

**HB**

**183**

**SFIN**

**FILE**

# SENATE FINANCE COMMITTEE REPORT

DATE: 4/13/94

FURTHER:

DATE TURNED INTO OFFICE: 4-19-94

The Finance Committee considered CS FOR HOUSE BILL NO. 183(FIN) am

"An Act d. Fairbanks HB 183 TRANSPORTATION CORRIDOR: FAIRBANKS-NOME corridor between

and recommends:

- replace with \_\_\_\_\_ CS \_\_\_\_\_ (FINANCE)
- or  adopt previous 5 CS CS HB 183 (TRA)
- attaches amendment(s)

- same title
- new title
- technical title change (HB only)

adopts \_\_\_\_\_ Letter of Intent

further referral to the \_\_\_\_\_

do pass

do not pass

no recommendation

individual recommendations

**NEW FISCAL NOTES**

Department	Date	Zero	Fiscal

**PREVIOUS FISCAL NOTES**

Department	Date	Zero	Fiscal
HFCDOT PE	3/15/94	-0	

Appropriation No Fiscal Note

DO PASS:

Tim Kelly  
Steve Kim  
Reid Sharp

OTHER RECOMMENDATIONS:

Franklin No Rec

1. David Do Pass  
 Co-Chair: Signature/Recommendation

2. Tracy Powers Do Rec  
 Co-Chair: Signature/Recommendation

FISCAL NOTE

REQUEST:

Revision Date: Dept. Affected DOT&PF  
Title: Transportation Corridor: Fairbanks Nome BRU: Planning  
Sponsor: James Components: #542  
Requestor: House Finance Committee

EXPENDITURES/REVENUES: (THOUSANDS OF DOLLARS)

OPERATING	FY 95	FY 96	FY 97	FY 98	FY 99	FY 00
Personal Services	0.0	0.0	0.0	0.0	0.0	0.0
Travel	0.0	0.0	0.0	0.0	0.0	0.0
Contractual	0.0	0.0	0.0	0.0	0.0	0.0
Supplies	0.0	0.0	0.0	0.0	0.0	0.0
Equipment	0.0	0.0	0.0	0.0	0.0	0.0
Land & Structures	0.0	0.0	0.0	0.0	0.0	0.0
Grants, Claims	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES						
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FUNDING: (THOUSANDS OF DOLLARS)

1002 Federal Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1003 GF Match	0.0	0.0	0.0	0.0	0.0	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1006 GF/MHTIA	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

ESTIMATE OF ANY CURRENT YEAR (FY 94) COST \$

POSITIONS:

Full-Time	0	0	0	0	0	0
Part-Time	0	0	0	0	0	0
Temporary	0	0	0	0	0	0

ANALYSIS: (Attach a separate page if necessary)

Changes in CS C'S HB 183 (TRA)  
have no fiscal impact. This  
fiscal note is appropriate.  
4/12/94 R.L.S.  
Date Comte Aide (initial)

Prepared By: Rep. Ron Larson, Co-Chair R.L.  
Rep. Eileen MacLean, Co-Chair EPM  
House Finance Committee  
Division:  
Approved By:  
Agency:

Phone: 465-4833  
Date: 3/15/94

COMMITTEE COPY

## SENATE CS FOR CS FOR HOUSE BILL NO. 183(TRA)

IN THE LEGISLATURE OF THE STATE OF ALASKA

EIGHTEENTH LEGISLATURE - SECOND SESSION

BY THE SENATE TRANSPORTATION COMMITTEE

Offered: 4/13/94  
Referred: Finance

Sponsor(s): REPRESENTATIVES JAMES, Mulder

## A BILL

## FOR AN ACT ENTITLED

1 "An Act directing the identification and delineation of a transportation and utility  
2 corridor between Fairbanks and the Seward Peninsula; and providing for an  
3 effective date."

4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

5 \* Section 1. AS 19.25 is amended by adding a new section to read:

6 Sec. 19.25.123. FAIRBANKS - SEWARD PENINSULA TRANSPORTATION  
7 AND UTILITY CORRIDOR. (a) Subject to legislative appropriation, the department  
8 shall identify and delineate a proposed transportation and utility corridor between  
9 Fairbanks and the western end of the Seward Peninsula.

10 (b) In performing the work required by (a) of this section,

11 (1) the railroad alignment and identification of a railroad right-of-way  
12 of not less than 500 feet, together with adjacent sites that can be developed for  
13 necessary construction materials, shall guide the identification and delineation of the  
14 corridor; and

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(2) the department shall consider the following factors:

- (A) grade and alignment standards that are commensurate with rail and road construction standards;
- (B) availability of construction materials;
- (C) safety;
- (D) impacts on and service to adjacent communities;
- (E) environmental concerns;
- (F) use of public land to the maximum degree possible;
- (G) minimization of probable construction costs;
- (H) the location of, and the opportunity to obtain access to, identified natural resources that could contribute significantly to the state's economic development; and
- (I) prior and established traditional uses.

(c) Within 90 days after receiving a report transmitting the work of the department under (a) of this section, the commissioner shall, in conformity with AS 44.62 (Administrative Procedure Act), if necessary, adopt a regulation approving, modifying, or rejecting the proposed corridor.

(d) If the commissioner approves or modifies the proposed corridor when presented under (c) of this section,

(1) the Department of Natural Resources shall promptly classify, or reclassify, and reserve any state land within the corridor and at adjacent sites that can be developed for necessary construction materials for use as a corridor; and

(2) the department shall

(A) subject to legislative appropriation, exercise its authority under AS 19.05.040 to acquire rights-of-way across land within the corridor that is subject to the state's power of condemnation; and

(B) work with federal officials to secure reclassification and withdrawal of federal land in the corridor for reservations and rights-of-way across the federal land for use as a corridor.

(e) The requirements of AS 38.05 (Alaska Land Act) relating to classification and reclassification of land are inapplicable to actions taken under this section.

1 (f) To complete the work required by this section, the commissioner may  
2 accept any legal gifts and grants and may enter into contracts or other transactions or  
3 agreements relating to it with the federal government, an agency or instrumentality of  
4 the state, a municipality, or a private organization.

5 (g) In this section, "corridor" means the transportation and utility corridor  
6 required to be identified and delineated by (a) of this section.

7 \* Sec. 2. AS 19.25.123, added by sec. 1 of this Act, is repealed July 1, 2055.

8 \* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).



*Department of Transportation  
and Public Facilities*

# POSITION PAPER

BILL NO: HB 183

APPROVED:

A handwritten signature in cursive, appearing to read "J. J. Durkin".

TITLE: Transportation Corridor:  
Fairbanks - Nome

DATE: March 3, 1993

DOT&PF is available to perform this work if authorized and funded. The information gained would be valuable in terms of identifying a future corridor and in protecting it during subsequent land management/land use planning exercises. The information would also be useful to future transportation planning and development exercises.

Development of access within the resulting corridor would support expansion of the state's resource-based industries. It would also serve surface transportation between Europe/Asia and North America.

The department is opposed to Section 1(E)(2).

Back-up

# Alaska State Legislature

REPRESENTATIVE  
**JEANNETTE JAMES**

P.O. Box 56622  
North Pole, Alaska 99705  
(907) 488-1546  
FAX (907) 488-9006  
House District 34

White in Juneau  
State Capitol  
Juneau, Alaska  
99801-1182  
(907) 465-3743  
FAX (907) 465-2381

House of Representatives

## MEMO

DATE: 4/14/94

TO: Senate Finance Committee

FROM: Rep. Jeannette James 

ATTN: Sen. Pierce and Frank

RE: CSHB 183(TRA)

Please schedule HB 183(TRA) for a hearing in Senate finance committee at your earliest opportunity.

Attached is a bill history and a copy of the new CS.  
Thank you.

# Alaska State Legislature

REPRESENTATIVE  
JEANNETTE JAMES  
P.O. Box 56622  
North Pole, Alaska 99705  
(907) 488-0862

House District 34



White in Juneau  
State Capitol  
Juneau, Alaska  
99801-1182  
(907) 465-3745

## House Of Representatives

### Sponsor Statement HB 182 & HB 183

By Rep. Jeannette James  
Revised: 3/30/93

HB 182 and HB 183 are intended to initiate preliminary and ultimately result in final action necessary to properly review, identify and survey the best options for the establishment of a transportation/utility corridor from the Interior's existing transportation distribution hub to the western area of the Seward Peninsula near Nome.

The future of Alaskans residing north of the Alaska Range will require expansion of our existing transportation infrastructure. With the recent completion by the State of Alaska of its remaining land selection allotment, the major land ownership patterns are now discernable.

This legislation will direct the Dept. of Transportation to perform aerial reconnaissance, photography, interpretation and surveying. The DOT in the attached position paper supports this work. This work will identify areas with transportation corridors to be established and which offer the best cost effective options to access this vast resource rich area of our state.

The appropriation for this project is included in HB 182 and will authorize the expenditure of the funds necessary to secure this very important multi-modal land use transportation corridor as a step that will move us forward to a more positive economic future for a very large portion of Alaska.



Official Business

# Alaska State Legislature

State Capitol  
Juneau, AK 99801-1182

## MEMORANDUM

**TO:** Representative Ramona L. Barnes  
Speaker of the House

**FROM:** Douglas A. Wooliver  
Staff Attorney

**SUBJECT:** Sectional Analysis of CSHB 183(FIN)

**DATE:** March 16, 1994

The following is a sectional analysis of CSHB 183(FIN); "An Act directing the identification and delineation of a transportation and utility corridor between Fairbanks and the Seward Peninsula; and providing for an effective date."

Section 1 adds a new section to AS 19.25. Title 19 deals with "Highways and Ferries" and chapter 25 deals specifically with "Protection and Use of State Highways and Roads." The new section (section 123) is entitled "Fairbanks - Seward Peninsula transportation and utility corridor."

Section 123 directs the Department of Transportation to identify (subject to legislative appropriation) a proposed 500 foot wide transportation and utility corridor between Fairbanks and the western end of the Seward Peninsula. This section also lists the factors to be taken into consideration during the identification process.

Section 123 gives the commissioner 90 days to either accept, reject or modify the proposal that results from the corridor identification efforts. If the commissioner accepts or modifies the proposal, this section directs that action be undertaken to acquire rights-of-way from all affected land owners and to classify or reclassify any state

lands affected to allow for such a right-of-way. Any classification or reclassification of state land necessary under this section would not be subject to the requirements of the Alaska Land Act.

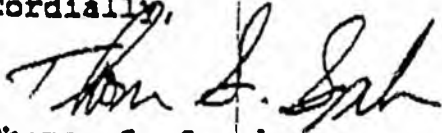
Section 2 repeals the provisions established under section 1 of this Act on July 1, 2055.

Section 3 provides for an immediate effective date.



At the appropriate time, please contact BSNC for action by its Board of Directors for a policy statement on the actual development of a transportation corridor between Fairbanks and the Seward Peninsula.

Cordially,

A handwritten signature in cursive script, appearing to read "Thomas S. Sparks".

Thomas S. Sparks  
Resource Development Specialist

cc: BSNC Village Corporations  
Mr. Jack Carpenter, President  
Mr. Guy Martin, Land Manager



WALES NATIVE CORPORATION  
-- WALES, ALASKA 99783 --  
- TEL - (907) ~~664-3641~~ -

664-3641

September 15, 1992

Mr. Jim Stimpfle  
Nome Chamber of Commerce  
Committee for Cooperation,  
Commerce and Peace  
P.O. Box 251  
Nome, Alaska 99762

Dear Mr. Stimpfle:

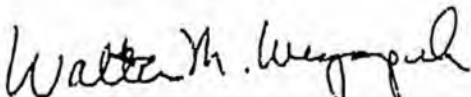
Speaking for the Board of Directors of the Wales Native Corporation, I believe our consensus would be to participate in the Bering Strait Tunnel and Rail Project. At the same time we, as the Board of Directors, cannot endorse nor give permission until the shareholders of our Corporation gives us its support and endorsement to begin the "scoping studies".

A potential project of this magnitude would require full support and permission from shareholders (who have voted us in as Board of Directors). Our plans will be to publicize and inform shareholders concerning the tunnel via our quarterly newsletter, which is published every three months. Then at our Annual Meeting of shareholders during the month of April 1993, it will be put into a question ballot to be voted on as stated in our by-laws.

In the meantime, please consider us as informed participants by keeping us informed. We would greatly appreciate copies of correspondence, etc. If and after the Annual Meeting the shareholders approve the question ballot, then that would be a green light and a letter of support would then be initiated.

Thank you and George Kounal for taking the time to present the Tunnel Project to the Wales Native Corporation and all your support.

Sincerely,

  
Walter M. Weyapuk,  
President

Wales Native Corporation

ALASKA MINERS ASSOCIATION, INC.  
NOME BRANCH  
P.O. BOX 1974  
NOME, ALASKA 99762

April 1, 1993

Representative Richard Foster, Chair  
Transportation Committee  
Room 611, Court  
State Capitol  
Juneau, Alaska 99801-1182

Dear Representative Foster,

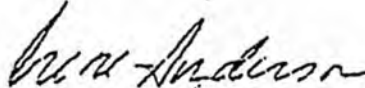
We have reviewed House Bill No.s 182 and 183 in reference to studies for transportation systems from Fairbanks to the Seward Peninsula. We support the idea behind these bills, and would like to provide input to the DOTPF before the preliminary report is finalized.

We feel that access is necessary for resource development on lands within the state and the Seward Peninsula has much to offer. We would also like the State to assert the valid RS 2477's within the Seward Peninsula which could be affected by this transportation study. We believe that the Bering Land Bridge Preserve may cause access problems.

If you have any comments, please call me at 443-2632.

Thanks kindly..

Sincerely,



Irene Anderson  
Chair

cc: Senator Al Adams

# NOME CHAMBER OF COMMERCE

P.O. Box 251, Nome, Alaska 99762  
Committee for Cooperation, Commerce  
and Peace (907) 443-2002

Rep. Richard Foster  
Transportation Chairman

March 29, 1993

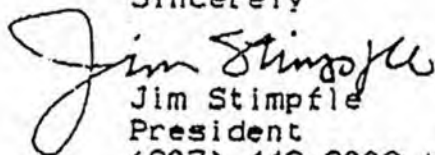
RE: House Bill #182 and #183

The Nome Chamber of Commerce, Board of Directors endorsed the general idea of a transportation and utility corridor to the Seward Peninsula at its last Board meeting in March.

Future economic development depends greatly on the development of land resources on the Seward Peninsula. A railroad and utility corridor would greatly enhance the development of minerals and use of coal and natural gas resources to generate electrical power for sale or use on the Seward Peninsula.

A land-based transportation system could create meaningful employment opportunities for residents on the Seward Peninsula in the area of mining, tourism, and service related industries.

Sincerely



Jim Stimpfle  
President  
(907) 443-2002 tel. and FAX

page 2

SB#130/131

3/4/93

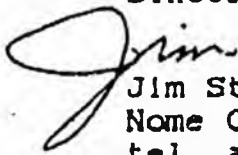
These proposals were drafted for your review and consideration after consulting with the Division of Natural Resources personnel who are currently engaged in determining state land selections to enhance future transportation and energy corridors for all Alaskans.

In view of on going budget cuts the State of Alaska is facing, it is imperative that appropriate multi-modal right-of-way studies be finished to insure that rural Alaskans have economic development options available while safeguarding environmental and subsistence life resources on the Seward peninsula.

In general terms, the Nome Chamber of Commerce supports a multi-modal right-of-way corridor to the Seward Peninsula for economic development to encourage eco-tourism to view wildlife and subarctic eco-systems, to develop mining for mineral or energy related employment opportunities for rural residents, with engineered designed safeguards to the environment and to insure that fish and wildlife resources are available for indigenous Native populations living along or near the right-of way. These are some of the expressed concerns of the Nome Chamber of Commerce.

It is recommended that the Village and Regional Native Corporations (BSNC) on the Seward Peninsula be consulted as to appropriate right-of-way corridors near their lands to either maximize economic development strategies and/or preserve subsistence lifestyles.

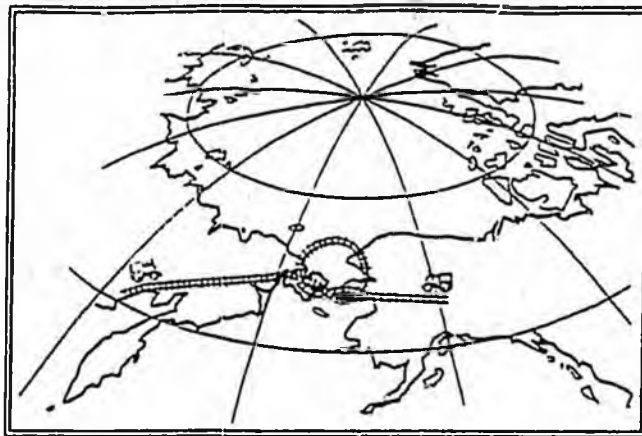
Sincerely



Jim Stimpfle, President  
Nome Chamber of Commerce  
tel. and FAX (907) 443-2002

Россия, 113035 Москва  
Б. Ордынка 13 / 9-42  
Телефон: (095) 231-86-45  
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18-  
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815 Коннектикут Авеню  
Северо-Запад, комн. 800  
Вашингтон, окр. Колумбия  
20006, США  
Телефон: (202) 463-8400  
Факс: (202) 833-8082

## INTERHEMISPHERIC BERING STRAIT TUNNEL & RAILROAD GROUP

### ТРАНСКОНТИНЕНТАЛЬ МЕЖКОНТИНЕНТАЛЬНАЯ ЖЕЛЕЗНАЯ ДОРОГА И ТОННЕЛЬ ЧЕРЕЗ БЕРИНГОВ ПРОЛИВ

March 2, 1993

GK/93093

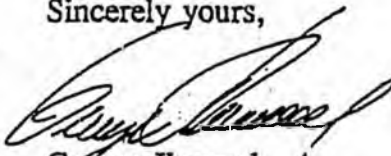
The Honorable Jeannette James  
State Capital  
Juneau Ak 99801-1182

Dear Representative James:

On behalf of the Interhemispheric Bering Strait Tunnel and Railway Group, I would like to express deep felt thanks for your work on the Bills to expand Alaska's railroad infrastructure and end the transport isolation of the State.

The state of Alaska is truly a "jewel in the crown"; a fact many people in Washington and elsewhere do not realize and appreciate. Construction of a modern railroad through the State to connect with the Asian and European railroad network via the Bering Strait (the project our Consortium has been working on for the last 7 years) would establish the state of Alaska as the hub of world transport and commerce. The Bills you have sponsored are essential steps needed to bring this timely Project closer to reality.

Sincerely yours,



George Koumal  
Chairman, IBSTRG

copy: Mr. Red Swanson  
IBSTRG Nome/Moscow/Washington  
Mr. J. Henri

# WESTERN ARCTIC COAL

# the Alaska Miner 7.

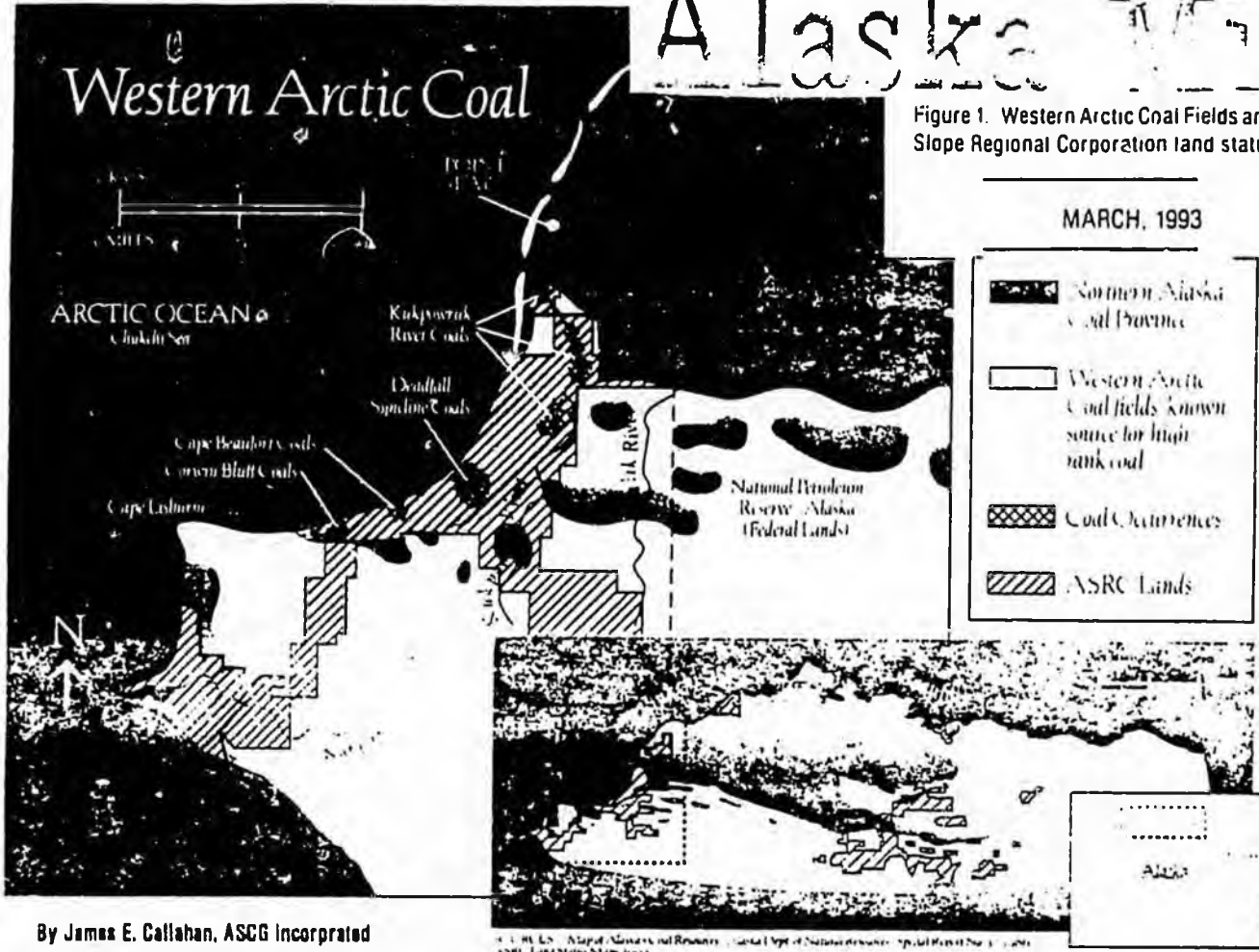


Figure 1. Western Arctic Coal Fields and Arctic Slope Regional Corporation land status.

By James E. Callahan, ASGC Incorporated  
 Steve V. Denton, Denton Civil & Mineral  
 Teresa A. Imm, ASGC Incorporated

## INTRODUCTION

Located in northern Alaska is the Northern Alaska Coal Province (NACP), one of the largest coal provinces in the world. The NACP underlies approximately 30,000 square miles and extends 300 miles eastward from the Chukchi Sea. At the western end of the NACP lies the Western Arctic Coal Fields which contain hypothetical reserves of three billion tons of clean-burning, high-rank coal. The Western Arctic Coal Fields (figure 1), which lies outside the National Petroleum Reserve-Alaska boundary, is owned in large part by a private corporation, Arctic Slope Regional Corporation (ASRC). ASRC holds title to both surface and subsurface land and is working actively to market its coal deposits to the world.

## GEOLOGY

Substantial bituminous coal resources are present in the Corwin Formation of the Nanushuk Group of Cretaceous age on the Arctic Slope of Alaska. The Corwin is a progradational fluvio-delta plain type deposit which thins in a southwest to northeast direction, from Corwin Bluffs reaching a zero edge south and southwest of Barrow. The

maximum measured thickness is in the type section at Corwin Bluff, where Chapman and Sable (1960) measured a 15,000 foot section. This figure was revised to 11,000 feet by Smiley (1969), based on repetition of floral zones resulting from faulting within the section. Elsewhere, large thicknesses of the upper part of the formation have been removed as a result of post-depositional uplift, deformation and erosion in the northern foothills belt of the Brooks Range. As a consequence of deep burial and subsequent exposure, the best quality coals (ie., with the greatest heating value) are exposed in the foothills, in broad east-west trending synclinal basins separated by complexly faulted anticlinal belts. In the present Arctic Coastal Plain of the National Petroleum Reserve-Alaska (NPRA), near surface coals exhibit a steadily decreasing trend in heating values northward from the foothills toward the shoreline.

In the foothills of the western Arctic, west of NPRA, relatively detailed investigations specifically oriented to evaluation of coal resources have focused on three areas: The Kukpowruk River, Cape Beaufort, and the Deadfall Syncline. On the Kukpowruk River about 30 miles from Point Lay, a 23 foot coal is exposed in the south limb of the Howard

Syncline. This coal has been extensively drilled and sampled in the immediate vicinity of the cutbank exposure, by private interests and by the U.S. Bureau of Mines (USBM) and the U.S. Geological Survey (USGS). However, information on its lateral extent and continuity is limited, particularly to the east. At Cape Beaufort, in the onshore portion of a synclinal basin, about 7,500 feet of the Corwin formation is present. The USBM and USGS conducted drilling and trenching operations in that area to evaluate several promising coals during the 1960's and 1970's. In 1982, exploratory work sponsored by the State of Alaska was begun on private lands of ASRC in the Deadfall Syncline northeast of Cape Beaufort.

At Cape Beaufort, the thickest known coal reaches a maximum thickness of approximately 17 feet, but it contains a thick zone of clay partings interbedded with high ash coal. Several other coal seams reach a thickness of 11 feet, these contain numerous clay partings and a high ash "bony" zone. One 11 foot seam appears to be free of thick partings and maintains its thickness for three miles or more along strike. However, dip angles along the southeast flank of the basin increase fairly rapidly from a minimum of about 15 degrees on the northeast to over 50 degrees at the

southwest end of the syncline. Dip angles increase quite rapidly downsection in the coal-bearing part of the Corwin Formation. These conditions are less favorable for conventional surface or underground mining.

It is the Deadfall syncline that currently holds the most promise for near-term development. The western extension of the Deadfall Syncline contains 7,000-8,000 feet of Corwin Formation, and known coals are generally comparable in thickness and quality to those coals at Cape Beaufort and the Kukpowruk River, with the added advantage of lower dip angles and dip-slope topography. Reconnaissance drilling funded by the State of Alaska in 1983 confirmed the presence of several thick coals in the axial plunge area of the basin. Exploratory work continued in 1984 by Howard Grey and Associates for Arctic Slope Consulting Engineers at both Cape Beaufort and the Deadfall Syncline. The purpose of the program was to evaluate sites for development of a small scale mining operation to provide coal as a substitute for fuel oil in western Alaska. Based on the 1984 work and preceding investigations, the Deadfall area was selected. In August, 1991, additional exploratory drilling was initiated by the Arctic Slope Consulting Group for the purpose of identifying a block of minable reserves large enough to develop for export. This included drilling to confirm the continuity and quality of an 18+ foot coal seam, and relatively deep drilling up- and down-section to begin to assemble a complete stratigraphic record through the coal-bearing section.

In the Deadfall Syncline, the thickest known coal seam, the K3 seam, reaches a maximum thickness of 18 feet. This maximum occurs near the axis of the syncline, where dips are less than 10 degrees over a broad area. Several other coals occur in the same part of the stratigraphic section at Deadfall Syncline. Two of these coal seams are found lower in the section, than the thick K3 seam, and reach thicknesses of greater than eight feet and 12 feet respectively on the north flank of the basin. The project area covers approximately 10% of the eastern end of the syncline (figure 2). Over 100 shallow to moderately deep (750 foot maximum) boreholes, as well as numerous auger holes have been drilled in the project area (figure 3). Drilling on the east end of the syncline has been used to establish the reserve base for future mining in the area. Recent boreholes have been logged using natural gamma and gamma density tools. These tools provide good resolution in coal beds and indicate the lithology of over- and underburden rocks (figure 4).

#### COAL QUALITY

The apparent rank of most unweathered samples of Nanushuk coals from the foothills basins of the central and western Arctic is high-volatile A to C bituminous, with heating

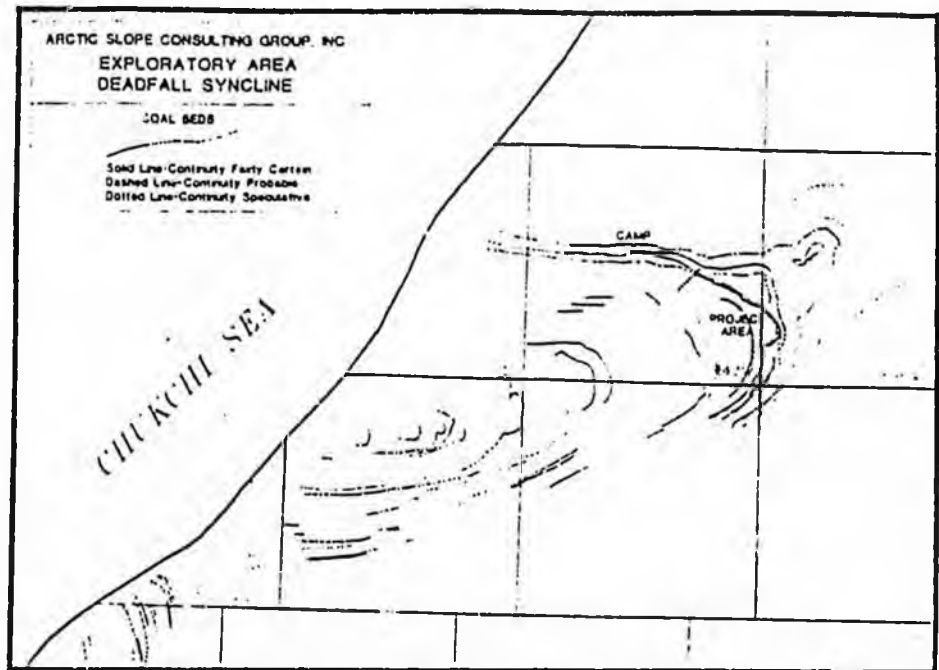


Figure 2 Exploration Area, Deadfall Syncline, Western Arctic Coal Project.



Figure 3. Winter drilling operations at Deadfall Syncline.

values often exceeding 13,000 BTU's on a moist, mineral matter-free basis. Moisture contents are generally less than 7% for samples taken at depths of greater than thirty feet. Full seam ash contents vary, depending on the

number and thickness of partings, but the inherent ash contents (excluding partings) are generally less than 10%.

The K3 seam at Deadfall Syncline appears exceptionally clean with a full-seam as-received weighted average ash content of about 6%. If a four foot, relatively high ash zone (14%) found at the top of the K3 seam, is excluded the remaining 13-14 feet averages less than 4%. Percent sulfur of the K3 coal seam ranges from 14% to 39% averaging .23% (figure 5). Analysis of samples from typical boreholes at Deadfall Syncline shows that the coal is an excellent steam coal and is suitable as a blending coal in the formation of coke. Sulfur dioxide emissions are less than a quarter (1/4) of the U.S. Environmental Protection Agency's standard of 1.2 pounds per million BTU's.

#### COAL QUALITY SEAMS K1, K3, AND K4\*

	K1	K3 <sub>lower</sub>	K4
Moisture	17.2	3.26	3.20
Ash	20.39	7.21	4.21
Heating Value (BTU/lb)	11,068	13,078	13,662
Total Sulfur	0.23	0.23	0.25
Rank	---	High Volatile A Bituminous	High Volatile A Bituminous

\* RESULTS FROM 1991 EXPLORATORY DRILLING PROGRAM  
Figure 5. Table of coal quality analyses of coals in the Deadfall Syncline.

#### DEVELOPMENT PLANS

Development of the western Arctic coal resources will be a challenge, but should be relatively straight forward. The only significant impediment to development, that has been identified to date, is the necessity to deal with the arctic climate of the Chukchi Sea. The long

*Continued on page 17*

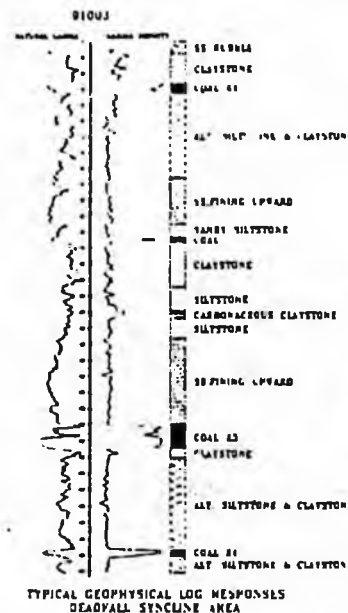


Figure 4. Typical geophysical log responses of coal seam within the Deadfall Syncline.

ice bound season and the heavy dependence of local residents on beluga whales for subsistence during the open water season are an impediment to shipping. However, the very factors which create these hurdles to development have a positive side.


Ledyard Bay, the nearest water body, is protected from the severe ice forces that create the immense pressure ridges typically associated with the Arctic Ocean. This opens up the potential of winter time operations for ice breakers and reduces the risks associated with building structures, such as offshore conveyors. The short open water season means that the time window for whale migration past the site is brief and mitigating impacts on them should be easily achievable.

Although the site is remote, the nearest national parks lands are approximately 50 miles away and national interest land impacts should not be an issue during development of this resource. The Deadfall Syncline is located in the foothills and impacts to coastal plain wetlands will be limited to those associated with the transportation system. Development of the western Arctic coal field can be accomplished in a fashion that will result in a very low level of adverse impact to the local environment. An Alaska Surface Coal Mining Permit has recently been issued for a small demonstration mine on the north limb of the syncline for extraction of 50,000 tons over a five year period.

Mining in the western Arctic coal field is expected to be more conventional than it will be unique. Although winters are long, the severity of the weather is moderated by proximity to the ocean. Minimum temperatures are higher than those experienced by Usibelli Coal Mine at Healy and the experience of the Red Dog Mine points to the likelihood that the western Arctic coals can be mined year round, with very little productivity loss due to weather. Pilot scale surface mining operations, that have been conducted to date, have shown that work can proceed during the full range of seasons and that typical surface mining practices for drilling, blasting and excavating can be employed. Because the area is within an "Arctic desert" zone, volumes of water that must be handled have been low and untreated water quality from the mine pit has been good.

Underground mining has not been studied to the same degree as surface mining, due to local availability of personnel trained in the use of surface-type mining equipment. However, the thickness, quality, continuity and structural simplicity of the deposit suggests that high efficiency underground mining should be well suited to many of the deposits. The major effects of weather will be mitigated by underground mining and environmental impacts would be reduced. However, the effect of permafrost on the behavior of rock types in the formation is largely unknown. We have identified only one coal mine in Spitsbergen, Norway as a possible analogue for underground mining in a permafrost environment. Therefore, large scale mechanized underground mining will probably be preceded by conventional surface and underground mining methods.

#### REFERENCES

- Chapman, R.M., and Sable, E.G., 1960, Geology of the Utukok-Corwin region, northwestern Alaska - Exploration of Naval Petroleum Reserve No. 4 and adjacent areas, northern Alaska, 1944-1953, Pt. 3, Area geology: U.S. Geological Survey Prof. Paper 303-C.
- Smiley, C.J., 1969, Floral zones and correlations of Cretaceous Kukpowruk and Corwin Formations, northwestern Alaska: AAPG Bulletin, v. 53, no. 10, pt. 1, p. 2079-2093. 

Report Recd:

3/30/93

From: Mark Hickey

ALASKA RAILROAD CORPORATION CORRIDOR PROFILES

STATE OF ALASKA LANDS SELECTION PROJECT

INITIAL SUBMISSION

SUBMITTED BY:

ROBERT S. HATFIELD, JR.  
PRESIDENT & CEO  
ALASKA RAILROAD CORPORATION

OCTOBER 16, 1991

# ALASKA RAILROAD CORPORATION CORRIDOR PROFILES

## STATE OF ALASKA LANDS SELECTION PROJECT

### INITIAL SUBMISSION

#### INTRODUCTION

The Alaska Railroad Corporation (ARRC) has prepared this package of corridor profiles for use by the Access Corridors Steering Committee. The information identifies thirteen separate corridors that may be needed for railroad extensions, or new, unconnected rail systems. The ARRC has reviewed its own files and other known information in the time available to prepare a summary of the most likely corridors that may be needed, or the most prominent routes identified for rail transportation purposes that may be valuable from a multi-use perspective.

Considerable work has been done over the last eighty years by primarily federal and state agencies to identify and locate possible rail expansion routes. The ARRC has attempted to sift through that body of information and present those corridors worthy of further scrutiny by the Access Corridors Steering Committee.

This is not an all inclusive list of every route or corridor ever identified for rail purposes. Nor is it intended to serve as a definitive statement, since there may be new, unidentified extension proposals worth assessment. No attempt has been made to prioritize as yet these routes from a rail perspective. It should also be noted that mere inclusion in this package is not meant to suggest that all or most of these routes will be needed for rail purposes.

Some of the corridors have been included because they could serve as major multi-modal transportation corridors connecting different areas of Alaska (e.g., the line to the Seward Peninsula; the Kuskokwim Extension). Others are included because they continue to remain as higher priority rail expansion prospects that may need to be developed (e.g., Nenana to Kobuk/Bornite/Ambler; Palmer North). Others have been included because considerable engineering information exists establishing the corridor's location irrespective of current justification for need (e.g., the North Slope Extension; the Canadian Border Extension).

Based on discussions with staff from the Office of the State Pipeline Coordinator, it was decided to submit more corridors than might have otherwise been the case so they would have the benefit of the available data. The ARRC does not expect or recommend that state land selections be pursued for any or all of these corridors on the basis of this submission. Clearly there are a number of issues and policy considerations to be addressed by the entire Steering Committee to determine the best course of action for the state's limited selection options.

## LIST OF CORRIDORS

The following list depicts the individual corridors included in the submission, with some indication whether the corridor has some engineering data to support location, versus merely a conceptual proposal.

<u>Corridor Number</u>	<u>Title</u>
001	Nenana to Tanana (Yukon River)
002	Tanana to Kobuk/Bornite/Ambler Mining District
003	Tanana to Deadhorse Airport
004	Tanana to Port Clarence (Teller), Seward Peninsula
005	Kobuk/Bornite to Cape Lisburne/Thetis Mine
006	Eielson Air Force Base to the Canadian Border
007	Western Alaska Routes*
008	Kuskokwim Extension
009	Kuskokwim Drainage Route*
010	Point Mackenzie Extension Behuga Coal Field Extension*
011	Palmer to Mataruska Coal Fields
012	Fire Island Extension
013	Kenai/Nikiski Extension*

(NOTE: \* Indicates corridors that are conceptual in nature, with little or no engineering data or activity to support actual route location.)

## PROFILE INFORMATION

Each corridor profile sheet includes information identifying the route's general alignment (if available); mileage estimate; survey information establishing location; recommended corridor width if known; whether material sites have been identified and located; the source document and other reconnaissance or survey studies supporting the recommended corridor; alternate alignments; and the location of plan and profile sheets if known.

Each corridor included has been developed as a stand-alone rail extension proposal. This means there is a minimal amount of overlap between some of the corridors identified. For example, Nenana to Tanana has been identified as a potential rail extension, and been presented as a stand-alone proposal in this package. There are several, additional routes that use the Nenana to Tanana extension as the first leg of a longer extension (e.g., Tanana to Deadhorse Airport; Tanana to Kobuk/Bornite/Ambler). These extensions share a common alignment from Tanana to Alama. Portions of a corridor such as the Tanana to Alama route have not been depicted as a stand-alone corridor, however, since that route would not be useful for rail purposes except as part of one of these longer extension proposals.

## MAPPING

As noted previously, there is little or no engineering data or activity to support a precise location for several routes. Additional maps with greater detail can be provided by ARRC engineering staff for many of these corridors if that proves necessary. In most cases, it will be possible to perform this work at the desired scale of 1:250,000.

# ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

## STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 001.

Corridor Title: Nenana to Tanana (Yukon River).

**Route Description/Alignment:** The line leaves the existing railroad near Nenana and heads west and north to the Yukon River. Leaving Nenana the line passes just north of Black Bear Lake, then uses the Tanana River Valley to the Yukon River. Round Point, which is between the mouths of the Tanana and Tozima Rivers, is the Yukon River crossing location. A major bridge of about 3,600 feet would be required.

**Mileage:** 120 to 125 miles.

**Survey Information:** Location based on controlled preliminary survey using state-of-the-art air photo interpretation, with additional air and ground reconnaissance. Control points were established in the field to 3rd order accuracy. Plan and profile drawings were prepared with a horizontal scale of 1" = 800' and a vertical scale of 1" = 80'. Air photo interpretation was based upon the U.S. Geological Survey photos of the area taken in the early and mid-1950's. Accuracy is limited by the base maps used (i.e., USGS quadrangle sheets at scales of 1:63,360 and 1:250,000 with contour intervals of 50 to 200 feet). These scales translate as 1-inch to 1-mile and 1-inch to 4 miles.

**Recommended Corridor Width:** 5-mile wide band based on aerial photography.

**Material Sites Identified/Located:** Yes.

**Source Document(s):** *Alaska Transportation Corridor Study*; Tudor-Kelly-Shannon Engineering Consultants; 1970 (performed for the Federal Highway Administration; U.S. Department of Transportation).

### Other Corridor/Reconnaissance Studies:

- \* *Richardson Reconnaissance and Survey for a Land Route from Fairbanks to Council City, Alaska*; U.S. Army; 1906 (general reconnaissance with some rail consideration).
- \* *Railroad Routes in Alaska*; Alaska Railroad Commission; 1913 (major U.S. government railway route assessment).
- \* *Army Reconnaissance for Railroad or Highway West of Fairbanks*; U.S. Army; June 1942 (major assessment of several east/west corridors).
- \* *Berryhill Report*; U.S. Army; 1943 (rail route location survey - Dunbar to Port Clarence via Tanana).

- \* *Report on Location Investigation for the Northerly Extension of the Alaska Railroad from Nenana to the Yukon River in Vicinity of Rampart Dam Site (Dalton Study); NORTH Commission; 1968 (Nenana to Tanana/Yukon River winter field reconnaissance survey).*

**Alternate Alignment/Route(s):**

- \* *Dunbar to Tanana (Alaska Transportation Corridor Study; Berryhill Report; and Dalton Study).*
- \* *Fairbanks to Yukon River (Richardson Reconnaissance and Survey for a Land Route from Fairbanks to Council City, Alaska; Railroad Routes in Alaska; and Army Reconnaissance for Railroad or Highway West of Fairbanks).*

**Location of Plan & Profile Sheets:** Engineering Department; Alaska Railroad Corporation.

ALASKA RAILROAD CORPORATION CORRIDOR PROFILE  
STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 002.

Corridor Title: Tanana to Kobuk/Bornite/Ambler Mining District.

Route Description/Alignment: The line heads north from the Yukon River crossing at Round Point via the Tozitna and Mentanontli River Valleys passing near Norseman and Todatonten Lakes to the Koyukuk River at Alama. The route then heads westward through the flood plain of the Alama River, passing south of Norutak Lake and on into the Kobuk River Valley, ending at the Dahl Creek Airstrip near Kobuk.

Mileage: 273 miles.

Survey Information: Location based on controlled preliminary survey using state-of-the-art air photo interpretation, with additional air and ground reconnaissance. Control points were established in the field to 3rd order accuracy. Plan and profile drawings were prepared with a horizontal scale of 1" = 800' and a vertical scale of 1" = 80'. Air photo interpretation was based upon the U.S. Geological Survey photos of the area taken in the early and mid-1950's. Accuracy is limited by the base maps used (i.e., USGS quadrangle sheets at scales of 1:63,360 and 1:250,000 with contour intervals of 50 to 200 feet). These scales translate as 1-inch to 1-mile and 1-inch to 4 miles.

Recommended Corridor Width: 5-mile wide band based on aerial photography.

Material Sites Identified/Located: Yes.

Source Document(s): *Alaska Transportation Corridor Study*; Tudor-Kelly-Shannon Engineering Consultants; 1970 (performed for the Federal Highway Administration; U.S. Department of Transportation).

Other Corridor/Reconnaissance Studies:

- \* *Army Reconnaissance for Railroad or Highway West of Fairbanks*; U.S. Army; June 1942 (major assessment of several east/west corridors).
- \* *Berryhill Report*; U.S. Army; 1943 (rail route location survey - Dunbar to Port Clarence via Tanana).
- \* *Report of the NORTH Commission*; the NORTH Commission; June 1970 (report did not analyze specific routes except Nenana to Tanana).

**Alternate Alignment/Route(s):**

- \* Dunbar to Bornite via Tanana and Kobuk (*Army Reconnaissance for Railroad or Highway West of Fairbanks; Berryhill Report*).
- \* Dunbar to Bornite via Bettles (*Alaska Transportation Corridor Study*).

**Location of Plan & Profile Sheets:** Engineering Department; Alaska Railroad Corporation.

ALASKA RAILROAD CORPORATION CORRIDOR PROFILE  
STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 003.

Corridor Title: Tanana to Deadhorse Airport.

Route Description/Alignment: The line heads north from the Yukon River crossing location at Round Point via the Tozima and Mentanouti River Valleys passing near Norseman and Todatonten Lakes to the Koyukuk River at Alama. The route then continues east and north along the Koyukuk River past Bettles and Coldfoot and up the Dietrich River to Dietrich Pass and the Chandalar Shelf in the Brooks Range. The line crosses the mountains using a 4.25 mile tunnel. Beyond the mountains, the route would move through the Atigun River Valley, across a 100-mile stretch of arctic plain, and along the Toolik and Sagavanirktok Rivers, terminating at the Deadhorse Airport near Prudhoe Bay.

Mileage: 461 miles.

Survey Information: Location based on controlled preliminary survey using state-of-the-art air photo interpretation, with additional air and ground reconnaissance. Control points were established in the field to 3rd order accuracy. Plan and profile drawings were prepared with a horizontal scale of 1" = 800' and a vertical scale of 1" = 80'. Air photo interpretation was based upon the U.S. Geological Survey photos of the area taken in the early and mid-1950's. Accuracy is limited by the base maps used (i.e., USGS quadrangle sheets at scales of 1:63,360 and 1:250,000 with contour intervals of 50 to 200 feet). These scales translate as 1-inch to 1-mile and 1-inch to 4 miles.

Recommended Corridor Width: 5-mile wide band based on aerial photography.

Material Sites Identified/Located: Yes.

Source Document(s): *Alaska Transportation Corridor Study*; Tudor-Kelly-Shannon Engineering Consultants; 1970 (performed for the Federal Highway Administration; U.S. Department of Transportation).

Other Corridor/Reconnaissance Studies: *Report of the NORTH Commission*; the NORTH Commission; June 1970 (report did not analyze specific routes except Nenana to Tanana).

**Alternate Alignment/Route(s):**

- \* Durbar to Deadhorse via Bettles (*Alaska Transportation Corridor Study*).
- \* Bettles to Deadhorse via Anaktuvuk Pass Corridor (*Alaska Transportation Corridor Study*).
- \* Bettles to Deadhorse via North Fork (of the Koyukuk River) Corridor (*Alaska Transportation Corridor Study*).
- \* Tanana to Deadhorse via recommended route except for a longer Sag River alternate (*Alaska Transportation Corridor Study*).

Location of Plan & Profile Sheets: Engineering Department; Alaska Railroad Corporation.

# ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

## STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 004.

Corridor Title: Tanana to Port Clarence (Teller), Seward Peninsula.

**Route Description/Alignment:** The route generally follows the Yukon River Valley west from the Yukon River crossing near Tanana. The line passes just north of Galena and then through the mountain pass near the village of Koyukuk. The line goes southwest from this point across the Nulato River, along the Shaktolik River Valley, across the Urganik and Inglutalik Rivers to a crossing of the Kwik River just north of Norton Bay. The remainder of the route follows the Kwiniuk River Valley to Council and then on to Port Clarence (Teller).

Mileage: 576 miles.

**Survey Information:** This route was developed by the U.S. Army during World War II, with the intent of connecting the existing surface transportation system of interior Alaska with ports on Alaska's west coast. Apparently a considerable amount of actual route location and survey work was conducted on all or major portions of this alignment and several alternatives. Alaska Railroad Corporation personnel have been unable as yet to discover any plan and profile sheets. However, Mr. Cliff Fugelstad, former Chief Engineer of the Alaska Railroad, and Mr. Mark Hickey, ARRC consultant, have some of the detailed information depicting this work.

**Recommended Corridor Width:** Unknown, but probably not addressed based on review of available records.

**Material Sites Identified/Located:** Unknown, but probably not addressed based on review of available records.

**Source Document(s):**

- \* *Army Reconnaissance for Railroad or Highway West of Fairbanks*; U.S. Army; June 1942 (major assessment of several east/west corridors).
- \* *Berryhill Report*; U.S. Army; 1943 (rail route location survey - Dunbar to Port Clarence via Tanana).

**Other Corridor/Reconnaissance Studies:** *Richardson Reconnaissance and Survey for a Land Route from Fairbanks to Council City, Alaska*; U.S. Army; 1906 (general reconnaissance with some rail consideration).

**Alternate Alignment/Route(s):**

- \* Fairbanks to Council City (*Richardson Reconnaissance and Survey for a Land Route from Fairbanks to Council City, Alaska*).
- \* The 1942 *Army Reconnaissance for Railroad or Highway West of Fairbanks* addressed a number of alternate routes, including branch lines to Golovin Bay, Nome, St. Michael and Unalakeet. Alternate routes for a line from Fairbanks to Kotzebue or Deering were also identified and assessed, including a more northerly route--using the Tozitna and Kobuk River Valleys.

**Location of Plan & Profile Sheets:** None found at ARRC Headquarters; copies available from Mr. Fugelstad, former ARR Chief Engineer, and Mr. Hickey, ARRC consultant.

## ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

### STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 005.

Corridor Title: Kobuk/Bornite to Cape Lisburne/Thetis Mine.

Route Description/Alignment: Alignment heads west from Bornite crossing the Ambler River and then along the north bank of the Kobuk River. The route continues west along the south foothills of the Baird Mountains, across the Noatak River immediately north of Kotzebue, then north through the DeLong Mountains using the Kukpowruk River Valley. The line terminates at the Thetis Mine near Cape Lisburne on the Arctic Ocean.

Mileage: 361 miles.

Survey Information: Proposed corridor is based on drawing of a probable alignment on USGS quad maps (Scale 1:250,000). Work was performed under the direction of Mr. Cliff Fugelstad, former Alaska Railroad Chief Engineer. Apparently no other engineering data is available.

Recommended Corridor Width: Not established.

Material Sites Identified/Located: No.

Source Document(s): USGS quad maps (Scale 1:250,000) prepared by the Alaska Railroad's Engineering Department circa 1970 - 1975.

Other Corridor/Reconnaissance Studies: None identified.

Alternate Alignment/Route(s): None identified.

Location of Plan & Profile Sheets: USGS quad sheets located at Engineering Department; Alaska Railroad Corporation.

# ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

## STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 006

Corridor Title: Eielson Air Force Base to the Canadian Border.

**Route Description/Alignment:** The proposed alignment takes off from the existing spur line to Eielson Air Force Base, running southeast between the Richardson Highway and the Tanana River, then crossing that river near Flag Hill. The line then heads southeast up the Tanana River Valley, crosses the confluence of the Tanana and Delta Rivers, passes just south of Delta Junction, and generally parallels the Alaska Highway north of Tok and Tetlin Junction. The line then leaves the Alaska Highway and heads northeast through the Ladue Summit and along the Ladue River to the Canadian Border.

Mileage: 271 miles.

**Survey Information:** Considerable work has been performed by the Alaska Department of Transportation & Public Facilities in the late 1970's and early 1980's to identify and locate a specific route. This includes full control and centerline surveys, with some tying of section and property corners.

**Recommended Corridor Width:** 300 feet.

**Material Sites Identified/Located:** Considered, but apparently not identified.

**Source Document(s):** *Alaska Railroad Extension - Route Selection Project #X20089, Eielson to Canadian Border*; Alaska Department of Transportation & Public Facilities; June 1979 and April 1982 Update (detailed route reconnaissance and survey tying down a precise corridor). (NOTE: The portions of right-of-way crossing federal and state lands were applied for by the state in the early to mid-1980's; however, apparently no final actions occurred to reserve the requested right-of-way.)

### Other Corridor/Reconnaissance Studies:

- \* *Railroad Routes in Alaska*; Alaska Railroad Commission; 1913; (major U.S. government railway route assessment).
- \* Some consideration for route in 1942/1943 route reconnaissance and survey work performed by the U.S. Army.
- \* There are other studies addressing the feasibility of the proposed route, but none that identified a specific corridor.

**Alternate Alignment/Route(s):** Haines to Fairbanks (*Railroad Routes in Alaska*).

**Location of Plan & Profile Sheets:** Northern Region Division of Design & Construction; Alaska Department of Transportation & Public Facilities.

## ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

### STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 007.

Corridor Title: Western Alaska Routes (Golovin Bay/Cape Darby to Western Seward Peninsula and western portions of the Brooks Range, with a branch from Selawik to Kobuk).

Route Description/Alignment: There is no evidence of any engineering work to support this proposal. This alignment is conceptual only, starting at the Golovin Bay/Cape Darby area on the southern coast of the Seward Peninsula, heading north to numerous mineral deposits (coal in particular) in the western portions of the Brooks Range. A branch line between Selawik and Kobuk has also been suggested to access the Ambler mineral belt. Portions of the Kobuk to Cape Lisburne alignment might be useful for part of this route. Additional branch lines accessing the northern part of the Seward Peninsula have also been suggested as part of this concept.

Mileage: Main route - 400 miles (plus/minus); Selawik to Kobuk - 150 miles (plus/minus).

Survey Information: No known material available.

Recommended Corridor Width: Not established.

Material Sites Identified/Located: No.

Source Document(s): *The Alaska Railroad and its Future*; Commonwealth North; April 1988 (general assessment of long-term roles for the Alaska Railroad, including identification of several expansion proposals).

Other Corridor/Reconnaissance Studies: No known activity, although the Arctic Slope Regional Corporation has looked recently at some access alternatives as part of developing coal deposits. The Alaska Industrial Development and Export Authority (AIDEA) is just beginning an effort to determine the most feasible transportation system to support additional resource development activity in Northwest Alaska.

Alternate Alignment/Route(s): Brooks Range to Kivalina, or an adjacent port site closer to mineral deposits (based on general review of economic considerations and AIDEA's experience developing the Red Dog Mine Project).

Location of Plan & Profile Sheets: No known material available.

# ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

## STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 008.

Corridor Title: Kuskokwim Extension.

**Route Description/Alignment:** The line leaves the existing alignment of the Alaska Railroad where it crosses Willow Creek (approximately Milepost 187), and crosses the Susitna River Valley to the confluence of the Skwentna and Yentna Rivers. The route then follows the north bank of the Skwentna and Happy Rivers through Rainy Pass and on to McGrath with an alignment generally parallel to Dalzell Creek and the south fork of the Kuskokwim River.

**Mileage:** 229 miles.

**Survey Information:** The Alaska Engineering Commission conducted a general reconnaissance survey in 1914 with accompanying mapping. Location was determined by solar and celestial observation methods. Apparently no control points were established.

**Recommended Corridor Width:** Not established.

**Material Sites Identified/Located:** No.

**Source Document(s):** Captain McPherson's *Reconnaissance Survey*; Alaska Engineering Commission; 1914.

**Other Corridor/Reconnaissance Studies:** *Railroad Routes in Alaska*; Alaska Railroad Commission; 1913 (major U.S. government railway route assessment).

**Alternate Alignment/Route(s):** Alaska Railroad Commission work suggested a partial alternative to the alignment through Rainy Pass.

**Location of Plan & Profile Sheets:** Engineering Department; Alaska Railroad Corporation.

## ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

### STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 009.

Corridor Title: Kuskokwim Drainage Route.

Route Description/Alignment: There is no evidence of any engineering work to support this proposal. This alignment is conceptual only, starting at McGrath on the Kuskokwim River and generally following the Kuskokwim drainage to tidewater near Cape Newenham on Kuskokwim Bay. This line would serve as an outlet for numerous strategic and critical mineral deposits and timber in the general vicinity of the proposed route.

Mileage: 400 miles (plus/minus).

Survey Information: No known material available.

Recommended Corridor Width: Not established.

Material Sites Identified/Located: No.

Source Document(s): *The Alaska Railroad and its Future*; Commonwealth North; April 1988 (general assessment of long-term roles for the Alaska Railroad, including identification of several expansion proposals).

Other Corridor/Reconnaissance Studies: None identified.

Alternate Alignment/Route(s): None identified.

Location of Plan & Profile Sheets: No known material available.

## ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

### STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 010.

Corridor Title: Point Mackenzie/Beluga Coal Field Extensions.

**Route Description/Alignment:** The Point Mackenzie route leaves the existing line at Willow and heads southwest, threading its way between lakes and wetlands just west of the Nancy Lake Recreation Area and the Little Susitna River. The line continues south along the westerly boundary of the State Agricultural Lands, and then turns east to the terminus at Point Mackenzie. This is also the same alignment proposed for the north end if a railway is constructed with the Knik Arm crossing proposal. A different extension proposal in the same general vicinity would extend the line from a location near Pittman into the Beluga Coal Fields to the southwest.

**Mileage:** Point Mackenzie - 44 miles; Beluga - 70 miles (plus/minus).

**Survey Information:** Unable to determine level of activity performed to locate these routes. It appears the Matanuska-Susitna Borough has conducted some level of survey activity to support route location work.

**Recommended Corridor Width:** Apparently not established.

**Material Sites Identified/Located:** No information located.

**Source Document(s):** *Reconnaissance Report - Alaska Railroad Extension to Point Mackenzie*; Bomhoff & Associates, Inc.; January 1982 (preliminary reconnaissance report performed for the Matanuska-Susitna Borough). The Beluga Extension was assessed in various studies conducted for the Diamond Alaska Coal Company.

**Other Corridor/Reconnaissance Studies:** *Knik Arm Railroad Crossing Feasibility Study*; Alaska Transportation Consultants, Inc.; July 1984 (part of a major Knik Arm Feasibility Study performed for the Alaska Department of Transportation and Public Facilities).

**Alternate Alignment/Route(s):** Willow to Anchorage via Knik Arm Crossing (*Knik Arm Railroad Crossing Feasibility Study*).

**Location of Plan & Profile Sheets:** Data available is apparently held by the Public Works Department; Matanuska-Susitna Borough.

## ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

### STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 011.

Corridor Title: Palmer to Matanuska Coal Fields (via Sutton).

**Route Description/Alignment:** This route would follow the old Alaska Railroad alignment to the extent possible. Pursuant to the Alaska Railroad Transfer Act, the Alaska Railroad Corporation received a warranty of at least an exclusive-use easement for the line as far as Sutton, then a quit claim deed for the remaining rights-of-way to the east and north. There has not been any recent engineering work to identify possible alignments other than in relation to the Wishbone Hill Coal Project.

**Mileage:** 40 miles (plus/minus).

**Survey Information:** Considerable data exists based on actual line location information held by the Alaska Railroad Corporation and the Bureau of Land Management.

**Recommended Corridor Width:** 200 feet (if available).

**Material Sites Identified/Located:** Yes, but in most cases these holdings may not be available for use.

**Source Document(s):** Alaska Engineering Commission and Alaska Railroad engineering records.

**Other Corridor/Reconnaissance Studies:** *Railroad Routes in Alaska*; Alaska Railroad Commission; 1913 (major U.S. government railway route assessment).

**Alternate Alignment/Route(s):** None identified.

**Location of Plan & Profile Sheets:** Engineering Department; Alaska Railroad Corporation (some of this information may be held in archives).

## ALASKA RAILROAD CORPORATION CORRIDOR PROFILE

### STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 012.

Corridor Title: Fire Island Extension.

Route Description/Alignment: Little detailed engineering work has been located to support a specific alignment for this proposal. One proposal depicts the line on an alignment leaving the existing branch line to Anchorage International Airport, crossing under or going around the North-South Runway, and then following the proposed causeway out to Fire Island. Another alternative would leave the existing line near Dimond Boulevard, passing between Anchorage International and Kincaid Park, and then out to Fire Island.

Mileage: 7 miles.

Survey Information: No known material available.

Recommended Corridor Width: Apparently not established.

Material Sites Identified/Located: No.

Source Document(s): *The Alaska Railroad and its Future*; Commonwealth North; April 1988 (general assessment of long-term roles for the Alaska Railroad, including identification of several expansion proposals). Some initial engineering activity to support route location has been performed by the Alaska Department of Transportation & Public Facilities and the Municipality of Anchorage. ARRC records do not contain this information presently.

Other Corridor/Reconnaissance Studies: None identified.

Alternate Alignment/Route(s): None identified.

Location of Plan & Profile Sheets: No known material available, except preliminary work noted above. The Public Works Department; Municipality of Anchorage would be the best source for additional information.

ALASKA RAILROAD CORPORATION CORRIDOR PROFILE  
STATE OF ALASKA LANDS SELECTION PROJECT

Corridor Identification Number: 013.

Corridor Title: Kenai/Nikiski Extension.

Route Description/Alignment: There is no evidence of any substantial engineering work to support this proposal. One proposal would create a rail line to connect the Port of Seward and the petrochemical facilities at Nikiski north of Kenai via Moose Pass. Another version would connect Nikiski with Anchorage via a Turnagain Arm crossing. A line extending from Moose Pass would probably follow a large portion of the existing right-of-way for the Sterling Highway to Kenai and then proceed north to Nikiski.

Mileage: Moose Pass to Nikiski - 80 miles (plus/minus).

Survey Information: No known material available.

Recommended Corridor Width: Not established.

Material Sites Identified/Located: No.

Source Document(s): Apparently some work was performed by engineering staff at the Alaska Railroad during the 1950's and 1960's to identify potential alignments using aerial photography and drawing a probable alignment on USGS quad maps. No detailed information supporting this work has been located.

Other Corridor/Reconnaissance Studies: None identified.

Alternate Alignment/Route(s): Anchorage to Nikiski via Turnagain Arm.

Location of Plan & Profile Sheets: No material found; USGS quad sheet maps may be held in Alaska Railroad archival records.