

Table 4.--Comparison of oil yields estimated from geophysical logs with Fischer analyses for USBM/AEC Colorado Core Holes No. 1 and No. 2

Interval (feet)	Thickness (feet)	Average log density (g/cc)	Average sonic log travel time (μ sec/ft)	Average oil yield (gallons/ton) ^{1/}		
				Density log	Sonic velocity log	Fischer assay (unweighted average)
<u>Colorado Core Hole No. 1</u>						
986 - 1,100	114	2.35	(87)	14.8	14.3	14.5
1,100 - 1,184	84	2.19	(105)	25.2	28.5	28.7
1,184 - 1,354	170	2.32	91	16.8	17.6	^{2/} 17.9/13.5
1,354 - 1,554	200	2.25	101	21.3	24.9	20.7
1,554 - 1,770	216	2.37	86	13.4	13.5	10.6
1,770 - 1,876	106	2.23	(93)	22.6	18.8	21.1
1,876 - 1,996	120	2.25	96	21.3	21.1	21.2
1,996 - 2,100	104	2.24	88	22.0	15.2	17.5
2,100 - 2,210	110	2.23	92	22.6	17.6	20.6
2,210 - 2,340	130	2.12	115	29.8	37.5	33.5
2,340 - 2,456	116	2.23	96	22.6	20.9	21.4
2,456 - 2,600	144	2.27	109	20.0	32.4	23.4
<u>Colorado Core Hole No. 2^{3/}</u>						
1,130 - 1,260	130	2.30	84	18.1	12.5	14.7 Top of continuous oil shale at 1,120
1,260 - 1,580	320	2.17	102	26.5	25.8	^{2/} 25.6/24.0
1,580 - 1,710	130	2.24	103	22.0	26.8	20.3
1,710 - 1,870	160	1.98	123	38.9	45.4	37.2
1,870 - 2,110	240	(?)	115?	(?)	37.5?	36.3 Highly erratic log response due to combination of thin beds and hole rugosity. Gross estimate based on "smoothing".
2,110 - 2,160	50	(No valid interpretation possible due to excessively caved hole)				37.5

^{1/} Relationships between density and sonic velocity log values and oil yield are based on data of Bardsley and Algermissen (1963).

^{2/} No Fischer retort assays available for low-yield samples from "B groove" (1,240.2'-1,268.0' not assayed in No. 1, and 1,392.0'-1,410.0' not assayed in No. 2); first number is unweighted average of assays excluding the "B groove," and second number is unweighted average for entire interval assuming the "B groove" samples contain 2 gallons per ton.

^{3/} Depth reference in USBM/AEC Colorado Core Hole No. 2 is from the Kelly bushing, 11 feet above ground level.