

CORRELATION OF MAP UNITS

Qa1	Qc1	Qg	} Holocene	} QUATERNARY
Unconformity				
Je	Jc	Jp	} Middle Jurassic	} JURASSIC
Unconformity				
Jrn	Jw	Jk	} Upper Triassic(?)	} TRIASSIC(?)
Unconformity				
Rcu	Rcl	Rm	} Upper Triassic	} TRIASSIC
Unconformity				
Rm	Rk	Rl	} Middle(?) and Lower Triassic	} TRIASSIC(?)
Unconformity				
Pk	Pc		} Lower Permian	} PERMIAN
Unconformity				

DESCRIPTION OF MAP UNITS

Qa1	ALLUVIUM (HOLOCENE)--Poorly sorted gravel, sand, silt, and clay deposited in stream courses.
Qc1	COLLUVIUM (HOLOCENE)--Boulders, gravel, sand, and mud in landslide deposits, and in talus blocks; also eolian sand and silt; thickness 0-100 ft or more.
Qg	GRAVEL DEPOSITS (HOLOCENE AND PLEISTOCENE)--Poorly sorted gravel, sand, and mud; thickness 0-50 ft.
Je	ENTRADA SANDSTONE (MIDDLE JURASSIC)--Reddish-orange to reddish-brown, very fine grained to fine-grained sandstone and silty sandstone; very thin to thick bedded; generally forms slopes; largely eolian and sabkha deposits; approximate thickness 300-700 ft.
Jc	CARMEL FORMATION (MIDDLE JURASSIC)--Yellowish-orange to moderate-reddish-brown, very fine grained to fine-grained sandstone and dark-reddish-brown mudstone; locally contains gray to greenish-gray limestone and coarse, crystalline, white gypsum; marine tidal flat and sabkha deposits; approximate thickness 100-625 ft.
Jp	PAGE SANDSTONE (MIDDLE JURASSIC)--Reddish-orange to moderate-reddish-brown, very fine grained to fine-grained, well-sorted sandstone; contains large-scale planar and trough crossbedding; tan deposits; approximate thickness 15-70 ft.
Jrn	NAVAJO SANDSTONE (JURASSIC AND TRIASSIC)--Light-gray to light-orange, fine- to medium-grained, well-sorted sandstone; thickly crossbedded; locally contains minor lenses of mudstone, and cherty limestone or dolomite; cliff-forming units; eolian and minor playa deposits; approximate thickness 500-820 ft.
Jk	KAYENTA FORMATION (UPPER TRIASSIC?)--Reddish-orange to reddish-brown, fine- to medium-grained, crossbedded sandstone and laminated sandy siltstone; interbedded with minor limestone and mudstone; forms ledges and steep slopes; largely fluvial deposits, locally includes lacustrine, sabkha, and eolian deposits; approximate thickness 240-330 ft.
Jw	WINGATE SANDSTONE (UPPER TRIASSIC)--Reddish-pink to reddish-orange, very fine grained to fine-grained, cross-bedded sandstone; forms cliffs; eolian deposits; approximate thickness 280-380 ft.
Rcu	CHINLE FORMATION (UPPER TRIASSIC)--Divided into two parts, each containing several members: Upper part, undivided--Comprises Church Rock, Owl Rock, and Petrified Forest Members; Church Rock Member--Reddish-brown to reddish-orange siltstone; irregularly ripple laminated to thick bedded; fine- to coarse-grained sandstone; locally contains thin- to thick-bedded conglomerate and arkosic sandstone; fluvial and lacustrine deposits; approximate thickness 80-200 ft. Owl Rock Member--Pale-red to pale-reddish-brown siltstone and mudstone; thin to medium bedded; interbedded with pale-red to light-greenish-gray, thin- to medium bedded, cherty limestone; locally contains limestone breccia; lacustrine deposits; approximate thickness 120-200 ft. Petrified Forest Member--Variegated bentonitic claystone; thin to thick bedded; interbedded with minor amounts of clay siltstone and fine- to medium-grained clay sandstone; fluvial and lacustrine deposits; approximate thickness 50-200 ft.

STUDIES RELATED TO WILDERNESS BUREAU OF LAND MANAGEMENT WILDERNESS STUDY AREAS

The Federal Land Policy and Management Act (Public Law 94-579, October 21, 1976) requires the U.S. Geological Survey and the U.S. Bureau of Mines to conduct mineral surveys on certain areas to determine the mineral values, if any, that may be present. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a mineral survey of the Fiddler Butte (UT-050-241) Wilderness Study Area, Garfield County, Utah. This report also presents the results of a U.S. Geological Survey resource assessment of the Fremont Gorge study area, Wayne County, Utah, which was formerly designated as the Fremont Gorge (UT-050-221) Wilderness Study Area.

MINERAL RESOURCE POTENTIAL SUMMARY STATEMENT

Field and laboratory investigations of the Fiddler Butte WSA (Wilderness Study Area), Garfield County, Utah, and of the Fremont Gorge study area, Wayne County, Utah, were conducted to determine the mineral resource potential of these lands. The investigations indicate that two areas in the northeastern and southwestern parts of the Fiddler Butte WSA have a moderate potential for uranium resources. The entire Fiddler Butte WSA has a moderate potential for petroleum resources, and the northeastern part of the WSA has a high potential for tar sand resources. The studies indicate a low potential for metallic and nonmetallic resources in the Fiddler Butte WSA. The Fremont Gorge study area has a low potential for metallic, nonmetallic, and petroleum resources.

SELECTED REFERENCES

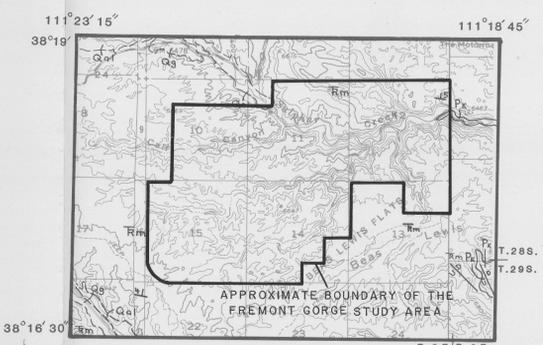
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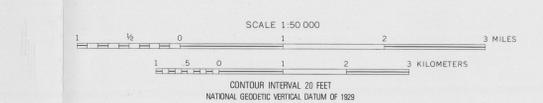
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Geology by M. J. Larson, and others, 1985

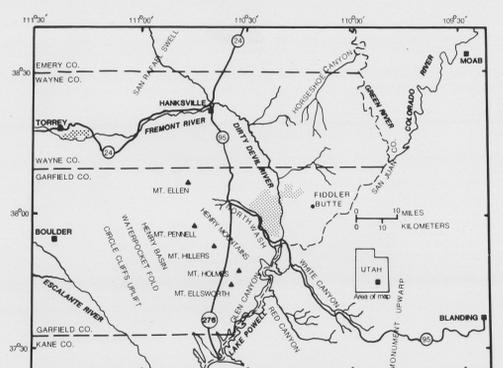


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MINERAL RESOURCE POTENTIAL MAPS OF THE FIDDLER BUTTE WILDERNESS STUDY AREA AND THE FREMONT GORGE STUDY AREA, GARFIELD AND WAYNE COUNTIES, UTAH

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1985



FIDDLER BUTTE WILDERNESS STUDY AREA  
FREMONT GORGE STUDY AREA  
INDEX MAP SHOWING LOCATION OF THE FIDDLER BUTTE WILDERNESS STUDY AREA AND THE FREMONT GORGE STUDY AREA