

Table 1-4. Qualitative mineralogy (XRD) and sulfide morphology (optical microscopy) for samples from BF core. Data from Tuttle (1991a, b).

[Morphology (morph) key: A, anhedral; B, blades; E, euhedral; F, framboids; L, lens; S, iron-sulfide replacing oxide mineral grains]

Field ID	Depth (ft)	Depth (m)	lithology	Description	Photo of sample	Thin section	Quartz	Calcite	Dolomite	K-feldspar	Na-feldspar	Analcime	Illite	UnID'd clay	Pyrite	Pyrrhotite	Shortite	other	Pyrite morph	Marcasite morph	Pyrrhotite morph
BF-1	205.2	62.5	Laney	sandy, calcareous siltstone	no	unpolished	X	X	X	X	X	X	X		X				A		
BF-2	230.8	70.3	Laney	calcareous oil shale	no	unpolished	X	X	X	X		X	X		X				F,A	E	
BF-3	290.5	88.5	Laney	calcareous oil shale	no	polished	X	X	X	X		X	X		X				F,E,A	E	A
BF-4	320.6	97.7	Laney	dolomitic oil shale	yes	polished	X	X	X	X		X	X	X					A	E	
BF-5	352.0	107.3	Laney	oil shale	yes	polished	X	X	X	X									E,S		
BF-6	411.2	125.3	Laney	pyritic marlstone w\shortite	yes	polished	X	X		X				X	X				A,S		
BF-7	441.4	134.5	Laney	calcareous oil shale	no	polished	X	X	X		X	X			X				A		
BF-8	471.2	143.6	Wilkins Peak	dolomitic mudstone w\shortite	yes	polished	X		X	X						X	X		E		B
BF-9	531.3	161.9	Wilkins Peak	dolomitic oil shale w\shortite	yes	polished	X		X						X		X		A,S		
BF-10	591.5	180.3	Wilkins Peak	oil shale w\shortite	no	polished	X		X						X		X		S,A,E		
BF-11	621.6	189.5	Wilkins Peak	dolomitic, pyritic mudstone w\shortite	no	polished	X		X	X	X		X				X		E		
BF-12	651.8	198.7	Wilkins Peak	pyritic mudstone w/shortite	no	polished	X	X	X	X	X		X		X	X	X		E		B
BF-13	711.4	216.8	Wilkins Peak	pyritic mudstone w\shortite	yes	polished	X		X		X		X	X	X		X		E		
BF-14	770.6	234.9	Wilkins Peak	oil shale w\shortite	no	unpolished	X		X		X	X	X	X			X		A		
BF-15	801.3	244.2	Wilkins Peak	dolomitic mudstone w\shortite	yes	unpolished	X		X		X						X				
BF-16	831.7	253.5	Wilkins Peak	silty mudstone	no	polished	X	X	X	X	X	X	X	X					A		B
BF-17	891.6	271.8	Wilkins Peak	mudstone	no	unpolished	X	X	X	X	X	X	X	X					A		
BF-18	951.3	290.0	Wilkins Peak	mudstone	no	unpolished	X	X	X	X	X	X	X	X							
BF-19	981.2	299.1	Wilkins Peak	dolomitic oil shale	no	unpolished	X	X	X		X		X						A		
BF-20	1011.1	308.2	Wilkins Peak	silty mudstone	no	polished	X	X			X	X	X	X						B,E	B
BF-21	1091.8	332.8	Wilkins Peak	sulfidic mudstone w\shortite	yes	polished	X		X	X	X		X		X		X		A		
BF-22	1128.1	343.8	Wilkins Peak	dolomitic mudstone w/shortite	no	polished	X		X								X	trona	A,E		
BF-23	1159.4	353.4	Wilkins Peak	oil shale	yes	unpolished	X		X		X	X		X					B		
BF-24	1191.0	363.0	Wilkins Peak	dolomitic mudstone w/shortite	yes	unpolished	X		X		X		X				X		A		
BF-25	1250.8	381.2	Wilkins Peak	sulfidic mudstone (poss shortite)	yes	polished	X		X	X	X				X		X	trona	A,E		
BF-26	1311.4	399.7	Wilkins Peak	dolomitic mudstone w\shortite	no	unpolished	X		X		X			X			X		B		
BF-27	1341.3	408.8	Wilkins Peak	dolomitic mudstone w\shortite	no	unpolished	X		X	X	X		X	X			X		E,A		
BF-28	1371.6	418.1	Wilkins Peak	pyritic mudstone w\shortite	no	unpolished	X		X	X	X		X	X			X		E,A	A	
BF-29	1432.4	436.6	Wilkins Peak	mudstone w\pyrite & shortite	yes	unpolished	X		X	X	X		X		X		X		A,L		
BF-30	1491.0	454.5	Wilkins Peak	sulfidic mudstone	yes	polished	X	X	X	X	X	X	X	X	X	X				E	
BF-31	1521.1	463.6	Tipton	pyritic, dolomitic oil shale	yes	polished	X	X	X	X	X	X	X		X				E,A,B,L	E,B	B
BF-32	1552.6	473.2	Tipton	calcareous oil shale	yes	polished	X	X	X	X		X	X		X				S,A		
BF-33	1611.3	491.1	Tipton	calcareous oil shale	no	polished	X	X	X	X	X		X	X				siderite	A,F,E		
BF-34	1641.3	500.3	Tipton	oil shale w\some pyrite	yes	unpolished	X	X	X	X		X		X	X				A,F		
BF-35	1670.6	509.2	Tipton	fossiliferous mudstone	yes	unpolished	X	X			X			X	X			aragonite	A		