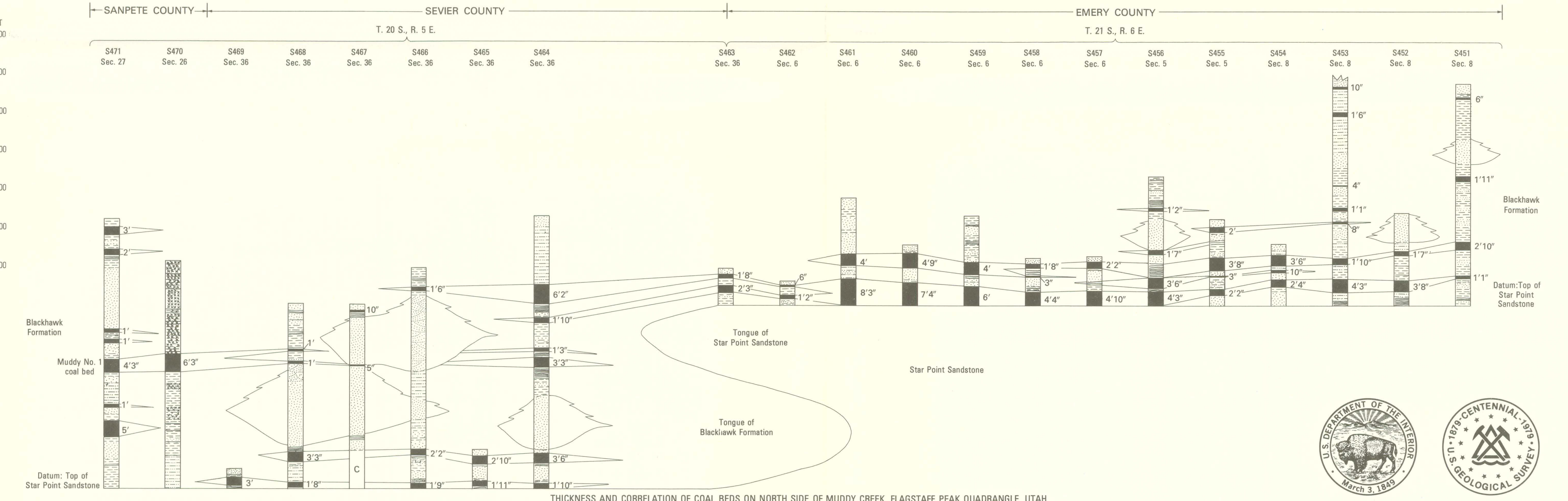
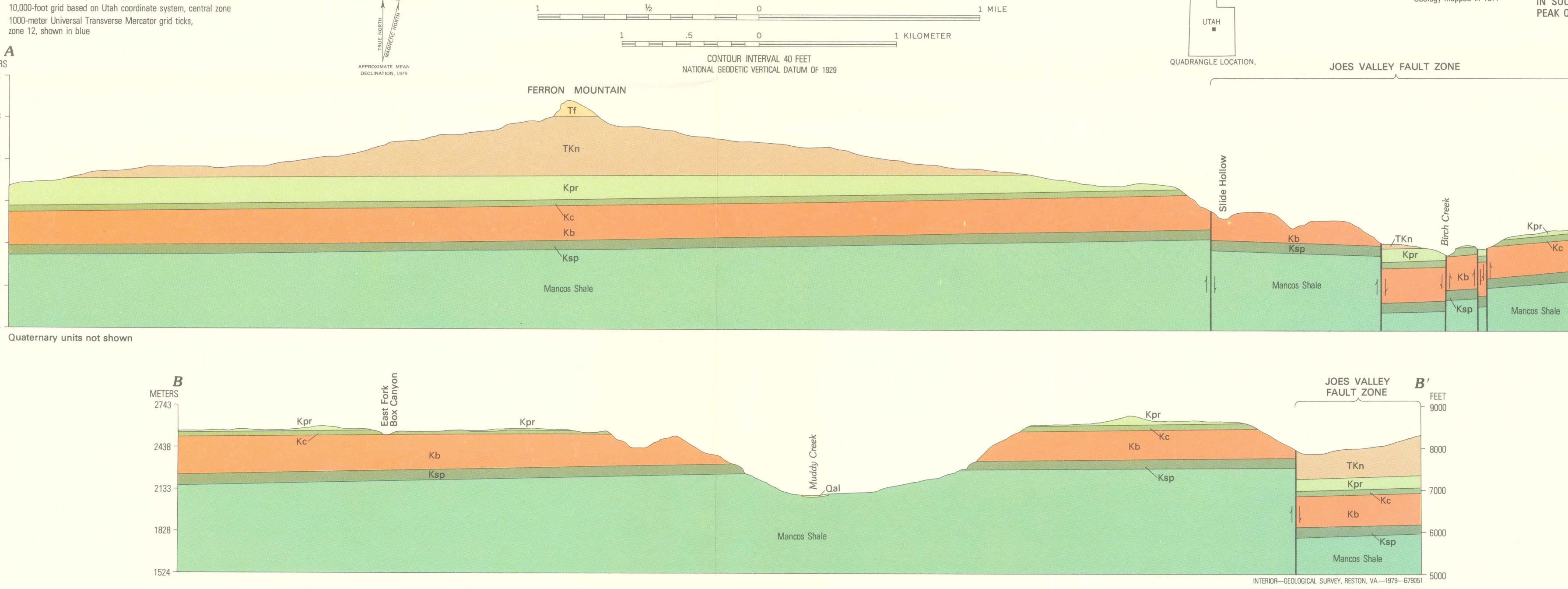
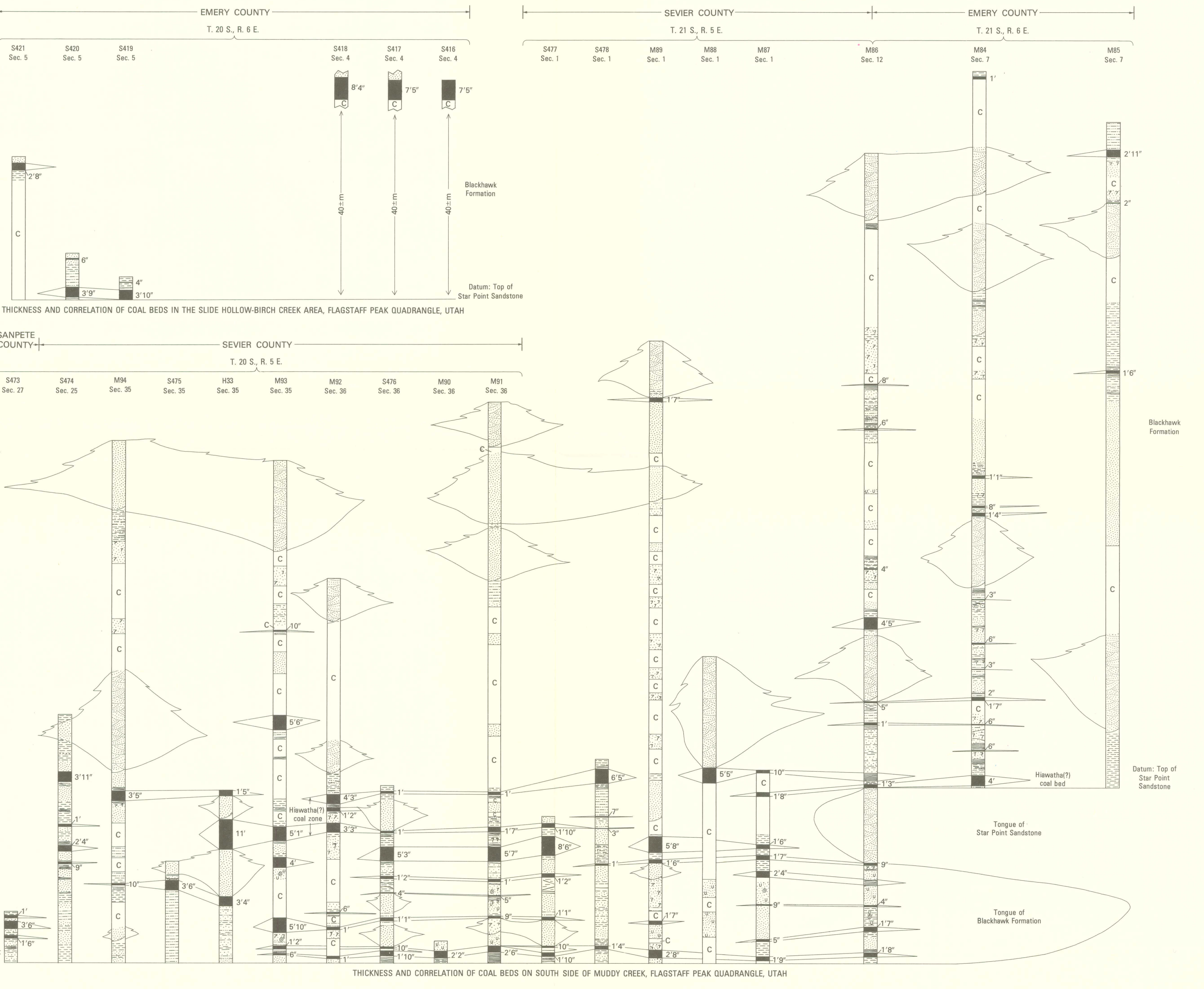
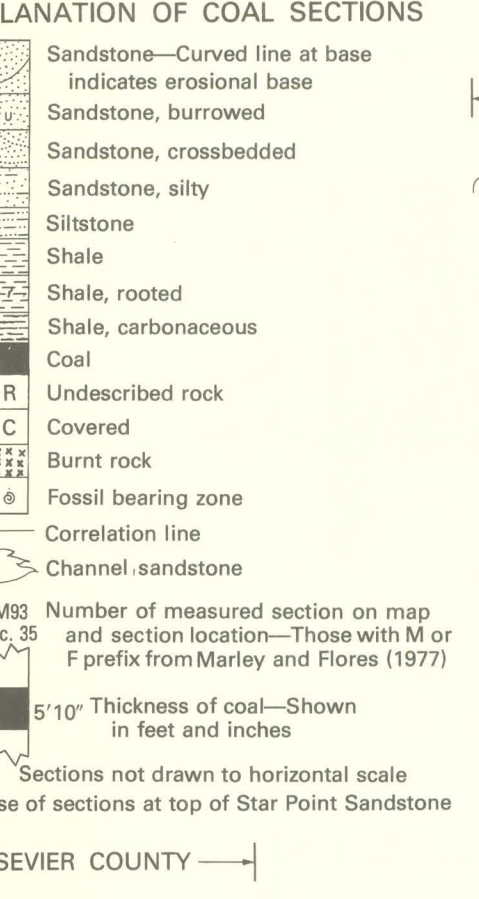


**COAL RESOURCES**  
The total identified coal resources in the Flagstaff Peak quadrangle in beds more than 42 in. (107 cm) thick as shown in the accompanying table are estimated to be 26.9 million short tons (24.4 million metric tons). This is much less than the 394.6 million short tons (357.2 million metric tons) that Doelling (1972, p. 179) estimated for beds more than 48 in. (1.22 m) thick in the quadrangle. The large discrepancy is due to different resource categories reported. Marley and Flores (1977), Flores and others (1979) and the authors believe that most of the coal beds are much less continuous than Spiekler (1931) and Doelling (1972) suggested. Most beds occur as isolated lenses, except for those of the Hawasha coal zone. For this reason, only the resources of the Hawasha coal zone are shown separately on the table. All other beds, most of which are unmined, are lumped in one category in the table. The figures in the paper represent identified resources on a coal bed basis as defined by the U.S. Department of the Interior (U.S. Bureau of Mines and U.S. Geological Survey, 1976) in a separate paper of the coal reported by Doelling would be classified as hypothetical resources. Except for the Hawasha zone we did not calculate resources more than 107 in. (8.5 meters) from points of measurement on the outcrop or from drill holes. There is no doubt that further exploratory drilling is done in the quadrangle, our figures will need to be revised upward and the estimates of Doelling (1972) will require downward revision.  
As can be seen on the accompanying coal sections, the thickest and most persistent coal beds in the quadrangle are within 85 to 125 m of the base of the Blackhawk Formation and offer the greatest potential for development. Beds in the Hawasha coal zone are commonly thicker than 42 in. (107 cm) north of Muddy Creek and east of the zone of intertonguing between the Blackhawk Formation and the underlying Star Point Sandstone. West of the zone of intertonguing, beds 50-83 in. (1.27-2.11 m) above the Star Point Sandstone are the thickest and most persistent. One of these, a bed which we correlate with the Hawasha zone is more than 10 ft (3 m) thick in several U.S. Geological Survey drill holes in the northern part of the adjacent Emery West quadrangle (Blanchard and others, 1977; Hayes and Sanchez, 1979). Despite the occurrence of some thick beds within the Joe Valley fault zone in the northern part of the quadrangle, this area offers little promise for large-scale commercial mining in the near future because of structural complications.

Table 1.—Identified coal resources in millions of short tons of the Flagstaff Peak quadrangle, Utah.

County	Location	Coal under less than 1000 ft. of overburden				Coal overlain by 1000 to 2000 ft. of overburden									
		Demonstrated		Inferred		Demonstrated		Inferred							
T. S.	R. E.	In beds 42 in. thick	In beds 28-42 in. thick	In beds 16-28 in. thick	In beds 28-42 in. thick	In beds 16-28 in. thick	In beds 28-42 in. thick	In beds 16-28 in. thick	In beds 28-42 in. thick						
Emery	20	6	8	0.2	0.7	0.1	---	0.1	0.3	0.6	0.1	---	---	---	---
Doering	21	6	0.2	0.9	6.3	0.2	0.2	---	---	---	---	---	---	---	---
Sanpete	20	5	1.4	---	---	---	0.3	---	---	---	---	---	---	---	---
Sevier	20	5	1.4	2.0	0.7	0	---	0.1	1.0	---	1.1	1.5	---	---	---
---	---	5	0.1	2.5	6.0	---	---	1.3	4.3	0.8	0.9	0.3	0.3	2.5	20.2
Hawasha zone total	---	2.8	5.6	5.6	13.7	0.6	1.5	4.3	1.0	3.2	0.9	1.6	1.8	2.3	39.5
<b>Other beds</b>															
Emery	20	6	0.2	0.2	---	---	---	6.5	---	---	---	---	---	---	1.5
Doering	21	6	1.2	0.7	0.9	---	---	---	---	---	---	---	---	---	7.8
Sanpete	20	5	0.8	---	---	---	---	0.2	---	---	---	---	---	---	1.0
Sevier	20	5	3.3	2.7	3.3	---	---	0.8	0.9	0.9	---	---	---	---	11.3
Doering	21	5	6.0	1.0	0.9	---	---	1.9	0.4	---	---	---	---	---	19.2
Other beds total	---	11.9	4.6	5.2	---	---	---	3.4	1.3	0.3	---	---	---	---	26.7
Grand total	---	14.7	10.2	18.9	0.6	1.5	4.3	4.4	4.5	1.2	1.6	1.8	2.3	46.2	---



**GEOLOGIC MAP AND COAL RESOURCES OF THE FLAGSTAFF PEAK QUADRANGLE, EMERY, SANPETE, AND SEVIER COUNTIES, UTAH**

By  
Joseph D. Sanchez and Philip T. Hayes  
1979

