ALASKA DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

ALASKA OPEN-FILE REPORT 150K

Prepared by:

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Under Contract to:

Alaska Department of Commerce and Economic Development
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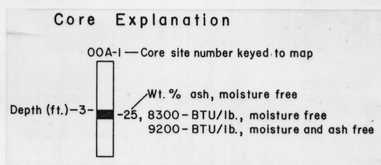
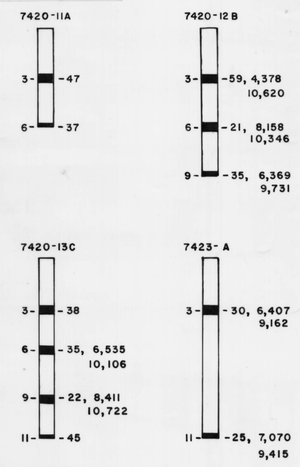
EXPLANATION

Core Explanation



Core Samples



Estimated Peat Resources

Bases

- 7 lb. peat/ft.^{3}, moisture and ash free (MAF)
- 9,732 BTU/lb., mean moisture and ash free BTU determined from analyzed cores of this study
- 6.1 ft. mean peat depth determined from cores on Alaska Open-File Reports 150 I-M

	R6W		R5W		R4W	
	Acres	Tons X 10^3	Acres	Tons X 10^3	Acres	Tons X 10^3
T19N	1,080	1,004.4	2,344	2,179.9	660	613.8
T18N	1,420	1,320.6	2,945	2,738.9	2,227	2,071.1
T17N	4,058	3,774.0	2,495	2,320.4	2,595	2,413.4
T16N						

Total Acres Peat	19,824
Total Tons Peat, MAF	18,436.5 x 10^3
Total Quads*, MAF	0.359

*1 Quad = 10^{15} BTU

Symbols

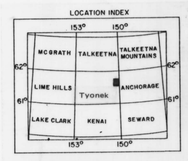
Peatland

OOA-1 ● Core site and number

This is a preliminary publication of the Alaska Division of Geological and Geophysical Surveys and as such has not received final editing and review. The author will appreciate candid comments on the accuracy of the data, and welcome suggestions that will improve the report.

Base from U.S. Geological Survey
Tyonek C-1 Quadrangle, Alaska, 1958

Based on aerial photograph interpretation (NASA U-2, 1978 lines 104-105, 1979 line 103) September 1981 through November 1981. Coring by Northern Technical Services (NORTEC), Anchorage, Alaska, July 1981 through September 1981. Analysis for NORTEC by Dr. Rouse Farnham, consultant, Hibbing, Minnesota, and Mineral Industry Research Laboratory, University of Alaska, Fairbanks, Alaska.

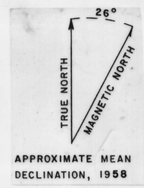


SCALE 1 : 31,680

2 1 0.5 0 0.5 1 2 MILES

2 1 0.5 0 0.5 1 2 KILOMETERS

CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL



APPROXIMATE MEAN DECLINATION, 1958

PEAT RESOURCE MAP, TYONEK C-1 QUADRANGLE, ALASKA

by

Rawlinson, S.E.[1], Huck, R.W.[2], and Hardy, S.B.[1]

1982

1. Alaska Division of Geological and Geophysical Surveys 2. Northern Technical Services, Anchorage, Alaska

In this report, total tons and total Btu values are for moisture- and ash-free peat. U.S. Department of Energy fuel-grade-peat criteria include a minimum of 8,300 Btu/lb (dry) and a maximum of 25 percent ash. However, 8,300 Btu/lb corresponds to an ash content of about 17 percent, which is considered critical for fuel-grade peat. Twenty-seven percent of all samples (n=511) analyzed for ash has less than 25 percent ash and 11 percent has less than 17 percent ash. Thus, values for total tons and total Btu's of in-situ fuel-grade peat are approximately 11 percent of those values shown, or 2,028 x 10^3 and 4.0 x 10^{13}, respectively; total quads is 0.040.

If peat processing reduces the ash content by 50 percent, the maximum allowable in-situ ash content is 34 percent. Forty-three percent of all samples analyzed for ash has less than 34 percent ash; 43 percent of the total tons and total Btu's is 7,927 x 10^3 and 15.4 x 10^{13}, respectively; total quads is 0.154.