

ALASKA OPEN-FILE REPORT 152

PEAT RESOURCE MAP OF ALASKA
ADDENDUM

In this report, fuel-grade peat is defined as unfrozen peat at least 5 ft thick; no other criteria are considered. The total energy value is for moisture- and ash-free peat and assumes: a) a bulk density of 7 lb/ft³, b) 8,300 Btu/lb (dry), and c) a thickness of 5 ft. 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. Huck and Rawlinson (1982) report that 27 percent of the Susitna Valley and Dillingham area samples that were analyzed for ash has less than 25 percent ash, and that 11 percent has less than 17 percent ash. If these relationships are valid statewide, the total energy of fuel-grade peat is approximately 11 percent (based on 17 percent ash) of the value shown, or 6.9 quads.

If peat processing reduces the ash content by 50 percent, the maximum allowable in-situ ash content is 34 percent. Forty-three percent of the samples reported by Huck and Rawlinson (1982) has less than 34 percent ash; 43 percent of the total energy of fuel-grade peat reported here is 27.1 quads. When frozen peat --- at least 5 ft thick --- is included, 11 and 43 percent of the total energy (180.15 quads) is 19.8 and 77.5 quads respectively.

Huck, R.W., and Rawlinson, S.E., 1982, Peat-resource inventory of south-central Alaska, a data report: Alaska Division of Geological and Geophysical Surveys Open-file Report 150, 25 p., 1 pl.

SUPPLEMENT
Estimated peat resources in Alaska

	Susitna Valley (AOF-150A-M)		Dillingham (AOF-151) ²		State (AOF-152) ³	
	Acres	Tons	Btu's (Quads)	Acres	Tons	Btu's (Quads)
Unfrozen peat	156,603	166,529,000	---	7,359	15,931,700	---
Frozen peat	0	0	---	0	0	---
Fuel-grade peat, MAF, ash removed	156,603	166,529,000	3.3	7,359	15,931,700	0.2
Fuel-grade peat, MF, up to 17% ash	---	18,318,000	0.4	---	1,752,487	0.03
Fuel-grade peat, MF, up to 25% ash, 8000 Btu/lb	---	44,963,000	0.7	---	4,210,100	0.07
Fuel-grade peat, MF, up to 34% ash	---	71,607,000	1.4	---	6,850,631	0.01
Fuel-grade peat, MAF, ash removed, frozen included	---	---	---	---	---	---
Fuel-grade peat, MF, up to 17% ash, frozen included	---	---	---	---	---	---
Fuel-grade peat, MF, up to 25% ash, 8000 Btu/lb, frozen included	---	---	---	---	---	---
Fuel-grade peat, MF, up to 34% ash, frozen included	---	---	---	---	---	---
				Acres	Tons (x10 ⁹)	Btu's (Quads)
				8,961,550	---	---
				16,563,850	---	---
				4,988,750	3.8	63.1
				---	0.4	6.9
				---	1.0	16.4
				---	1.6	27.1
				14,264,500	10.9	180.2
				---	1.2	19.8
				---	2.9	46.4
				---	4.7	77.5

¹ Mean depth AOF-150A-F assigned per map, mean 8.3 ft; AOF-150G, 8.3 ft; AOF-150H-M, 6.1 ft; bulk density 7 lb/ft³; energy 9732 Btu/lb (dry) unless indicated otherwise.

² Mean depth 14.2 ft; bulk density 7 lb/ft³; energy 9732 Btu/lb (dry) unless indicated otherwise.

³ Mean depth 5.0 ft; bulk density 7 lb/ft³; energy 8300 Btu/lb (dry) unless indicated otherwise.