DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

TABLE 1.--ULTRAMAFIC ROCKS OF THE EAGLE QUADRANGLE, ALASKA

1/ S - One or more semiquantitative spectrographic analyses made
T - One or more thin sections examined
X - One or more X-ray diffraction traces examined

2/ Small - 1 square meter to 1/2 square kilometer
Medium - 1/2 square kilometer to 5 square kilometers
Large - 5 square kilometers or larger

3/ Includes talc, actinolite and chlorite

GROUP I

Map No.	Field No.	Location: Quad	Location: Lat(N) Long(W)	Data 1/	Approx. size 2/	Rock name	Mineralogy: Primary	Mineralogy: Secondary	Serpentinization (percent)	Other significant alteration	Textural features	Adjacent country rock	Structural data	Remarks
1	70AWr42	D-5	64°59'10" 143°18'10"	S,X	Small	Serpentinite		Serpentine (lizardite + clinochrysotile), minor chlorite, magnetite; trace of brucite	100			Quartz-biotite gneiss and granitic rocks		May be part of no. 2
7	71AFr9 71AFr10	D-4	64°56'25" 142°06'12"		Small	Serpentinite		Serpentine	100		Fine-grained	Quartz-mica schist		
8	71AFR22	D-4	68°58'10" 142°05'25"		Small	Serpentinite?		Serpentine?	100?			Quartzite, quartz-mica schist	Dike	
9	71AWr50	D-4	64°59'15" 142°42'05"	X,T	Small	Serpentinite		Serpentine (lizardite + clinochrysotile) 99%; brucite, 1%	100			Till, basalt(?) and gabbro		
10	71AFr209	D-4	65°00'00" 142°30'30"	S	Small	Serpentinite			100		Massive, fine-grained	Gabbro(?), basalt(?), and chert		Could be continuation of Mt. Sorenson ultramafic, no. 3
11	68ACs181	D-3	64°59'45" 142°29'10"	S,T,X	Small	Serpentinite		Serpentine (lizardite + clinochrysotile) 97%; brucite, 2%, magnetite, 1%	100		Massive texture of fine-grained fibrous aggregates and bastite. Most serpentine is replacing orthopyroxene, some replacing olivine. Late veinlets of clinochrysotile	Chert(?)		
12	68ACs183 68ACs184 68ACs185	D-3	64°59'20" 142°25'30"	S,T,X	Medium	Serpentinite		Serpentine (lizardite + clinochrysotile)	100	Formation of silica-carbonate rock zone up to 40 ft wide		Phyllite	South of Seventymile fault. Altered diabase may be tectonic inclusion. Silica-carbonate veinlets cut both the diabase and serpentinite	Only ultramafic mass with which gold, silver, and arsenic have been found. Pare 1.5 mm seams of cross fiber
	68ACk24 68ACs393 71AFr1158							Serpentine 98%; magnetite 1%, chromite <1%		Associated light-colored, fine-grained rodingite	Massive fine-grained serpentine. Large grains of serpentinized orthopyroxene, 5%; original rock was harzburgite			
	68ACs391							Serpentine with magnesite and minor quartz						
13	71AFr1153	D-3	64°58'47" 142°22'45"		Small	Serpentinite			100		Fine-grained	Quartz-mica schist		May be continuation of Flume Creek ultramafic mass, no. 12
14	68AFr280	D-3	64°57'45" 142°24'40"	X	Small	Serpentinite		Antigorite 98%; dolomite 1%, magnetite 1%	100			Greenstone, quartzite, quartz-graphite schist		
15	68AFr3007	D-3	64°58'32" 142°19'56"	S	Small	Serpentinite		Serpentine; numerous carbonate veins	100(?)			Quartz biotite schist; quartz vein zone	Strongly cleaved	Silver detected
	68AFr3008	D-3	64°58'30" 142°19'58"											
16	68ACs177	D-3	64°58'10" 142°21'20"	S	Small	Serpentinite		Serpentine	100(?)			Phyllite		Rubble only
17	68AFr3015	D-3	64°57'20" 142°17'15"		Small	Serpentinite		Serpentine	100		Fine-grained massive serpentinite with about 5% large serpentinized orthopyroxene phenocrysts indicating original rock may have been harzburgite; green slip fiber	Silicified greenstone		
19	68ACs307	D-3	64°56'50" 142°10'30"	X	Small	Serpentinite		Serpentine (lizardite + clinochrysotile)	100			Black quartzite and argillite		
20	72AFr433	D-3	64°56'30" 142°08'50"	T,X	Small	Serpentinite		Serpentine (lizardite + clinochrysotile) 92%; magnetite 7%; brucite 1%	100		Mesh texture of serpentine totally replacing olivine; good bastite. Small clinochrysotile veinlets cut rock. Original rock was harzburgite.	Argillite and granitic rock		
21	68AFr416 68ACs319	D-3	64°55'02" 142°04'25"	S	Small	Serpentinite		Serpentine			Massive serpentine	Quartzite and quartz-graphite schist; silicic igneous rock	Foliated; dike?	
22	68AFr335	D-2	64°51'20" 141°57'00"	S	Small	Serpentinite?						Quartzite and hornfels	Dike or sill	Silver detected
23	68ACs424	D-3	64°48'47" 142°06'40"	S,X	Small	Serpentinite		Serpentine (lizardite + clinochrysotile), major; talc, minor; chlorite, trace	100			Marble and quartzite		Color banding; silver detected
24	68AFr434	D-2	64°47'40" 141°40'35"		Small	Serpentinite		Serpentine	100(?)		Small amount of poorly developed fibrous serpentine in massive serpentine	Marble and quartzite		
25	66AFr395	C-1	64°44'47" 141°25'20"		Small	Serpentinite		Serpentine	100(?)			Greenstone		
27	66AFr800 66AFr801	C-1	64°39'50" 141°17'20"	X	Small	Serpentinite		Serpentine (antigorite) 98%; trace of actinolite and chlorite	100		Fine-grained, massive with local short fibers	Greenschist and marble	Local fault zone	
28	66AFr796	C-1	64°39'58" 141°16'58"	X	Small	Serpentinite		Serpentine (antigorite) 98%; dolomite 1%; actinolite 1%	100		Fine-grained; massive	Greenstone	Fault zone, probably minor	
29	70AFr122	C-1	64°39'55" 141°13'15"	S,X	Small	Serpentinite		Serpentine (antigorite) 98%; magnetite 2%	100		Some hard fibrous serpentine	Quartz-mica schist		
30	70AFr82	C-1	64°40'20" 141°07'01"	T,X	Small	Serpentinite		Serpentine (antigorite) 90%; clinochrysotile 1%; actinolite 7%; magnetite 1%; calcite 1%	100		Serpentine has fine mesh texture and bastite; original rock was harzburgite. Late cross-cutting veinlets of clinochrysotile	Greenstone, quartz-mica schist, and greenschist		
31	70AFr79	C-1	64°40'10" 141°07'20"	X	Small	Serpentinite		Serpentine (antigorite); minor actinolite, dolomite and talc	100		Coarse and fine actinolite in massive, well-crystallized antigorite	Quartz-mica schist		
32	70AFr66	C-1	64°40'14" 141°06'30"	S	Small	Serpentinite		Serpentine, major; actinolite, minor	100(?)		Coarse actinolite in massive fine-grained serpentine	Quartz-mica schist and quartzite		
33	70AFr31	C-1	64°36'50" 141°05'59"	S	Small	Serpentinite		Serpentine	100(?)		Massive, fine-grained	Quartz-mica schist, quartzite		Similar to 37
34	66AFr262	C-1	64°36'15" 141°04'01"		Small	Serpentinite		Serpentine	100		Fine-grained, massive	Quartz-mica schist, quartzite		
35	66AFr279	C-1	64°35'45" 141°01'40"		Small	Serpentinite		Serpentine	100		Fine-grained, massive	Granitic rock	Slickensided locally. May be part of no. 34	
36	66AFr1397	C-1	64°35'01" 141°10'17"		Small	Serpentinite		Serpentine	100(?)		Fine-grained; some talcy rocks	Greenschist and quartz-graphite schist		Green stains on rocks
37	70AFr16	C-1	64°36'20" 141°14'30"	S,T,X	Small	Serpentinite		Serpentine (antigorite) 97%; magnesite 2%; magnetite 1%	100		Fine-grained, massive serpentine. Some stiff, fibrous serpentine	Quartz-mica schist	Foliated	
38	66AFr823	C-1	64°35'45" 141°19'45"		Small	Serpentinite		Serpentine	100(?)			Quartz-graphite schist		
39	70AFr2281	C-1	64°35'29" 141°19'08"		Small	Serpentinite		Serpentine	100(?)		Fine-grained, massive	Quartz-graphite schist		
40	70AFr2280	C-1	64°35'30" 141°18'50"		Small	Serpentinite		Serpentine	100(?)		Fine-grained, massive	Quartz-graphite schist		
41	70AFr2273	C-1	64°34'30" 141°18'29"	S,X	Small	Serpentinite		Antigorite; minor talc, quartz, dolomite	100	White carbonate in lenses; silicification of much of outcrop	Fine-grained	Quartz-graphite schist		Bright green stain. Quartz veinlets 6 mm thick in silica-rich areas
42	66AFr1123 66AFr1124	C-1	64°34'20" 141°20'58"	X	Small	Serpentinite		Antigorite 100%	100			Greenstone and quartz-graphite schist		
43	66AFr816	C-1	64°34'30" 141°18'40"		Small	Serpentinite		Serpentine; minor actinolite	100(?)		Massive serpentine	Quartz-graphite schist		
44	66AFr756	C-1	64°35'45" 141°15'59"		Small	Serpentinite		Serpentine	100(?)			Quartz-mica schist and quartzite		
45	66AFr755	C-1	64°33'30" 141°16'00"		Small	Serpentinite		Serpentine	100(?)			Quartz-mica schist		
46	66AFr1110	C-1	64°33'00" 141°18'36"	X	Small	Serpentinite		Antigorite 98%; dolomite 2%	100		Fine-grained massive; evidence of large serpentinized orthopyroxene grains. Some stiff fibrous serpentine	Greenstone		
47	66AFr1104	C-1	64°32'15" 141°19'38"	X	Small	Serpentinite		Antigorite 95%; dolomite 2%; magnesite <1%; talc <1%; chlorite <1%	100		Fine-grained, massive	Quartz-graphite schist		
48	66AFr327	C-1	64°31'50" 141°28'02"		Small	Serpentinite		Serpentine 98%; actinolite 2%	100		Massive serpentine, fine-grained. Local cross-fiber in 7 mm wide veinlets; radiating actinolite crystals	Quartzite, quartz-mica schist		
49	68AFr2166	C-2	64°36'45" 141°34'25"	S,X	Small	Partially steatized serpentinite		Major magnesite; minor dolomite, quartz, talc; trace serpentine and chlorite		Serpentine altered to talc + magnesite		Greenstone and greenschist		
50	71AFr283	C-2	64°38'02" 141°32'28"	S	Small	Serpentinite(?)		Serpentine	100(?)		Minor 3 mm thick veinlets of cross-fiber	Quartzite and quartz-mica schist		
51	69AFr442	C-3	64°41'50" 142°03'15"	S	Small	Serpentinite		Serpentine; minor talc and actinolite	100			Quartz-mica schist and quartzite		
55	68AFr2430	C-4	64°33'50" 142°30'30"	X	Small	Serpentinite		Serpentine (antigorite); later veins of chrysotile	100(?)		Highly serpentinized harzburgite with abundant good cross-fiber. 7 mm to 15 mm bands of asbestos			Asbestos occurrence of possible commercial significance (see Foster, H. L., "Asbestos occurrence in the Eagle C-4 quadrangle, Alaska," U.S. Geol. Survey Cir. 611, 1967)
56	71AFr447	B-2	64°29'02" 141°43'15"	T	Medium	Serpentinite and partially steatized serpentinite		Talc 96%; serpentine 2%; opaques 1%; magnesite 1%		Serpentine altered to talc + magnesite	Fine-grained, massive; some microfolds in talc	Greenstone		
	68AFr202								100(?)		Fine-grained; 3 mm thick bands of cross-fiber	Greenschist, greenstone, and quartz-graphite schist		
	68ACs109			S										
58	63AFr375 66AFr81	B-1	64°28'42" 141°19'25"	T,X	Small	Partially steatized serpentinite		Antigorite 25-95%; talc 1-60%; actinolite 1-10%; magnetite 2%; chlorite 1-2%	100	Serpentine has partially altered to talc	Mostly fine-grained, massive; serpentine has random fibrous texture; some deformed bastite. Local cross-fiber veinlets approximately 1 mm wide	Quartz-graphite schist and greenstone		
59	66AFr73 66AFr74	B-1	64°26'15" 141°20'30"	X	Small	Serpentinite		Antigorite	100			Greenstone		Relation to greenstone uncertain
60	70AFr2332	B-1	64°26'20" 141°22'40"	S,T,X	Small	Serpentinite		Antigorite 60-95%; actinolite 5-30%; magnetite 1-5%	100		Massive fine-grained serpentine with large radiating actinolite crystals	Greenstone		
61	66AFr69	B-1	64°26'30" 141°27'59"		Small	Serpentinite		Serpentine	100(?)			Quartz-mica schist		
62	66AFr67 71AFr479	B-1	64°26'15" 141°28'59"	S	Small	Serpentinite		Serpentine	100(?)	Associated quartz-carbonate rock		Quartz-mica schist		
63	66AFr64 68AFr2074	B-1	64°25'18" 141°28'58"		Small	Serpentinite		Serpentine	100(?)		Fine-grained, massive serpentine	Greenschist, greenstone		
64	70AFr2259	B-1	64°24'43" 141°29'59"	S,X	Small	Serpentinite		Antigorite 100%	100		Fine-grained, massive; some stiff chrysotile or actinolite fiber around outcrop	Quartz-graphite schist and quartzite		
68	66AFr712 67AFr47	B-1	64°22'10" 141°24'45"	S,T,X	Small	Partially steatized serpentinite		Talc 30-90%, antigorite 1-50%; actinolite <5%; dolomite <5%; magnesite 5-35%; chlorite <5%; magnetite 1%	100(?)	Serpentine altered to talc + magnesite	Fine-grained serpentine and talc, massive; cross-cutting veinlets of magnesite and dolomite up to 25 mm wide	Garnetiferous quartz-biotite schist		Some brecciation
72	66AFr1156	A-1	64°07'15" 141°01'40"	X	Small	Serpentinite		Antigorite 98%; talc 1%; magnetite 1%	100		Fine-grained, massive; opaques concentrated along small fractures	Garnetiferous hornblende-biotite gneiss		Large blocks of rubble
96	70AFr4023	A-5	64°14'47" 143°15'20"	S,T	Small	Serpentinite		Serpentine 97%; magnesite 2%; magnetite 1%	100		Massive, fine-grained fibrous serpentine. Magnetite and magnesite form crude segregations	Quartz-mica schist		