBON CREEK COMPLEX

Map No: 134

Alternate names: Upper & Lower Tunnels,
Shields Prospect Tunnel, Carbon Tunnel

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 53 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 28 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 20, T 17 S, R 07 E.
Latitude..... 60°22'55" N.
Longitude..... 144°12'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 65° E, 60-78° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Fair.
Heating value..... Not reported.
Composition, %: (146).
Ash..... 3.6-3.8.
Sulfur..... 1.6.
Moisture..... 4.2.
Volatile matter... 13.4-14.0.
Fixed carbon..... 78.8-82.2.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. 0.1 km.
Road requirement..... 2.1 km.
Distance to power supply.. Onsite.

Year of discovery.. 1896.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 28 km.
Destination..... Katalla.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

39, 73, 145, 147, 185, 224, 238-239,
241, 246, 248, 265, 273, 320, 328,
356, 392, 417, 454.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960094.

SHEPERD CREEK

Map no: 134

Alternate names: Canoe Landing, Shepard Creek

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 119 m.
Topography..... Gentle slope.
Domain..... National Forest.

General location.. 26 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 30, T 17 S, R 07 E.
Latitude..... 60°21'49" N.
Longitude..... 144°14'19" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 20° E, 65° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.1.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 7,644 Btu/lb (238).
Composition, %:
Ash..... 10.89.
Sulfur..... 0.69.
Moisture..... 1.54.
Volatile matter... 14.58.
Fixed carbon..... 72.99.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 0.1 km.
Road requirement..... 4 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 238-239, 241, 246, 265, 273,
320, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960096.

KENTUCKY MINE

Map No: 134
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 91 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 29 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 22, T 17 S, R 07 E.
Latitude..... 60°23'02" N.
Longitude..... 144°08'46" W.

GEOLOGY

Formation name.... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Underground.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. 0.2 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 29 km.
Destination..... Katalla.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 239, 265, 273, 320.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960092.

NEVADA CREEK TUNNEL

Map No: 134
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 34 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 28 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 20, T 17 S, R 07 E.
Latitude..... 60°22'50" N.
Longitude..... 144°12'41" W.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 90° E, 78° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 5.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %: (146).
Ash..... 4.9-5.2.
Sulfur..... 0.6.
Moisture..... 6.0.
Volatile matter... 13.0-13.8.
Fixed carbon..... 76.1-81.0.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 28 km.
Destination..... Katalla.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 174, 185, 224, 239, 241,
265, 273, 320, 417.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960095.

BERING RIVER COAL S.

Map No: 135

Alternate names: Christopher's Tunnel, Dick Creek

Commodity: High volatile B bituminous
Anthracite

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 305 m.
Topography..... Steep slope.
Domain..... National Forest.

General location.. 21 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 12, T 18 S, R 06 E.
Latitude..... 60°19'57" N.
Longitude..... 144°16'43" W.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 20° W, 25° NE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 3.1.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 11,720-15,190 Btu/lb (146).
Composition, %:
Ash..... 2.6-18.3.
Sulfur..... 0.7-3.7.
Moisture..... 5.5-6.0.
Volatile matter... 12.9-16.7.
Fixed carbon..... 64.3-88.1.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. 0.1 km.
Road requirement..... 2 km.
Distance to power supply.. Onsite.

Year of discovery.. 1896.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 44, 52, 65, 145-146, 174, 185,
238-239, 241, 244, 246, 248, 265,
273, 320, 400, 417, 421.

USGS quadrangle maps... Cordova, B-1.

USBM sequence number... 0020960055.

MCDONALD MINE

Map No: 135

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 351 m.
Topography..... Steep slope.
Domain..... National Forest.

General location.. 20 km northeast of Katalla.

Meridian..... Copper River.
Tract..... Sec. 13, T 18 S, R 06 E.
Latitude..... 60°19'10" N.
Longitude..... 144°16'09" W.

Owner..... T. P. McDonald, and Harry Dugdale.
Operator..... Unknown.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 4.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 11,000-15,640 Btu/lb (146).
Composition, %:
Ash..... 9.0-18.2.
Sulfur..... 0.6-2.9.
Moisture..... 1.0-8.6.
Volatile matter... 13.5-19.7.
Fixed carbon..... 65.0-83.6.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1907.
Last production..... 1916.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 20 km.
Destination..... Katalla.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

39, 54, 145-146, 174, 185, 239,
265, 273, 320, 354-355, 400,
417.

USGS quadrangle maps... Cordova, B-1.
USBM sequence number... 0020960097.

BERING LAKE TUNNEL

Map No: 135
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Cordova.
Mining district.. Yakataga.
Coalfield..... Bering River.
Elevation..... 152 m.
Topography..... Steep slope.
Domain..... National Forest.

General location.. 19 km northeast of Katalla.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 14, T 18 S, R 06 E.
Latitude..... 60°19'05" N.
Longitude..... 144°17'19" W.

GEOLOGY

Formation name..... Kushtaka.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 40° E, 52° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.0.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 14,070-14,830 Btu/lb (146).
Composition, %:
Ash..... 5.0-5.3.
Sulfur..... 1.2-1.3.
Moisture..... 5.1.
Volatile matter... 13.9-15.5.
Fixed carbon..... 76.0-84.5.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1896.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1906.
Last production..... 1916.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 19 km.
Destination..... Katalla.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

39, 44, 52, 54, 67-68, 145-146,
174, 185, 224, 238-241, 246, 265,
273, 320, 373, 417.

USGS quadrangle maps... Cordova, B-1.
USBM sequence number... 0020960098.

BOULDER CREEK COAL

Map No: 136
Alternate names: None

Commodity: Semianthracite

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 975 m.
Topography..... Steep slope.
Domain..... State.

General location.. 67 km northeast of Palmer.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 06, T 21 N, R 08 E.
Latitude..... 61°56'25" N.
Longitude..... 148°04'00" W.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 11° W, 20° NE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating values..... Do.
Composition, %: (170).
Ash..... 8.66-9.14.
Sulfur..... 0.43-0.50.
Moisture..... 5.27.
Volatile matter... 35.50-41.24.
Fixed carbon..... 50.57-58.76.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 19 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

83, 112, 143, 156, 170, 181-182,
185, 221, 224, 248-249, 252, 265,
267, 273, 307, 320, 366, 417.

USGS quadrangle maps... Anchorage, D-3.
USBM sequence number... 0020850195.

ANTHRACITE RIDGE

Map No: 137

Alternate names: Anthracite Hill

Commodity: Anthracite

High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 1280 m.
Topography..... Steep slope.
Domain..... State.

General location.. 59 km northeast of Palmer.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 12, T 20 N, R 07 E.
Latitude..... 61°50'25" N.
Longitude..... 148°06'15" W.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° W, 40° S.
coal seam.
Coal seam average
dimensions, m.
Length..... 30.5.
Width..... Not reported.
Thickness..... 4.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Yes.
Heating value..... 10,120-14,960 Btu/lb (146).
Composition, %:
Ash..... 3.8-23.5.
Sulfur..... 0.2-0.8.
Moisture..... 1.9-7.2.
Volatile matter... 7.1-39.8.
Fixed carbon..... 44.2-91.4.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1898.
Discovery method... Military exploration.

Distance to water supply.. 0.1 km.
Road requirement..... 3.5 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Anthracite Ridge field: High assurance; 4.5 million short tons (267).
Moderate assurance; 10 million short tons.
Low assurance; 20 million short tons.

REFERENCES

1, 33, 35, 40, 72, 78, 83, 91-92, 112,
143, 145-146, 156, 170, 174, 181-182,
185, 191, 221, 224, 247-248, 252,
265-267, 269, 273, 320, 337, 342,
344, 354-355, 361, 366, 417, 454.

USGS quadrangle maps... Anchorage, D-3.

USBM sequence number... 0020850193.

CHICKALOON

Map No: 138

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 300 m.
Topography..... Steep bluff.
Domain..... State.

General location.. 41 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 25, T 20 N, R 05 E.
Latitude..... 61°47'50" N.
Longitude..... 148°27'45" W.

Owner..... Navy Alaska Coal Commission.
Operator..... Do.

GEOLOGY

Formation name.... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 50-70° N, 65-85° S.
coal seam.
Coal seam average
dimensions, m.
Length..... 304.8.
Width..... Not reported.
Thickness..... 1.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Good.
Heating value..... 10,270-15,480 Btu/lb (146).
Composition, %:
Ash..... 8.0-30.1.
Sulfur..... 0.5-0.9.
Moisture..... 1.2-3.5.
Volatile matter... 15.0-23.9.
Fixed carbon..... 53.5-79.7.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1911.
Last production..... 1922.
Past production..... 27,557 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 98 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Chickaloon field: Resources: High assurance; 20.5 million short tons (270).
Moderate assurance; 30 million short tons.
Low assurance; 40 million short tons.

REFERENCES

1, 33, 35, 40, 53-54, 58-59, 70, 73-74,
78, 91-92, 111-112, 136, 143, 145-146,
151-152, 156, 169-170, 174, 181-182,
184-185, 221, 224, 236-237, 247-249,
252, 257, 261, 265-267, 269, 273, 307,
320, 328, 342, 352, 366, 381, 403, 406,
416-417, 421, 454.

USGS quadrangle maps... Anchorage, D-4.

USBM sequence number... 0020850189.

COAL CREEK

Map No: 138

Alternate names: Ross Heckey, Heckey Mine

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 300 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 36 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 31, T 20 N, R 06 E.
Latitude..... 61°46'45" N.
Longitude..... 148°25'40" W.

Owner..... Navy Alaska Coal Commission.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 64° E, 70° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Good.
Heating value..... 11,400-15,530 Btu/lb (146).
Composition, %:
Ash..... 5.8-23.3.
Sulfur..... 0.4-1.0.
Moisture..... 1.1-4.1.
Volatile matter... 13.8-27.0.
Fixed carbon..... 56.3-83.6.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1921.
Last production..... 1930.
Past production..... 1,819 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 98 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Identified reserves; 2 million short tons (267).

REFERENCES

1, 35, 57-58, 70, 91-92, 111-112, 121,
143, 145-146, 156, 170, 174, 181-182,
221, 224, 248-249, 252, 265, 267, 273,
290, 307, 320, 366, 368, 377, 378-386,
403; 417, 454.

USGS quadrangle maps... Anchorage, D-4.

USBM sequence number... 0020850190.

MATANUSKA RIVER COAL

Map No: 138

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 490 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 44 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 33, T 20 N, R 06 E.
Latitude..... 61°46'37" N.
Longitude..... 148°22'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 36° E, 44° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,670-13,600 Btu/lb (146).
Composition, %:
Ash..... 18.6-20.7.
Sulfur..... 0.3-0.4.
Moisture..... 10.3.
Volatile matter... 24.8-34.8.
Fixed carbon..... 46.3-65.2.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 1.5 km.
Distance to power supply.. 2 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

52, 62, 112, 143, 145-146, 156,
170, 174, 181-182, 221, 235, 241,
248-249, 252, 267, 273, 366, 406.

USGS quadrangle maps... Anchorage, D-4.
USBM sequence number... 0020850192.

CASTLE MOUNTAIN MINE

Map No: 139

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 700 m.
Topography..... Steep slope.
Domain..... State.

General location.. 38 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 21, T 20 N, R 05 E.
Latitude..... 61°48'57" N.
Longitude..... 148°32'50" W.

Owner..... Robert W. Gore.
Operator..... Unknown.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 22° W, 37° NE.
coal seam.
Coal seam average
dimensions, m.
Length..... 75.
Width..... 22.9.
Thickness..... 2.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Yes.
Heating value..... 12,258-15,238 Btu/lb (333).
Composition, %:
Ash..... 17.78-18.10.
Sulfur..... 0.46-0.57.
Moisture..... 1.08-1.78.
Volatile matter... 28.23-35.10.
Fixed carbon..... 52.20-64.90.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1958.
Last production..... 1960.
Past production..... 22,855 mt.
Annual production... 1958-11,564 mt,
1960-11,291 mt.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 134 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Castle Mountain field: Resources; High assurance; 6.5 million short tons (270).
Moderate assurance; 10 million short tons.
Low assurance; 25 million short tons.

REFERENCES

8, 21, 112, 143, 156, 181-182, 185,
221, 232, 247-249, 265, 267, 269,
271, 273, 320, 328, 333, 471, 454,
459.

USGS quadrangle maps... Anchorage, D-5.

USBM sequence number... 0020850167.

RED MOUNTAIN

Map No: 140

Alternate names: None

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 1097 m.
Topography..... Steep slope.
Domain..... State.

General location.. 32 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 23, T 20 N, R 04 E.
Latitude..... 61°48'12" N.
Longitude..... 148°41'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 67° E, 54° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 3.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 11,230-13,300 Btu/lb (146).
Composition, %:
Ash..... 5.1-5.7.
Sulfur..... 0.2-0.3.
Moisture..... 10.6.
Volatile matter... 33.80-40.1.
Fixed carbon..... 50.5-59.9.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 6 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

70, 112, 143, 145-146, 156, 174,
181-182, 185, 221, 248, 265, 267,
273, 320, 417.

USGS quadrangle maps... Anchorage, D-5.
USBM sequence number... 0020850184.

YOUNG CREEK

Map No: 140
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 483 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 29 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 34, T 20 N, R 04 E.
Latitude..... 61°46'29" N.
Longitude..... 148°41'45" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 15° E, 20° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.5.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 11,230-13,430 Btu/lb (146).
Composition, %:
Ash..... 5.1-10.6.
Sulfur..... 0.2-0.6.
Moisture..... 2.5-10.6.
Volatile matter... 28.3-40.1.
Fixed carbon..... 50.5-60.4.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 6 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Young Creek field: Resources; High assurance; 2.5 million short tons (267).
Moderate assurance; 5 million short tons.
Low assurance; 8 million short tons.

REFERENCES

90, 112, 143, 145-146, 156, 174,
181-182, 185, 221, 224, 248-249,
252, 265, 267, 273, 307, 320,
366, 405, 417.

USGS quadrangle maps... Anchorage, D-5.

USBM sequence number... 0020850185.

KINGS RIVER

Map No: 140

Alternate names: Kings Creek

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 300 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 33 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 31, T 20 N, R 05 E.
Latitude..... 61°47'15" N.
Longitude..... 148°37'40" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 18° E, 18° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... 402.
Width..... Not reported.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Fair.
Heating value..... 11,690-15,470 Btu/lb (146).
Composition, %:
Ash..... 8.6-16.5.
Sulfur..... 0.1-0.7.
Moisture..... 1.8-6.6.
Volatile matter... 3.9-27.8.
Fixed carbon..... 58.5-95.6.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 3.5 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

70, 92, 101, 111-112, 143, 145-146,
156, 170, 174, 181-182, 185, 221,
224, 248-249, 252, 265, 267, 273,
307, 320, 366, 402, 406, 417.

USGS quadrangle maps... Anchorage, D-5.

USBM sequence number... 0020850187.

CARPENTER CREEK

Map No: 141

Alternate names: C-SL #1, C-SL #2,
C-RF #1, C-RF #2, C-DM #1

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 270 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 31 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 18, T 19 N, R 05 E.
Latitude..... 61°44'30" N.
Longitude..... 148°36'35" W.

Owner..... Ron Frasier.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 75° W, 17° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 2 km.
Distance to power supply.. 2.5 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

112, 143, 156, 181-182, 185, 221,
248, 265, 267, 273, 290, 320, 417.

USGS quadrangle maps... Anchorage, C-5.
USBM sequence number... 0020850186.

WILLIAM RHINEHART & ASSOCS.

Map No: 142

Alternate names: Granite Coal Mine

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 260 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 22 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 18, T 19 N, R 04 E.
Latitude..... 61°44'07" N.
Longitude..... 148°47'47" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Flat lying.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method.,. Do.

Distance to water supply.. 0.1 km.
Road requirement..... 1.0 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

112, 143, 156, 181-182, 185, 221,
248, 265, 273, 324, 417.

USGS quadrangle maps... Anchorage, C-5.
USBM sequence number... 0020850183.

EVAN JONES

Map No: 143

Alternate names: Evan Jones Coal Co.,
Jonesville Mine Complex

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 427 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 17 km northeast of Palmer.

Owner..... Placer U.S. Inc.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 17, T 19 N, R 03 E.
Latitude..... 61°43'52" N.
Longitude..... 148°56'05" W.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 70° E, 30-50° S.
coal seam.
Coal seam average
dimensions, m.
Length..... 1,432.6.
Width..... Not reported.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Poor.
Heating value..... 10,290-14,400 Btu/lb (146).
Composition, %:
Ash..... 8.1-24.5.
Sulfur..... 0.2-0.6.
Moisture..... 2.0-8.9.
Volatile matter... 33.7-49.0.
Fixed carbon..... 37.4-54.4.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. 1921.
Last production..... 1968.
Past production..... 6.6 Mmt.
Annual production... Not reported.

Process rate..... 200 mt/d.
Product type..... Coal.
Distance shipped..... 97 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Reserves: Identified; 100 million short tons (267).

REFERENCES

1, 8, 20, 24, 26, 35, 40, 42, 44, 57-58,
73, 91-92, 112, 121, 143, 145-146,
151-152, 156, 174-177, 181-182, 184-185,
191, 207, 211-212, 215, 219, 221, 234,
247-248, 256, 265, 267, 269, 273,290,
309, 320, 328, 333, 337, 342, 352,
354-355, 361, 367-368, 377, 378-391,
402-403, 416-417, 421, 427, 443, 451,
454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850181.

ESKA MINE

Map No: 143

Alternate names: Eska Creek, Knob Creek,
Alaska Engineering Commission, McCauley
Prospect, Eska Complex.

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 290 m.
Topography..... Gentle Slope.
Domain..... State.

General location.. 18 km northeast of Palmer.

Owner..... The Alaska Railroad.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 16, T 19 N, R 03 E.
Latitude..... 61°44'15" N.
Longitude..... 148°54'40" W.

GEOLOGY

Origin..... Sedimentation.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 60° E, 30-40° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... 304.8.
Width..... Not reported.
Thickness..... 2.9.
Depth..... Outcrop.

Geologic age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... No.
Heating value..... 9,630-14,610 Btu/lb (146).
Composition, %:
Ash..... 5.5-28.9.
Sulfur..... 0.3-0.6.
Moisture..... 2.7-6.4.
Volatile matter... 34.3-49.0.
Fixed carbon..... 33.6-53.9.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1917.
Last production..... 1945.
Past production..... 236,993 mt.
Annual production... Not reported.

Process rate..... 100 mt/d.
Product type..... Coal.
Distance shipped..... 98 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Reserves: 1.15 million short tons (74).

REFERENCES

1, 26, 33, 42-44, 57-58, 70, 74, 90-92,
111-112, 121, 136, 143, 145-146, 151,
156, 169, 174, 177, 181-182, 184-185,
206, 211, 219, 221, 224, 236-237, 240,
247-249, 252, 265, 267, 273, 303, 307,
320, 342, 352, 354-355, 361, 366-368,
379-391, 402-403, 406, 416-417, 421,
451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850182.

KNOB CREEK COMPLEX

Map No: 143

Alternate names: Knob Creek Mine, Mrak
Coal Mine, South Knob Creek Mine

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 465 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 20 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 15, T 19 N, R 03 E.
Latitude..... 61°44'30" N.
Longitude..... 148°52'48" W.

Owner..... Knob Creek Coal Company.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 10,200 Btu/lb (267).
Composition, %:
Ash..... 9.0.
Sulfur..... 0.4.
Moisture..... Not reported.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. 20 km.

Initial production.. 1953.
Last production..... 1966.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 113 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Resources: Estimated; 27 million short tons (267).

REFERENCES

1, 24, 35, 42, 112, 121, 143, 156,
175-176, 181-182, 185, 212, 221,
247-249, 265, 267, 273, 320, 417,
451, 454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850260.

SOUTH EVAN JONES MINE

Map No: 143
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 533 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 17 km northeast of Palmer.

Meridian..... Seward.
Tract..... Sec. 17, T 19 N, R 03 E.
Latitude..... 61°44'32" N.
Longitude..... 148°56'10" W.

Owner..... Rock Springs Royalty Company.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.

Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 1 km.
Road requirement..... Existing.
Distance to power supply.. 1 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

8, 112, 143, 156, 181-182, 185,
221, 248, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-6.
USBM sequence number... 0020850281.

NORTH EVAN JONES MINE

Map No: 143

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 472 m.
Topography..... Steep slope.
Domain..... State.

General location.. 11 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 13, T 19 N, R 02 E.
Latitude..... 61°44'23" N.
Longitude..... 148°59'46" W.

Owner..... Rock Springs Royalty Company.
Operator..... Do.

GEOLOGY

Formation name.... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter.. Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.3 km.
Road requirement..... 2 km.
Distance to power supply.. 4.6 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

8, 112, 143, 156, 181-182, 185,
221, 248, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-6.
USBM sequence number... 0020850282.

PREMIER MINE

Map No: 144

Alternate names: Agostino Mine, Alaska
Bituminous Coal Co., Alaska Matanuska Coal Co.,
Anchorage Coal Co., Paul Omlin

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 335 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 10 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 23, T 19 N, R 02 E.
Latitude..... 61°42'08" N.
Longitude..... 149°05'31" W.

Owner..... Hawley Resources Properties, Inc./Rocky Mountain Energy.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 33° E, 70° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Sandstone lies under ore.
Coking ability..... Yes - strong.
Heating value..... 11,090-14,310 Btu/lb (145).
Composition, %:
Ash..... 6.3-17.4.
Sulfur..... 0.2-0.4.
Moisture..... 4.2-5.8.
Volatile matter... 37.6-44.1.
Fixed carbon..... 40.8-55.9.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Do.

Initial production.. 1925.
Last production..... 1983.
Past production..... 176,367 mt.
Annual production... Not reported.

Process rate..... 100 mt/d.
Product type..... Coal.
Distance shipped..... 99.8 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Reserves: Indicated; 370,000 short tons (453).
Inferred; 500,000 short tons.

REFERENCES

1, 8, 12-13, 20, 26, 33, 45, 42, 44,
78, 112, 121, 143, 145, 156, 164-165,
174-175, 181-182, 188, 211, 219, 265,
267, 273, 290, 320, 328, 333, 337, 342,
355, 377-386, 402, 416-417, 421, 427-428,
433, 435-436, 451, 454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850168.

DOHERTY MINE

Map No: 144

Alternate names: Pioneer Mine, Doherty
Coal Co., Pioneer Mining Company

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 140 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 9 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 02, T 18 N, R 02 E.
Latitude..... 61°40'53" N.
Longitude..... 149°01'50" W.

Owner..... O. Shearer, and H. Wilcox.
Operator..... Unknown.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 67° E, 45° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Slight.
Heating value..... 10,460-11,260 Btu/lb (146).
Composition, %:
Ash..... 19.8-20.7.
Sulfur..... 0.5.
Moisture..... 4.3-7.1.
Volatile matter... 31.6-35.6.
Fixed carbon..... 41.0-44.1.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. 1916.
Last production..... 1953.
Past production..... 55,115 mt.
Annual production... Not reported.

Process rate..... 80 mt/d.
Product type..... Coal.
Distance shipped..... 80 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 20, 42, 44, 92, 111-112, 143,
145-146, 156, 169, 181-182, 185,
221, 240, 247-248, 265, 267, 273,
320, 379-386, 400, 417, 436.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850178.

HOWARD-JESSON

Map No: 144

Alternate names: Leroy Permit, Matanuska
Center, Alaska Matanuska Coal Company

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 370 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 15 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 23, T 19 N, R 02 E.
Latitude..... 61°43'40" N.
Longitude..... 149°02'35" W.

Owner..... Hawley Resources Properties, Inc.
Operator..... Do.

GEOLOGY

Formation name.... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 32° E, 65° S.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 10,590-14,070 Btu/lb (146).
Composition, %:
Ash..... 9.5-20.1.
Sulfur..... 0.2-1.4.
Moisture..... 5.5-5.8.
Volatile matter... 35.8-47.6.
Fixed carbon..... 39.4-53.6.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Surface-underground.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. 1929.
Last production.... Do.
Past production.... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 85 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

8, 20, 112, 143, 145-146, 156, 174,
181-182, 221, 247-248, 267, 273,
290, 380, 417, 421.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850179.

BUFFALO MINE

Map No: 144

Alternate names: Buffalo Coal Company

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 312 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 19 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 23, T 19 N, R 02 E.
Latitude..... 61°43'18" N.
Longitude..... 149°03'18" W.

Owner..... Hawley Resource Properties, Inc.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 41° E, 52-65° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... 625.
Width..... Not reported.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Poor.
Heating value..... 8,420-14,390 Btu/lb (146).
Composition, %:
Ash..... 6.4-35.4.
Sulfur..... 0.2-0.6.
Moisture..... 3.2-6.0.
Volatile matter... 30.7-48.9.
Fixed carbon..... 31.4-56.5.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1939.
Discovery method... Prospecting.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1942.
Last production..... 1945.
Past production..... 5,291 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 80 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Reserves: Measured; 0.5 million short tons (20).
Indicated; 0.49 million short tons.
Inferred; 1.37 million short tons.

REFERENCES

1, 8, 20, 33, 42-44, 112, 121, 143,
145-146, 156, 174-175, 181-182, 185,
211-212, 219, 221, 247-249, 265, 267,
273, 320, 342, 355, 367, 416-417, 421,
450-451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850285.

BAXTER MINE

Map No: 144

Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 308 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 18 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 27, T 19 N, R 02 E.
Latitude..... 61°42'45" N.
Longitude..... 149°04'19" W.

Owner..... Hawley Resource Properties, Inc.

Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 40-60° E, 20° SE.
coal seam.
Coal seam average
dimensions, m.
Length..... 426.
Width..... Not reported.
Thickness..... 3.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Poor.
Heating value..... 12,450-14,310 Btu/lb (146).
Composition, %:
Ash..... 5.8-8.3.
Sulfur..... 0.3.
Moisture..... 4.6-5.2.
Volatile matter... 39.7-45.6.
Fixed carbon..... 47.3-54.4.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1917.
Last production..... 1925.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 79 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Resources depleted (19).

REFERENCES

1, 8, 19, 33, 42, 58, 73, 92, 111-112,
121, 143, 145-146, 151, 156, 174,
181-182, 185, 219, 221, 247-248, 265,
267, 273, 320, 355, 417, 421, 451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850286.

RAWSON MINE

Map No: 144

Alternate names: New Black Diamond Coal Co.,
Wishbone Hill Coal Co., Moose Creek Coal Co.

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 370 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 14 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 14, T 19 N, R 02 E.
Latitude..... 61°43'52" N.
Longitude..... 149°01'50" W.

Owner..... Hawley Resources Properties, Inc.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of S 82° E, 60° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.6.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking Ability..... No.
Heating value..... 10,030-14,200 Btu/lb (146).
Composition, %:
Ash..... 7.6-24.3.
Sulfur..... 0.2-0.5.
Moisture..... 3.7-8.6.
Volatile matter... 37.5-44.8.
Fixed carbon..... 32.6-55.2.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1921.
Last production..... 1938.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 84 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 8, 20, 26, 33, 42, 44, 91, 112, 143,
145-146, 156, 174, 181-182, 185, 221,
236, 247-248, 252, 266-267, 269, 273,
290, 320, 361, 377-378, 385-389, 400,
402-403, 406, 417, 421, 451, 454.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number.. 0020850180.

WISHBONE HILL

Map No: 144

Alternate names: New Black Diamond Coal
Co., Wishbone Hill Coal Company

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Matanuska.
Elevation..... 396 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 12 km north of Palmer.

Meridian..... Seward.
Tract..... Sec. 23, T 19 N, R 02 E.
Latitude..... 61°43'20" N.
Longitude..... 149°02'25" W.

Owner..... Hawley Resource Properties, Inc.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N.80° E, 30° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... No.
Heating value..... 10,400-13,200 Btu/lb (78).
Composition, %:
Ash..... 4-22.
Sulfur..... 0.2-1.0.
Moisture..... 3-9.
Volatile matter... 32-45.
Fixed carbon..... 38-51.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 0.8 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

7-8, 20, 33, 35, 42, 70, 78, 91, 112,
143, 156, 181-182, 185, 211, 221,
248-249, 265, 267, 273, 320, 342,
354, 357, 384, 402, 417, 421, 451.

USGS quadrangle maps... Anchorage, C-6.

USBM sequence number... 0020850283.

BARRETT, LOHNES, THORPE & POMROY

Map No: 145

Alternate names: None

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Unnamed.
Elevation..... 245 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 13 km northwest of Palmer.

Meridian..... Seward.
Tract..... Sec. 34, T 19 N, R 01 E.
Latitude..... 61°41'50" N.
Longitude..... 149°16'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Shale lies under ore.
Coking Ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

143, 156, 185, 265, 273, 320,
417.

USGS quadrangle maps... Anchorage, C-7.

USBM sequence number... 0020850174.

BARTHOLF

Map No: 146

Alternate names: Grohnert, Dodson, & Brown,
Stadler-Harris, Coal Creek

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Unnamed.
Elevation..... 120 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 19 km northwest of Palmer.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 16, T 18 N, R 01 W.
Latitude..... 61°39'23" N.
Longitude..... 149°27'35" W.

GEOLOGY

Formation name.... Chickaloon.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of East-west, 13-20° S.
coal seam.
Coal seam average
dimensions, m.
Length..... 396.2.
Width..... Not reported.
Thickness..... 1.4.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,460-12,920 Btu/lb (43).
Composition, %:
Ash..... 20.5-23.8.
Sulfur..... 0.4-0.5.
Moisture..... 14.1.
Volatile matter... 31.1-47.8.
Fixed carbon..... 34.1-52.2.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. 1917.
Discovery method... Unknown.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

43, 143, 185, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-7.
USBM sequence number... 0020850171.

HOUSTON COAL CO.

Map No: 147

Alternate names: Houston East, Houston
Bed, Houston Coal Company

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Unnamed.
Elevation..... 100 m.
Topography..... Low-lying.
Domain..... State.

General location.. 1 km northwest of Houston.

Meridian..... Seward.
Tract..... Sec. 20, T 18 N, R 03 W.
Latitude..... 61°38'23" N.
Longitude..... 149°51'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... 804.7.
Width..... 1,609.3.
Thickness..... 1.3.
Depth..... 8-18.

Formation age..... Tertiary.
Rock relationships.. Conglomerate lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,260-10,730 Btu/lb (146).
Composition, %:
Ash..... 13.4-19.6.
Sulfur..... 0.1-0.2.
Moisture..... 13.9-18.7.
Volatile matter... 33.6-49.5.
Fixed carbon..... 27.4-42.2.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. 1917.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Do.

Initial production.. 1948.
Last production..... 1954.
Past production..... 99,206 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 98 km.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

Reserves: Estimated; 14.58 million short tons (254).

REFERENCES

1, 35, 40, 43-44, 143, 145-146, 185,
236, 251, 254, 265, 267-268, 273,
309, 320, 342, 354-355, 388-390,
417, 421, 427.

USGS quadrangle maps... Anchorage, C-8.

USBM sequence number... 0020850169.

HOUSTON WEST

Map No: 147
Alternate names: None

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Unnamed.
Elevation..... 79 m.
Topography..... Low-lying.
Domain..... State.

General location.. 41 km west of Palmer.

Meridian..... Seward.
Tract..... Sec. 24, T 18 N, R 04 W.
Latitude..... 61°38'11" N.
Longitude..... 149°54'14" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Do.
Heating value..... Do.
Composition, %: (1).
Ash..... 19.0.
Sulfur..... 0.4.
Moisture..... Not reported.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. 1917.
Last production..... 1920.
Past production..... 11,023 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 3 km.
Destination..... Houston.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 143, 185, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, C-8.

USBM sequence number... 0020850287.

YENTNA RIVER

Map No: 148

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Yentna.
Coalfield..... Beluga-Yentna.
Elevation..... 43 m.
Topography..... Low-lying.
Domain..... State.

Owner..... Unknown.
Operator..... Do.

General location.. 30 km west of Willow.

Meridian..... Seward.
Tract..... Sec. 17, T 18 N, R 07 W.
Latitude..... 61°39'05" N.
Longitude..... 150°35'20" W.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 15.2.
Depth..... 45.7.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,000 Btu/lb (269).
Composition, %:
Ash..... Variable.
Sulfur..... Less than 5.
Moisture..... Not reported.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 30 km.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 91, 95, 102, 265, 269,
273, 417.

USGS quadrangle maps... Tyonek, C-2.

USBM sequence number... 0020840028.

SUSITNA STATION

Map No: 149
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Willow Creek.
Coalfield..... Beluga-Yentna.
Elevation..... 15 m.
Topography..... Low-lying.
Domain..... State.

General location.. 33 km southwest of Willow.

Meridian..... Seward.
Tract..... Sec. 22, T 17 N, R 07 W.
Latitude..... 61°32'37" N.
Longitude..... 150°30'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 19 km.

Initial production.. Do.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

91, 100, 273, 342, 354, 355.

USGS quadrangle maps... Tyonek, C-2.
USBM sequence number... 0020840029.

EAGLE RIVER MINE

Map No: 150
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Willow Creek.
Coalfield..... Unnamed.
Elevation..... 8 m.
Topography..... Low-lying.
Domain..... Military reservation.

General location.. 5 km north of Anchorage.

Meridian..... Seward.
Tract..... Sec. 07, T 14 N, R 02 W.
Latitude..... 61°18'53" N.
Longitude..... 149°42'48" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name.... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Not reported.

Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 1.2 km.
Distance to power supply.. 2.2 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

143, 185, 265, 273, 320, 417.

USGS quadrangle maps... Anchorage, B-8.

USBM sequence number... 0020850288.

ALASKA PEAT

Map No: 151
Alternate names: None

Commodity: Peat

LOCATION-OWNERSHIP

Quadrangle..... Anchorage.
Mining district.. Do.
Coalfield..... Unnamed.
Elevation..... 30 m.
Topography..... Flat-lying.
Domain..... Municipality.

General location.. Located in Anchorage.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 01, T 12 N, R 04 W.
Latitude..... 61°09'55" N.
Longitude..... 149°54'00" W.

GEOLOGY

Formation name.... Unknown.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Quaternary.
Rock relationships.. Not reported.

Coking Ability..... No.
Heating value..... Not reported.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Peat.
Distance shipped..... Various.
Destination..... Anchorage.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

150.

USGS quadrangle maps... Anchorage, A-8.

USBM sequence number... 0020850116.

CAPPS DEPOSIT

Map No: 152

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Redoubt.
Coalfield..... Beluga-Yentna.
Elevation..... 617 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 40 km northwest of Beluga.

Meridian..... Seward.
Tract..... Sec. 22, T 14 N, R 14 W.
Latitude..... 61°17'50" N.
Longitude..... 151°46'00" W.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).
Operator..... Beluga Coal Company.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of North-Northeast.
coal seam.
Coal seam average
dimensions, m.
Length..... 4,800.
Width..... 6,400.
Thickness..... 10.
Depth..... 35.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,327-12,151 Btu/lb (335).
Composition, %:
Ash..... 7.81-10.23.
Sulfur..... 0.14-0.21.
Moisture..... 23.65.
Volatile matter... 35.20-51.35.
Fixed carbon..... 33.34-48.65.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1900.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... 51.5 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,
136, 154, 164-165, 168, 189-193, 216,
266, 269, 273, 285, 301, 304, 308, 325,
333-335, 337, 342, 346-347, 354-355,
361, 363, 406, 409-410, 417, 421, 425,
427, 453.

USGS quadrangle maps... Tyonek, B-5.

USBM sequence number... 0020840038.

CENTER RIDGE DEPOSIT

Map No: 153

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Redoubt.
Coalfield..... Beluga-Yentna.
Elevation..... 472 m.
Topography..... Gently rolling.
Domain..... State.

General location.. 32 km west of Beluga.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).
Operator..... Beluga Coal Company.

Meridian..... Seward.
Tract..... Sec. 33, T 13 N, R 13 W.
Latitude..... 61°10'35" N.
Longitude..... 151°36'55" W.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of North-Northeast.
coal seam.
Coal seam average
dimensions, m.
Length..... 2,900.
Width..... 4,300.
Thickness..... 12.
Depth..... 75.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,327-12,151 Btu/lb (335).
Composition, %:
Ash..... 17.81-10.23.
Sulfur..... 0.14-0.21.
Moisture..... 23.65.
Volatile matter... 35.20-51.35.
Fixed carbon..... 33.34-48.65.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1900.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... 33.8 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,
136, 154, 164-165, 168, 189-193, 216,
266, 269, 273, 285, 301, 304, 308,
325, 333-335, 337, 342, 346-347, 354-355,
361, 363, 406, 409-410, 417, 421, 425,
427, 453.

USGS quadrangle maps... Tyonek, A-5.

USBM sequence number... 0020840034.

LONE RIDGE DEPOSIT

Map No: 153

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Redoubt.
Coalfield..... Beluga-Yentna.
Elevation..... 381 m.
Topography..... Low-lying.
Domain..... State.

General location.. 26 km west of Beluga.

Meridian..... Seward.
Tract..... Sec. 24, T 13 N, R 13 W.
Latitude..... 61°11'52" N.
Longitude..... 151°31'40" W.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).
Operator..... Beluga Coal Company.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of North-Northeast.
coal seam.
Coal seam average
dimensions, m.
Length..... 4,800.
Width..... 4,800.
Thickness..... 8.
Depth..... 35.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,327-12,151 Btu/lb (335).
Composition, %:
Ash..... 7.81-10.23.
Sulfur..... 0.14-0.21.
Moisture..... 23.65.
Volatile matter... 35.20-51.35.
Fixed carbon..... 33.34-48.65.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.

Distance to water supply.. Onsite.
Road requirement..... 40.2 km.
Distance to power supply.. Onsite.

Year of discovery.. 1900.
Discovery method... Unknown.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Lone Ridge Deposit: Resources; 100 million short tons (80).

REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,
136, 154, 164-165, 168, 189-193, 216,
266, 269, 273, 285, 301, 304, 308,
325, 333-335, 337, 342, 346-347,
354-355, 361, 363, 406, 409-410,
417, 421, 425, 427, 453.

USGS quadrangle maps... Tyonek, A-5.

USBM sequence number... 0020840039.

BELUGA RIVER

Map No: 154

Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Redoubt.
Coalfield..... Beluga-Yentna.
Elevation..... 75 m.
Topography..... Low-lying.
Domain..... State.

General location.. 13 km northwest of Beluga.

Meridian..... Seward.
Tract..... Sec. 04, T 13 N, R 11 W.
Latitude..... 61°14'30" N.
Longitude..... 151°14'45" W.

Owner..... Ed Coffey, and J. V. Brown.
Operator..... Unknown.

GEOLOGY

Formation name.... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 17-22° W, 55° NE.
coal seam.
Coal seam average
dimensions, m.
Length..... 15.2.
Width..... Not reported.
Thickness..... 2.0.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 7,160-9,470 Btu/lb (175).
Composition, %:
Ash..... 16.8-22.2.
Sulfur..... 0.2.
Moisture..... 24.4.
Volatile matter... 30.1-39.8.
Fixed carbon..... 28.7-38.0.

DEVELOPMENT

Current status.... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 13 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

35, 52, 72, 175, 185, 202, 224,
233, 265, 272-273, 320, 417, 452,
457.

USGS quadrangle maps... Tyonek, A-4.
USBM sequence number... 0020840024.

COFFEE CREEK

Map No: 154

Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Redoubt.
Coalfield..... Beluga-Yentna.
Elevation..... 107 m.
Topography..... Low-lying.
Domain..... State.

General location.. 9.5 km northwest of Beluga.

Meridian..... Seward.
Tract..... Sec. 12, T 13 N, R 11 W.
Latitude..... 61°13'58" N.
Longitude..... 151°09'58" W.

Owner..... Howard J., & Lois M. Grey.
Operator..... Unknown.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of North-Northeast.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... Do.
Depth..... Do.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Conglomerate lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 9.5 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

8, 273.

USGS quadrangle maps... Tyonek, A-4.

USBM sequence number... 0020840036.

THREEMILE CREEK DEPOSIT

Map No: 155

Alternate names: Beluga Coal Company

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Redoubt.
Coalfield..... Beluga-Yentna.
Elevation..... 91.4 m.
Topography..... Low-lying.
Domain..... State.

General location.. 10 km west of Beluga.

Meridian..... Seward.
Tract..... Sec. 27, T 13 N, R 11 W.
Latitude..... 61°11'15" N.
Longitude..... 151°12'42" W.

Owner..... Placer U.S. Inc. (Placer Amex, Inc.).
Operator..... Beluga Coal Company.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of North-Northeast.
coal seam.
Coal seam average
dimensions, m.
Length..... 4,600.
Width..... 3,200.
Thickness..... 2.
Depth..... 46.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,327-12,151 Btu/lb (335).
Composition, %:
Ash..... 7.81-10.23.
Sulfur..... 0.14-0.21.
Moisture..... 23.65.
Volatile matter... 35.20-51.35.
Fixed carbon..... 33.34-48.65.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. 1900.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... 16.1 km.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

7-8, 18, 21, 36, 40, 78-80, 119-120,
136, 154, 164-165, 168, 189-193, 216,
266, 269, 273, 285, 301, 304, 308,
325, 333-335, 337, 342, 346-347,
354-355, 361, 363, 406, 409-410,
417, 421, 425, 427, 453.

USGS quadrangle maps... Tyonek, A-4.

USBM sequence number... 0020840037.

BELUGA 1

Map No: 155

Alternate names: Diamond Alaska Coal Co.,
B-H-W leases, Chuitna River Coal Field

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.	General location.. 16 km northwest of Beluga.
Mining district.. Redoubt.	
Coalfield..... Beluga-Yentna.	
Elevation..... 229 m.	Meridian..... Seward.
Topography..... Gentle slope.	Tract..... Sec. 24, T 13 N, R 12 W.
Domain..... State.	Latitude..... 61°12'00" N.
	Longitude..... 151°21'20" W.
Owner..... Starkey Wilson, Richard D. Bass Estate, & W.H. Hunt.	
Operator..... Diamond Alaska Coal Company.	

GEOLOGY

Formation name..... Tyonek.	Formation age..... Tertiary.
Shape of coal seam. Tabular.	Rock relationships.. Sandstone lies over ore.
Coal controls..... Bedding.	Conglomerate lies under ore.
Strike and dip of North-northeast,	Coking ability..... Not reported.
coal seam. 0-15° S.	Heating value..... 6,290-8,890 Btu/lb (165).
Coal seam average	Composition, %:
dimensions, m.	Ash..... 10-31.
Length..... Not reported.	Sulfur..... 0.1-0.3.
Width..... Do.	Moisture..... 11-29.
Thickness..... 6.9.	Volatile matter... 28-38.
Depth..... Outcrop.	Fixed carbon..... 26-35.

DEVELOPMENT

Current status..... Development deposit.	Distance to water supply.. Onsite.
Type of operation.. Prospect.	Road requirement..... 17.7 km.
	Distance to power supply.. 16 km.
Year of discovery.. Unknown.	
Discovery method... Do.	
Initial production.. Not reported.	Process rate..... Not reported.
Last production..... Do.	Product type..... Do.
Past production..... Do.	Distance shipped..... Do.
Annual production... Do.	Destination..... Do.

PUBLISHED RESERVES-RESOURCES

Reserves: Proven; 891 million short tons (157).
Indicated; 282 million short tons.

REFERENCES

7-9, 11, 14, 18, 21, 36, 78-80, 125-126,
136, 149, 154, 157, 164-165, 189, 191-193,
266, 269, 273, 301, 326, 333, 335, 342,
354, 363, 369, 406, 409-410, 413, 417,
421, 426, 427-428, 435, 453.

USGS quadrangle maps... Tyonek, A-4.

USBM sequence number... 0020840035.

TYONEK CREEK

Map No: 156
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Tyonek.
Mining district.. Redoubt.
Coalfield..... Beluga-Yentna.
Elevation..... 46 m.
Topography..... Low-lying.
Domain..... Indian reservation.

General location.. 4.5 km southwest of Tyonek.

Meridian..... Seward.
Tract..... Sec. 15, T 11 N, R 11 W.
Latitude..... 61°02'37" N.
Longitude..... 151°12'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 6.1.
Depth..... Outcrop.

Sulfur..... 0.4-0.6.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,350-12,160 Btu/lb (146).
Composition, %:
Ash..... 3.7-5.2.
Moisture..... 27.6.
Volatile matter... 31.5-45.8.
Fixed carbon..... 37.2-54.2.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 18 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

72, 100, 145-146, 149, 174, 235,
250-251, 273, 417, 421.

USGS quadrangle maps... Tyonek, A-4.
USBM sequence number... 0020840023.

FALLS CREEK

Map No: 157

Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Kenai.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 50 m.
Topography..... Bluff.
Domain..... State.

General location.. 3 km south of Clam Gulch.

Meridian..... Seward.
Tract..... Sec. 06, T 01 N, R 12 W.
Latitude..... 60°12'03" N.
Longitude..... 151°26'00" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Sterling.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Flat-lying.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Siltstone lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Existing.
Distance to power supply.. 3 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 41, 185, 265, 273, 320, 417.

USGS quadrangle maps... Kenai, A-4.

USBM sequence number... 0020940022.

NINILCHIK

Map No: 158
Alternate names: Deep Creek

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Kenai.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 10 m.
Topography..... Bluff.
Domain..... State.

General location.. 1.5 km south of Ninilchik.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 04, T 02 S, R 14 W.
Latitude..... 60°02'15" N.
Longitude..... 151°41'32" W.

GEOLOGY

Formation name..... Sterling.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Flat-lying.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Siltstone lies under ore.
Coking ability..... Not reported.
Heating value..... 7,437-11,800 Btu/lb (333).
Composition, %:
Ash..... 13.25-17.37.
Sulfur..... 0.25-0.39.
Moisture..... 23.72.
Volatile matter... 36.01-57.13.
Fixed carbon..... 27.02-42.87.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Existing.
Distance to power supply.. 1.5 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

3, 41, 185, 265, 273, 320, 333,
417, 463.

USGS quadrangle maps... Kenai, A-5.
USBM sequence number... 0020940019.

TRoublesome Creek

Map No: 159

Alternate names: Troublesome Gulch

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 15 m.
Topography..... Low-lying.
Domain..... State.

General location.. 21 km northwest of Homer.

Meridian..... Seward.
Tract..... Sec. 21, T 05 S, R 15 W.
Latitude..... 59°43'35" N.
Longitude..... 151°50'45" W.

Owner..... J. & M. Booth (Warren Coal Company).

Operator..... Do.

GEOLOGY

Formation name..... Sterling.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 50° E, 10-15° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.57.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,050-12,380 Btu/lb (146).
Composition, %:
Ash..... 15.0-18.7.
Sulfur..... 0.4-0.6.
Moisture..... 20.0.
Volatile matter... 35.9-55.2.
Fixed carbon..... 29.1-44.8.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 3 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 145-146, 149, 174, 185, 250-251,
265, 273, 320, 406, 417.

USGS quadrangle maps... Seldovia, C-5.

USBM sequence number... 0021040061.

DIAMOND CREEK

Map No: 160
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 31 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 11 km northwest of Homer.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 08, T 06 S, R 14 W.
Latitude..... 59°40'18" N.
Longitude..... 151°41'03" W.

GEOLOGY

Formation name..... Beluga.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.1.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 7,810-11,780 Btu/lb (146).
Composition, %:
Ash..... 5.6-7.8.
Sulfur..... 0.2-0.3.
Moisture..... 28.1.
Volatile matter... 33.5-50.5.
Fixed carbon..... 32.8-49.5.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. 1 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 149, 174, 185, 250-251,
265, 273, 320, 417.

USGS quadrangle maps... Seldovia, C-5.
USBM sequence number... 0021040063.

BLUFF POINT

Map No: 160
Alternate names: McNally & Maitland,
Valley Coal Corporation

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 198 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 10 km northwest of Homer.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 09, T 06 S, R 14 W.
Latitude..... 59°40'01" N.
Longitude..... 151°40'09" W.

GEOLOGY

Formation name..... Beluga.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,350-12,100 Btu/lb (146).
Composition, %:
Ash..... 8.4-13.0.
Sulfur..... 0.3-0.5.
Moisture..... 21.0-22.4.
Volatile matter... 36.0-55.1.
Fixed carbon..... 31.1-44.9.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1888.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1915.
Last production..... 1923.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 10 km.
Destination..... Homer.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 43, 55-58, 73, 145-146, 149,
174, 185, 236-237, 250-251, 265,
273, 290, 320, 400, 405-406, 417.

USGS quadrangle maps... Seldovia, C-5.

USBM sequence number... 0021040064.

MINE CAMP

Map No: 161

Alternate names: West Homer, Bluff Point,
Coal Point

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 31 m.
Topography..... Steep bluff.
Domain..... State.

General location.. 1 km east of Homer.

Meridian..... Seward.
Tract..... Sec. 24, T 06 S, R 24 W.
Latitude..... 59°38'40" N.
Longitude..... 151°35'15" W.

Owner..... Cook Inlet Coal Fields Company.
Operator..... Do.

GEOLOGY

Formation name.... Beluga.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 58° W, 15-20° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.8.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 0.63-0.81 (Fuel ratio) (406).
Composition, %:
Ash..... 5.13-7.60.
Sulfur..... 0.32-0.38.
Moisture..... 19.22-20.87.
Volatile matter... 40.71-43.95.
Fixed carbon 5.13-8.05.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1888.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1899.
Last production..... 1946.
Past production..... 27,557 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 1 km.
Destination..... Homer.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 38, 41, 185, 250-251, 265,
273, 320, 405-406, 417.

USGS quadrangle maps... Seldovia, C-5.
USBM sequence number... 0021040048.

HOMER

Map No: 161

Alternate names: Homer Coal Corporation

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.

Mining district.. Homer.

Coalfield..... Kenai.

Elevation..... 60 m.

Topography..... Steep bluff.

Domain..... State.

General location.. 4 km west of Homer Spit.

Meridian..... Seward.

Tract..... Sec. 24, T 06 S, R 14 W.

Latitude..... 59°38'40" N.

Longitude..... 151°34'20" W.

Owner..... Homer Coal Corporation.

Operator..... Do.

GEOLOGY

Formation name..... Beluga.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 70° E, 7° N.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 1.8.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.
Shale lies under ore.

Coking ability..... Not reported.

Heating value..... 8,028-11,747 Btu/lb (335).

Composition, %:

Ash..... 8.65-11.23.

Sulfur..... 0.23-0.34.

Moisture..... 23.01.

Volatile matter... 35.63-52.13.

Fixed carbon..... 32.71-47.87.

DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1888.

Discovery method... Unknown.

Initial production.. 1946.

Last production..... 1951.

Past production..... Not reported.

Annual production... Do.

Distance to water supply.. Onsite.

Road requirement..... Existing.

Distance to power supply.. Onsite.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 1 km.

Destination..... Homer.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

1, 29, 41, 43, 149, 211, 219, 224,
250-251, 265-266, 269, 273, 335,
337, 352, 355, 361, 377, 405, 416-417.

USGS quadrangle maps... Seldovia, C-5.

USBM sequence number... 0021040049.

BRADLEY

Map No: 162

Alternate names: Bradley Seam, Fritz Creek

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 248 m.
Topography..... Flat-lying.
Domain..... State.

General location.. 7 km northeast of Homer.

Meridian..... Seward.
Tract..... Sec. 12, T 06 S, R 13 W.
Latitude..... 59°43'35" N.
Longitude..... 151°15'50" W.

Owner..... Alaska Coal Company.
Operator..... Do.

GEOLOGY

Formation name..... Beluga.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 2.1.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Underground.
Year of discovery.. 1888.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1895.
Last production..... Do.
Past production..... 16.5 mt.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 7 km.
Destination..... Homer.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 185, 250-251, 265, 273, 320,
405-406, 417.

USGS quadrangle maps... Seldovia, C-4.
USBM sequence number... 0021040046.

CURTIS SEAM

Map No: 163
Alternate names: McNeil Canyon

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 91 m.
Topography..... Steep slope.
Domain..... State.

Owner..... Alaska Coal Company.
Operator..... Do.

General location.. 18 km northeast of Homer.

Meridian..... Seward.
Tract..... Sec. 25, T 05 S, R 12 W.
Latitude..... 59°46'45" N.
Longitude..... 151°09'45" W.

GEOLOGY

Formation name..... Sterling.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 1.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 0.75 (Fuel ratio) (406).
Composition, %:
Ash..... 9.10.
Sulfur..... 0.34.
Moisture..... 21.54.
Volatile matter... 39.10.
Fixed carbon..... 30.26.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Year of discovery.. 1888.
Discovery method... Unknown.

Initial production.. 1890.
Last production..... 1897.
Past production..... 716 mt.
Annual production... Not reported.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 18 km.
Destination..... Homer.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 185, 211, 250-251, 265, 273,
320, 400, 405-406, 416-417, 421.

USGS quadrangle maps... Seldovia, C-4.
USBM sequence number... 0021040045.

FRITZ CREEK

Map No: 163
Alternate names: Swede & Hoe

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 212 m.
Topography..... Gentle slope.
Domain..... State.

Owner..... Alaska Coal Company.
Operator..... Do.

General location.. 13 km northeast of Homer.

Meridian..... Seward.
Tract..... Sec. 20, T 05 S, R 12 W.
Latitude..... 59°43'35" N.
Longitude..... 151°21'30" W.

GEOLOGY

Formation name..... Beluga.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.

Year of discovery.. 1888.
Discovery method... Unknown.

Initial production.. 1888.
Last production..... 1906.
Past production..... Not reported.
Annual production... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 13 km.
Destination..... Homer.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 43, 185, 265, 273, 320,
405-406, 417.

USGS quadrangle maps... Seldovia, C-4.
USBM sequence number... 0021040047.

FALLS CREEK

Map No: 164
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coal Creek..... Kenai.
Elevation..... 122 m.
Topography..... Steep slope.
Domain..... State.

General location.. 26 km northeast of Homer.

Meridian..... Seward.
Tract..... Sec. 03, T 05 S, R 11 W.
Latitude..... 59°46'34" N.
Longitude..... 151°07'20" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Sterling.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.7.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 2 km.
Distance to power supply.. Do.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 185, 265, 273, 320, 405-406,
417.

USGS quadrangle maps... Seldovia, D-3.

USBM sequence number... 0021040058.

EASTLAND CANYON

Map No: 164

Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.

Mining district.. Homer.

Coalfield..... Kenai.

Elevation..... 114 m.

Topography..... Steep slope.

Domain..... State.

General location.. 23 km northeast of Homer.

Meridian..... Seward.

Tract..... Sec. 09, T 05 S, R 11 W.

Latitude..... 59°45'29" N.

Longitude..... 151°09'28" W.

Owner..... North Pacific Mining and Transportation Company.

Operator..... Do.

GEOLOGY

Formation name..... Sterling.

Shape of coal seam. Tabular.

Coal controls..... Bedding.

Strike and dip of N 70° W, 4° N.
coal seam.

Coal seam average
dimensions, m.

Length..... Not reported.

Width..... Do.

Thickness..... 0.4.

Depth..... Outcrop.

Formation age..... Tertiary.

Rock relationships.. Sandstone lies over ore.
Shale lies under ore.

Coking ability..... Not reported.

Heating value..... 0.82 (Fuel ratio) (406).

Composition, %:

Ash..... 7.29.

Sulfur..... 0.27.

Moisture..... 19.29.

Volatile matter... 40.31.

Fixed carbon..... 33.11.

DEVELOPMENT

Current status..... Past producer.

Type of operation.. Underground.

Year of discovery.. 1888.

Discovery method... Unknown.

Initial production.. 1894.

Last production.... 1897.

Past production.... 716 mt.

Annual production... Not reported.

Distance to water supply.. Onsite.

Road requirement..... Existing.

Distance to power supply.. Onsite.

Process rate..... Unknown.

Product type..... Coal.

Distance shipped..... 23 km.

Destination..... Homer.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 185, 250-251, 265, 273, 320,
405-406, 417.

USGS quadrangle maps... Seldovia, D-4.

USBM sequence number... 0021040059.

COTTONWOOD CREEK

Map No: 164
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 31 m.
Topography..... Steep slope.
Domain..... State.

General location.. 21 km northeast of Homer.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 17, T 05 S, R 11 W.
Latitude..... 59°44'25" N.
Longitude..... 151°11'30" W.

GEOLOGY

Formation name.... Sterling.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.9.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status.... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... 3 km.
Distance to power supply.. 2.5 km.

Initial production.. Not reported.
Last production.... Do.
Past production.... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

41, 185, 265, 273, 320, 405-406,
417.

USGS quadrangle maps... Seldovia, C-4.
USBM sequence number... 0021040060.

AURORA

Map No: 165
Alternate names: None

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Unnamed.
Elevation..... 91 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 24 km east of Homer.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 35, T 05 S, R 11 W.
Latitude..... 59°42'25" N.
Longitude..... 151°05'25" W.

GEOLOGY

Formation name..... Sterling.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. 0.1 km.
Road requirement..... Do.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 265, 273, 320, 417.

USGS quadrangle maps... Seldovia, D-3.

USBM sequence number... 0021040062.

COAL COVE

Map No: 166

Alternate names: Port Graham, Wharf Mine,
Coal Bay

Commodity: Subbituminous C

LOCATION-OWNERSHIP

Quadrangle..... Seldovia.
Mining district.. Homer.
Coalfield..... Kenai.
Elevation..... 8 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 11 km southwest of Seldovia.

Meridian..... Seward.
Tract..... Sec. 13, T 09 S, R 16 W.
Latitude..... 59°23'45" N.
Longitude..... 151°53'45" W.

Owner..... Russian-American Company.
Operator..... Do.

GEOLOGY

Formation name.... Tyonek.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 22° W, 11°
coal seam.
Coal seam average
dimensions, m.
Length..... 518.2.
Width..... Not reported.
Thickness..... 3.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 8,560-12,350 Btu (146).
Composition, m %:
Ash..... 8.8-15.8.
Sulfur..... 0.5-1.1.
Moisture..... 20.0-20.4.
Volatile matter... 32.7-54.4.
Fixed carbon..... 32.5-45.6.

DEVELOPMENT

Current status.... Past producer.
Type of operation.. Underground.
Year of discovery.. 1786.
Discovery method... Exploration.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1855.
Last production..... 1913.
Past production..... 9,370 mt.
Annual production... Not reported.

Process rate..... 35 mt/d.
Product type..... Coal.
Distance shipped..... Variable.
Destination..... Local and
steamboats.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

7, 35, 38, 44, 52-54, 56, 62, 64, 68,
79, 136, 145-146, 149, 170, 174, 180,
185, 224, 231, 235, 237, 241, 250-251,
253, 265, 273, 288, 320, 352, 354-355,
361, 366, 404-406, 417, 424, 429, 433,
465-466.

USGS quadrangle maps... Seldovia, B-6.

USBM sequence number... 0021040032.

AMALIK BAY

Map No: 167

Alternate names: Amalik Harbor

Commodity: Anthracite & bituminous

LOCATION-OWNERSHIP

Quadrangle..... Mt. Katmai.
Mining district.. Bristol Bay.
Coalfield..... Unnamed.
Elevation..... 46 m.
Topography..... Steep slope.
Domain..... National Park.

General location.. 22 km east of Katmai
Village site.

Meridian..... Seward.
Tract..... Sec. 32, T 24 S, R 32 W.
Latitude..... 58°03'15" N.
Longitude..... 154°32'22" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.46.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 1.45 (Fuel ratio) (406).
Composition, %:
Ash..... 8.90.
Sulfur..... 0.75.
Moisture..... 1.62.
Volatile matter... 36.56.
Fixed carbon..... 52.92.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

185, 273, 320, 406, 417, 430,
432.

USGS quadrangle maps... Mt Katmai, A-2.

USBM sequence number... 0021260005.

AYAKULIK RIVER

Map No: 168
Alternate names: Red River

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Karluk.
Mining district.. Kodiak.
Coalfield..... Unnamed.
Elevation..... 9 m.
Topography..... Low-lying.
Domain..... Native.

General location.. 0.5 km east of Ayakulik.

Meridian..... Seward.
Tract..... Sec. 28, T 34 S, R 33 W.
Latitude..... 57°11'50" N.
Longitude..... 154°31'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Noncoherent.
Heating value..... 0.66 (Fuel ratio) (406).
Composition, %:
Ash..... 2.41.
Sulfur..... 0.17.
Moisture..... 12.31.
Volatile matter... 51.48.
Fixed carbon..... 33.80.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

56, 60, 94, 149, 185, 228, 246,
265, 273, 320, 381, 390-391, 406,
417, 428-430.

USGS quadrangle maps... Karluk, A-2.
USBM sequence number... 0021300006.

SITKINAK ISLAND EAST

Map No: 169
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Kaguyak.
Mining district.. Kodiak.
Coalfield..... Unnamed.
Elevation..... 61 m.
Topography..... Steep slope.
Domain..... State.

General location.. Eastern end of Sitkinak Island.

Meridian..... Seward.
Tract..... Sec. 12, T 42 S, R 30 W.
Latitude..... 56°33'05" N.
Longitude..... 153°53'30" W.

Owner..... Unknown.
Operator..... Do.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... 0.3.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. More than 100 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

149, 185, 208-209, 265, 273, 320,
360, 406, 417.

USGS quadrangle maps... Kaguyak, C-6.
USBM sequence number... 0021360001.

SITKINAK ISLAND WEST

Map No: 170
Alternate names: None

Commodity: Subbituminous

LOCATION-OWNERSHIP

Quadrangle..... Trinity Islands.
Mining district.. Kodiak.
Coalfield..... Unnamed.
Elevation..... 122 m.
Topography..... Steep slope.
Domain..... State.

General location.. On south side of Sitkinak Island.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 27, T 42 S, R 32 W.
Latitude..... 56°30'00" N.
Longitude..... 154°15'00" W.

GEOLOGY

Formation name..... Unnamed.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 1 km.
Destination..... Ships.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

149, 185, 208-209, 246, 265, 273,
320, 417.

USGS quadrangle maps... Trinity Islands, C-1.

USBM sequence number... 0021350002.

HOOK BAY MINE

Map No: 171

Alternate names: None

Commodity: High volatile A bituminous

LOCATION-OWNERSHIP

Quadrangle..... Chignik.
Mining district.. Alaska Peninsula.
Coalfield..... Chignik.
Elevation..... 183 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 25 km northeast of Chignik.

Meridian..... Seward.
Tract..... Sec. 15, T 42 S, R 57 W.
Latitude..... 56°33'00" N.
Longitude..... 158°15'06" W.

Owner..... Alaska Peninsula Mining & Trading Company.
Operator..... Do.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 11° E, 34° E.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 10,110-14,530 Btu (146).
Composition, %:
Ash..... 25.3-26.6.
Sulfur..... 2.3-3.2.
Moisture..... 5.1.
Volatile matter... 27.2-39.1.
Fixed carbon..... 42.4-60.9.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. 1908.
Discovery method... Prospecting.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 15 km.
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 155, 174, 185, 217, 224,
265, 273, 320, 401, 406, 417.

USGS quadrangle maps... Chignik, C-1.

USBM sequence number... 0021330011.

THOMPSON VALLEY 2

Map No: 172
Alternate names: None

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Chignik.
Mining district.. Alaska Peninsula.
Coalfield..... Chignik.
Elevation..... 320 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 21 km northeast of Chignik.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 09, T 43 S, R 58 W.
Latitude..... 56°28'46" N.
Longitude..... 158°26'29" W.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 155, 174, 185, 217, 257,
265, 273, 320, 401, 417.

USGS quadrangle maps... Chignik, B-2.
USBM sequence number... 0021330012.

THOMPSON VALLEY 1

Map No: 172
Alternate names: None

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Chignik.
Mining district.. Alaska Peninsula.
Coalfield..... Chignik.
Elevation..... 152 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 19 km northwest of Chignik.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 08, T 43 S, R 58 W.
Latitude..... 56°28'26" N.
Longitude..... 158°27'19" W.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 61° E, 21° NW.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 2.7.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 9,640-12,960 Btu/lb (146).
Composition, %:
Ash..... 14.9-16.7.
Sulfur..... 0.7-0.9.
Moisture..... 10.8.
Volatile matter... 30.3-40.8.
Fixed carbon..... 44.0-59.2.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1912.
Last production..... 1922.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 19 km.
Destination..... Chignik.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 155, 174, 185, 217, 224,
265, 269, 273, 320, 401, 406, 417.

USGS quadrangle maps... Chignik, B-2.

USBM sequence number... 0021330013.

THOMPSON VALLEY 3

Map No: 172
Alternate names: None

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Chignik.
Mining district.. Alaska Peninsula.
Coalfield..... Chignik.
Elevation..... 183 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 20 km northwest of Chignik.

Owner..... Unknown.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 09, T 43 S, R 58 W.
Latitude..... 56°28'05" N.
Longitude..... 158°26'23" W.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of Not reported.
coal seam.
Coal seam average
dimensions, m.
Length..... Do.
Width..... Do.
Thickness..... Do.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... Do.
Composition, %:
Ash..... Do.
Sulfur..... Do.
Moisture..... Do.
Volatile matter... Do.
Fixed carbon..... Do.

DEVELOPMENT

Current status..... Raw prospect.
Type of operation.. Prospect.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Less than 50 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 155, 174, 185, 217, 265,
269, 273, 320, 401, 417.

USGS quadrangle maps... Chignik, B-2.
USBM sequence number... 0021330014.

WHALERS CREEK MINE

Map No: 173
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Chignik.
Mining district.. Alaska Peninsula.
Coalfield..... Chignik.
Elevation..... 159 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 15 km west of Chignik.

Owner..... Unknown.
Operator..... Do.

Meridian..... Copper River.
Tract..... Sec. 09, T 45 S, R 60 W.
Latitude..... 56°18'04" N.
Longitude..... 158°38'44" W.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 5° E, 22° E.
coal seam.
Coal seam average
dimensions, m.
Length..... 183.
Width..... Not reported.
Thickness..... 4.8.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 11,240-14,100 Btu (146).
Composition, %:
Ash..... 15.3-16.1.
Sulfur..... 1.8-2.2.
Moisture..... 5.0.
Volatile matter... 34.3-43.0.
Fixed carbon..... 45.4-57.0.

DEVELOPMENT

Current status..... Exploration prospect.
Type of operation.. Underground.
Year of discovery.. Unknown.
Discovery method... Do.

Distance to water supply.. Less than 3 km.
Road requirement..... Less than 10 km.
Distance to power supply.. Less than 20 km.

Initial production.. Not reported.
Last production..... Do.
Past production..... Do.
Annual production... Do.

Process rate..... Not reported.
Product type..... Do.
Distance shipped..... Do.
Destination..... Do.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

145-146, 155, 174, 185, 217, 224,
265, 273, 320, 401, 406, 417.

USGS quadrangle maps... Chignik, B-2.
USBM sequence number... 0021330015.

CHIGNIK BAY COAL

Map No: 174
Alternate names: Chignik River Mine,
Chignik River

Commodity: High volatile C bituminous

LOCATION-OWNERSHIP

Quadrangle..... Chignik.
Mining district.. Alaska Peninsula.
Coalfield..... Chignik.
Elevation..... 15 m.
Topography..... Steep slope.
Domain..... Native.

General location.. 20 km west of Chignik.

Owner..... Alaska Packers Association.
Operator..... Do.

Meridian..... Seward.
Tract..... Sec. 30, T 45 S, R 60 W.
Latitude..... 56°15'50" N.
Longitude..... 158°42'40" W.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 2° E, 24° E.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... 805.
Thickness..... 1.6.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 9,850-13,840 Btu/lb (146).
Composition, %:
Ash..... 21.8-23.4.
Sulfur..... 1.3-1.8.
Moisture..... 7.1.
Volatile matter... 31.5-44.2.
Fixed carbon..... 39.3-55.8.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1885.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1893.
Last production..... 1911.
Past production..... Not reported.
Annual production... Do.

Process rate..... 600 mt/d.
Product type..... Coal.
Distance shipped..... 20 km.
Destination..... Chignik.

PUBLISHED RESERVES-RESOURCES

Chignik field: Reserves; Indicated; 100 million short tons (79).
Hypothetical; 300 million short tons.

REFERENCES

15, 27-28, 32, 35, 44, 52, 63-64, 69,
71, 78-79, 99, 136, 141-142, 145-146,
148-149, 154-155, 174, 185, 217, 224,
235, 265-266, 269, 273, 320, 333,
345-355, 361, 373, 401, 406, 417, 421,
425, 428, 430, 454.

USGS quadrangle maps... Chignik, B-3.

USBM sequence number... 0021330001.

HERENDEEN BAY

Map No: 175

Alternate names: Mine Creek, Lower Tunnel,
Philbick & Foster, Johnson Tunnel,
Mine Harbor

Commodity: Subbituminous B

LOCATION-OWNERSHIP

Quadrangle..... Port Moller.
Mining district.. Alaska Peninsula.
Coalfield..... Herendeen Bay.
Elevation..... 61 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 1 km east of Herendeen Bay.

Meridian..... Seward.
Tract..... Sec. 14, T 51 S, R 74 W.
Latitude..... 55°46'00" N.
Longitude..... 160°40'00" W.

Owner..... Alaska Mining and Development Company.
Operator..... Do.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 01° W, 30° N.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 0.7.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 6,180-13,920 Btu/lb (146).
Composition, %:
Ash..... 5.9-49.4.
Sulfur..... 0.3-0.6.
Moisture..... 1.8-8.0.
Volatile matter... 26.1-40.4.
Fixed carbon..... 23.6-60.5.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Year of discovery.. 1880.
Discovery method... Unknown.

Initial production.. 1880.
Last production..... 1904.
Past production..... 904 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 1 km.
Destination..... Herendeen Bay.

PUBLISHED RESERVES-RESOURCES

Herendeen Bay field: Reserves; Indicated; 10-100 million short tons (79).
Hypothetical; 300 million short tons.

REFERENCES

15, 21, 27, 35, 44, 52, 63-64, 78-79,
136, 141-142, 145-146, 149, 174, 185,
224, 235, 265-266, 269, 273, 306, 320,
354-355, 361, 373, 405, 417, 421, 425,
428, 432, 454.

USGS quadrangle maps... Port Moller, D-3.

USBM sequence number... 0021380004.

JOHNSON TUNNEL

Map No: 175
Alternate names: None

Commodity: High volatile B bituminous

LOCATION-OWNERSHIP

Quadrangle..... Port Moller.
Mining district.. Alaska Peninsula.
Coalfield..... Herendeen Bay.
Elevation..... 351 m.
Topography..... Gentle slope.
Domain..... State.

General location.. 3 km east of Herenden Bay.

Meridian..... Seward.
Tract..... Sec. 12, T 51 S, R 74 W.
Latitude..... 55°46'22" N.
Longitude..... 160°38'04" W.

Owner..... C.A. Johnson/Alaska Transportation and Coal Company.
Operator..... Do.

GEOLOGY

Formation name..... Chignik.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 11° W, 34° NE.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... 53.
Thickness..... 2.1.
Depth..... Outcrop.

Formation age..... Cretaceous.
Rock relationships.. Shale lies over ore.
Sandstone lies under ore.
Coking ability..... Not reported.
Heating value..... 11,790-13,880 Btu/lb (146).
Composition, %:
Ash..... 7.1-7.7.
Sulfur..... 0.4-0.5.
Moisture..... 8.0.
Volatile matter... 33.5-39.5.
Fixed carbon..... 51.4-60.5.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Underground.
Year of discovery.. 1880.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1896.
Last production..... 1902.
Past production..... Not reported.
Annual production... Do.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 3 km.
Destination..... Herendeen Bay.

PUBLISHED RESERVES-RESOURCES

Herendeen Bay field: Reserves; Indicated; 10-100 million short tons (79).
Hypothetical; 300 million short tons.

REFERENCES

79, 145-146, 174, 185, 265, 273,
306, 320, 417.

USGS quadrangle maps... Port Moller, D-2.

USBM sequence number... 0021380017.

COAL HARBOR

Map No: 176

Alternate names: Alaska Coal Company,
John Dix, Henry & Alexander Tibbey

Commodity: Lignite

LOCATION-OWNERSHIP

Quadrangle..... Port Moller.
Mining district.. Alaska Peninsula.
Coalfield..... Unga Island.
Elevation..... 30 m.
Topography..... Gentle slope.
Domain..... Native.

General location.. 1 km northwest of Coal
Harbor, Unga Island.

Meridian..... Seward.
Tract..... Sec. 08, T 56 S, R 74 W.
Latitude..... 55°20'54" N.
Longitude..... 160°40'00" W.

Owner..... Tide Water Consolidated Company.
Operator..... Do.

GEOLOGY

Formation name..... Bear Lake.
Shape of coal seam. Tabular.
Coal controls..... Bedding.
Strike and dip of N 12° W, 8° W.
coal seam.
Coal seam average
dimensions, m.
Length..... Not reported.
Width..... Do.
Thickness..... 1.2.
Depth..... Outcrop.

Formation age..... Tertiary.
Rock relationships.. Sandstone lies over ore.
Shale lies under ore.
Coking ability..... Not reported.
Heating value..... 5,810-11,740 Btu/lb (146).
Composition, %:
Ash..... 26.2-34.1.
Sulfur..... 0.5-1.1.
Moisture..... 23.3.
Volatile matter... 25.4-50.3.
Fixed carbon..... 25.1-49.7.

DEVELOPMENT

Current status..... Past producer.
Type of operation.. Surface-underground.
Year of discovery.. 1880.
Discovery method... Unknown.

Distance to water supply.. Onsite.
Road requirement..... Existing.
Distance to power supply.. Onsite.

Initial production.. 1882.
Last production..... 1902.
Past production..... 987 mt.
Annual production... Not reported.

Process rate..... Unknown.
Product type..... Coal.
Distance shipped..... 1 km.
Destination..... Coal Harbor.

PUBLISHED RESERVES-RESOURCES

No published reserve-resource information.

REFERENCES

15, 27, 35, 52, 62, 64, 79, 136,
145-146, 149, 174, 185, 224, 235,
241, 265-266, 269, 273, 320, 354-355,
361, 373, 405-406, 417, 421, 425, 428.

USGS quadrangle maps... Port Moller, B-3.

USBM sequence number... 0021380005.

REFERENCES

1. Abernethy, R. F., and E. M. Cochrane. Fusibility of United States Coals. BuMines IC 7923, 1960, 363 pp.
2. Accolate Mines, Inc. W. E. Dunkle Coal Property. AK DIV. Geol. and Geophys. Surv. MR-67-7, 1961, 33 pp.
3. Affolter, R. H., F. O. Simon, and G. D. Stricker. Analysis of Coal Samples From the Healy, Kenai, Seldovia, and Utukok River Quadrangles, Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd. AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 236-266.
4. Alaska Construction and Oil. Coal Contract in Jeopardy. V. 27, No. 7, 1986, p. 3.
5. _____. Usibelli's "Ace-in-the-Hole" Strips 50,000 Cubic Yards/Day. V. 20, No. 9, 1979, pp. 39-42.
6. Alaska Department of Commerce and Economic Development. 1983 Long Term Energy Plan. Working draft. Div. Energy and Power Development, v. 1, 1983, 105 pp.
7. _____. Alaska-Mining, A Profile. 1985, 18 pp.
8. Alaska Department of Natural Resources. Coal Leases. 1985, 9 pp.
9. Alaska Journal of Commerce and Pacific Rim Reporter. Beluga Coal Feasibility Study Done. V. 10, No. 8, 1986, p. 23.
10. _____. Chugach To Drill 17,060 ft in Bering River Field. V. 9, No. 27, 1985, p. 11.
11. _____. Mining Poised for Takeoff Next Year. V. 9, No. 52, 1985, pp. 14-16.
12. _____. More Work Planned on Wishbone Hill Coal. V. 9, No. 27, 1985, p. 13.
13. _____. Wishbone, Bering, and Beaufort Saw Work. V. 9, No. 27, 1985, p. 14.
14. Alaska Oil and Gas News. Diamond Poised To Develop Beluga. V. 5, No. 2, 1986, pp. 23-24.
15. Alaska Territorial Department of Mines. Coal in Alaska. MR-195-26, 1943, 3 pp.
16. _____. Proposed Coal Mining Point Barrow Area, Northern Alaska. MR-3-1, 1944, 53 pp.
17. _____. Riverside Mine (Hyder). MR-195-35, 1962, 31 pp.
18. Anderson, D. Feasibility Study of Mining Alaska Coal and Transportation by Slurry to the West Coast. BuMines OFR 17(1)-78, 1978, 79 pp.
19. Apell, G. A. Broad Pass Coal Reports. AK Territorial Dep. Mines MR-67-4, 1944, 2 pp.
20. _____. Moose Creek District of Matanuska Coal Fields, Alaska. BuMines RI 3784, 1944, 36 pp.
21. Arctic Environmental Information and Data Center. Mineral Terranes of Alaska, 1982. Univ. AK, Anchorage, AK, 1982, 6 sheets.

22. Arctic Slope Consulting Engineers. Western Arctic Coal Development Project, 1984 Pre-Development Site Investigation (AK contract 85-108). Prepared for AK Native Foundation, 1984, np.; available from AK Resources Library, Anchorage, AK.
23. _____. Western Arctic Coal Development Project, Preliminary Economic Evaluation; Consultants Final Report Phase I (AK contract 85-108). Prepared for AK Native Foundation, 1984, 12 pp.; available from AK Resource Library, Anchorage, AK.
24. Aresco, S. J., J. B. Janus, and F. E. Walker. Analyses of Tipple and Delivered Samples of Coal, Collected During the Fiscal Year 1963. BuMines RI 6461, 1964, 38 pp.
25. Arunapuram, S. Computer Simulation of Mining and Reclamation Operations of a Sub-Arctic Surface Coal Mine. M.S. Thesis, Univ. AK, Fairbanks, AK, 1985, 232 pp.
26. Ash, S. A. Alaska-Coal Situation. AK Territorial Dep. Mines MR-195-25, 1943, 6 pp.
27. Atwood, W. W. Geology and Mineral Resources of Parts of the Alaska Peninsula. U.S. Geol. Surv. Bull. 467, 1911, 137 pp.
28. _____. Mineral Resources of Southwestern Alaska. Ch. in Mineral Resources of Alaska. U.S. Geol. Surv. Bull. 379-C, 1909, pp. 108-152.
29. Averitt, P. Coal. Ch. in U.S. Mineral Resources. U.S. Geol. Surv. Prof. Paper 820, 1973, pp. 133-142.
30. _____. Stripping-Coal Resources of the United States, Jan. 1, 1970. U.S. Geol. Surv. Bull. 1322, 1970, 34 pp.
31. Averitt, P., and L. R. Berryhill. Coal Resources of the United States, A Progress Report, Nov. 1, 1950. U.S. Geol. Surv. Circ. 94, 1950, 33 pp.
32. Averitt, P., and L. Lopez. Bibliography and Index of U.S. Geological Survey Publications Relating to Coal, 1882-1970. U.S. Geol. Surv. Bull. 1377, 1972, 173 pp.
33. Bain, H. F. Alaska's Minerals as a Basis for Industry. BuMines IC 7379, 1946, 89 pp.
34. Barker, J. C. Coal and Uranium Investigation of the Yukon Flats Cenozoic Basin. BuMines OFR 140-81, 1981, 63 pp.
35. Barnes, F. F. Coal Resources of Alaska; A Summary of Information Concerning the Quantity, Quality, and Distribution of Coal. U.S. Geol. Surv. Bull. 1242-B, 1967, 36 pp.
36. _____. Geology and Coal Resources of the Beluga-Yentna Region, Alaska. U.S. Geol. Surv. Bull. 1202-C, 1966, 54 pp.
37. _____. Mining and Exploration in 1945 in the Wishbone Hill Coal District, Matanuska Valley, Alaska. Ch. in Coal Investigations in South-Central Alaska, 1944-46, Mineral Resources of Alaska, 1945-46. U.S. Geol. Surv. Bull. 963-E, 1951, pp. 193-201.
38. _____. Preliminary Report on Coal Deposits Near Homer, Alaska. Ch. in Coal Investigations in South-Central Alaska, 1944-46, Mineral Resources of Alaska, 1945-46. U.S. Geol. Surv. Bull. 963-E. 1951, pp. 203-208.

39. _____. A Review of the Geology and Coal Resources of the Bering River Coal Field, Alaska. U.S. Geol. Surv. Circ. 146, 1951, 11 pp.
40. _____. Variation in Rank of Tertiary Coals in the Cook Inlet Basin, Alaska. Ch. in Geological Survey Research 1962. U.S. Geol. Surv. Prof. Paper 450-C, 1962, pp. 14-16.
41. Barnes, F. F., and E. H. Cobb. Geology and Coal Resources of the Homer District, Kenai Coal Field, Alaska. U.S. Geol. Surv. Bull. 1058-F, 1959, 43 pp.
42. Barnes, F. F., and T. G. Payne. The Wishbone Hill District, Matanuska Coal Field, Alaska. U.S. Geol. Surv. Bull. 1016, 1956, 88 pp.
43. Barnes, F. F., and D. Sokol. Geology and Coal Resources of the Little Susitna District, Matanuska Coal Field, Alaska. U.S. Geol. Surv. Bull. 1058-D, 1959, 17 pp.
44. Bell, C. H., and R. L. Anderson. Production and Distribution and Use. Ch. in Analyses of Alaska Coals. BuMines TP 682, 1946, pp. 10-14.
45. Bickel, R. S., and W. W. Patton, Jr. Preliminary Geologic Map of the Nulato and Kateel Rivers Area, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-249, 1957, 1 sheet.
46. Blumer, J. W. Review of Mobil Coal Leases-Yentna Region, Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd. AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 122-126.
47. Boness, F. H. Coal Development; What Is and What Should Be the Role of the State and Local Government. Paper in Focus On Alaska's Coal '80. (Proc. 2nd. AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 472-475.
48. Bottge, R. G. Coal as a Fuel for Barrow, Alaska: A Preliminary Survey of Mining Costs. BuMines OFR 88-77, 1977, 71 pp.
49. Brabb, E. E., and M. Churkin, Jr. Geologic Map of the Charley River Quadrangle, East-Central Alaska. U.S. Geol. Surv. Misc. Geol. Investigation Map I-573, 1969, 1 sheet.
50. _____. Preliminary Geologic Map of the Eagle D-1 Quadrangle. U.S. Geol. Surv. OFR 249, 1965, 2 sheets.
51. Brody, S. E., and A. H. DeVries. Coal Policy Paper-Leasing and Taxation. AK St. Legislature-House Res. Agency Rep. 80-4, 1981, 75 pp.
52. Brooks, A. H. Alaska Coal and Its Utilization. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1909. U.S. Geol. Surv. Bull. 442-A, 1910, pp. 47-100.
53. _____. The Alaskan Mining Industry in 1913. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1913. U.S. Geol. Surv. Bull. 592-A, 1914, pp. 45-74.
54. _____. The Alaskan Mining Industry in 1914. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1914. U.S. Geol. Surv. Bull. 622-A, 1915, pp. 15-68.
55. _____. The Alaskan Mining Industry in 1915. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1915. U.S. Geol. Surv. Bull. 642-A, 1916, pp. 16-71.

56. _____. The Alaskan Mining Industry in 1916. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1916. U.S. Geol. Surv. Bull. 662-A, 1918, pp. 11-62.
57. _____. The Alaskan Mining Industry in 1920. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1920. U.S. Geol. Surv. Bull. 722-A, 1922, pp. 5-67.
58. _____. The Alaskan Mining Industry in 1921. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1921. U.S. Geol. Surv. Bull. 739-A, 1923, pp. 1-44.
59. _____. Alaska's Mineral Resources and Production, 1923. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1923. U.S. Geol. Surv. Bull. 773-A, 1925, pp. 3-52.
60. _____. Alaska's Mineral Supplies. U.S. Geol. Surv. Bull. 666-P, 1919, 14 pp.
61. _____. The Circle Precinct, Alaska. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1906. U.S. Geol. Surv. Bull. 314-B, 1907, pp. 187-204.
62. _____. The Distribution of Mineral Resources in Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1907. U.S. Geol. Surv. Bull. 345-A, 1908, pp. 18-29.
63. _____. The Future of Alaska Mining. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1919. U.S. Geol. Surv. Bull. 714-A, 1921, pp. 5-57.
64. _____. Mineral Resources of Alaska. Ch. in Papers on the Conservation of Mineral Reserves. U.S. Geol. Surv. Bull. 394, 1909, pp. 172-207.
65. _____. The Mining Industry in 1905. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1905. U.S. Geol. Surv. Bull. 284, 1906, pp. 4-9.
66. _____. The Mining Industry in 1906. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1906. U.S. Geol. Surv. Bull. 314-A, 1907, pp. 19-39.
67. _____. The Mining Industry in 1907. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1907. U.S. Geol. Surv. Bull. 345-A, 1908, pp. 30-53.
68. _____. The Mining Industry in 1908. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1908. U.S. Geol. Surv. Bull. 379, 1909, pp. 21-62.
69. _____. The Mining Industry in 1909. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1909. U.S. Geol. Surv. Bull. 442-A, 1910, pp. 20-46.
70. _____. The Mining Industry in 1910. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1910. U.S. Geol. Surv. Bull. 480, 1911, pp. 21-42.
71. _____. The Mining Industry in 1911. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1911. U.S. Geol. Surv. Bull. 520, 1912, pp. 17-44.
72. _____. The Mount McKinley Region, Alaska, With Descriptions of the Igneous Rocks and of the Bonfield and Kantishna, by L. M. Prindle. U.S. Geol. Surv. Prof. Paper 70, 1911, 234 pp.
73. Brooks, A. H., and S. R. Capps. The Alaskan Mining Industry in 1922. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1922. U.S. Geol. Surv. Bull. 755-A, 1924, pp. 3-49.

74. Brooks, A. H., and G. C. Martin. The Alaskan Mining Industry in 1919. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1919. U.S. Geol. Surv. Bull. 714-A, 1921, pp. 59-95.
75. Brosge, W. P., H. N. Reiser, and W. Yeend. Reconnaissance Geologic Map of the Beaver Quadrangle, Alaska. U.S. Geol. Surv. Misc. Field Studies Map MF-525, 1973, 1 sheet.
76. Brown, J. S. The Nixon Fork Country. Ch. in Mineral Industry in Alaska, 1924. U.S. Geol. Surv. Bull. 783-D, 1926, pp. 97-144.
77. Buddington, A. F., and T. Chapman. Geology and Mineral Deposits of Southeastern Alaska. U.S. Geol. Surv. Bull. 800, 1929, 394 pp.
78. Bundtzen, T. K., G. R. Eakins, J. G. Clough, L. L. Lueck, C. B. Green, M. S. Robinson, and D. A. Coleman. Alaska's Mineral Industry--1983. AK Div. Geol. and Geophys. Surv. Spec. Rep. 33, 1984, 56 pp.
79. Bundtzen, T. K., G. R. Eakins, and C. N. Conwell. Review of Alaska's Mineral Resources, 1981-82. AK Div. Geol. Geophys. Surv., 1982, 52 pp.
80. Bundtzen, T. K., G. R. Eakins, C. B. Green, and L. L. Lueck. Alaska's Mineral Industry, 1985. AK Div. Geol. and Geophys. Surv. Spec. Rep. 39, 1986, 68 pp.
81. Burand, W. M. Report on the Preliminary Examination of Selawik Coal, Singauruk River, Selawik Quadrangle, Alaska. AK Territorial Dep. Mines MI-36-1, 1959, 7 pp.
82. Burnell, E., and R. S. Sanford. Report on Barrow Coal Mine Project at Meade River and Plans for Future Operation as Worked Out in the Juneau Office on July 13, 1945. U.S. Bureau of Indian Affairs, Record Group 75, Federal Records Container 1604, File 950, Barrow Coal Mine #3, 1945.
83. Burns, L. E., T. A. Little, R. J. Newberry, J. E. Decker, and G. H. Pessel. Preliminary Geologic Map of Parts of the Anchorage C-2, C-3, D-2, and D-3 Quadrangles, Alaska. AK Div. Geol. and Geophys. Surv. RI 83-10, 1983, 3 sheets.
84. Callahan, J. E. Coal Investigations in Western Arctic Alaska. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., 1st., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 48-53.
85. _____. Northern Alaska Coal Investigations, Western Naval Petroleum Reserve No. 4. Ch. in the United States Geological Survey in Alaska: Accomplishments During 1975. U.S. Geol. Surv. Circ. 733, 1976, p. 30.
86. Callahan, J. E., and G. C. Martin. Coal Occurrences of the Nanushuk Group, Western Arctic Alaska-An Update. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 32-60.
87. Capps, S. R. The Bonfield Region, Alaska. U.S. Geol. Surv. Bull. 501, 1912, 64 pp.
88. _____. The Chisana-White River District, Alaska. U.S. Geol. Surv. Bull. 630, 1916, 130 pp.
89. _____. The Eastern Portion of Mount McKinley National Park. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1930. U.S. Geol. Surv. Bull. 836-D, 1932, 81 pp.
90. _____. Geology and Mineral Resources of the Region Traversed by the Alaska Railroad. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1922. U.S. Geol. Surv. Bull. 755-C, 1924, 77 pp.

91. _____. Geology of the Alaska Railroad Region. U.S. Geol. Surv. Bull. 907, 1940, 201 pp.
92. _____. Geology of the Upper Matanuska Valley, Alaska. U.S. Geol. Surv. Bull. 791, 1927, 92 pp.
93. _____. The Kantishna Region, Alaska. U.S. Geol. Surv. Bull. 687, 1919, 113 pp.
94. _____. Kodiak and Adjacent Islands. Ch. in Mineral Resources of Alaska, 1935. U.S. Geol. Surv. Bull. 880-C, 1937, pp. 111-184.
95. _____. Mineral Resources of the Bonniel Field Region, Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1910. U.S. Geol. Surv. Bull. 480, 1911, pp. 218-235.
96. _____. Mineral Resources of the Chisana-White River District. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1914. U.S. Geol. Surv. Bull. 622-F, 1915, pp. 189-228.
97. _____. Mineral Resources of the Kantishna Region. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1916. U.S. Geol. Surv. Bull. 662-E, 1918, pp. 279-331.
98. _____. Mineral Resources of the Upper Chulitna Region. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1917. U.S. Geol. Surv. Bull. 692-D, 1919, pp. 207-232.
99. _____. Notes on the Geology of the Alaska Peninsula and Aleutian Islands. U.S. Geol. Surv. Bull. 857-D, 1934, 12 pp.
100. _____. The Southern Alaska Range. U.S. Geol. Surv. Bull. 682, 1935, 101 pp.
101. _____. The Toklat-Tonzona River Region. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1925. U.S. Geol. Surv. Bull. 792-C, 1927, pp. 73-110.
102. _____. The Yentna District, Alaska. U.S. Geol. Surv. Bull. 534, 1913, 72 pp.
103. Cass, J. T. Reconnaissance Geologic Map of the Candle Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-287, 1959, 1 sheet.
104. _____. Reconnaissance Geologic Map of the Norton Bay Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-286, 1959, 1 sheet.
105. _____. Reconnaissance Geologic Map of the Nulato Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-291, 1959, 1 sheet.
106. _____. Reconnaissance Geologic Map of the Ruby Quadrangle. U.S. Geol. Surv. Misc. Geol. Investigations Map I-289, 1959, 1 sheet.
107. _____. Reconnaissance Geologic Map of the Unalakleet Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-288, 1959, 1 sheet.
108. Cathcart, S. H. Metalliferous Lodes in Southern Seward Peninsula, Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1920. U.S. Geol. Surv. Bull. 722-F, 1922, pp. 163-261.
109. _____. Mining in Northwestern Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1918. U.S. Geol. Surv. Bull. 712-G, 1920, pp. 185-198.

110. Chadwick, R. H. Coal for Ruby Creek; A Report of Preliminary Reconnaissance. Bear Creek Min. Co., Northwest District, Spokane, WA., 1960, 21 pp.
111. Chapin, T. Mining Developments in the Matanuska Coal Fields. Ch. in Mineral Resources of Alaska Report of Investigations in 1918. U.S. Geol. Surv. Bull. 712-E, 1920, pp. 131-167.
112. _____. Mining Developments in the Matanuska Coal Fields. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1919. U.S. Geol. Surv. Bull. 714-D, 1921, pp. 197-199.
113. _____. Mining in the Fairbanks District. Ch. in Mineral Resources of Alaska Report on Investigations in 1917. U.S. Geol. Surv. Bull. 692, 1919, pp. 321-327.
114. _____. Tin Deposits of the Ruby District. Ch. in Mineral Resources of Alaska Report on Investigations in 1917. U.S. Geol. Surv. Bull. 692, 1919, p. 337.
115. Chapman, R. M. Coal Deposits Along the Yukon River Between Ruby and Anvik, Alaska. Ch. in Contributions to Economic Geology of Alaska. U.S. Geol. Surv. Bull. 1155, 1963, pp. 18-29.
116. _____. Progress Report on New Geologic Mapping in the Ruby Quadrangle. Ch. in United States Geological Society in Alaska: Accomplishments During 1975. U.S. Geol. Surv. Circ. 733, 1976, pp. 41-42.
117. Chapman, R. M., and E. G. Sable. Geology of the Utukok-Corwin Region, Northwestern Alaska. U.S. Geol. Surv. Prof. Paper 303-C, 1960, 120 pp.
118. Chapman, R. M., F. R. Weber, and B. Tabor. Preliminary Geologic Map of the Livingood Quadrangle, Alaska. U.S. Geol. Surv. OFR 483, 1971, 2 sheets.
119. Chleborad, A. F., L. A. Yehle, H. R. Schmoll, and C. A. Gardner. Preliminary Field Geotechnical and Geophysical Logs From a Drill Hole in the Capps Coal Field, Cook Inlet Region, Alaska. U.S. Geol. Surv. OFR 80-393, 1980, 29 pp.
120. Chleborad, A. F., L. A. Yehle, H. R. Schmoll, C. A. Gardner, and L. L. Dearborn. Preliminary Geotechnical and Geophysical Logs From Drill Hole 2C-80 in the Capps Coal Field, Cook Inlet Region, Alaska. U.S. Geol. Surv. OFR 82-884, 1982, 9 pp.
121. Clardy, B. I. Bedrock Geologic Features of the Matanuska Valley. Ch. in Guide to the Bedrock and Glacial Geology of the Glenn Highway, Anchorage to Matanuska Glacier and the Matanuska Coal Mining District. AK Geol. Soc., 1982, pp. 33-44.
122. Clark, P. R. Transportation Economics of Coal Resources of Northern Slope Coal Fields, Alaska. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 31, 1973, 134 pp.
123. Clough, J. G., G. R. Eakins, and M. Menge. Preliminary Report on Kallarichuk River Area Coal Occurrences. AK Div. Geol. and Geophys. Surv. Public Data File 83-4, 1983, 6 pp.
124. _____. Preliminary Report on the Hockley Hills-Singauruk River Area Coal Occurrences. AK Div. Geol. and Geophys. Surv. Public Data File 83-3, 1983, 6 pp.
125. Coal Age. Arch Mineral Buys Diamond Shamrock Coal for \$135 Million. V. 91, No. 9, 1986, p. 21.
126. _____. Diamond Shamrock Plans Alaskan Coal Mine Project. V. 21, No. 1, 1986, p. 39.

127. Coal Miner. Alaska's Usibelli Coal Mine Expands Into Export Markets. V. 7, No. 6, 1983, pp. 30-31.
128. Cobb, E. H. Metallic Mineral Resources Map of the Mount Hayes Quadrangle, Alaska. U.S. Geol. Surv. Misc. Field Studies Map MF 414, 1972, 1 sheet.
129. Cobb, E. H., and T. P. Miller. Summaries on Data and Lists of References to Metallic and Selected Nonmetallic Mineral Occurrences in the Hughes, Kotzebue, Melozitna, Selawik, and Shungnak Quadrangles, West-Central Alaska. U.S. Geol. Surv. OFR 81-847-B, 1981, 15 pp.
130. Collier, A. J. Coal Fields of the Cape Lisburne Region. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1904. U.S. Geol. Surv. Bull. 259, 1905, pp. 172-185.
131. _____. The Coal Resources of the Yukon, Alaska. U.S. Geol. Surv. Bull. 218, 1903, 71 pp.
132. _____. Coal Resources of the Yukon Basin, Alaska. Ch. in Contributions to Economic Geology. U.S. Geol. Surv. Bull. 213, 1903, pp. 276-283.
133. _____. Geology and Coal Resources of the Cape Lisburne Region, Alaska. U.S. Geol. Surv. Bull. 278, 1906, 54 pp.
134. Collier, A. J., F. H. Hess, P. S. Smith, and A. H. Brooks. The Gold Placers of Parts of Seward Peninsula, Alaska, Including the Nome, Council, Kougarok, Port Clarence, and Goodhope Precincts. U.S. Geol. Surv. Bull. 328, 1908, 217 pp.
135. Collins, F. R. Test Wells, Meade and Kaolak Areas, Alaska. Ch. in Exploration of Naval Petroleum Reserve No. 4 and Adjacent Areas, Northern Alaska, 1944-53, pt. 5, Subsurface Geology and Engineering Data. U.S. Geol. Surv. Prof. Paper 305-F, 1959, 35 pp.
136. Committee on Alaskan Coal Mining and Reclamation (COACMAR). Surface Coal Mining in Alaska, An Investigation of the Surface Mining Control and Reclamation Act of 1977 in Relation to Alaska. Washington D.C., Natl. Acad. Press, 1980, (reprinted by Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 4), 328 pp.
137. Conwell, C. N. Alaskan Coal Mining Laws and Regulations. Paper in Focus On Alaska's Coal, '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 164-167.
138. _____. Land Reclamation is an Integral Part of the Only Operating Coal Mine in Alaska. AK Div. Geol. and Geophys. Surv. Misc. Publ., 1977, pp. 21-28.
139. _____. Land Reclamation is an Integral Part of the Only Operational Coal Mine in Alaska. The Coal Miner, v. 2, No. 3, 1977, pp. 21-30.
140. _____. Samples From Healy Coal Field Analyzed. AK Div. Geol. and Geophys. Surv. AK Mines and Geol., v. 25, No. 1, 1976, pp. 1-4.
141. Conwell, C. N., and D. M. Triplehorn. Coal for Alaska Villages. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 172-180.
142. _____. Herendeen Bay-Chignik Coals, Southern Alaska Peninsula. AK Div. Geol. and Geophys. Surv. Spec. Rep. 8, 1978, 15 pp.

143. Conwell, C. N., D. M. Triplehorn, and V. M. Ferrell. Coals of the Anchorage Quadrangle. AK Div. Geol. and Geophys. Surv. Spec. Rep. 17. 1982, 8 pp.
144. Coonrad, W. L. Geologic Reconnaissance in the Yukon-Kuskokwim Delta Region, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-223, 1957, 1 sheet.
145. Cooper, H. M., R. F. Abernethy, and E. C. Tarpley. Description of Mine Samples. Ch. in Analyses of Alaska Coal. BuMines TP 682, 1946, pp. 70-107.
146. Cooper, H. M., N. H. Snyder, R. F. Abernethy, E. C. Tarpley, and R. J. Swingle. Analysis of Mine, Tipple, and Delivered Samples. Ch. in Analyses of Alaska Coals. BuMines TP 682, 1946, pp. 19-69.
147. Cortella Coal Corporation. Description of Coal Occurrences IV--Carbon Creek Valley; Compiled Geologic Data on Bering River Coal Fields, Alaska. Unpublished rep., 1968, 200 pp.; available from Anchorage Historical Library, Anchorage, AK.
148. Crane, W. R. Chignik Bay, Alaska, Coal Fields. Colliery Eng., v. 35, No. 9, 1915, pp. 457-461.
149. Davis, C. A. The Possible Use of Peat Fuel in Alaska. Ch. in Mineral Resources of Alaska: Report on Progress of Investigations in 1908. U.S. Geol. Surv. Bull. 379-A, 1909, pp. 63-66.
150. _____. The Preparation and Use of Peat as Fuel. Ch. in Mineral Resources of Alaska; Report on Progress of Investigations in 1909. U.S. Geol. Surv. Bull. 442-B, 1910, pp. 101-132.
151. Davis, J. A., and P. Hopkins. Comparative Steaming Tests of Nenana Lignite and Matanuska Bituminous Coals. BuMines RI 2412, 1922, 9 pp.
152. Davis, J. D., D. A. Reynolds, R. E. Brewer, B. W. Naugle, D. E. Wolfson, F. H. Gibson, and G. W. Birge. Carbonizing Properties: British Columbia, Matanuska Valley (Alaska), and Washington Coals and Blends of Six of Them With Lower Sunnyside (Utah) Coals. BuMines B 510, 1952, 42 pp., 22 figs.
153. Denton, S. W. Geology and Coal Resources of the Lower Lignite Creek Area. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 138-143.
154. Detterman, R. L. Interpretation of Depositional Environments in the Chignik Formation, Alaska Peninsula. Ch. in The United States Geological Survey In Alaska: Accomplishments During 1977. U.S. Geol. Surv. Circ. 772-B, 1978, pp. 62-63.
155. Detterman, R. L., T. P. Miller, M. E. Yount, and F. H. Wilson. Geologic Map of the Chignik and Sutwik Island Quadrangles, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-1229, 1981, 1 sheet.
156. Detterman, R. L., G. Plafker, R. G. Tysdal, and T. Hudson. Geology and Surface Features Along Part of the Talkeetna Segment of the Castle Mountain-Caribou Fault System, Alaska. U.S. Geol. Surv. Misc. Field Studies Map MF-738, 1976, 1 sheet.
157. Diamond Shamrock. The Cook Inlet Story II. Construction, Production and Financial Summary. 1985, 10 pp.
158. Dickey, D. B. Cenozoic Non-Marine Sedimentary Rocks of the Farewell Fault Zone, McGrath Quadrangle, Alaska. Sedimentary Geol., v. 38, 1984, pp. 443-463.

159. Dickson, R. K. Uranium Mineralization in the Nenana Coal Field, Alaska. Ch. in Short Notes on Alaskan Geology. 1981. AK Div. Geol. and Geophys. Surv. Geol. Rep. 73, 1982, pp. 37-42.
160. Dillon, J. T., M. Moorman, and L. L. Lueck. Geochemical Reconnaissance of the Southwest Wiseman Quadrangle; Summary Data On Rock Samples. AK Div. Geol. and Geophys. Surv. OFR 133-B, 1980, pp. 101-102, 1 sheet.
161. Eakin, H. M. A Geologic Reconnaissance of a Part of the Rampart Quadrangle, Alaska. U.S. Geol. Surv. Bull. 535, 1913, 38 pp.
162. _____. Placer Mining in the Ruby District. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1913. U.S. Geol. Surv. Bull. 592, 1914, pp. 363-369.
163. Eakins, G. R. Coal Investigations at Chicago Creek, Seward Peninsula, Alaska. AK Div. Geol. and Geophys. Surv. Public Data File 85-23, 1985, 3 pp.
164. Eakins, G.R., T. K. Bundtzen, L. L. Lueck, C. B. Green, J. L. Gallagher, and M. S. Robinson. Alaska's Mineral Industry--1984. AK Div. Geol. and Geophys. Surv. Spec. Rep. 38, 1985, 57 pp.
165. Eakins, G. R., T. K. Bundtzen, M. S. Robinson, J. G. Clough, C. B. Green, K. H. Clautice, and M. A. Albanese. Alaska's Mineral Industry--1982. AK Div. Geol. and Geophys. Surv. Spec. Rep. 31, 1983, 63 pp.
166. Eakins, G. R., and C. N. Conwell. Coal Programs of the Alaska Division of Geological and Geophysical Surveys. Paper in Focus On Alaska's Coal, '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 464-465.
167. Ebbley, N., Jr., and H. C. Pierce. Coal Deposits, Point Barrow and Wainwright Areas, Northern Alaska. BuMines War Miner. Rep. 438, 1945, 16 pp.; available from AFOC, BuMines, Anchorage, AK.
168. Eilersieck, I., I. L. Tailleux, C. F. Mayfield, and S. M. Curtis. A New Find of Upper Cretaceous or Tertiary Sedimentary Rocks in the Noatak Valley. Ch. in The United States Geological Survey: Accomplishments During 1978. U.S. Geol. Surv. Circ. 804-B, 1979, p. 13.
169. Fieldner, A. C., W. A. Selvig, and J. W. Paul. Analyses of Mine and Car Samples of Coal Collected in the Fiscal Years 1916 to 1919. BuMines B 193, 1922, 391 pp.
170. Fieldner, A. C., H. I. Smith, J. W. Paul, and S. Sanford. Analyses of Mine and Car Samples of Coal Collected in the Fiscal Years 1913 to 1916. BuMines B 123, 1918, 478 pp.
171. Forbes, R. B. Rainbow Mountain-Gulkana Area Reports (Rainbow Mountain). AK Territorial Dep. of Mines MR-68-1, 1962, 4 pp.
172. Foster, H. L. Geologic Map of the Eagle Quadrangle, Alaska. U.S. Geol. Surv. Misc. Investigations Map I-922, 1976, 1 sheet.
173. Fowler, D. A. Some Geological Aspects of Coal Occurrences at Yanert, Alaska. B.S. Thesis, Univ. AK, Fairbanks, AK, 1936, 18 pp.
174. Gates, G. L. Coal Fields of Alaska. Ch. in Analyses of Alaska Coals. BuMines TP 682, 1946, pp. 1-9.
175. Geer, M. R., and F. D. Fennessey. Washability of Coals From the Matanuska Valley and Beluga River Fields, Alaska. BuMines RI 6017, 1962, 33 pp.

176. Geer, M. R., M. Solaski, and P. S. Jacobsen. Performance of Tables in Cleaning Alaska Coals. BuMines RI 6054, 1962, 26 pp.
177. Geer, M. R., and F. H. Yancey. Washability Characteristics and Washing of Coals From the Matanuska Field of Alaska. BuMines RI 3840, 1946, 17 pp.
178. Geist, O. W., and F. G. Rainey. Archaeological Excavations at Kukulik, St. Lawrence Island, Alaska. GPO, Washington, D.C., Univ. AK Misc. Publ., v. 2, 1936, pp. 390-391.
179. Goff, K. M. Report on Coal Resources on or Proximal to Doyon, Ltd., and Village Selected Lands. Consultant's Report Prepared for Doyon, Ltd., Fairbanks, AK, 1984, 58 pp., 5 sheets; available from AFOC, BuMines, Anchorage, AK.
180. Grant, U. S., and D. F. Higgins. Preliminary Report on the Mineral Resources of the Southern Part of Kenai Peninsula. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1909. U.S. Geol. Surv. Bull. 442-D, 1910, pp. 166-178.
181. Grantz, A. Stratigraphic Reconnaissance of the Matanuska Formation in the Matanuska Valley, Alaska. U.S. Geol. Surv. Bull. 1181-I, 1964, 33 pp.
182. Grantz, A., and D. L. Jones. Stratigraphy and Age of the Matanuska Formation, South-Central Alaska. Ch. in Geological Survey Research 1960. U.S. Geol. Surv. Prof. Paper 400-B, 1960, pp. 347-350.
183. Grey, H. Mining and Conversion of Homes to Coal for Home Heating at Atkasuk, Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 181-188.
184. Hankinson, F. C. Petrographic Evaluation of Coking Potential of Selected Alaskan Coals and Blends. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 3, 1965, 35 pp.
185. Harker, D. F., Jr. Alaska Coal Mined Land Inventory. Prepared by Plangraphics, Inc., Frankfort, KY. for AK Dep. Nat. Resour. Div. Miner. and Energy Management, Unpublished rep., 1983, 268 pp.; available from AFOC, BuMines, Anchorage, AK.
186. Harrington, G. L. The Anvik-Andreafski Region, Alaska. U.S. Geol. Surv. Bull. 683, 1918, 70 pp.
187. _____. The Gold and Platinum Placers of the Kiwalik-Koyuk Region. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1917. U.S. Geol. Surv. Bull. 692-G, 1919, pp. 369-400.
188. _____. Mining on Seward Peninsula. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1919. U.S. Geol. Surv. Bull. 714-F, 1921, pp. 229-237.
189. Harza-Ebasco Susitna Joint Venture. Definition and Costs of Thermal Power Alternatives to Susitna. Prepared for the AK Power Authority. Draft rep., 1985, 139 pp.; available from Anchorage Resource Library, Anchorage, AK.
190. _____. Hypothetical Mining Studies and Coal Price Estimates Beluga and Nenana Coal Fields. Prepared for the AK Power Authority by Paul Wier Co. Final Rep., 1985, 42 pp.; available from Anchorage Resource Library, Anchorage, AK.

191. _____. Susitna Hydroelectric Project-Analysis of the Coal Alternative for Supplying Power to the Railbelt Region of Alaska. Prepared for the AK Power Authority. Draft Rep., 1985, 127 pp.; available from Alaska Resource Library, Anchorage, AK.
192. _____. Susitna Hydroelectric Project-Analysis of Factors Affecting Demand, Supply and Prices of Railbelt Coal. Prepared for the AK Power Authority by Dames and Moore. Draft rep., 1985, 115 pp.; available from Alaska Resource Library, Anchorage, AK.
193. Hawley, C. C., and Associates, Inc. Mineral Appraisal of Lands Adjacent to Mt. McKinley National Park, Alaska (BuMines contract J0166107). BuMines OFR 24-78, 1978, 274 pp.
194. Healy River Coal Company. General Map, Suntrana Mine; Lease No. Fairbanks 01068. 1952, 1 sheet; available from AFOC, BuMines, Juneau, AK.
195. Heiner, L. E., and E. N. Wolff. Mineral Resources of Northern Alaska, Final Report. Univ. AK Miner. Ind. Res. Lab. Rep. 16, 1968, 169 pp.
196. Henshaw, F. F. Kukpowruk River Coal Prospect Near Point Lay, Alaska. Union Carbide Ore Co., 1961, 14 pp.; available from BLM, Mineral Management Service, Anchorage, AK.
197. _____. Mining in Seward Peninsula. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1909. U.S. Geol. Surv. Bull. 442-I, 1910, pp. 353-372.
198. _____. Mining in the Fairhaven Precinct. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1908. U.S. Geol. Surv. Bull. 379-F, 1909, pp. 355-369.
199. _____. Surface Water Supply of Southeastern Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1930. U.S. Geol. Surv. Bull. 836, 1933, pp. 137-218.
200. Herreid, G. Geology and Geochemistry of the Sinuk Area, Seward Peninsula, Alaska. AK Div. Mines and Geol. Geol. Rep. 36, 1970, 63 pp.
201. Hoare, J. M., and W. L. Coonrad. Geology of the Bethel Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-285, 1959, 1 sheet.
202. Holdsworth, P. R. Beluga River Coal Field. AK Territorial Dep. Mines MI-84-1, 1956, 12 pp.
203. Holzheimer, F. W. A Note on the Occurrence of Coal Near Napamute, Kuskokwim River, Alaska. AK Territorial Dep. Mines MI-82-1, 1926, 3 pp.
204. _____. Occurrence of Coal on Eek River (Lower Kuskokwim). AK Territorial Dep. Mines MI-91-1, 1926, 8 pp.
205. _____. The Occurrence of Coal on the Yukon River, Alaska. AK Territorial Dep. Mines MR-194-1, 1926, 10 pp.
206. Hopkins, D. M. Lignite Deposits Near Broad Pass Station, Alaska. Ch. in Coal Investigations in South-Central Alaska, 1944-46, Mineral Resources of Alaska 1944-1946. U.S. Geol. Surv. Bull. 963-E, 1951, pp. 187-191.
207. Huber, D. W. and J. R. Scott. Coal Mining in Alaska. AK Territorial Dep. Mines MR-195-36, 1964, 11 pp.

208. Jasper, M. W., and W. D. Robinson. Coal Occurrences on Sitkinak Island (Trinity Islands). AK Territorial Dep. Mines PE-135-1, 1958, 6 pp.
209. _____. Preliminary Investigation of Coal Occurrences, Sitkinak Island, Trinity Island Quadrangle, Kodiak Precinct, Alaska. AK Div. Mines and Geol. Examination Rep. 135-1, 1959, 6 pp.
210. Jolley, T. R., and H. W. Russell. Control of Fires in Inactive Coal Deposits in Western United States, Including Alaska, 1948-1958. BuMines IC 7932, 1959, 22 pp.
211. Jolley, T. R., and A. L. Toenges. Investigation of Coal Deposits in Southcentral Alaska and the Kenai Peninsula. BuMines RI 4520, 1949, 37 pp.
212. Jolley, T. R., A. L. Toenges, and L. A. Turnbull. Bituminous-Coal Deposits in the Vicinity of Esko, Matanuska Valley Coal Field, Alaska. BuMines RI 4838, 1952, 86 pp.
213. Kaiser Engineers, Inc. Technical and Economic Feasibility, Surface Mining Coal Deposits, North Slope of Alaska. (BuMines contract J026051). BuMines OFR 153-77, 1977, 158 pp.
214. Kaufman, M. A. Geology and Mineral Deposits of the Denali-MaClaren River Areas. AK Geol. and Geophys. Surv. Geol. Rep. 4, 1964, 14 pp.
215. Kederick, R. Evan Jones Coal Mine in Alaska. Explosives Eng., No. 4, 1953, pp. 103-107, 122-123.
216. Kirshenbaum, N. W. A Preview of the Beluga Methanol Project. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 374-386.
217. Knappen, R. S. Geology and Mineral Resources of Aniakchak District, Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1926. U.S. Geol. Surv. Bull. 797-F, 1929, pp. 161-227.
218. Knutson, H. A. Geologic and Economic Evaluation of Bituminous Coal, Kukpowruk River Region, Northern Coal Field, Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf. Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 62-78.
219. Kurtz, C. W. Report on the Alaska Coal Situation, March- April, 1946. AK Territorial Dep. Mines MR-195-29, 1946, 30 pp.
220. Landers, W. S., and others. Carbonization Study on Bituminous Coal From the Kukpowruk River Area, Alaska. BuMines Spec. Rep. D-189 (project W/O-63-211), 1963, 68 pp.; available from AFOC, BuMines, Juneau, AK.
221. Landes, K. K. Geology of the Knik-Matanuska District. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1925. U.S. Geol. Surv. Bull. 792-B, 1927, pp. 51-72.
222. Lathram, E. H., J. S. Pomeroy, H. C. Berg, and R. A. Loney. Reconnaissance Geology of Admiralty Island, Alaska. U.S. Geol. Surv. Bull. 1181-R, 1965, 48 pp.
223. Lorain, S. H. Report of Reconnaissance Examination Ringstad Coal Lease Kukpowruk River, Alaska. BuMines unpublished rep., 1957, 12 pp.; available from AFOC, BuMines, Juneau, AK.
224. Lord, N. W. Analyses of Coals in the United States, with Descriptions of Mine and Field Samples Collected Between July 1, 1904, and June 30, 1910. BuMines B 22, 1913, 1250 pp.

225. Lynch, D. F., N. I. Johansen, C. Lambert, Jr., and E. N. Wolff. Constraints on the Development of Coal Mining in Arctic Alaska Based on Review of Eurasian Arctic Practices. (BuMines contract S0133057) BuMines OFR 41-78 and Min. Ind. Reserch Lab (MIRL) Rep. No. 49, 1978, 219 pp.
226. MacKevett, E. M., Jr. Geologic Map of the McCarthy Quadrangle, Alaska. U.S. Geol Surv. Misc. Investigations Map I-1032, 1978, 1 sheet.
227. MacKevett, E. M., Jr., D. A. Brew, C. C. Hawley, L. C. Huff, and J. G. Smith. Mineral Resources of Glacier Bay National Monument, Alaska. U.S. Geol. Surv. Prof. Paper 632, 1971, 90 pp.
228. Maddren, A. G. The Beach Placers of the West Coast of Kodiak Island. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1917. U.S. Geol. Surv. Bull. 692, 1919, pp. 299-319.
229. _____. Gold Placers Near the Nenana Coal Field. Ch. in U.S. Geol Surv. Bull. 662, 1918, pp. 363-402.
230. _____. The Innoko Gold Placer District, Alaska, With Accounts of the Central Kuskokwim Valley and the Ruby Creek and Gold Hill Placers. U.S. Geol. Surv. Bull. 410, 1910, pp. 45, 56-57.
231. Makinen, H. L. Alaska's First Coal Mine and the Man Who Opened It (Letter written in St. Petersburg, Russia, Jan. 22, 1863), 1863, 7 pp.; available from Alaska Historical Library, Anchorage, AK.
232. Maloney, R. P. Examination of the Castle Mountain Coal Company Mine. BuMines unpublished rep., 1955, 4 pp.; available from AFOC, BuMines, Juneau, AK.
233. _____. Reconnaissance of the Beluga River Coalfield, Alaska. BuMines RI 5430, 1958, 18 pp.
234. Marstrander, H., G. A. Apell, F. A. Rutledge, and J. H. Hulbert. Exploration of Leasing Block No. 28 in the Nenana Coal Field, Alaska. BuMines RI 3951, 1946, 21 pp.
235. Martin, G. C. The Alaska Coal Fields. Ch. in Report of Investigations of Mineral Resources of Alaska in 1906. U.S. Geol. Surv. Bull. 314-B, 1907, pp. 40-46.
236. _____. The Alaskan Mining Industry in 1917. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1917. U.S. Geol. Surv. Bull. 692-A, 1919, pp. 1-42.
237. _____. The Alaskan Mining Industry in 1918. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1918. U.S. Geol. Surv. Bull. 712-A, 1920, pp. 11-52.
238. _____. The Bering River Coal Field. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1904. U.S. Geol. Surv. Bull. 259, 1905, pp. 140-150.
239. _____. Distribution and Character of the Bering River Coal. Ch. in Report of Progress of Investigations of Mineral Resources in Alaska in 1905. U.S. Geol. Surv. Bull. 284, 1906, pp. 65-77.
240. _____. Geologic Problems at the Matanuska Coal Mines. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1917. U.S. Geol. Surv. Bull. 692-D, 1919, pp. 269-282.
241. _____. Geology and Mineral Resources of the Controller Bay Region, Alaska. U.S. Geol. Surv. Bull. 335, 1908, 141 pp.
242. _____. Markets for Alaska Coal. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1905. U.S. Geol. Surv. Bull. 284, 1906, pp. 18-29.

243. _____. Mineral Deposits of Kodiak and the Neighboring Islands. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1912. U.S. Geol. Surv. Bull. 542-E, 1913, pp. 125-136.
244. _____. Petroleum Fields of Alaska and the Bering River Coal Fields. Ch. in Contributions to Economic Geology. U.S. Geol. Surv. Bull. 225, 1904, pp. 365-382.
245. _____. The Nenana Coal Field, Alaska. U.S. Geol. Surv. Bull. 664, 1919, 54 pp.
246. _____. The Petroleum Fields of the Pacific Coast of Alaska, With An Account of the Bering River Coal Deposits. U.S. Geol. Surv. Bull. 250, 1905, 64 pp.
247. _____. Preliminary Report on a Detailed Survey of Part of the Matanuska Coal Fields. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1910. U.S. Geol. Surv. Bull. 480, 1911, pp. 128-138.
248. _____. Preliminary Statement on the Matanuska Coal Field. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1905. U.S. Geol. Surv. Bull. 284, 1906, pp. 88-100.
249. _____. A Reconnaissance of the Matanuska Coal Field, Alaska, in 1905. U.S. Geol. Surv. Bull. 289, 1906, 36 pp.
250. _____. The Western Part of the Kenai Peninsula. Ch. in Geology and Mineral Resources of Kenai Peninsula, Alaska. U.S. Geol. Surv. Bull. 587, 1915, pp. 41-112.
251. Martin, G. C., B. L. Johnson, and U. S. Grant. Geology and Mineral Resources of the Kenai Peninsula, Alaska. U.S. Geol. Surv. Bull. 587, 1915, 243 pp.
252. Martin, G. C., and J. B. Mertie, Jr. Mineral Resources of the Upper Matanuska and Nelchina Valleys. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1913. U.S. Geol. Surv. Bull. 592-H, 1914, pp. 273-299.
253. Matheson, H. J. Development of Alaskan Coals--a Challenge. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 266-271.
254. May, R. R., and R. S. Warfield. Investigation of Subbituminous-Coal Beds Near Houston, Westward Extremity of Matanuska Coalfield, Alaska. BuMines RI 5350, 1957, 20 pp.
255. McCutcheon, S. Usibelli--Last of the Coal Barons. AK Construction and Oil, v. 11, 1970, p. 2.
256. McFarland, C. E. Evan Jones Coal Operation. Min. Eng., v. 13., No. 12, 1961, pp. 1330-1332.
257. _____. Past and Future Coal Mining in Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep 50, 1981, pp. 483-484.
258. McFarlane, R. Palynology and Coal. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 189-193.
259. McFarlane, R., R. Sanders, and P. D. Rao. Application of Palynological Techniques for Correlation of Coal Seams in the Lower Lignite Creek Area, Nenana Coal Field. Univ. AK, Fairbanks OFR 80-4, 1980, 27 pp.

260. McGee, D. L. Gasification Prospects and Application in Cook Inlet, Alaska. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. of AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 227-239.
261. McMillan, E. R. Report of First Runs on New Coal Washery at Sutton, Alaska, and Washing Tests on Chickaloon Coal. Northwest Experiment Station, Seattle, WA., 1922, 8 pp.; available from Northwest Experiment Station, Seattle, WA.
262. Mendenhall, W. C. Reconnaissance From Fort Hamlin to Kotzebue Sound, Alaska, by Way of Dall, Kanuti, Allen, and Kowak Rivers. U.S. Geol. Surv. Prof. Paper 10, 1902, 65 pp.
263. _____. Geology of the Central Copper River Region, Alaska. U.S. Geol. Surv. Prof. Paper 41, 1905, 133 pp.
264. Mendenhall, W. C., and F. C. Schrader. The Mineral Resources of the Mount Wrangell District, Alaska. U.S. Geol. Surv. Prof. Paper 15, 1903, 71 pp.
265. Merritt, R. D. Alaska Coal Data Base: Explanation Guide to Accompany Map of Alaska's Coal Resources. AK Div. Geol. and Geophys. Surv. Public Data File 85-22, 1985, 76 pp.
266. _____. Alaska Coal Summary--1983. AK Div. Geol. and Geophys. Surv. Public Data File 85-21, 1985, 46 pp.
267. _____. Coal Atlas of the Matanuska Valley, Alaska. AK Div. Geol. and Geophys. Surv. Public Data File 85-45, 1985, 270 pp.
268. _____. Coal Atlas of the Nenana Basin, Alaska. AK Div. Geol. and Geophys. Surv. Public Data File 85-41, 1985, 197 pp.
269. _____. Coal Resources, Exploration, and Development in Alaska. AK Div. Geol. and Geophys. Surv. Public Data File 85-20, 1985, 21 pp.
270. _____. Field Trip Guidebook: Lignite Creek and Healy Creek Coal Fields, Nenana Basin, Alaska. AK Div. Geol. and Geophys. Surv. Public Data File 85-19, 1985, 57 pp.
271. _____. Review of Coking Phenomena in Relation to an Occurrence of Prismatic Fractured Natural Coke From the Castle Mountain Mine, Matanuska Coal Field, Alaska. Int. J. of Coal Geol., v. 4, 1985, pp. 281-298.
272. Merritt, R. D., G. R. Eakins, and J. G. Clough. Coal Investigation of the Susitna Lowland. AK Div. Geol. and Geophys. Surv. OFR 142, 1982, 84 pp.
273. Merritt, R. D. and C. C. Hawley. Map of Alaska's Coal Resources. AK Div. Geol. and Geophys. Surv. Spec. Rep. 37, 1986, 1 sheet.
274. Mertie, J. B., Jr. A Geologic Reconnaissance of the Dennison Fork District, Alaska. U.S. Geol. Surv. Bull. 827, 1931, pp. 42-43.
275. _____. Mineral Deposits of the Rampart and Hot Springs Districts. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1931. U.S. Geol. Surv. Bull. 844-D, 1934, pp. 163-226.
276. _____. Mineral Deposits of the Ruby-Kuskokwim Region, Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1933. U.S. Geol. Surv. Bull. 864-C, 1936, pp. 115-254.

277. _____. Mining in the Fortymile District, Alaska. Ch. in Mineral Resources of Alaska Report on the Progress of Investigations in 1928. U.S. Geol. Surv. Bull. 813-C, 1930, pp. 125-142.
278. _____. Platinum-Bearing Gold Placers of the Kahiltna Valley. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1917. U.S. Geol. Surv. Bull. 692-D, 1919, pp. 233-264.
279. _____. The Yukon-Tanana Region, Alaska. U.S. Geol. Surv. Bull. 872, 1937, 276 pp.
280. Mertie, J. B., Jr., and G. L. Harrington. Mineral Resources of the Ruby-Kuskokwim Region. Ch. in Mineral Resources of Alaska Report on the Progress of Investigations in 1915. U.S. Geol. Surv. Bull. 642-H, 1916, pp. 223-266.
281. _____. The Ruby-Kuskokwim Region, Alaska. U.S. Geol. Surv. Bull. 754, 1924, 129 pp.
282. Metz, P. A. Mine Plan and Preliminary Feasibility Study for the Jarvis Creek Coal Field; A Model for Small Scale Mine Development. Univ. AK Miner. Ind. Res. Lab. (MIRL), Unpublished rep., 1981, 70 pp.; available from Univ. AK Miner. Ind. Res. Lab., Fairbanks, AK.
283. _____. Mining, Processing and Marketing of Coal From Jarvis Creek Field. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, p. 171.
284. Miller, D. J. Geology of the Southeastern Part of the Robinson Mountains, Yakataga District, Alaska. U.S. Geol. Surv. Oil and Gas Investigations Map OM-187, 1957, 1 sheet.
285. Mitchell, G. A., W. W. Mitchell, and J. D. McKendrick. Soil Characterization of Alaskan Coal Mine Spoils. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. of AK, Fairbanks, AK, 1980). Univ. AK Min. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 412-417.
286. Moffit, F. H. Fairhaven Gold Placers, Seward Peninsula, Alaska. U.S. Geol. Surv. Bull. 247, 1905, 85 pp.
287. _____. Geology of the Gerstle River District, Alaska, With A Report on the Black Rapids Glacier. Ch. in Mineral Industry of Alaska in 1939. U.S. Geol. Surv. Bull. 926, 1942, pp. 107-160.
288. _____. Gold Fields of the Turnagain Arm Region. Ch. in Mineral Resources of the Kenai Peninsula, Alaska. U.S. Geol. Surv. Bull. 227, 1906, 80 pp.
289. _____. The Kantishna District. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in Alaska in 1930. U.S. Geol. Surv. Bull. 836-D, 1933, pp. 301-338.
290. _____. Mineral Industry of Alaska in 1925. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1925. U.S. Geol. Surv. Bull. 792-A, 1927, pp. 1-40.
291. _____. Mineral Resources of the Upper Chitina Valley. U.S. Geol. Surv. Bull. 642, 1916, pp. 129-136.
292. _____. Mining in the Lower Copper River Basin. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1916. U.S. Geol. Surv. Bull. 662-C, 1917, pp. 155-182.
293. _____. The Upper Susitna and Chistochina Districts. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1910. U.S. Geol. Surv. Bull. 480-F, 1911, pp. 112-127.

294. Moffit, F. H. and A. Knopf. Mineral Resources of the Nabesna- White River District. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1908. U.S. Geol. Surv. Bull. 379, 1909, pp. 161-180.
295. _____. Mineral Resources of the Nabesna-White River District, Alaska. U.S. Geol. Surv. Bull. 417, 1910, 64 pp.
296. Moffit, F. H., and A. G. Maddren. The Mineral Resources of the Kotsina and Chitina Valleys, Copper River Region. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1907. U.S. Geol. Surv. Bull. 345-C, 1908, pp. 127-175.
297. _____. Mineral Resources of the Kotsina-Chitina Region, Alaska. U.S. Geol. Surv. Bull. 374, 1909, 103 pp.
298. Mulligan, J. J. Coals in Alaska. Soc. of Min. Eng. of AIME, Trans., v. 274, No. 9, 1986, pp. 2036-2040.
299. _____. Mineral Resources of the Trans-Alaska Pipeline Corridor. BuMines IC 8626, 1974, 24 pp.
300. Murphy, L. A. Alaska's Coal-Leasing Program. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 446-451.
301. Nakabayashi, Y. The Feasibility of Beluga Coal as Fuel for the Power Industries of Japan and the Present Status of Research and Development on Beluga Coal in Japan. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 319-330.
302. Nemeth, I. Usibelli Coal Feels the Pinch on Efforts to Export to Pacific Rim. AK J. Commerce and Pacific Rim Reporter, v. 10, No. 36, 1986, p. 7.
303. Ode, W. H., and W. A. Selvig. Low-Temperature Distillation Yields of Primary Tar and Light Oil From Coals of Various Ranks and Types. BuMines RI 3748, 1944, 10 pp.
304. Odum, J. K., C. A. Gardner, L. A. Yehle, H. R. Schmoll, and L. L. Dearborn. Preliminary Lithologic, Geotechnical, and Geophysical Data From Drill Hole CW-81-2, Chuitna West Coal Field, Cook Inlet Region, Alaska. U.S. Geol. Surv. OFR 83-78, 1983, 12 pp., 2 sheets.
305. Olson Associates. Mining and Minerals in the Golden Heart of Alaska. Fairbanks North Star Borough, 1985, pp. 55-59.
306. Paige, S. The Herenden Bay Coal Field. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1905. U.S. Geol. Surv. Bull. 284, 1906, pp. 101-108.
307. Paige, S., and A. Knopf. Reconnaissance in the Matanuska and Talkeetna Basins, with Notes on the Placers of the Adjacent Region. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1906. U.S. Geol. Surv. Bull. 314, 1907, pp. 104-125.
308. Patsch, B. J. G. Exploration and Development of the Beluga Coal Field. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 72-83.

309. _____. Remaining Coal Resources of the Matanuska Field. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. of AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 144-151.
310. Patton, W. W., Jr. Reconnaissance Geology of the Northern Yukon-Koyukuk Province, Alaska. U.S. Geol. Surv. Prof. Paper 774-A, 1973, 17 pp.
311. _____. Regional Geologic Map of the Candle Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-492, 1967, 1 sheet.
312. Patton, W. W., Jr., and R. S. Bickel. Geologic Map and Structure Sections Along Part of the Lower Yukon River, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-197, 1956, 1 sheet.
313. Patton, W. W., Jr., and B. Csejtey, Jr. Geologic Map of St. Lawrence Island, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-1203, 1980, 1 sheet.
314. Patton, W. W., Jr., and T. P. Miller. Regional Geologic Map of the Selawik and Southeastern Baird Mountains Quadrangles, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-530, 1968, 1 sheet.
315. Patton, W. W., Jr., T. P. Miller, R. M. Chapman, and W. Yeend. Geologic Map of the Melozitna Quadrangle, Alaska. U.S. Geol. Surv. Misc. Investigations Map I-1071, 1978, 1 sheet.
316. Payne, T. G., and others. Geology of the Arctic Slope of Alaska. U.S. Geol. Surv. Oil and Gas Investigations Map OM-126, 1952, 3 sheets.
317. Pewe, T. L., C. Wahrhaftig, and F. Weber. Geologic Map of the Fairbanks Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-455, 1966, 1 sheet.
318. Pilgrim, E. R. Copper Mountain Area (Kantishna). AK Territorial Dep. Mines MR-66-2, 1930, 16 pp.
319. Plafker, G., and D. J. Miller. Reconnaissance Geology of the Malaspina District, Alaska. U.S. Geol. Surv. Oil and Gas Investigations Map OM-189, 1957, 1 sheet.
320. Plangraphics, Inc. Alaska Abandoned Mined Land Reclamation Plan. Prepared for the AK Dep. Nat. Resour., Div. Miner. and Energy Management, 1983, 147 pp.
321. Player, G., and D. P. Banister. The Little Tonzona Coal Bed Near Farewell, Alaska. BuMines unpublished rep., 1976, 10 pp.; available from AFOC, BuMines, Anchorage, AK.
322. Pollard, B. Estimated Production Costs Associated With Mining and Marketing the Coal at Cape Beaufort, Alaska. BuMines unpublished rep., 1973.; available from AFOC, BuMines, Juneau, AK.
323. Prindle, L. M. The Bonfield and Kantishna Regions. Ch. in Report on Progress of Investigations of Mineral Resources in 1906. U.S. Geol. Surv. Bull. 314, 1907, pp. 205-226.
324. _____. Coal. Ch. in A Geologic Reconnaissance of the Fairbanks Quadrangle, Alaska. U.S. Geol. Surv. Bull. 525, 1913, pp. 151-152.
325. Ramsey, J. P. Chuitna Coal is Waiting on Market. AK Ind., v. 13, No. 5, 1981, p. 12.

326. _____. Geology-Coal Resources and Mining Plan for the Chuitna River Field, Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 111-121.
327. Rao, P. D. Characterization of Alaska's Coals. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 33-47.
328. _____. Distribution of Certain Minor Elements in Alaskan Coals. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 15, 1968, 47 pp.
329. _____. Petrographic Determination of Rank of Alaskan Coals. Ch. in Report of Research Progress, 1971-1973. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 30, 1973, p. 15.
330. _____. Petrographic, Mineralogical and Chemical Characterization of Certain Arctic Alaskan Coals From the Cape Beaufort Region. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 44, 1980, 66 pp.
331. _____. Washability Characteristics of Low-Volatile Bituminous Coal From Bering River Field, Alaska. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 21, 1969, 40 pp.
332. Rao, P. D., and J. E. Smith. Petrology of Cretaceous Coals From Northern Alaska. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 64, 1983, 141 pp.
333. Rao, P. D., and E. N. Wolff. Characterization and Evaluation of Washability of Alaskan Coals, Final Technical Report for Phase I, Selected Seams From Nenana, Jarvis Creek, and Matanuska Coal Fields. (U.S. Dep. Energy contract ET-78-G-01-8969). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 41, 1979, 31 pp.
334. _____. Characterization and Evaluation of Washability of Alaskan Coals, Selected Seams From the Northern Alaska, Nulato, Eagle, Nenana, Broad Pass, Kenai, Beluga, and Chignik Coal Fields. U.S. Dep. Energy Final Technical Report for Phase III. Mar. 1979-Jan. 31, 1982. (U.S. Dep. Energy contract ET-78-G-01-8969). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 62, 1982, 63 pp.
335. _____. Characterization and Evaluation of Washability of Alaskan Coals; Final Technical Report For Phase II, Selected Seams From Northern Alaska, Broad Pass, Little Tonzona, Tramway Bar, Beluga, Yentna, Kenai, and Nenana Coal Fields. (U.S. Dep. Energy contract ET-78-G-01-8969). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 42, 1980, 47 pp.
336. _____. Current State-of-the-Art in Drying Low-Rank Coals. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 150-157.
337. _____. Petrographical, Mineralogical, and Chemical Characterizations of Certain Alaskan Coals and Washability Products. Paper in Focus On Alaska's Coal '80 (Proc. AK 2nd Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 194-235.
338. _____. Stream Drying of Subbituminous Coals From the Nenana and Beluga Fields, A Laboratory Study. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 278-304.
339. Reed, B. L., and S. W. Nelson. Geologic Map of the Talkeetna Quadrangle, Alaska. U.S. Geol. Surv. Map I-1174, 1980, 1 sheet.

340. Reed, J. C., Jr. Geology of the Mount McKinley Quadrangle, Alaska. U.S. Geol. Surv. Bull. 1108-A, 1961, 31 pp.
341. Renshaw, D. E. Coal Exploration on St. Lawrence Island During Summer 1983. Prepared for AK Div. Geol. and Geophys. Surv. Unpublished rep., 1983.; available from AK Div. Geol. Geophys. Surv., Fairbanks, AK.
342. _____. Matanuska-Susitna Borough; Summary of Mineral Resources. Prepared for AK Div. Geol. and Geophys. Surv. by Mapmakers, Palmer, AK, 1983, pp. 40-44.
343. _____. Memorandum to Cleland Conwell Concerning Usibelli Coal Mine Reserves. Unpublished consultant rep., 1977, 4 pp.; available from D. E. Renshaw, Consulting Geologist, Anchorage, AK.
344. Richards, R. W., and G. A. Waring. Progress of Surveys in the Anthracite Ridge District, Alaska. Ch. in Investigations in Alaska Railroad Belt, 1931. U.S. Geol. Surv. Bull. 849-A, 1933, pp. 5-27.
345. Richardson, P. Federal Mining Law Endangers Usibelli Reclamation Efforts. AK Construction and Oil, v. 20, No. 5, 1979, pp. 20-23.
346. Robertson, J. B. Alaskan Coal To West Coast Kilowatts. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 387-391.
347. _____. Transportation and Market Analysis for Alaska Coal. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, p. 480.
348. Roehm, J. C. Bear Creek Property--Asbestos (Admiralty Island). AK Territorial Dep. Mines MR-191-5, 1943, 87 pp.
349. Ross, C. P. Mineral Deposits Near the West Fork of the Chulitna River, Alaska. Ch. in Investigations in Alaska Railroad Belt, 1931. U.S. Geol. Surv. Bull. 849-E, 1933, pp. 289-332.
350. _____. The Valdez Creek Mining District. Ch. in Investigations in Alaska Railroad Belt, 1931. U.S. Geol. Surv. Bull. 849-H, 1933, pp. 425-466.
351. Rutledge, F. A. Investigation of the W. E. Dunkle Coal Mine, Costello Creek, Chulitna District, Alaska. BuMines RI 4360, 1948, 9 pp.
352. Ryan, I. E. Economic Impact of Developing Alaskan Coals. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 119-127.
353. Sainsbury, C. L., and T. Hudson. Reconnaissance Geologic Map of the Nome Quadrangle, Seward Peninsula. U.S. Geol. Surv. OFR 543, 1972, 27 pp., 1 sheet.
354. Sanders, R. B. Coal Resources of Alaska. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 21-32.
355. _____. Coal Resources of Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. of AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 11-31.

356. _____. Geology and Coal Resources of the Bering River Coal Field. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 54-58.
357. _____. Summary of Geology and Coal Resources of the Bering River Coal Field. Ch. in The United States Geological Survey in Alaska: Accomplishments During 1975. U.S. Geol. Surv. Circ. 733, 1976, p. 54.
358. Sanford, R. S., and H. C. Pierce. Exploration of Coal Deposits of the Point Barrow and Wainwright Areas, Northern Alaska. BuMines RI 3934, 1946, 17 pp.
359. Sanford, R. S., R. L. Thorne, and A. W. Erickson. Diamond Strip Mine, Healy District, Alaska. BuMines War Miner. Rep. 219, 1944, 20 pp.; available from AFOC, BuMines, Anchorage, AK.
360. Saunders, R. H. Itinerary Report of Robert H. Saunders, Associate Mining Engineer, for the Period September 7, 1951 to September 18, 1951. AK Territorial Dep. Mines Itinerary Rep., 1951, p. 3.
361. Schaff, R. G., and R. D. Merritt. Alaska's Coal Provinces and Resources. AK Div. Geol. and Geophys. Surv. Public Data File 83-6, 1983, 65 pp.
362. Schmitt, N. C. Usibelli/Korea Coal Deal Spurred Interest In Future. AK Construction and Oil, v. 9, No. 27, 1985, p. 11.
363. Schmoll, H. R., A. F. Chleborad, L. A. Yehle, C. A. Gardner, and A. D. Pasch. Reconnaissance Engineering Geology of the Beluga Coal Resource Area, South-Central Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 92-110.
364. Schmoll, H. R., and L. A. Yehle. Generalized Physiography and Geology of the Beluga Coal Field and Vicinity, South-Central Alaska. Ch. in The United States Geological Survey in Alaska: Accomplishments During 1977. U.S. Geol. Surv. Circ. 772-B, 1978, pp. 73-76.
365. Schrader, F. E., and W. J. Peters. A Reconnaissance in Northern Alaska Along Koyukuk, John, Anatuviik, and Colville Rivers and the Arctic Coast to Cape Lisburne., in 1901. U.S. Geol. Surv. Prof. Paper 20, 1904, 139 pp.
366. Selvig, W. A., and A. C. Fieldner. Fusibility of Ash From Coals of the United States. BuMines B 209, 1922, 119 pp.
367. Selvig, W. A., and W. H. Ode. Low-Temperature Carbonization Assays of North American Coals. BuMines B 571, 1957, 56 pp.
368. Selvig, W. A., W. H. Ode, and J. D. Davis. Low-Temperature Carbonization of Alaskan Coals. BuMines TP 668, 1944, 16 pp.
369. Sengupta, N. Logistics of Arctic Mining. Pres. at SME Annu. Meeting, New Orleans, LA, March 2-6, 1986. Soc. Min. Eng. AIME Preprint No. 86-30, 1986, 12 pp.
370. Sloan, E. G., G. B. Shearer, J. E. Eason, and C. L. Almquist. Preliminary Investigations of Coal Outcrops Near Farewell, Alaska. Ch. in The United States Geological Survey in Alaska: Accomplishments During 1977. U.S. Geol. Surv. Circ. 772-B, 1978, p. 50.
371. _____. Reconnaissance for Coal Near Farewell, Alaska. U.S. Geol. Surv. OFR 79-410, 1979, 28 pp.

372. _____. Reconnaissance Survey for Coal Near Farewell, Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 152-170.
373. Smith, P. S. Areal Geology of Alaska. U.S. Geol. Surv. Prof. Paper 192, 1939, 100 pp.
374. _____. Investigations of the Mineral Deposits of Seward Peninsula. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1907. U.S. Geol. Surv. Bull. 345-E, 1908, pp. 206-250.
375. _____. The Lake Clark-Central Kuskokwim Region, Alaska. U.S. Geol. Surv. Bull. 655, 1917, 162 pp.
376. _____. Mineral Industry of Alaska in 1924. Ch. in Mineral Resources of Alaska, 1924. U.S. Geol. Surv. Bull. 783-A, 1926, pp. 1-30.
377. _____. Mineral Industry of Alaska in 1926. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1926. U.S. Geol. Surv. Bull. 797-A, 1929, pp. 1-50.
378. _____. Mineral Industry of Alaska in 1927. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1927. U.S. Geol. Surv. Bull. 810-A, 1930, pp. 1-64.
379. _____. Mineral Industry of Alaska in 1928. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1928. U.S. Geol. Surv. Bull. 813-A, 1930, pp. 1-72.
380. _____. Mineral Industry of Alaska in 1929. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1929. U.S. Geol. Surv. Bull. 824-A, 1930, pp. 1-81.
381. _____. Mineral Industry of Alaska in 1930. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1930. U.S. Geol. Surv. Bull. 836-A, 1933, pp. 1-83.
382. _____. Mineral Industry of Alaska in 1931. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1931. U.S. Geol. Surv. Bull. 844-A, 1934, pp. 1-83.
383. _____. Mineral Industry of Alaska in 1932. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1932. U.S. Geol. Surv. Bull. 857-A, 1934, pp. 1-76.
384. _____. Mineral Industry of Alaska in 1933. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1933. U.S. Geol. Surv. Bull. 864-A, 1934, pp. 1-81.
385. _____. Mineral Industry of Alaska in 1934. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1934. U.S. Geol. Surv. Bull. 868-A, 1936, pp. 1-83.
386. _____. Mineral Industry of Alaska in 1935. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1935. U.S. Geol. Surv. Bull. 880-A, 1937, pp. 1-88.
387. _____. Mineral Industry of Alaska in 1936. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1936. U.S. Geol. Surv. Bull. 897-A, 1938, pp. 1-99.
388. _____. Mineral Industry of Alaska in 1937. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1937. U.S. Geol. Surv. Bull. 910-A, 1939, pp. 1-113.
389. _____. Mineral Industry of Alaska in 1938. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1938. U.S. Geol. Surv. Bull. 917-A, 1939, pp. 1-113.

390. _____. Mineral Industry of Alaska in 1939. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1939. U.S. Geol. Surv. Bull. 926-A, 1941, pp. 1-97.
391. _____. Mineral Industry of Alaska in 1940. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1940. U.S. Geol. Surv. Bull. 933-A, 1942, pp. 1-102.
392. _____. Mineral Resources of the Lake Clark-Iditarod Region, Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1914. U.S. Geol. Surv. Bull. 622, 1915, pp. 247-271.
393. _____. The Noatak-Kobuk Region, Alaska. U.S. Geol. Surv. Bull. 536, 1913, 160 pp.
394. _____. Surveys in Northwestern Alaska in 1926. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1926. U.S. Geol. Surv. Bull. 797-D, 1929, pp. 126-142.
395. Smith, P. S., and H. M. Eakin. A Geologic Reconnaissance in Southeastern Seward Peninsula and the Norton Bay-Nulato Region, Alaska. U.S. Geol. Surv. Bull. 449, 1911, 146 pp.
396. _____. Mineral Resources of the Nulato-Council Region. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1909. U.S. Geol. Surv. Bull. 442-H, 1910, pp. 316-352.
397. _____. The Shungnak Region, Kobuk Valley. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1910. U.S. Geol. Surv. Bull. 480-J, 1911, pp. 271-305.
398. Smith, P. S., and J. B. Mertie, Jr. Geology and Mineral Resources of Northwestern Alaska. U.S. Geol. Surv. Bull. 815, 1930, 350 pp.
399. Smith, S. S. The Mining Industry in the Territory of Alaska During the Calendar Year 1915. BuMines B 142, 1917, 65 pp.
400. _____. The Mining Industry in the Territory of Alaska During the Calendar Year 1916. BuMines B 153, 1917, 89 pp.
401. Smith, W. R., and A. A. Baker. The Cold Bay-Chignik District, Alaska. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1922. U.S. Geol. Surv. Bull. 755-D, 1924, pp. 151-218.
402. Stewart, B. D. Alaska Coal Situation. AK Territorial Dep. Mines MR-195-25, 1943, 6 pp.
403. _____. Memorandum on Allotment of Funds and Nature of Work to be Performed in Further Investigation of Mineral Resources of Alaska to Ascertain the Potential Resources Available Which Will Affect Alaska Railroad Tonnage. AK Territorial Dep. Mines MR-195-14, 1931, 13 pp.
404. Stewart, R. M. Mine Entries--Slopes and Shafts. Paper in Focus On Alaska's Coal. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 65-71.
405. Stone, R. W. Coal Fields of the Kachemak Bay Region. Ch. in Mineral Resources of Kenai Peninsula, Alaska, Gold Fields of the Turnagain Arm Region. U.S. Geol. Surv. Bull. 277, 1906, pp. 53-73.
406. _____. Coal Resources of Southwestern Alaska. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1904. U.S. Geol. Surv. Bull. 259, 1905, pp. 151-171.
407. Sundararajan, A. Computer Simulation of Mining and Reclamation Operations of a Sub-Arctic Surface Coal Mine. M.S. Thesis, Univ. AK School of Miner. Eng., Fairbanks, AK, 1985, 232 pp.

408. Suneel Alaska Corporation. Seward Coal Terminal. Seneel Inf. Brochure, 1984, 5 pp.
409. Swift, W. H., M. J. Scott, and J. P. Haskins. Beluga Coal Export Market Study. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 358-373.
410. Tailleur, I. L., and W. P. Brosge. Need to Revise and Test Estimates of Northern Alaska Coal Resources. Ch. in The United States Geological Survey in Alaska: Accomplishments During 1975. U.S. Geol. Surv. Circ. 733, 1976, pp. 26-27.
411. Tarr, R. S. The Yakutat Bay Region, Alaska. Ch. in U.S. Geol. Surv. Bull. 284, 1906, pp. 61-64.
412. Tarr, R. S., and B. S. Butler. The Yakutat Bay Region, Alaska. U.S. Geol. Surv. Prof. Paper 64, 1909, 183 pp.
413. Tarrant, B. Diamond Alaska to Begin Work Next Year. AK J. Commerce and Pacific Rim Reporter, v. 10, No. 27, 1986, p. 8.
414. _____. Suneel, Usibelli Hopeful as Talks Open. AK J. Commerce and Pacific Rim Reporter, v. 10, No. 27, 1986, pp. 8-9.
415. Toenges, A. L., and T. R. Jolley. Investigation of Coal Deposits for Local Use in the Arctic Regions of Alaska and Proposed Mine Development. BuMines RI 4150, 1947, 19 pp.
416. _____. Investigation of Coal Deposits in South Central Alaska and the Kenai Peninsula. BuMines RI 4520, 1949, 37 pp.
417. Triplehorn, J. H. Alaska Coal--A Bibliography. Univ. AK Miner. Ind. Res. Lab (MIRL) Rep. 51, 1982, 298 pp.
418. U.S. Bureau of Indian Affairs. Meade River Coal Mine, 1954-1959. U.S. Bureau of Indian Affairs Record Group 75, Federal Record Container 1603, File 950.1, 1954-1959.
419. _____. Meade River Coal Mine-Reports, Correspondence, and Reports. U.S. Bureau of Indian Affairs Record Group 75, Federal Record Container 1603, File 950.2, 1954-1959.
420. U.S. Bureau of Land Management. Jarvis Creek Preference Right Lease Application, Environmental Assessment. BLM (EAR-AK-027-EA1-105), 1981, 86 pp.
421. U.S. Bureau of Mines. Analyses of Alaska Coals, With a Section on Coal Fields of Alaska, by G. D. Gates. BuMines TP 682, 1946, 114 pp.
422. _____. A Mineral Appraisal of the Areas Traversed by the Kobuk, Killik, Alatna, and John Rivers and the North Fork of the Koyukuk River, Brooks Range, Alaska: A Summary Report. BuMines OFR 36-79, 1979, 23 pp.
423. _____. Mineral Appraisal of the Proposed Utukok and Colville Wild and Scenic Rivers: A Summary Report. BuMines OFR 37-80, 1980, 8 pp.
424. _____. Strippable Reserves of Bituminous Coal and Lignite in the United States. BuMines IC 8531, 1971, 148 pp.

425. U.S. Department of Energy. **Transportation and Market Analysis of Alaska Coal.** Dep. Energy, 1980, 101 pp.
426. U.S. Environmental Protection Agency. **Diamond Chuitna Coal Project, Beluga Coal Field, Scoping Document.** 1984, 8 pp.
427. U.S. Geological Survey. **1984 Annual Report on Alaska's Mineral Resources.** Circ. 940, 1984, 54 pp.
428. _____. **1985 Annual Report on Alaska's Mineral Resources.** Circ. 970, 1985, 58 pp.
429. _____. **Twelfth Annual Report, 1890-91.** 1981, 675 pp.
430. _____. **Seventeenth Annual Report, 1895-96.** 1896, 1076 pp.
431. _____. **Eighteenth Annual Report, 1896-97.** 1897, 440 pp.
432. _____. **Twenty-Second Annual Report, 1900-01.** 1901, 464 pp.
433. _____. **Coal and Peat.** Ch. in **1986 Annual Report on Alaska's Mineral Resources.** Circ. 983, 1986, pp. 18-21.
434. Usibelli, J. **Current and Future Mining Activities at Usibelli Coal Mine.** Paper in **Focus On Alaska's Coal '80.** (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 491-492.
435. _____. **Mining Constraints and Operations At Usibelli Coal Mine.** Paper in **Focus On Alaska's Coal '75.** (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 93-101.
436. _____. **Mining Methods At Usibelli Coal Mine Using Dragline.** Paper in **Focus On Alaska's Coal '80.** (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 392-397.
437. Wahrhaftig, C. **Geologic Map of the Fairbanks A-3 Quadrangle.** U.S. Geol. Surv. Map GQ-809, 1970, 1 sheet.
438. _____. **Geologic Map of the Fairbanks A-4 Quadrangle.** U.S. Geol. Surv. Map GQ-810, 1970, 1 sheet.
439. _____. **Geologic Map of the Fairbanks A-5 Quadrangle.** U.S. Geol. Surv. Map GQ-811, 1970, 1 sheet.
440. _____. **Geologic Map of the Healy D-2 Quadrangle, Alaska.** U.S. Geol. Surv. Map GQ-804, 1970, 1 sheet.
441. _____. **Geologic Map of the Healy D-4 Quadrangle, Alaska.** U.S. Geol. Surv. Map GQ-806, 1970, 1 sheet.
442. _____. **Geologic Map of the Healy D-5, Quadrangle, Alaska.** U.S. Geol. Surv. Map GQ-807, 1970, 1 sheet.
443. _____. **Geology and Coal Deposits of the Western Part of the Nenana Coal Field, Alaska.** Ch. in **Coal Investigations in South-Central Alaska, 1944-1946.** U.S. Geol. Surv. Bull. 963-E, 1951, pp. 169-186.
444. _____. **Quaternary Geology of the Nenana River Valley and Adjacent Parts of the Alaska Range.** U.S. Geol. Surv. Prof. Paper 293-A, 1958, 68 pp.

445. Wahrhaftig, C., and R. F. Black. Engineering Geology Along Part of the Alaska Railroad. U.S. Geol. Surv. Prof. Paper 293-B, 1958, pp. 69-118.
446. Wahrhaftig, C., and C. A. Hickcox. Geology and Coal Deposits, Jarvis Creek Coal Field, Alaska. Ch. in Mineral Resources of Alaska 1951-53. U.S. Geol. Surv. Bull. 989-G, 1955, pp. 353-367.
447. _____. Geology and Coal Deposits of the Jarvis Creek Coalfield, Alaska. U.S. Geol. Surv. OFR 53-263 (73), 1953, 19 pp. (superseded by Bull. 989-G).
448. Wahrhaftig, C., C. A. Hickcox, and J. Freedman. Coal Deposits on Healy and Lignite Creeks, Nenana Coal Field, Alaska. Ch. in Coal Investigations in Southcentral Alaska, 1945-1946, Mineral Resources of Alaska 1945-1946. U.S. Geol. Surv. Bull. 963-E, 1951, pp. 141-168.
449. Wahrhaftig, C., J. A. Wolfe, E. B. Leopold, and M. A. Lanphere. The Coal-Bearing Group in the Nenana Coal Field, Alaska. U.S. Geol. Surv. Bull. 1274-D, 1969, 30 pp.
450. Walker, F. E., and F. E. Hartner. Forms of Sulfur in U.S. Coals. BuMines IC 8301, 1966, 51 pp.
451. Warfield, R. S. Bituminous Coal Deposits of the Matanuska Coalfield, Alaska: Central and Western Parts, Wishbone District. BuMines RI 5950, 1962, 190 pp.
452. _____. Investigations of Subbituminous Coal Deposits in the Beluga River Coalfield, Alaska. BuMines OFR 43, 1961, 70 pp.
453. _____. Investigation of a Subbituminous Coal Deposit Suitable for Opencut Mining, Beluga River Coalfield, Alaska. BuMines RI 6238, 1963, 100 pp.
454. _____. Resume' of Information on Alaskan Bituminous Coals With Particular Emphasis on Coking Characteristics. BuMines OFR 11-67, 1967, 20 pp.
455. _____. Rotary Drilling for Strippable Coal in the Jarvis Creek Coalfield, Alaska. BuMines OFR 7-73, 1973, 28 pp.
456. _____. Some Nonmetallic Mineral Resources for Alaska's Construction Industry. BuMines RI 6002, 1962, 25 pp.
457. _____. Summary of Coal-Drilling Results, Beluga River Coal Field, 1959. AK Territorial Dep. Mines MR-84-1, 1959, 22 pp.
458. Warfield, R. S., and C. C. Boley. Sampling and Coking Studies of Several Coalbeds in the Kokolik River, Kukpowruk River, and Cape Beaufort Areas of Arctic Northwestern Alaska. BuMines RI 7321, 1969, 58 pp.
459. Warfield, R. S., W. S. Landers, and C. C. Boley. Sampling and Coking Studies of Coal From Castle Mountain Mine, Matanuska Coalfield, Alaska. BuMines OFR 7-66, 1966, 14 pp.
460. _____. Sampling and Coking Studies of Coal From the Kukpowruk River Area, Arctic Northwestern Alaska. BuMines RI 6767, 1966, 59 pp.
461. Waring, G. A. Nonmetalliferous Deposits in the Alaska Railroad Belt. U.S. Geol. Surv. Circ. 18, 1942, 10 pp.

462. West, W. S. Reconnaissance for Radioactive Deposits in the Darby Mountains, Seward Peninsula, Alaska. U.S. Geol. Surv. Circ. 300, 1953, p. 7.
463. Williams, J. A. Bering River Coal Field. AK Territorial Dep. Mines MI-96-1, 1954, 6 pp.
464. Williams, J. R. Geologic Reconnaissance of the Yukon Flats District, Alaska. Ch. in Contributions to General Geology. U.S. Geol. Surv. Bull. 1111-H, 1962, pp. 289-331.
465. Wolfe, J. A. Tertiary Plants From the Cook Inlet Region, Alaska. U.S. Geol. Surv. Prof. Paper 398-B, 1966, pp. B1-B32.
466. Wolfe, J. A., D. M. Hopkins, and E. B. Leopold. Tertiary Stratigraphy and Paleobotany of the Cook Inlet Region, Alaska. U.S. Geol. Surv. Prof. Paper 398-A, 1966, pp. A1-A29.
467. Wright, C. W. Nonmetallic Deposits of Southeastern Alaska. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1905. U.S. Geol. Surv. Bull. 284, 1906, pp. 55-60.
468. _____. Nonmetalliferous Mineral Resources of Southeastern Alaska. Ch. in Report on Progress of Investigations of Mineral Resources of Alaska in 1906. U.S. Geol. Surv. Bull. 314, 1907, pp. 73-81.
469. _____. A Reconnaissance of Admiralty Island, Alaska. U.S. Geol. Surv. Bull. 287, 1906, 161 pp.
470. Zemansky, G. M., T. Tilsworth, and D. J. Cook. Potential Water Quality Impacts of Alaskan Coal Mining. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 182-189.

BIBLIOGRAPHY

Adkison, W. L., J. S. Kelley, and K. R. Newman. Lithology and Palynology of Tertiary Rocks Exposed Near Capps Glacier and Along Chuitna River, Tyonek Quadrangle, Southern Alaska. U.S. Geol. Surv. OFR 75-21, 1975, 58 pp.

Affolter, R. H., F. O. Simon, and G. D. Stricker. Chemical Analyses of Coal From the Healy, Kenai, Seldovia, and Utukok River 1:250,000 Quadrangles, Alaska. U.S. Geol. Surv. OFR 81-654, 1981, 88 pp.

Ahlbrandt, T. S., A. C. Huffman, Jr., J. E. Fox, and I. Pasternach. Depositional Framework and Reservoir Quality Studies of Selected Nanushuk Group Outcrops, North Slope, Alaska. Ch. in Preliminary Geologic, Petrologic, and Paleontologic Results of the Study of Nanushuk Group Rocks, North Slope, Alaska. U.S. Geol. Surv. Circ. 794, 1979, 163 pp.

_____. Alaska Regional Energy Resources, Planning Project, Phase 1-Alaska's Energy Resources. V. 11, 1979, pp. 205, 211-213, 222-224, 614-618, 620.

Alaska Division of Energy and Power Development. Alaska's Energy Resources; Inventory of Oil, Gas, Coal, Hydroelectric and Uranium Resources. Final rep., phase 1. V. 11, 1977, np.

Alaska Division of Minerals and Energy Management. An Orientation to Five Alaska Coal Fields-The Beluga, Matanuska, Healy, Bering River and Lisburne, Cape Lisburne. Draft rep., 1983.; available from AFOC, BuMines, Juneau, AK.

Alaska Geological Society. Copper River Basin Stratigraphic Correlation Section, Tawawe Lake to Moose Creek. AK Geol. Soc., 1970, 1 sheet.

_____. Southwest to Northeast Stratigraphic Correlation Section, Eureka to Rainbow, Copper River Basin, Alaska. AK Geol. Soc., 1970, 1 sheet.

Alaska Journal of Commerce and Pacific Rim Reporter. '83 Had Mixed Results For Coal. V. 9, No. 27, 1985, p. 14.

_____. Chugach Electric Ponders Coal Gas. V. 9, No. 29, 1985, pp. 12-14.

_____. Coal Expected to Continue its Record-Setting Growth in 1985. V. 9, No. 27, 1985, p. 16.

_____. Ft. Greely Could See First Coal Gas. V. 9, No. 27, 1985, pp. 8.

_____. Western Arctic Coal Has Long History of Use by Inupiat Indians. V. 9, No. 27, 1985, p. 9.

_____. Wood Chips May Fire Furnaces at Ft. Wainwright. V. 10, No. 28, 1986, p. 19.

American Review of Reviews. Alaska's Contribution to Our Coal Supply. V. 41, No. 4, 1910, pp. 483-484.

American Society for Testing and Materials (ASTM). Standard Specifications for Classification of Coal by Rank (ASTM designation D 388-77); 1981 Annual Book of ASTM Standards pt. 26, 1981, pp. 212-215.

Ames, H., and W. Riegel. Palynological Investigation of Coals From the Chickaloon Formation, Alaska (abstr.). Pollenet Spores, v. 4. No. 2, 1962, p. 328.

Amundsen, C. C. Dynamics of the Recovery of Damaged Tundra Vegetation: Preliminary Results of Revegetation Experiments of Martina Tundra With *Elymus Mollis* on Adak Island, Alaska. (U.S. Energy contract DE-A505-04180). U.S. DOE Prog. Rep. DOE/EV/04180-9, 1982, 38 pp.

Anderson, E. Mineral Occurrences Other Than Gold Deposits in Northwestern Alaska. AK Territorial Dep. Mines Rep. 5-R, 1947, 11 pp.

Anderson, R. E. Bering River Coal Field, South-Central Alaska (abstr.). Ch. in Alaska Division of Mines and Geology Annual Report for the Year 1968. AK Div. Mines and Geol., 1968, p. 28.

_____. Sitkinak Island Coal, Southwestern Alaska (abstr.). Ch. in Alaska Division of Mines and Geology Annual Report for the Year 1968. AK Div. Mines and Geol., 1968, p. 27.

Arthur D. Little, Inc. Potential for Use of Alaska's Energy Resources; Report to the State of Alaska. 1962, pp. 71-107.

Averitt, P. Coal Reserves of the United States--A Progress Report, January 1, 1960, U.S. Geol. Surv. Bull. 1136, 1961, 116 pp.

_____. Coal Reserves of the United States, Jan. 1, 1960. Ch. in Geological Survey Research 1960. U.S. Geol. Surv. Prof. Paper 400-B, 1960, 515 pp.

_____. Coal Resources of the United States, Jan. 1, 1967. U.S. Geol. Surv. Bull. 1275, 1969, 166 pp.

_____. Coal Resources of the United States, Jan. 1, 1974. U.S. Geol. Surv. Bull. 1412, 1975, 131 pp.

_____. Stripping-Coal Resources of the United States. U.S. Geol. Surv. Bull. 1252-C, 1968, 20 pp.

_____. Total Estimated Remaining Coal Resources of the United States, Jan. 1, 1967. U.S. Geol. Surv. OFR 303, 1968, 1 pp.

Averitt, P., L. R. Berryhill, and D. A. Taylor. Coal Resources of the United States--A Progress Report, October 1, 1953. U.S. Geol. Surv. Circ. 293, 1953, 49 pp.

Averitt, P., I. A. Breger, V. E. Swanson, P. Zubovic, and H. J. Gluskoter. Minor Elements in Coal--A Selected Bibliography, July 1972. Ch. in Geological Survey Research 1972, Ch. D. U.S. Geol. Surv. Prof. Paper 800-D, 1972, 227 pp.

Averitt, P., and M. D. Carter. Selected Sources of Information on United States and World Energy Resources: An Annotated Bibliography. U.S. Geol. Surv. Circ. 641, 1970, 21 pp.

Baker, A. W. Plans for Power Generation, Golden Valley Electric Association. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 247-265.

Bailey, A. Chemical and Mineralogical Differences Between Kittanning Coals From Marine-Influenced Versus Fluvial Sequences. *J. Sedimentary Petrology*, v. 51, No. 2, 1981, pp. 383-395.

Bandopadhyay, S., and D. R. Maneral. Problems in Reclaiming Stripped Mined Tundra Lands on the North Slope, Alaska. Pres. at SME Annu. Meeting New Orleans, LA., Mar. 2-6, 1986. Soc. Min. Eng. AIME Preprint No. 86-34, 1986, 9 pp.

- Barnes, F. F. Coal Fields of Alaska. U.S. Geol. Surv. OFR 59-3(176), 1959, 5 pp.
- ____. Coal Fields of the United States, Sheet 2-Alaska. U.S. Geol. Surv., 1961, 1 sheet.
- ____. Coal Investigations on the Southern Margin of the Homer District, Kenai Coal Field, Alaska, 1947-1948. U.S. Geol. Surv. OFR 49-20 (39), 1949, 14 pp. (superseded by Bull. 1058-F).
- ____. Coal Resources of the Cape Lisburne-Colville River Region, Alaska. Ch. in Contributions to Economic Geology, 1966. U.S. Geol. Surv. Bull. 1242-E, 1967, 37 pp.
- ____. Geologic Map of the Lower Matanuska Valley, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-359, 1962, 1 sheet.
- ____. Notes on the Coal Deposit on the Beluga River, Alaska. U.S. Geol. Surv. OFR 55-5(111), 1955, 12 pp. (superseded by Bull. 1202-C).
- ____. Press Release on the Little Susitna District, Matanuska Coal Field, Alaska. U.S. Geol. Surv. OFR 53-10(75), 1953, 17 pp. (superseded by Bull. 1058-D). _____. Topographic and Geologic Map of the Knob Creek Area of the Wishbone Hill District, Matanuska Coal Field, Alaska. U.S. Geol. Surv. Coal Investigation Map C-51, 1962, 1 sheet.
- Barnes, F. F., and F. M. Byers, Jr. Geology and Coal Resources of the Eastern Part of the Lower Matanuska Valley Coal Field, Alaska. U.S. Geol. Surv. OFR 45-102(35), 1945. (superseded by Bull. 1016).
- Barnes, F. F., F. M. Byers, Jr., T. G. Payne, and D. M. Hopkins. Stratigraphic Sections Showing Correlation of Coal Beds in the Eastern Part of Lower Matanuska Valley Coal Field, Alaska. U.S. Geol. Surv. War Miner. Investigation rep., 1944, np.
- Barnes, F. F., and D. M. Ford. Coal Prospects and Coal Exploration and Development in the Lower Matanuska Valley, Alaska, in 1950. U.S. Geol. Surv. Circ. 154, 1952, 5 pp.
- Barnes, F. F., and D. Sokol. Subsurface Exploration for Stripping Coal on Lower Deep Creek, Homer District, Kenai Coal Field, Alaska. U.S. Geol. Surv. OFR 55-6(109), 1955, 13 pp. (superseded by Bull. 1058-F).
- ____. Subsurface Exploration in the Little Susitna District, Matanuska Coal Field, Alaska in 1953 and 1954. U.S. Geol. Surv. OFR 55-7(108), 1955, 18 pp. (supplements OFR 53-10(75) and superseded by Bull. 1058-D).
- Barnes, F. F., C. Wahrhaftig, C. A. Hichcox, J. Freedman, and D. M. Hopkins. Coal Investigations in South-Central Alaska, 1944-1946. U.S. Geol. Surv. Bull. 963-E, 1951, pp. 137-213.
- Bauer, R., and D. Hanna. State of Alaska Coal Haul Road System Report. AK Dep. of Transportation and Public Facilities, Transportation Planning Div., 1978, 26 pp.
- Beck, R. W., and Associates. Energy Study for Barrow, Alaska. Prepared for U.S. Dep. Interior, AK Power Admin., Seattle, WA., 1977; available from AFOC, BuMines, Juneau, AK.
- Beistline, E. H. Alaska Surface Coal Mining Study--Public Law 95-87. Paper in Focus On Alaska's Coal '80. (Proc. 2d AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 418-426.
- ____. Coal Research Needs. Paper in Focus On Alaska's Coal '80. (Proc. 2d AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 477-479.

Bird, K. J., and C. F. Gordon. Lisburne Group (Mississippian and Pennsylvanian), Potential Major Hydrocarbon Objective of Arctic Slope, Alaska. *Am. Assoc. Petrol. Geol. Bull.*, v. 61, No. 9, 1977, pp. 1493-1511.

Bloch, I. Economics of a Coal Mine Portal Power Plant for Interior Alaska. (Proc. 3d Annu. Min. Miner., and Petrol. Conf., College, AK, Apr. 18-20, 1958). *Am. Inst. Min., Metall. and Petrol. Eng.*, 1958, 14 pp.

Bone, S. C. Report of the Governor of Alaska to the Secretary of the Interior. GPO, 1924, pp. 22, 25-26.

Bottge, R. G. Changing Economics of Alaskan Coals. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1975, pp. 139-149.

_____. Potential Mineral Resources in Selected D-2 Lands. BuMines OFR 9-74, 1973, 55 pp.

Brady, J. G. Ch. in Inventory of the John Green Brady papers: A Selection on Microfilm 1847-1918. Ak Historical Library, Juneau, AK, 1985, 38 pp.

Brooks, A. H. The Coal Fields of Alaska. *Natl. Geographic Magazine*, v. 21, 1910, pp. 83-87.

_____. The Coal Resources of Alaska. U.S. Geol. Surv. 22nd. Annu. rep., 1900-1901, pt. III-2, 1902, pp. 515-571.

_____. The Future of Alaska Coal. (Proc. 14th Annu. Sess.). *Am. Min. Congr.*, 1911, pp. 291-298.

_____. Geography in the Development of Alaska Coal Deposits. *Assoc. Am. Geographers Ann.*, v. 1, 1911, pp. 85-94.

_____. The Mineral Industry in 1912. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1912. U.S. Geol. Surv. Bull. #542, 1913, pp. 18-51.

_____. The Outlook for Coal Mining in Alaska. *Am. Inst. Min. Eng. Trans.*, v. 4, 1905, pp. 683-702.

Brooks, A. H., and G. C. Martin. Coal Resources of Alaska. *The Coal Resources of the World.*, v. 2, 1913, pp. 541-552.

Bruhn, R. L., and T. L. Pavlis. Late Cenozoic Deformation in the Matanuska Valley, Alaska; Three-Dimensional Strain in a Forearc Region. *Geol. Soc. Am. Bull.*, Part I, v. 92, No. 5, 1981, pp. 282-293.

Bufler, R. T., and D. M. Triplehorn. Depositional Environments of Continental Tertiary Deposits, Central Alaska. Ch. in *Recent and Ancient Sedimentary Environments in Alaska*. (Proc. AK Geol. Soc. Conf., Anchorage, AK, 1976). AK Geol. Soc., 1976, pp. H1-H10.

Calderwood, K. W., and W. C. Fackler. Proposed Stratigraphic Nomenclature, Kenai Group, Cook Inlet Basin, Alaska. *Am. Assoc. of Petroleum Geol. Bull.*, v. 56, No. 4, 1972, pp. 739-754.

Callahan, J. E. Geology and Coal Resources of T. 6 S., R. 51 W., Unsurveyed, Umiat Principal Meridian, in the Cape Beaufort Coal Field, Northwestern Alaska. U.S. Geol. Surv. OFR 71-61 (496), 1971, 18 pp., 1 plate.

_____. Geology and Quality of Coal Beds in the Cretaceous Corwin Formation in the Northern Foothills of Western Arctic Alaska. (Proc. Symp. on Western AK Geol. and Resour. Potential, Anchorage, AK, 1982). *J. AK Geol. Soc.*, v. 3, 1983, pp. 119.

Callahan, J. E., and E. G. Stone. Preliminary Report on Analysis of Cretaceous Coals From Northwestern Alaska. U.S. Geol. Surv. OFR 78-319, 1978, 31 pp., 1 plate.

Callahan, J. E., A. A. Wanek, E. M. Schell, H. D. Zeller, and W. L. Rohrer. Geology of T. 1 S., R. 44 W., Unsurveyed, Umiat Principle Meridian, in the Kukpowruk Coal Field, Alaska. U.S. Geol. Surv. OFR 69-30 (378), 1969, 19 pp., 1 plate.

Cameron, C. C. Peat. Ch. in United States Mineral Resources. U.S. Geol. Surv. Prof. Paper 820, 1973, pp. 505-513.

Campbell, M. R. Analysis of Coal Samples From Various Fields of the United States. U.S. Geol. Surv. Bull. 541-K, 1914, pp. 527-532.

Campbell, M. R., and F. R. Clark. Analysis of Coal Samples From Various Fields of the United States. U.S. Geol. Surv. Bull. 621-P, 1916, pp. 371-375.

Campbell, M. R., and E. W. Parker. Coal Fields in the United States. Ch. in Papers on the Conservation of Mineral Resources. U.S. Geol. Surv. Bull. 394, 1909, pp. 7-26.

Campdell, R. H. Areal Geology, Vicinity of Chariot Site, Lisburne Peninsula, Alaska. U.S. Geol. Surv. Prof. Paper 395, 1967, p. 6.

Capps, S. R. Mineral Investigations in the Alaska Railroad Belt, 1931. Ch. in Mineral Resources of Alaska Report on Progress of Investigations in 1931. U.S. Geol. Surv. Bull. 844-B, 1933, pp. 119-135.

Cargill, S. M., A. C. Olson, A. L. Medlin, and M. D. Carter. PACER-Data Entry, Retrieval, and Update for the National Coal Resources Data System (Phase 1). U.S. Geol. Surv. Prof. Paper 978, 1976, 107 pp.

Cashion, W. B. Bitumin-Bearing Rocks. Ch. in United States Mineral Resources. U.S. Geol. Surv. Prof. Paper 820, 1973, pp. 99-103.

Chapin, T. Geology in the Matanuska Coal Field and the Willow Creek District, Alaska. J. Washington Acad. Sci., v. 11, No. 15, 1921, pp. 375.

Clardy, B. I. Origin of the Lower and Middle Tertiary Wishbone and Tsadaka Formations, Matanuska Valley, Alaska. M.S. Thesis, Univ. AK, Fairbanks, AK, 1974, 74 pp.

Cobb, E. H. Coal Investigations in the Homer District, Kenai Coal Field, Alaska in 1950 and 1951. U.S. Geol. Surv. OFR 52-25 (62), 1952, 22 pp. (superseded by Bull. 1058-F).

_____. Coal Investigations on the Northwest Margin of the Homer District, Kenai Coal Field, Alaska in 1950. U.S. Geol. Surv. OFR 51-57 (45), 1951, 11 pp. (superseded by Bull. 1058-F).

_____. Coal Investigations on the Southwest Margin of the Homer District, Kenai Coal Field, Alaska in 1949. U.S. Geol. Surv. OFR 50-32 (41), 1950, 7 pp. (superseded by Bull. 1058).

Coffin, F. P. Methods for More Efficiently Utilizing Our Fuel Resources, pt. XXIX, The Coal Resources and Transportation Facilities in Alaska. General Electric Rev., v. 22, No. 7, 1919, pp. 517-526.

Collier, A. J. Coal-Bearing Series of the Yukon (abstr.). Sci., v. 17, No. 434, 1903, pp. 668.

- ____. The Coal Fields of Cape Lisburne, Alaska. *Am. Geol.*, v. 34, 1904, pp. 401-402.
- Conwell, C. N. Alaskan Coals. *Soc. Min. Eng. Trans.*, v. 252, No. 3, 1972, pp. 279-282.
- ____. Alaska's Coals May Prove A Big Plus in Future Export Picture. *Min. Eng.*, v. 24, No. 10, 1972, pp. 82-84.
- ____. Coal: A Review of the Industry in the U.S. and Alaska With Emphasis on Mechanical Cleaning. M.S. Thesis, Univ. AK, Fairbanks, AK, 1975, 100 pp.
- ____. Coal Resource Abundant in Alaska. *Fairbanks Daily News Miner*, 24th. Annu. Progress Ed., 1974, p. A-7.
- ____. Cook Inlet-Susitna Coal Fields. AK Div. Geol. Geophys. Surv. unpublished rep., 1977, 32 pp.; available from AK Div. Geol. and Geophys. Surv., Fairbanks, AK.
- ____. Reclaiming Mined Land In Alaska. *Am. Inst. Min. Metall. Eng. Trans.*, v. 260, No. 1, 1976, pp. 81-84.
- ____. Stability in Coal Mining. (Proc. 1st Int. Symp. on Stability in Coal Min.) AK Div. Geol. Geophys. Surv. Misc. Publ., 1978, 4 pp.
- Conwell, C. N., and L. C. Schell. Energy Resources Map of Alaska. AK Div. Geol. Geophys. Surv. Map, 1977, 1 sheet.
- Conwell, C. N., and D. M. Triplehorn. High-Quality Coal Near Point Hope, Northwestern Alaska. Ch. in *Short Notes on Alaskan Geology*. AK Div. Geol. Geophys. Surv. Geol. Rep. 51, 1976, pp. 31-35.
- Conwell, C. N., and S. Weston. Reclaiming Mining Lands in Alaska. Paper in *Stability in Coal Mining*. (Proc. 1st Int. Symp. Stability in Coal Min., Vancouver, B.C., 1978). Miller Freeman Pub., Inc., San Francisco, CA., 1978, pp. 459-462.
- Coronado Mining Corporation. Proposed Drill Holes and Road Access Plan, Wishbone Hill Area, Matanuska Valley. Coronado Mining Map, unpublished, 1983, 1 sheet.
- Corriveau, M. P., and N. Schapiro. Projecting Data From Samples. Ch. in *Coal Preparation*, 4th ed. Am. Inst. Min., Metall., and Petrol. Eng., Inc., 1979, pp. 4.3-4.56.
- Coutts, H. J. Notes On Local Coal Burners and Air Quality. Paper in *Focus On Alaska's Coal '75*. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 190-194.
- Crane, W. R. The Bering River Coal Field, Alaska. *Coal Age*, v. 3, No. 6, 1913, pp. 212-214.
- ____. A Brief Account of the Matanuska (Coal) Fields, Alaska. *Coal Age*, v. 3, No. 17, 1913, pp. 630-632.
- ____. The Coal Resources of Alaska. *Am. Min. Cong.*, 16th Annu. Sess. rep., 1913, pp. 192-205.
- ____. Folding Troubles in the Bering (Coal) Field. *Coal Age*, v. 3, No. 15, 1913, pp. 568-570.
- ____. The Lignite Fields of the Cook Inlet and Kachemak Bay Region, Alaska. *Pennsylvania State Min. Q.*, v. 1, No. 3, 1914, pp. 101-111

- ____. Matanuska River Coal Field by Districts (Alaska). *Coal Age*, v. 4, No. 5, 1913, pp. 148-152.
- ____. Occurrence of Lignite in Cook Inlet and Kachemak Bay Region of Alaska. *Min. and Eng. World*, v. 42, No. 5, 1915, pp. 209-213.
- ____. Original Impurities of Bering Coals. *Coal Age*, v. 3, 1913, pp. 444-445.
- ____. Soft Coals of the Bering Field (Alaska). *Coal Age*, v. 3, 1913, pp. 298-300.
- Crump L. H. *Fuels and Energy Data: United States By States and Census Divisions*. BuMines IC 8739, 1974, 163 pp.
- ____. *Historical Fuels and Energy Consumption Data, 1960-72, United States By States and Census Districts West of the Mississippi*. BuMines IC 8705, 1976, 425 pp.
- Crump, L. H., and C. L. Reading. *Fuel and Energy Data; United States by States and Regions*. BuMines IC 8647, 1974, 82 pp.
- Csejtey, B., Jr., W. H. Nelson, G. D. Eberlein, M. A. Lanphere, and J. G. Smith. *New Data Concerning Age of the Arkose Ridge Formation, South-Central Alaska*. Ch. in *U.S. Geol. Surv. Circ. 751-B*, 1977, pp. 62-64.
- Csejtey, B., Jr., W. H. Nelson, D. L. Jones, N. J. Silberling, R. M. Dean, M. S. Morris, M. A. Lanphere, J. G. Smith, and M. L. Silberman. *Reconnaissance Geologic Map and Geochronology, Talkeetna Mountains Quadrangle, Northern Part of Anchorage Quadrangle, and Southwest Corner of Healy Quadrangle, Alaska*. *U.S. Geol. Surv. OFR 78-558-A*, 1978, 62 pp., 1 sheet.
- Dall, W. H. *Report on Coal and Lignite of Alaska*. Ch. in *U.S. Geol. Surv. Annu. Rep. 7*, 1896, pp. 763-908.
- Dall, W. H., and G. D. Harris. *Correlation Papers; Neocene*. *U.S. Geol. Surv. Bull. 84*, 1892, pp. 232-268.
- Davis, J. A. *Beyond Compare is the Coal Wealth of Alaska in 1923*. *Fairbanks Daily News Miner Annu.*, 1923, pp. 18-20.
- ____. *Coal Mining in the Nenana Field*. Ch. in *Annual Report of the Mine Inspector to the Governor of Alaska, 1922*. *AK Territorial Dep. Mines, 1923*, pp. 143-153.
- ____. *Power From Lignite to Develop Interior Alaska*. *Proc. Am. Min. Cong.*, v. 23, 1920, pp. 269-278.
- Davis, N. *Energy/Alaska-Coal*. Univ. AK Press, Fairbanks, AK, 1984, pp. 123-166.
- Deisher, P. *Joe Usibelli: A Man With Energy to Spare*. *AK Business Monthly*, v. 2, No. 10, 1986, pp. 34-37.
- Denton, P. *Alaska Surface Coal Mining Program. Paper in Focus On Alaska's Coal '80*. (Proc. 2d AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). *Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50*, 1981, pp. 436-445.
- ____. *State-Owned Land and the Coal Resources of Alaska. Paper in Focus On Alaska's Coal '75*. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). *Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37*, 1976, pp. 59-64.
- Detterman, R. L., H. N. Reiser, W. P. Brosge, and J. T. Dutro, Jr. *Post-Carboniferous Stratigraphy, Northeastern Alaska*. *U.S. Geol. Surv. Prof. Paper 886*, 1975, 46 pp.

DeVries, A. H. Coal Policy Paper--Markets For Alaskan Coal. AK St. Legislative House Res. Agency Rep. 80-3, 1975, 31 pp.

Dickinson, K. A. Uraninite in Siderite Nodules From Tertiary Continental Sedimentary Rocks in the Healy Creek Basin Area, Central Alaska. Ch. in *The United States Geological Survey in Alaska; Accomplishments during 1978*. U.S. Geol. Surv. Circ. 804-B, 1979, pp. 98-99.

Dickinson, K. A., and J. A. Campbell. Epigenetic Mineralization and Areas Favorable for Uranium Exploration in Tertiary Continental Sedimentary Rock in South-Central Alaska; A Preliminary Report. U.S. Geol. Surv. OFR 78-757, 1978, 13 pp.

Dobey, P. L., and D. L. McGee. Economic and Geologic Studies of the Beluga-Capps Area and Geologic Resource Occurrences in Other Areas of the Proposed Cook Inlet Land Trade. AK Div. Geol. Geophys. Surv. OFR 94, 1976, 86 pp.

Dobey, P. L., J. Welch, and K. M. O'Connor. Capps Glacier-Beluga Coal Economic Resource Analysis. AK Div. Geol. Geophys. Surv. unpublished rep., 1975, 20 pp., available upon request from AFOC, BuMines, Anchorage, AK.

Downey, J. O. United States Navy Coal Investigating Expedition in the Bering River Field of Alaska. U.S. Navy Inst. Proc., v. 39, No. 4, 1913, pp. 1651-1681.

Dutcher, R. R., and others. Petrography and Palynology of Certain Coals of the Arctic Slope of Alaska. Univ. Park, Pennsylvania State Univ. (Miner. Ind. Experiment Station), 1957, 37 pp.

Dutcher, R. R., C. L. Trotter, and W. Spackman. Petrographic Examination of Coals From the Arctic Slope of Alaska (abstr.). Geol. Soc. Am. Bull., v. 68, No. 12, 1957, pp. 1719-1720.

Eakins, G. R., K. M. Goff, and J. A. Morehouse. Northwest Coal Transportation Study. AK Div. Geol. Geophys. Surv. Public Data File 83-1, 1983, 26 pp., 3 sheets.

Eakins, R. Coal Task-Force Policies of the State of Alaska for Coal Development. Paper in Focus On Alaska's Coal '80. (Proc. 2d AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 455-459.

Ebbley, N., Jr. Draft-Proposal Coal Mining Point Barrow Area, Northern Alaska. U.S. Bureau Indian Affairs Record Group 75, Federal Records Container 1604, File 950, Barrow Coal Mine, 1944, np.

Edmondson, A. C. A New Use For Alaska's Coal. AK Ind., v. 4, No. 9, 1972, pp. 35.

E. J. Longyear, Company. Report to University of California Radiation Laboratory on the Mineral Potential and Proposed Harbor Locations in Northwestern Alaska. 1958, pp. 41-44.

Eldridge, G. H. A Reconnaissance in the Susitna Basin and Adjacent Territory, Alaska in 1898. U.S. Geol. Surv. 20th Annu. Rep., pt. 7, 1900, pp. 7-29.

Engleman, P., and B. Tuck. Transportation and Development of Alaska's Natural Resources. Federal-State Land Use Planning Commission for Alaska, 1978, pp. 47-51.

Evans, G. W. Alaskan Coal Fields. Am. Inst. Min. and Metall. Eng. Trans., v. 66, No. 2, 1921, pp. 287-292.

_____. Controller Bay Coal Field, Alaska. Mines and Miner., v. 30, 1910, pp. 449-453.

____. Data and Comments on the Coal Fields of Alaska. BuMines unpublished rep., 1925, 25 pp.; available from AFOC, BuMines, Juneau, AK.

____. Healy River Coal. AK Territorial Dep. Mines Misc. Rep. MR-194-0, 1922, 98 pp.

____. Preliminary Report on the Matanuska Coal Field, Alaska for the U.S. Navy Expedition Into the Matanuska Coal Field During the Field Season of 1913. BuMines unpublished rep., 1913, 55 pp.; available from AFOC, BuMines, Juneau, AK.

Fairbanks Daily News-Miner. Tests Show Inlet Coal OK For Plants In Japan. Tues., Feb. 4, 1986, p. 6.

Faylor, R., and S. Fishbein. Arctic Marine Commerce, Final Report V. Arctic Inst. of North Am., 1973, 333 pp.

Fiedler, H. L. Homer Coal Field (Cook Inlet). AK Territorial Dep. Mines MI-104-1. 1945, 29 pp.

Fieldner, A. C., H. I. Smith, A. H. Fay, and S. Sanford. Analysis of Mine and Car Samples of Coal Collected in the Fiscal Years 1911-1913. BuMines B 85, 1914, 444 pp.

Fisher, C. A., and W. R. Calvert. Geology of the Bering River Field and Its Relation to Coal-Mining Conditions. U.S. House of Representatives Document 876, 1914, pp. 29-50.

Fisher, W. L. Alaskan Coal Problems. BuMines B 36, 1911, 32 pp.

Florance, J. E. Alaska Coal Fields Their Possibilities and Their Plight. Eng. Magazine, v. 46, No. 6, 1914, pp. 881-890.

Freeman, C. J. Overview of the Geology of the North-Central Alaska Range. Resour. Assoc. AK unpublished rep., 1983, 8 pp.; available on request from AFOC, BuMines, Anchorage, AK.

Freidmann, G. Assessment of Coal, Peat, and Petroleum Resources of Western Alaska. C.C. Hawley and Assoc., Anchorage, AK unpublished rep. for the AK Power Authority, 1981, pp. 6-13.; available on request from AFOC, BuMines, Anchorage, AK.

Fuchs, W. A. Tertiary Tectonic History of the Castle Mountain- Carbou Fault System in the Talkeetna Mountains, Alaska. Geol. Soc. Am., Abstr. with Problems, v. 11, No. 7, 1979, 429 pp.

Garrett, C. R., Jr. Coal Mining Report, Railroad Region, Alaska, 1943. Territory of AK Dep. Mines, 1944, np.; available from AFOC, BuMines, Juneau, AK.

Gassaway, J. S., and B. S. Abramson. Map and Table Showing Known Coal Deposits in Central Alaska. U.S. Geol. Surv. OFR 77-168-G, 1978, 1 sheet.

Gates, G. O. Part of the Herendeen Bay Coal Field, Alaska. U.S. Geol. Surv. OFR 44-29 (3), 1944, 5 pp.

Geer, M. R. State-by-State Reports on Coal West of the Mississippi Including Canada, Alaska. Coal Age, v. 78, No. 4, 1973, pp. 75-77.

Geer, M. R., and F. H. Yancey. Coal Washing in Washington, Oregon, and Alaska. Min. Eng., v. 1, No. 6, 1949, pp. 200-204, pp. 414-415.

Gilbert, W. G. General Geology and Geochemistry of Healy D-1 and Southern Fairbanks A-1 Quadrangles and Vicinity, Alaska. AK Div. Geol. Geophys. Surv. OFR 105, 1977, 12 pp.

Gough, L. P., and R. C. Severson. Element Concentrations in Rehabilitation Species From 13 Coal Strip Mines in Five Western States and Alaska. U.S. Geol. Surv. OFR 81-182, 1981, 110 pp.

_____. Chemical Analyses of Native Soil and Vegetation Samples, Capps Coal Field, Alaska. U.S. Geol. Surv. OFR 83-246, 1983, 58 pp.

Grantz, A. Geologic Map and Cross Sections of the Anchorage (D-2) Quadrangle and Northeasternmost Part of the Anchorage (D-3) Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-342, 1961, 1 sheet.

_____. Geologic Map of the North Two-Thirds of Anchorage (D-1) Quadrangle, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-343, 1961, 1 sheet.

Grantz, A., and L. F. Fay. Geologic Road Log of the Matanuska Valley. AK Geol. Soc. Guidebook, 1964, pp. 1-22.

Grantz, A., and J. A. Wolfe. Age of Arkose Ridge Formation, South-Central Alaska. Am. Assoc. Petrol. Geol. Bull., v. 45, No. 10, 1961, pp. 1762-1765.

Griffith, W. High-Grade Coal Resources of Alaska. Min. Sci., v. 64, 1911, pp. 500-501.

_____. The Matanuska Coal Field. AK Monthly, v. 1, No. 6, 1906, pp. 69.

_____. Matanuska Coal Field. AK Territorial Dep. Mines MR-85-0, 1905, 6 pp.

_____. The Matanuska Coal Field, Alaska. Mines and Miner., v. 26, No. 10, 1906, pp. 433-437.

_____. Report on the Matanuska Coal Field in the Valley of the Matanuska River, Alaska. Unpublished, 1905, 40 pp.; available from AK Historical Library, Anchorage, AK.

Hackett, S. W. Gravity Survey of Beluga Basin and Adjacent Area, Cook Inlet Region, South-Central Alaska. AK Div. Geol. Geophys. Surv. Geol. Rep. 49, 1977, 26 pp.

Hamilton, P. A., D. H. White, Jr., and T. K. Matson. The Reserve Base of U.S. Coals by Sulfur Content. BuMines IC 8693, 1975, 322 pp.

Hankinson, F. C. Coal Petrography as Related to Selection, Preparation, and Coking of Certain Alaskan Coals. M.S. Thesis, Univ. AK, Fairbanks, AK, 1965, 131 pp.

Hanley, P. T., and B. I. Clardy. Geologic Road Log--Anchorage to Matanuska Glacier (Caribou Creek). AK Geol. Soc. Field Trip Guidebook, 1982.

Hansen, J. J. Pre-Sale Evaluation of Hydrocarbon Potential. AK Div. Geol. Geophys. Surv. Public Data File 85-60, 1985, 14 pp.

Harriman, H. R. Alaska's Coal Resources. Am. Min. Cong., 12th., Annu. Sess. Proc., 1909, pp. 273-282.

Harris, M. Unique Railcar Dump Cuts Port Costs. AK Construction and Oil, v. 27, No. 7, 1986, pp. 30-31.

Harrison, E. S. Coal Resources of Alaska. AK-Yukon Magazine, v. 5, No. 3, 1908, pp. 417-418.

Hartman, D. C., G. H. Pessel, and D. L. McGee. Kenai Group of Cook Inlet Basin, Alaska. AK Geol. Geophys. Surv. OFR 49, 1974, 5 pp., 11 sheets.

____. Preliminary Report on the Stratigraphy of the Kenai Group, Upper Cook Inlet, Alaska. AK Div. Geol. Geophys. Surv. Spec. Rep. 5, 1972, 11 sheets.

Hawley, C. C., T. Cox, and D. Germer. Matanuska Coal Field. Ch. in Guide to the Bedrock and Glacial Geology of the Glenn Highway, Anchorage to Matanuska Glacier and the Matanuska Coal Mining District. AK Geol. Soc., 1982, pp. 45-54.

Hayes, C. W. Coal Fields of the United States. Ch. in Contributions to Economic Geology, 1902. U.S. Geol. Surv. Bull. 213, 1903, pp. 257-269.

Heiner, V. D. Alaska Mining History--A Source Document. AK Div. Parks and Archaeology Series Misc. Publ. 17, 1977, 463 pp.

Hennagin, B. D. Cook Inlet Coal: Economics of Mining and Marine Slurry Transport. Ph.D. Thesis, Univ. Washington, 1978, 79 pp.

Hiatt, R. W. General Comments on the Status of Alaskan Coal in the World Energy Economics Focus. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 1-4.

Hickman, R. G., and C. Craddock. Geological Map of Central Healy Quadrangle, Alaska. AK Div. Geol. Geophys. Surv. OFR 95, 1976, 3 pp.

Higgins, J. S. Coal for the Navy. U.S. Navy Inst. Proc., v. 39, No. 4, 1913, pp. 1427-1437.

Hill, W. P. T. Chickaloon Coal Progress Report. AK Territorial Dep. Mines MR-85-2, 1925, 9 pp.

____. Enclosure B of the Final Report of the Navy Alaskan Coal Commission to the Secretary of the Navy--Progress Report on the Geology and Coal Resources Adjacent to Chickaloon, Alaska for the Period July 1, 1920-April 30, 1922., 1922, 83 pp.; available from Federal Record Center, Seattle, WA., AK Record Group 322, Federal Record Container 90,370.

Hillegas, B. D. The Alaska Railroad's Future Freight Market. U.S. Dep. Transportation, Federal Railroad Admin. v. 2, 1976, pp. 47-65.

Hinkley, T. K., K. S. Smith, J. L. Peard, and M. L. Tompkins. Wholerock Chemical Composition of Some Samples From Two Drill-Hole Cores in the Capps Coal Field, Beluga Coal Area, South-Central Alaska. U.S. Geol. Surv. OFR 82-672, 1982, 50 pp.

Hite, D. M. Some Sedimentary Aspects of the Kenai Group, Cook Inlet, Alaska. Paper in Recent and Ancient Sedimentary Environments in Alaska. (Proc. AK Geol. Soc. Symp., Anchorage, AK, April 2-4, 1975), AK Geol. Soc., 1976, pp. 1-23.

Hoggatt, W. B. Report of the Governor of the District of Alaska to the Secretary of the Interior. GPO, 1908, p. 12.

____. Report of the Governor of the District of Alaska to the Secretary of the Interior. GPO, 1909, pp. 6-7.

- Holdsworth, P. R. Report of the Commissioner of Mines for the Biennium Ending December 31, 1952. AK Territorial Dep. Mines, 1953, pp. 27-31.
- Holdsworth, W. B. Report of the Commissioner of Mines for the Biennium Ending December 31, 1958. AK Territorial Dep. Mines, 1959, pp. 33-34.
- Holloway, C. D. Map and Table Showing Distribution of Known Coal Bearing Rocks in the Eastern Part of Southern Alaska. U.S. Geol. Surv. OFR 77-168-G, 1977, 1 plate.
- _____. Map Showing Coal Fields and Distribution of Coal Bearing Rocks in the Eastern Part of Southern Alaska. U.S. Geol. Surv. OFR 77-169-D, 1977, 1 plate.
- _____. Map Showing Coal Fields and Distribution of Coal Bearing Rocks in the Western Part of Southern Alaska. U.S. Geol. Surv. OFR 77-169-I, 1977, 1 plate.
- Hopkins, D. M. Stratigraphic Significance of Quaternary Weathering Phenomena in a Lava Plateau on Seward Peninsula, Alaska (abstr.). Geol. Soc. Am. Bull., v. 64, No. 12, pt. 2, 1953, p. 1435.
- Hopkins, D. M., and W. S. Benninghoff. Evidence of a Very Warm Pleistocene Interglacial Interval on Seward Peninsula, Alaska (abstr.). Geol. Soc. AM. Bull., v. 64, No. 12, pt. 2, 1953, p. 1435.
- Huber, D. W., and J. R. Scott. Coal Mining in the Alaskan Mineral Economy (abstr.). Proc. 15th. AK Sci. Conf., College, AK, 1964, 1965, 94 pp.
- Huffman, R. Coal for Power Generation. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 481-482.
- International Committee for Coal Petrology. International Handbook of Coal Petrology, 2nd. Edition. Centre National De La Recherche Scientifique, Paris, 1963, np.
- Jamme, G. The Coal Fields of Alaska; A Brief Outline Showing Their Possibilities. AK Monthly Magazine, v. 2, No. 12, 1906, pp. 211-224.
- Janson, L. E. The Copper Spike. AK Northwest Publ. Co., Anchorage, AK, 1979, 175 pp.
- Johnson, G. W. Offshore Coal-Fired Power PLants and Alaskan Coal. Paper in Focus On Alaska's Coal '75. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 129-138.
- Joslin, F. The Alaska Coal Situation. Am. Min. Cong. Proc., 1911, pp. 47-58.
- Kay, G. F. The Bering River Coal Field, Alaska. Popular Sci. Monthly, v. 79, 1911, pp. 417-430.
- _____. Some Features of the Bering River Coal Field, Alaska. Iowa Acad. of Sci. Proc., v. 18, 1911, pp. 85-92.
- Keller, A. S., R. H. Morris, and R. L. Detterman. Geology of the Shaviovik and Sagavanirktok Rivers Region, Alaska. U.S. Geol. Surv. Prof. Paper 303-D, 1961, pp. 207-209.
- King, J. The Bering River Coal Fields. AK-Yukon Magazine, v. 9, No. 5, 1910, pp. 383-388.
- Kirschner, C. E., and C. A. Lyon. Stratigraphic and Tectonic Development of Cook Inlet Petroleum Province. Ch. in Arctic Geology. Am. Assoc. of Petrol. Geol. Memoir 19, 1973, pp. 396-407.

Kirsopp, J., Jr. The Coal Fields of the Cook Inlet, Alaska and the Pacific Coast. *Inst. Min. Eng. Trans.*, v. 21, 1903, pp. 516-566.

Kito, S. Coal Exploration and Development on Native Lands. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 84-87.

Kohan, S. M. ERDA Placer Amax and Nissho-Iawi Sponsor SRI Study of Alaskan Coals. *World Coal*, v. 3, No. 6, 1977, pp. 38-42.

Kreig, R. A., and Associates. An Orientation to Five Alaska Coal Fields (Beluga, Matanuska, Healy, Bering River, and Lisburne). AK Dep. Nat. Resour. Div. Miner. and Energy Management, unpublished rep., 1983, pp. 3.1-3.15.; available on request from AFOC, BuMines, Anchorage, AK.

Lamberson, M. N. Petrographic Analysis of the Canyon Creek, Alaska, Subbituminous Coal (Abstr.). *Geol. Soc. Am.*, v. 15, No. 6, 1983, pp. 622.

Land, S. E. Alaskan Coal--Another Energy Option? *AK Ruralite*, v. 28, No. 5, 1981, p. 25.

Langenheim, R. C., Jr., C. J. Smiley, and J. Gray. Cretaceous Amber From the Arctic Coastal Plain of Alaska. *Geol. Soc. Am. Bull.*, v. 71, 1960, pp. 1345-1356.

Laybourn, D. Coal Potential of Native Selected Lands, Interior Alaska. Arctic Resources Inc., Anchorage, AK, 1980, np.

Leehey, M. D. Coal and Transportation in Alaska. *Am. Min. Congr. Proc.*, 1911, pp. 33-46.

Lyle, W. M., and N. J. Bragg. Coal Bibliography for Alaska. AK Div. Geol. and Geophys. Surv. OFR 41, 1974, 31 pp.

Lyle, W. M., and P. L. Dobey. Geological Evaluation of the Herendeen Bay Area, Alaska Peninsula. AK Div. Geol. Geophys. Surv. OFR 48, 1974, 7 pp.

Lyle, W. M., I. F. Palmer, Jr., J. G. Bolm, and F. O. Flett. Hydrocarbon Reservoir and Source-Rock Characteristics From Selected Areas of Southwestern Alaska. AK Div. Geol. Geophys. Surv. Prof. Rep. 77, 1982, 15 pp.

Magoon, L. B., W. L. Adkison, and R. M. Egbert. Map Showing Geology, Wildcat Wells, Tertiary Plant Fossil Localities, K-Ar Age Dates and Petroleum Operations, Cook Inlet Area, Alaska. U.S. Geol. Surv. Misc. Geol. Investigations Map I-1019, 1976, 3 sheets.

Manning, K. H., and D. L. Stevens. The Chicago Creek and Norton Sound Area Coal Explorations-1982. Prepared by Stevens Exploration Management Corp., AK Div. Geol. Geophys. Surv. Public Data File 83-2, 1983, 38 pp.

Marcus, K. L., and S. R. Rog, Jr. Middle Cretaceous Coal Bearing Stratigraphy From Wainwright, North Slope, Alaska. *Geol. Soc. Am. (abstr.)*, 1982, 183 pp.

Martin, G. C. Coal. Ch. in *Our Mineral Supplies*. U.S. Geol. Surv. Bull. 666, 1917, pp. 98-100.

____. The Mesozoic Stratigraphy of Alaska. U.S. Geol. Surv. Bull. 776, 1926, 461 pp.

Martin, G. C., and J. E. Callahan. Preliminary Report on the Coal Resources of the National Petroleum Reserve in Alaska. U.S. Geol. Surv. OFR 78-1033, 1978, 29 pp., 2 sheets.

Martin, G. C., and F. J. Katz. Geology and Coal Fields of the Lower Matanuska Valley, Alaska. U.S. Geol. Surv. Bull. 500, 1912, pp. 52, 75-94.

Matson, T. K., and D. H. White, Jr. The Reserve Base of Coal for Underground Mining in the Western United States. BuMines IC 8678, 1975, 238 pp.

Mauer, M. A., and D. C. Toland. Water-Quality Data From the Beluga Coal-Field Area. AK Div. Geol. Geophys. Surv. RI 84-27, 1984, 33 pp.

McClung, J. D., and M. R. Geer. Properties of Coal and Coal Impurities. Ch. in Coal Preparation, 4th ed. Am. Inst. Min., Metall., and Petrol. Eng., Inc., N.Y., 1979, pp. 1.1-1.79.

McConkey, W., D. Lane, C. Quinlan, M. Rahm, and G. Rutledge. Alaska's Energy Resources; Final Report, Phase I, v. 2, Inventory of Oil, Gas, Coal, Hydroelectric, and Uranium Resources (Dep. Energy contract EY76C-06-2435). AK Div. Energy and Power Development, 1977, pp. 133-216.

McCullough, D. S., and D. M. Hopkins. Evidence for an Early Recent Warm Interval, Alaska. Geol. Soc. Am. Bull., v. 77, No. 10, 1966, pp. 1092-1106.

McCutcheon, S. Coal Mining History. AK Construction and Oil, v. 10, No. 2, 1969, pp. 16-20.

McFarland, C. E. The Alaska Coal Industry--A Status Report. AK Miner. Development Inst., Rocky Mountain Miner. Law Foundation Paper 9, 1978, 15 pp.

McGee, D. L. Bedrock Geology and Coal Occurrences, Talkeetna-Kashwitna Area, Susitna River Basin, Alaska. AK Div. Geol. Geophys. Surv. OFR 107-E, 1978, 1 pp.

_____. Coal Reserves, Beluga and Chuitna Rivers and Capps Glacier Areas. AK Div. Geol. Geophys. Surv. OFR 30, 1973, 5 pp.

McGee, D. L., and K. S. Emmel. Alaska Coal Resources. AK Div. Geol. Geophys. Surv. unpublished rep., 1979, 26 pp.; available from AK Div. Geol. and Geophys. Surv., Fairbanks, AK.

McGee, D. L., and K. M. O'Connor. Cook Inlet Basin Subsurface Coal Reserve Study. AK Div. Geol. Geophys. Surv. OFR 74, 1975, 24 pp.

_____. Mineral Resources of Alaska and the Impact of Federal Land Policies on Their Availability--Coal. AK Div. Geol. Geophys. Surv. OFR 51, 1975, 29 pp.

Meade, R. M. A Coal Field in Alaska. Appleton's J., v. 6, 1871, pp. 266.

Meissner, C. R., Jr., C. B. Cecil, and G. D. Stricker. Coal Geology and the Future--Symposium Abstracts and Selected References. U.S. Geol. Surv. Circ. 757, 1977, 20 pp.

Merritt, R. D. Alaska; Description of Seams. Ch. in 1985 Keystone Coal Industrial Manual. McGraw Hill, 1985, pp. 433-442.

_____. Alaska; Description of Seams. Ch. in 1986 Keystone Coal Industry Manual. McGraw Hill, 1986, pp. 416-424.

- ____. Alaska Peninsula: Coals of Unga Island. *The Northern Eng.*, v. 18, No. 2 & 3, 1987, pp. 9-13.
- ____. Alaska's Fifth Coal-Lease Sale on May 17; A Modest New Beginning After 11-Year Hiatus. *AK Div. Geol. Geophys. Surv. AK Mines and Geol.*, v. 32, No. 2, 1982, pp. 1-4.
- ____. Alaska's Low-sulfur Coal Resources May Be World's Largest. *J. Coal Quality*, 1987, v. 9, No. 2, pp. 129-156.
- ____. Alaska's Low-Sulfur Coals Hold Leading Edge in Future Pacific-Rim and U.S. Coal Trade. *AK Div. Geol. Geophys. Surv. Public Data File 87-6*, 1987, 143 pp.
- ____. Coal. Paper in *More Facts About Alaska; The Alaska Almanac*. AK Northwest Publ. Co., 1984, 37 pp.
- ____. Coal Exploration, Mine Planning and Development. Noyes Data Corp., Park Ridge, N. J., 1984, 464 pp.
- ____. Coal Mine Activity Listed; Ongoing Development. *AK J. Commerce and Pacific Rim Reporter*, v. 8, No. 8, 1984, pp. 7-8.
- ____. Coal Overburden; Geological Characterization and Premine Planning. Noyes Data Corp., Park Ridge, N.J., *Energy Technology Review* 88, 1983, 343 pp.
- ____. Framboidal Pyrites in Tertiary Continental Fluvial Coals of South-Central Alaska. *SMI Portal, Univ. AK*, v. 3, 1982, pp. 5-6.
- ____. Geology and Coal Resources of the Wood River Field, Nenana Basin. Paper in *Focus on Alaska's Coal '86*. (Proc 3rd AK Coal Conf., Anchorage, AK, 1986). *Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 72*, 1987, pp. 116-126.
- ____. Paleoenvironmental and Tectonic Controls in Major Coal Basins of Alaska. Ch. in *Paleoenvironmental and Tectonic Controls in Major Coal-Forming Basins of the United States*. *Geol. Soc. Am. Spec. Paper*, 1984, pp. 173, 200.
- ____. Selected References on Alaska Coal Occurrences by Quadrangle. *AK Div. Geol. Geophys. Surv. Public Data File 85-43*, 1985, 84 pp.
- Merritt, R. D., and M. A. Belowich. Coal Geology and Resources of the Matanuska Valley. *AK Div. Geol. Geophys. Surv. RI 84-24*, 1984, 64 pp.
- Merritt, R. D., and C. N. Conwell. Alaska Coal--Description of Seams. Paper in *Keystone Coal Industry Manual*, Min. Inf. Services, McGraw-Hill, 1984, pp. 474-478.
- Merritt, R. D, and D. L. McGee. Depositional Environments and Resource Potential of Cretaceous Coal-Bearing Strata at Chignik and Herendeen Bay, Alaska Peninsula. *Sed. Geol.*, v. 49, 1986, pp. 21-49.
- Mertie, J. B., Jr. Tertiary Deposits of the Eagle-Circle District, Alaska. *U.S. Geol. Surv. Bull.* 917-D, 1942, pp. 213-264.
- Miller, R. D., and E. Dobrovolny. Surficial Geology of Anchorage and Vicinity, Alaska. *U.S. Geol. Surv. Bull.* 1093, 1959, 128 pp.

Miller, T. P., D. G. Grybeck, R. L. Elliot, and T. Hudson. Preliminary Geologic Map of the Eastern Solomon and Southeastern Bendeleben Quadrangles, Eastern Seward Peninsula, Alaska. U.S. Geol. Surv. OFR 537, 1972, 1 sheet.

Mining Congress Journal. Development of Alaska's Coal is Resolving Into A Real Industrial Problem. v. 8, 1922, pp. 767-768.

____. Quality and Quantity of Alaska's Coal Soon to be Definitely Known. v. 8, No. 3, 1922, p. 637.

____. Technical and Economic Feasibility of Strip Mining Coal. Alaskan Permafrost, v. 62, No. 8, 1976, pp. 10.

____. Transfer of Authority Over Coal Fields Brings New Era of Development. v. 8, No. 5, 1922, p. 721.

Mitchell, G. E. The Coal Resources of Alaska. Am. Review of Reviews, v. 38, No. 12, 1908, pp. 699-702.

Mitchell, W. F. Revegetation Progress in Alaska. Paper in Proc. High-Altitude Revegetation Workshop No. 5 (CO State Univ., Fort Collins, CO, March 8-9, 1982). CO Water Resour. Res. Inst., CO State Univ., Fort Collins, CO, Inf. Ser. No. 48, 1982, pp. 122-127.

Mitchell, W. W., G. A. Mitchell, and J. D. McKendrick. Revegetation of Alaskan Coal Mine Spoils, Progress Report for Research (U.S. Dep. Energy contract AM06-76RL02229). AK Agricultural Experimental Station, Univ. AK, Palmer, AK, U.S DOE/EV/10256-2, 1981, 60 pp.

Moffit, F. H. Geology of the Eastern Part of the Alaska Range and Adjacent Area. Ch. in Mineral Resources of Alaska 1951-1953. U.S. Geol. Surv. Bull. 989-D, 1954, pp. 137-143.

Molenaar, C. M., A. R. Kirk, L. B. Magoon, and A. C. Huffman. Twenty-two Measured Sections of Cretaceous-Lower Tertiary Rocks, Eastern North Slope, Alaska. U.S. Geol. Surv. OFR 84-695, 1984, 19 pp. Mueller, E. Environmental Constraints. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab (MIRL) Rep. 50, 1891, pp. 485-486.

Naske, C. M., and D. M. Triplehorn. The Federal Government and Alaska's Coal. The Northern Eng., v. 12, No. 3, 1980, pp. 11-23.

Nathan, R. R., and Associates, Inc. The Potential Market for Midwestern and Alaskan Coal and Lignite. Washington, D.C., 1966, 22 pp.

National Academy of Sciences. Environments, Industry, and People: Strip-Mining for Coal in Alaska. News rep., v. 31, No. 1, 1981, pp. 14-19.

National Academy of Sciences--National Research Council. Surface Coal Mining in Alaska: An Investigation of the Surface Mining Control and Reclamation Act of 1977 in Relation to Alaskan Conditions. Nat. Acad. Press, Washington D.C., 1980, 379 pp.

National Aeronautics and Space Administration Technology Applications Program. Information on Alaskan Coal. NASA computer printout, v. 1 and 2, 1983; available from AFOC, BuMines, Anchorage, AK.

National Geographic Magazine. Coal Resources of Alaska. V. 13., No. 5, 1902, pp. 172-174.

Nilsen, T. H., E. E. Brabb, and T. R. Simoni. Stratigraphy and Sedimentology of the Nation River Formation, A Devonian Deep-Sea Fan Deposit in East-Central Alaska. AK Geol. Soc., 1976, pp. 8.

- Packard, W. Coal Mining at the North Pole. *Natl. Monthly*, v. 13, No. 12, 1900, pp. 163-170.
- Packer, D. R., G. E. Brogan, and D. B. Stone. New Data on Plate Tectonics of Alaska. *Tectonophysics*, v. 29, 1975, pp. 87-102.
- Paige, S., and A. Knopf. Geologic Reconnaissance in the Matanuska and Talkeetna Basin, Alaska. *U.S. Geol. Surv. Bull.* 327, 1907, pp. 40-43.
- Paige, S., W. T. Foran, and J. Gilluly. A Reconnaissance of the Point Barrow Region, Alaska. *U.S. Geol. Surv. Bull.* 772, 1925, pp. 26-32.
- Parks, B. Trace Metals in Surface Water and Stream Sediments of Healy and Lignite Creek Basins, Alaska. *U.S. Geol. Surv. Water Resour. Investigation Rep.* 83-4173, 1983, 26 pp.
- Parks, G. A. Kachemak Bay Lignite Deposits of Alaska. *Colorado School of Mines Magazine*, Golden, CO., v. 5, 1915, pp. 44-49.
- Patsch, B. J. G. Statements on Beluga Coals-Alaska: For Presentation at Federal Energy Administration Project Independence Public Hearings in Anchorage, AK Sep. 9-10, 1974. 1974, 7 pp., 3 maps.
- Payne, T. G. Mesozoic and Cenozoic Tectonic Elements of Alaska. *U.S. Geol. Surv. Misc. Geol. Investigations Map I-84*, 1955, 1 sheet.
- _____. Stratigraphic and Structural Features, Lower Matanuska Valley Coal Field, Alaska (abstr.). *Econ. Geol.*, v. 40, No. 1, 1945, 93 pp.
- Payne, T. G., and D. M. Hopkins. Geology and Coal Resources of Western Part of the Lower Matanuska Valley Coal Field, Alaska. *U.S. Geol. Surv. OFR 45-100 (33)*, 1945, 28 pp.
- Perles, S. Far Eastern Export Market for Alaskan Coal. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). *Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep.* 50, 1981, pp. 315-318.
- Plafker, G. Geologic Map of the Gulf of Alaska Tertiary Province, Alaska. *U.S. Geol. Surv. Map I-484*, 1967, 1 sheet.
- Prindle, L. M. A Geologic Reconnaissance of Circle Quadrangle, Alaska. *U.S. Geol. Surv. Bull.* 538, 1913, pp. 76-77.
- Quackenbush, L. S. Notes on Alaskan Mammoth Expeditions of 1907 and 1908. *Am. Museum of Nat. History Bull.*, v. 26, 1909, pp. 87-130.
- Race, W. H. The Mineral Industry of the Kenai-Cook Inlet-Susitna Region. *AK Div. Mines and Miner. Misc. Publ.*, 1962, pp. 13, 16-18, 21-25, 30-31.
- Ramsey, J. P., R. M. Retherford, B. Hickok, and J. Williams. Northwest Alaska Coal Investigation. (AK contract CA20344) Prepared by C. C. Hawley and Assoc. Inc., 1983, 71 pp.
- Rao, P. D. Determination of Mercury in Alaskan Coals by Flameless Atomic Absorbtion. (Paper in Fourth Int. Conf. on Atomic Spectroscopy and the Twentieth Canadian Spectroscopy Symp., Toronto, Ontario, Canada, Oct. 29-Nov. 2, 1973). *Univ. AK Miner. Ind. Res. Lab. (MIRL)*, 1973, p. 15.

____. Distribution and Significance of Major, Minor, and Trace Elements in Active Alaskan Coals (BuMines contract G0133125). Univ. AK Miner. Ind. Res. Lab. (MIRL), 1974, 38 pp.

____. Focus on Alaska's Coal '86. (Proc. 3rd AK Coal Conf., Oct. 27-30, 1986, Anchorage, AK). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 72, 1987, 396 pp.

Rao, P. D., and E. N. Wolff. Petrographic, Mineralogical, and Chemical Characterization of Certain Alaskan Coals and Washability Products. Final Report (Dep. Energy contract DOE/ET-78-S-01-3197). U.S. Dep. of Energy, 1981, 51 pp.

Reed, I. M. Coal and Gold Placer Deposits of Lower Kugruk River Valley. AK Territorial Dep. Mines MR-44-1, 1933, 13 pp.

____. Coal and Lode Deposits of Seward Peninsula. AK Territorial Dep. Mines MR-192-3, 1929, 7 pp.

Reidel, S. P. An Iron-Rich Lava Flow From the Nenana Coal Field, Central Alaska. Ch. in Short Notes on Alaskan Geology, 1982-1983. AK Div. Geol. Geophys. Surv. Prof. Rep. 86, 1984, pp. 5-8.

Richardson, J. Coal for the Navy. Am. Soc. Naval Eng. J., v. 27, No. 2, 1915, pp. 332-344.

Ritter, E. A. The Lignite and Coal-Bearing Basins of the Rocky Mountains. Annales Mines Series 10, v. 10, 1906, pp. 5-84.

Robinson, F. M. Test Wells, Titaluk and Knifeblade Area, Alaska. With Micropaleontology Study of Test Wells in the Titaluk and Knifeblade Areas, Northern Alaska. Ch. in Exploration of Naval Petroleum Reserve No. 4 and Adjacent Areas, Northern Alaska, 1944-53, pt. 5, Subsurface Geology and Engineering Data. U.S. Geol. Surv. Prof. Paper 305-G, 1959, pp. 377-422.

Ruby, J. D., and H. Huettnerich. Problems and Potentials for Thermal Drying of Alaskan Low-Rank Coals. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 267-277.

Rutledge, G., D. Lane, and G. Edblom. Alaska Regional Energy Resources Planning Project, Phase 2, Coal, Hydroelectric and Energy Alternatives, v. 1, Beluga Coal District Analysis (Dep. Energy contract AT06-77EV 73002). AK Div. Energy and Power Development, 1980, 426 pp.

Sable, E. G., and R. M. Chapman. Coals of the Corwin Formation, Northwestern Alaska. Geol. Soc. Am. Bull., v. 66, No. 12, 1955, pp. 1708-1709.

Sanders, R. B. Alaska's Coal Resources; An International View. Ch. in Circum-Pacific Energy Conference, 2nd., Honolulu, HI., August 1982. Am. Assoc. Petrol. Geol. Proc., 1983, 12 pp.

____. Coal Resources of Alaska. Ch. in Alaska's Oil/Gas and Minerals Industry. AK Geographic Q., v. 9, No. 4, 1982, pp. 146-165.

Schaff, R. G. Comments From State Division of Minerals and Energy Management. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 8-10.

____. Geologic Characteristics of Alaskan Coal Deposits. Ch. in Committee on Alaskan Coal Mining and Reclamation (COACMAR), Surface Coal Mining in Alaska. Natl. Acad. Press, Washington, D.C., 1980, pp. 12-13.

____. The Role of the State Division of Geological and Geophysical Surveys. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf, Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 37, 1976, pp. 88-92.

Schaff, R. G., and R. D. Merritt. Alaska's Coal Provinces and Resources. (Proc. Int. Conf. on Coal, Miner., and Petrol., Anchorage, AK, Feb. 16-17, 1983). Resour. Development Council for AK, Inc., 1983, pp. 157-161.

____. Coal Resources of Alaska. AK Div. Geol. Geophys. Surv. Inf. Circ. 17, 1983, 9 pp.

Schmidt, R. A. Coal in America; An Encyclopedia of Reserves, Production, and Use. McGraw-Hill Publ., Co., N.Y., 1979, pp. 51-57.

Schmitt, N. C. '84 Saw 3 Coal Projects. AK Construction and Oil, v. 9, No. 27, 1985, p. 8.

____. Coal Holds Promise as Bush Fuel. AK Construction and Oil, v. 9, No. 27, 1985, pp. 1, 9-10.

Schmoll, H. R. Delicate Environment of Alaska's Coal Lands. U.S. Geol. Surv. Prof. Paper 1100, 1978, p. 273.

Schopf, J. M., and O. G. Oftedahl. The Reinhardt Thiessen Coal Thin-Section Slide Collection of the U.S. Geological Survey-Catalog and Notes. U.S. Geol. Surv. Bull. 1432, 1976, np.

Scientific American. Alaska's Coal Fields. V. 3, No. 3, 1921, pp. 285-286.

Scully, D. R. Hydrologic Investigations Related to Coal Resources. Ch. in The United States Geological Survey in Alaska: Accomplishments During 1975. U.S. Geol. Surv. Circ. 733, 1976, p. 45.

Scully, D. R., A. P. Krumhardt, and D. R. Kernodle. Data From A Hydrologic Reconnaissance of the Beluga, Peters Creek, and Healy Coal Areas, Alaska. U.S. Geol. Surv. OFR 80-1206, 1980, 56 pp.

Selleck, B. W., and B. Panuska. Sedimentological Models for the Coal-Bearing Group (Oligocene-Miocene) Central Alaska Range (abstr.). Geol. Soc. Am., v. 15, No. 5, 1983, pp. 683.

Severson, R. C., and L. P. Gough. Chemical Character of Mine Soils at One Alaskan and Twelve Western Conterminous United States Coal Stripmines. U.S. Geol. Surv. OFR 81-243, 1981, 80 pp.

____. Chemical Composition and Variability of Soils From the Capps Coal Field, Alaska. U.S. Geol. Surv. OFR 83-190, 1983, 39 pp.

Shallit, A. B. Coal Testing Laboratory Report for the Calendar Year, 1932. AK Railroad Record Group 322, Federal Record Container 90,370, File 86.10, 1933, 3 pp.

____. Report on Sinuk River Iron Ore Deposits, Seward Peninsula, Alaska. AK Territorial Dep. Mines MI-52-1, 1942, 16 pp.

Sims, J., and C. Green. Mining News Good and Bad Tough Times Ahead Unless Prices Rise. AK Construction and Oil, v. 27, No. 1, 1986, pp. 24-25.

Slater, A. Admiralty Island Coal Company Property, Admiralty Island, Alaska; Field Survey of Property and Conclusions Regarding Development. Unpublished rep., 1929, np.; available from Alaska Historical Library, Juneau, AK.

- Slatjck, E. R. Coal Data--A Reference. U.S. Dep. Energy, 1980, p. 45.
- Smiley, C. J. Cretaceous Floras, Kuk River Area, Alaska. Geol. Soc. Am. Bull. 77, No. 1, 1966, p. 2.
- _____. Floral Zones and Correlations of Cretaceous Kukpowruk and Corwin Formations, Northwestern Alaska. Am. Assoc. Petrol. Geol. Bull., v. 53, No. 10, 1969, pp. 2079-2093.
- Smith, I. L. Alaska's Coal - The Great Perplexity. Min. Cong. J., v. 8, No. 8, 1922, pp. 832-834.
- Snyder, N. H. Relationship of Mine Samples to Commercial Shipments. Ch. in Analyses of Alaska Coals. BuMines TP 682, 1946, pp. 15-18.
- Snyder, N. H., and R. J. Swingle. Description of Delivered Samples. Ch. in Analyses of Alaska Coals. BuMines TP 682, 1946, pp. 108-110.
- Solie, D. N., and D. B. Dickey. Coal Occurrences and Analysis, Farewell-White Mountain Area. AK Div. Geol. Geophys. Surv. OFR 160, 1982, 17 pp.
- Speer, E. B. Potential Impacts of Coal Development on Fish and Wildlife in Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 466-471.
- Spurr, J. E., and H. B. Goodrich. Geology of the Yukon Gold District, Alaska, With An Introductory Chapter on the History and Condition of the District to 1897. Ch. in Eighteenth Annual Report of the United States Geological Survey. U.S. Geol. Surv. 18th. Annu. rep., 1897, pp. 87-392.
- _____. A Reconnaissance of Southwestern Alaska. U.S. Geol. Surv. 20th. Annu. rep., 1900, 262 pp.
- Stevens, C. C. A Provenance Study of Tertiary Sandstones in the Healy Creek Coal Basins, Nenana Coal Field, Alaska. M.S. Thesis, Univ. AK, Fairbanks, AK, 1971, 20 pp.
- Stewart, B. D. Mining Investigation and Mine Inspection in Alaska, Including Assistance to Prospectors, Biennium Ending March 31, 1933. Annu. Rep. of the Mine Inspector to the Governor of Alaska, 1933, 191 pp.
- Stoess, P. C. The Kayak Coal and Oil Fields of Alaska. Min. Sci. Press, v. 87, 1903, 65 pp.
- Storm, L. W. The Bering River Coal Field of Alaska. Eng. and Min. J., v. 90, No. 8, 1910, pp. 272-279.
- Stricker, G. D. Coal Occurrence, Quality, and Resource Assessment, National Petroleum Reserve-Alaska. Ch. in U.S. Geol. Surv. Polar Research Symposium, Abstracts With Program. U.S. Geol. Surv. Circ. 911, 1983, pp. 32-33.
- Stricker, G. D., R. H. Affolter, and M. E. Brownfield. Geochemical Characterization of Selected Coals From the Beluga Resource Area, South-central Alaska--Site of a Proposed Coal Mine. Ch. in United States Geological Survey Research on Energy Resources, 1986 Program and Abstracts. U.S. Geol. Surv. Circ. 974, 1986, pp. 65-66.
- Stricker, G. D., and H. W. Roehler. Deltaic Coals and Sediments of the Cretaceous Torok, Kukpowruk, and Corwin Formations in the Kokolik-Utukok Region, National Petroleum Reserve in Alaska. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, p. 61.
- Strong, J. F. A. Report of the Governor of Alaska to the Secretary of the Interior. GPO, 1913, pp. 28-29.

- ____. Report of the Governor of Alaska to the Secretary of the Interior. GPO, 1914, pp. 30-31.
- Sturdevant, D. Environmental Constraints to Coal Development. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) 50, 1981, pp. 460-463.
- Sundberg, B. Coal For Central Home Heating in Fairbanks. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 487-490.
- Swanson, V. E., J. H. Medlin, J. R. Hatch, S. L. Coleman, G. H. Wood, Jr., S. D. Woodruff, and R. T. Hildebrand. Collection, Chemical Analysis and Evaluations of Coal Samples in 1975. U.S. Geol. Surv. OFR 76-468, 1976, 503 pp.
- Swift, W. H., J. P. Haskins, and M. J. Scott. Beluga Coal Market Study. Prepared by Battelle Northwest Lab. for AK Div. Policy Development and Planning, unpublished rep., 1980, 53 pp.; available on request from AFOC, BuMines, Anchorage, AK.
- Swineford, A. P. Coal At Cook's Inlet. West Shore, v. 14, No. 12, 1888, pp. 643-644.
- ____. Report of the Governor of Alaska to the Secretary of the Interior. GPO, 1886, pp. 9-19.
- ____. Report of the Governor of Alaska to the Secretary of the Interior. GPO, 1887, pp. 19-20.
- ____. Report of the Governor of Alaska to the Secretary of the Interior. GPO, 1889, pp. 19-22.
- Tailleur, I. L. Low-Volatile Bituminous Coal of Mississippian Age on the Lisburne Peninsula, Northwestern Alaska. Ch. in Geological Survey Research, 1965. U.S. Geol. Surv. Prof. Paper 525-B, 1965, pp. 34-38.
- Tailleur, I. L., and W. P. Brosge. Coal Resources of Northern Alaska May Be Nation's Largest. Paper in Focus On Alaska's Coal '75. (Proc. 1st AK Coal Conf., Univ. AK, Fairbanks, AK, 1975). Univ. AK Miner. Ind. Res. Lab. (MIRL), Rep. 37, 1976, pp. 219-226.
- Tarrant, B. Western Arctic Coal Ready for Phase III. AK J. Commerce and Pacific Rim Reporter, v. 10, No. 27, 1986, p. 9.
- Theobald, P. K., S. P. Schweinfurth, and D. C. Duncon. Energy Resources of the United States. U.S. Geol. Surv. Circ. 650, 1972, 27 pp.
- Thiessen, R. Origin of the Boghead Coals. U.S. Geol. Surv. Prof. Paper 132-I, 1972, pp. 121-137.
- Thomas, B. I. Donnelly Coal Field (Big Delta-Jarvis Creek). AK Territorial Dep. Mines MI-68-1, 1943, 4 pp.
- Thorson, R. M. Recurrent Late Quaternary Faulting Near Healy, Alaska. AK Div. Geol. Geophys. Surv. Geol. Rep. 61, 1978, pp. 10-14.
- Triplehorn, D. M. Clay Mineralogy and Petrology of the Coal-Bearing Group Near Healy. AK Div. Geol. Geophys. Surv. Geol. Rep. 52, 1976, 14 pp.

Triplehorn, D. M., and D. L. Turner. F-Ar and Fission-Track Dating of Ash Partings in Coal Seams. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 305-311.

Triplehorn, D. M., D. L. Turner, and C. W. Naeser. K-Ar and Fission-Track Dating of Ash Partings in Cone Beds From Kenai Peninsula, Alaska: A Revised Age for the Homerian Stage-Clamgulchian Stage Boundary. Geol. Soc. Am. Bull., v. 88, No. 8, 1977, pp. 1156-1160.

Triplehorn, J. H. Alaska Coal--A Bibliography. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 51, 1982, 298 pp.

Trumbull, J. Coal Fields of the United States. U.S. Geol. Surv. Spec. Map, 1960, 1 sheet.

Tuck, B. H. Transportation of Coal and Hard Rock Mineral Concentrates From Northwest Alaska. Joint Federal-State Land Use Planning Commission for Alaska. 1979, 30 pp.

Tuck, R. The Eska Creek Coal Deposits, Matanuska Valley. Ch. in Mineral Resources of Alaska, 1935. U.S. Geol. Surv. Bull. 880-D, 1937, pp. 185-214.

_____. The Matanuska Coal Field, Alaska (abstr.). Acad. Sci. J., v. 27, No. 8, 1937, pp. 359-360.

Tuck, R., T. N. Scott, F. F. Barnes, and F. M. Byers, Jr. Geologic and Topographic Map of the Eastern Part of the Matanuska Valley Coal Field, Alaska. U.S. Geol. Surv. Miner. Investigation Map, 1945, 1 sheet.

Turner, D. L., D. M. Triplehorn, C. W. Naeser, and J. A. Wolfe. Radiometric Age Dating of Ash Partings in Alaska Coal Beds and Upper Tertiary Paleobotanical Stages. Geol., v. 8, No. 2, 1980, pp. 92-96.

Twenhofel, W. S. Potential Alaskan Mineral Resources for Proposed Electrochemical and Electrometallurgical Industries in the Upper Lynn Canal Area, Alaska. U.S. Geol. Surv. Prof. Paper 252, 1953, p. 12.

University of Alaska Mineral Industry Research Laboratory. Annual Report of Research Progress. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 7, 1966, pp. 4-5

_____. Annual Report of Research Progress. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 22, 1969, pp. 3, 6.

U.S. Bureau of Indian Affairs. Coal Mines General, 1951. U.S. Bureau of Indian Affairs Record Group 75, Federal Record Container 1603, File 590 A, 1951. np.

_____. Mining-General. U.S. Bureau of Indian Affairs Record Group 75, Federal Record Container 1603, File 950 A, 1947-1950. np.

_____. Point Hope-Mining. U.S. Bureau of Indian Affairs Record Group 75, Federal Record Container 1603, File 951, 1949-1950. np.

U.S. Bureau of Mines. Coal Mining and Proposed Explorations Along the Railroad Belt of Alaska. BuMines Initial War Miner. rep., 1944, 17 pp.; available from AFOC, BuMines, Anchorage, AK.

_____. Mineral Appraisal of the Proposed Gates of the Arctic Wilderness National Park, Alaska: A Preliminary Comment. BuMines OFR 109-78, 1978, 29 pp.

____. Mineral Appraisal of the Proposed Kobuk Valley National Park, Alaska: A Preliminary Comment. BuMines OFR 110-78, 1978, 31 pp.

____. Mineral Data Appraisal of the Proposed Noatak National Ecological Preserve, Alaska. A Preliminary Comment. BuMines OFR 67-78, 1978, 33 pp.

____. Moose Creek District of Matanuska Coal Fields, Alaska (draft). BuMines War Miner. rep., 1944, 59 pp.; available from AFOC, BuMines, Anchorage, AK.

____. Some Coal Fields Along the Alaska Railroad and the Richardson Highway. BuMines Initial War Miner. rep., 1944, 40 pp.; available from AFOC, BuMines, Anchorage, AK.

U.S. Department of Energy. Demonstrated Reserve Base of Coal in the United States on January 1, 1980 and January 1, 1982, By Rank. Energy Inf. Administration, Washington, D.C., 1982, p. 8.

U.S. Department of the Interior. Regulations Concerning Coal-Land Leases in the Territory of Alaska. GPO, 1916, 86 pp.

U.S. Geological Survey. Account of an Investigation of the Gold and Coal Deposits of Southern Alaska. Ch. in Annu. Rep. 17, 1896, pp. 56-59.

____. Coal Resource Classification System of the U.S. Bureau of Mines and U.S. Geological Survey. U.S. Geol. Surv. Bull. 1450-B, 1976, 7 pp.

U.S. House of Representatives, Committee on Public Lands. Hearings on H.R. 32080 "To Provide for the Leasing of Coal Lands in the District of Alaska and for Other Purposes". GPO, 1911, 99 pp.

____. Alaska Coal-Leasing Bill. Hearing... 63rd. Congress, 2nd. Session on H.R. 13137, GPO, 1914, 267 pp.

Veith, D. L., K. L. Bickel, R. W. E. Hopper, and M. R. Norland. Literature on the Revegetation of Coal-Mined Lands: An Annotated Bibliography. BuMines IC 9048, 1985, 296 pp.

Wahrhaftig, C. Coal Deposits of the Costello Creek Basin, Alaska. U.S. Geol. Surv. OFR 44-26 (8), 1944, 7 pp.

____. Coal Reserves of the Healy Creek and Lignite Creek Coal Basins, Nenana Coal Field, Alaska. U.S. Geol. Surv. OFR 73-355 (568), 1973, 6 pp.

____. Geologic Map of the Fairbanks A-2 Quadrangle. U.S. Geol. Surv. Map GQ-808, 1970, 1 sheet.

____. Geologic Map of the Healy D-3 Quadrangle, Alaska. U.S. Geol. Surv. Map GQ-805, 1970, 1 sheet.

____. Lithology and Conditions of Deposition of the Formations of the Coal-Bearing Group in the Nenana Coal Field. U.S. Geol. Surv. unpublished rep., 1958, 93 pp.; available on request from AFOC, BuMines, Anchorage, AK.

Wahrhaftig, C., and J. H. Birman. Stripping-Coal Deposits on Lower Lignite Creek, Nenana Coal Field, Alaska. U.S. Geol. Surv. Circ. 310, 1954, 11 pp.

Wahrhaftig, C., and J. Freedman. Coal Deposits in the Valley of Healy River, Alaska. U.S. Geol. Surv. OFR 45-101, 1945, 11 pp. (superseded by Bull. 963-E).

- _____. Healy River Coal Deposits. AK Territorial Dep. Mines MR-67-5, 1944, 21 pp.
- Walcott, C. D. Report on Coal, Oil and Cement. Ch. in U.S. Geol. Surv. 22nd. Annu. rep., 1900-1901, 763 pp.
- Walker, F. K. Bibliography and Index of U.S. Geological Survey Publications Relating to Coal, January 1971-June 1974. U.S. Geol. Surv. Circ. 709, 1975, 14 pp.
- _____. Bibliography and Index of U.S. Geological Survey Publications Relating to Coal, 1971-1975. U.S. Geol. Surv. Circ. 742, 1976, 32 pp.
- Wanek, A. A., and J. E. Callahan. Coal Reserves Along Kukpowruk River. Ch. in U.S. Geological Survey Research, 1968. U.S. Geol. Surv. Prof. Paper 600-A, 1968, 39 pp.
- Warfield, R. S. Examination of Coal Deposits, Sitkinak Island, Alaska. BuMines OFR 42-63, 1963, 10 pp.
- Waring, G. A. Core Drilling for Coal in the Moose Creek Area, Alaska. Ch. in Mineral Resources of Alaska 1932 Report on Progress of Investigations in 1932. U.S. Geol. Surv. Bull. 857-D, 1934, pp. 155-173.
- _____. Geology of the Anthracite Ridge Coal District, Alaska. U.S. Geol. Surv. Bull. 861, 1936, 57 pp.
- Washington Historical Quarterly. Mining in Alaska Before 1867. V. 7, No. 3, 1867, pp. 233-238.
- Wheelabrator Coal Services Company. Assessment of the Feasibility and Implementation of Port and Transportation System Alternatives for the Bering River Coal Field. Consultant's Phase I Rep. for the City of Cordova, AK, various pages.
- Willey, D. A. Anthracite Coal Beds of Alaska. Sci. Am., v. 102, No. 3, 1910, pp. 198-199.
- Wilson C. L. Coal; Bridge to the Future; Report of the World Coal Study (WOCOL). Ballinger Pub., Cambridge, MA, 1980, pp. 157-168.
- Wilson, J. H. Coal Resources of Alaska. The Independant, v. 69, No. 9, 1910, pp. 566-571.
- Wimmler, N. L. Placer Mining in Alaska in 1924 and 1925. AK Territorial Dep. Mines MR-195-10, 1925, 228 pp.
- Witte, W. K., and D. B. Stone. Paleogeography and Paleoclimate of the Arctic Alaskan Cretaceous Coals. Paper in Focus On Alaska's Coal '80. (Proc. 2nd AK Coal Conf., Univ. AK, Fairbanks, AK, 1980). Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 50, 1981, pp. 79-91.
- Wolfe, J. A., and T. Tanai. The Miocene Seldovia Point Flora From the Kenai Group, Alaska. U.S. Geol. Surv. Prof. Paper 1105, 1980, 52 pp.
- Wolff, E. N., N. I. Johansen, R. J. Solie, E. M. Rhoads, and C. Lambert, Jr. Optimum Transportation Systems to Serve the Mineral Industry North of the Yukon Basin in Alaska. Univ. AK Miner. Ind. Res. Lab. (MIRL) Rep. 29, 1973, 70 pp.
- Wood, G. H., Jr., T. M. Kehn, M. D. Carter, and W. C. Culbertson. Coal Resource Classification System of the U.S. Geological Survey. U.S. Geol. Surv. Circ. 891, 1983, 65 pp.

Wood, J. E. Economic Analysis of Coal Transportation Alternatives, Lignite Creek, Alaska. M.S. Thesis, Univ. AK, Fairbanks, AK, 1973, 107 pp.

World Coal. Alaska Evaluation of Coal Deposits to Continue. V. 2, No.10, 1976, pp. 11.

____. Japanese Company Plans to Mine Alaskan Coal. V. 6, No. 1, 1980, pp. 10.

Yancy, F. H., and F. W. Smith. Utilization of Alaskan Coals, Low-Temperature Carbonization. AK Territorial Dep. Mines MR-195-33, 1954, 19 pp.