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DEPARTMENT OF NATURAL RESOURCES
UTAH GEOLOGICAL AND MINERAL SURVEY

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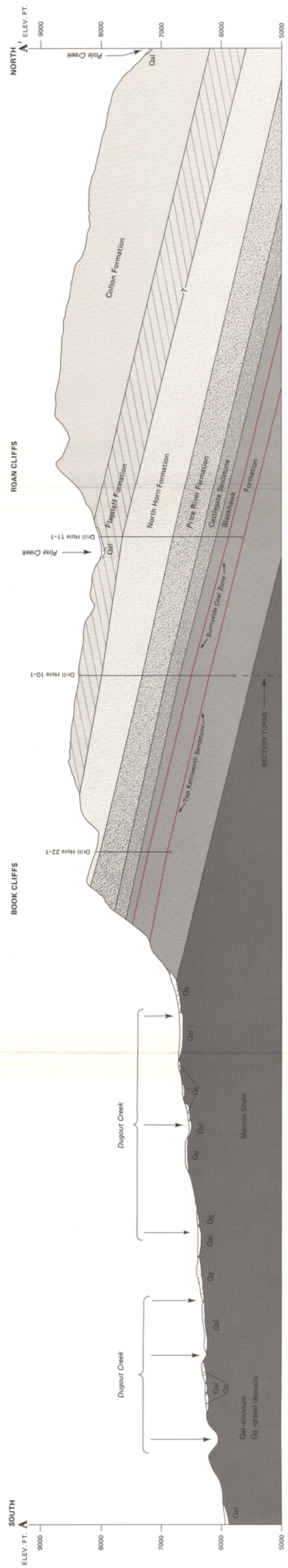
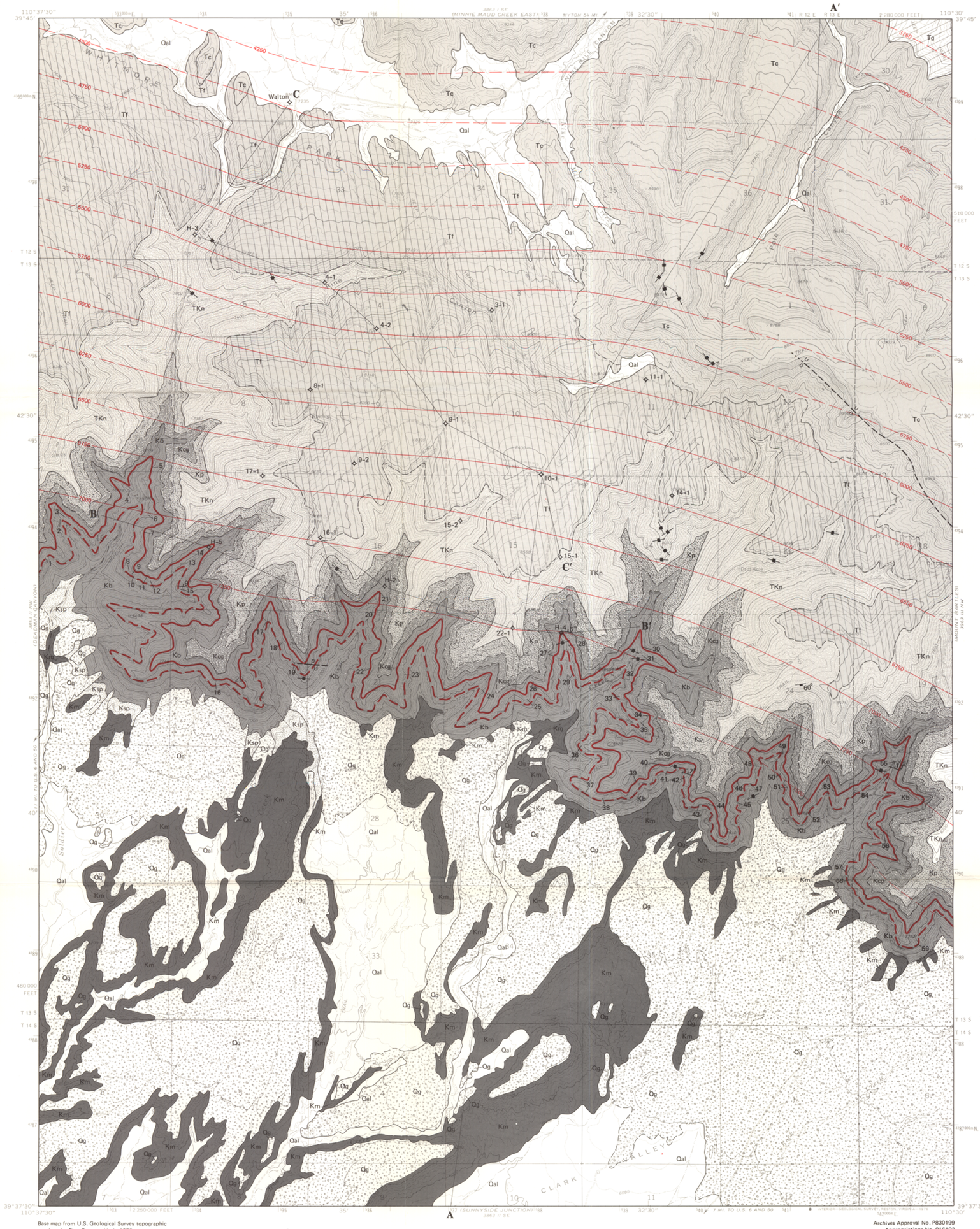
Map 72
Miscellaneous Series
Geologic Map of the Pine Canyon Quadrangle





Base map from U.S. Geological Survey topographic quadrangle: Pine Canyon, Utah, 1972.

UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Archives Approval No. P830199
Appropriations No. 016103

SYSTEM	SERIES	FORMATION	SYMBOL	THICKNESS IN FEET	DESCRIPTION
QUATERNARY		Alluvium	Qal		silty material in valley bottoms
		Pediment gravels	Qg		gravels, fluvial and colluvial, large boulders to clay sized particles, planar deposits derived from the retreating Book Cliffs
TERTIARY	Eocene	Green River Formation	Tg		limestone, fresh water, interbedded with mudstone, gray-green, fossiliferous (not measured)
		Colton Formation	Tc	1346-?	sandstone, gray-green to red-brown, fine-grained, interbedded with mudstone, variegated, and siltstone, red-brown
	Paleocene	Flagstaff Formation	Tf	290-480	interbedded sandstone, tan, limestone, gray, mudstone, variegated, and marlstone; forms dip-slope capping the Book Cliffs
CRETACEOUS	Campanian	North Horn Formation	TKn	600-1330	sandstone, tan, upward fining, with interbeds of siltstone, gray to gray-green, mudstone, marlstone, and thin impure limestone beds in the upper portion of the formation
	Maestrichtian	Price River Formation upper member	Kp	520-775	upper - sandstone, gray, fine to medium grained, upward fining, cliff forming unit lower - sandstone, gray to dark gray, interbedded with mudstone, slope forming unit
		Castlegate Sandstone	Kcg	160-285	sandstone, gray to tan, fine to medium grained, resistant, braided stream deposit
	Campanian	Blackhawk Formation	Kb	910-1215	interbedded sandstone, light to dark gray and tan, siltstone, mudstone, and coal, marine and non-marine units containing the Kenilworth, Gilson, Fish Creek, Rock Canyon, and the Sunnyside coal zones
		Star Point Sandstone	Ksp	0-230	interbedded mudstone, siltstone, and sandstone, gray to dark gray and gray-tan, calcareous, marine
		Mancos Shale	Km		mudstone and siltstone, gray to dark gray, calcareous, gypsiferous, marine

SYMBOLS

Contact
Dashed where inferred

Normal Fault
Dashed where approximately located; dotted where concealed. U, Upthrown side; D, Downthrown side.

Measured Section Traverse

Bedding Strike and Dip

Vertical Jointing

Jointing Strike and Dip

Drill Hole

37—
Location of Coal Measurement
(See Plate 1 for thickness)

Sunnyside Coal Zone

Top Kenilworth Tongue

5250
Structure Contour
Drawn at the base of the Sunnyside Coal contour interval 250 ft

LOCATION MAP

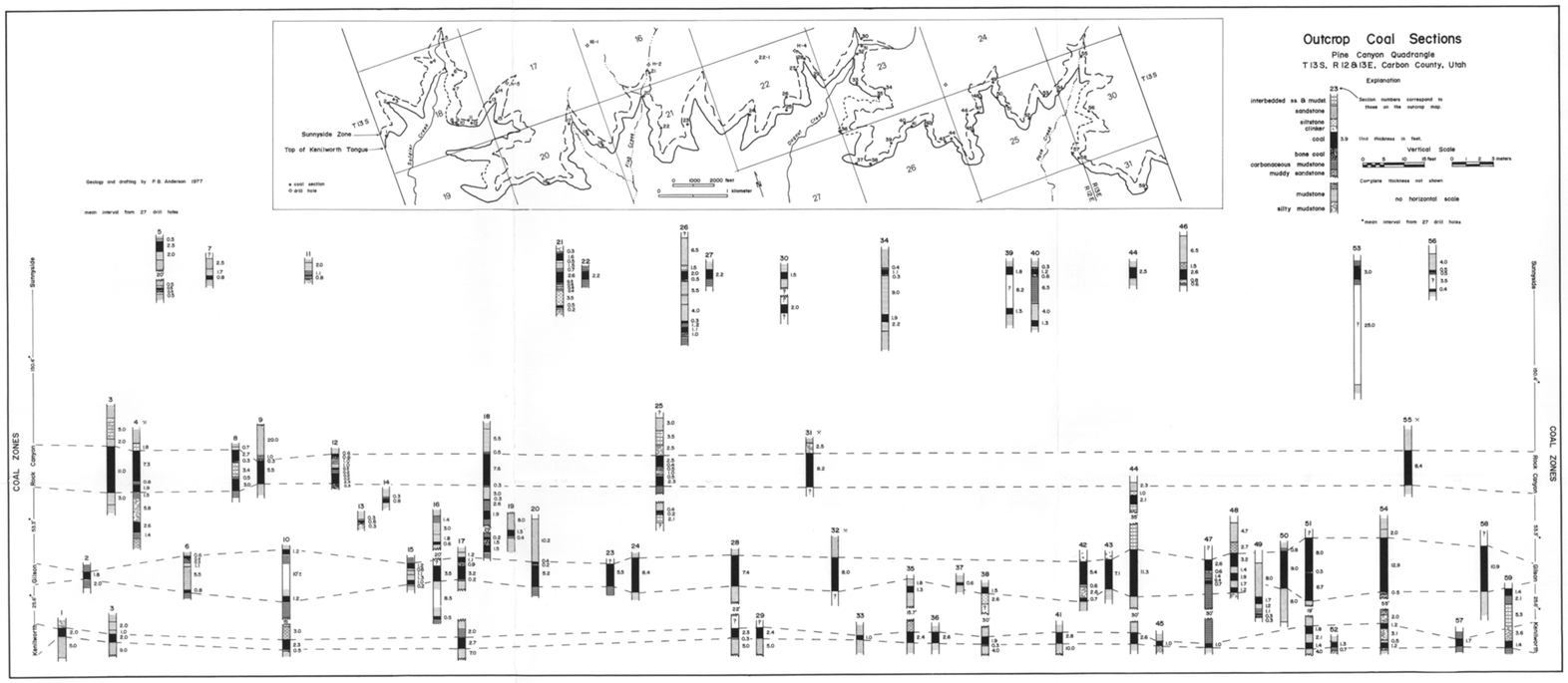
MAP 72 — MISCELLANEOUS SERIES

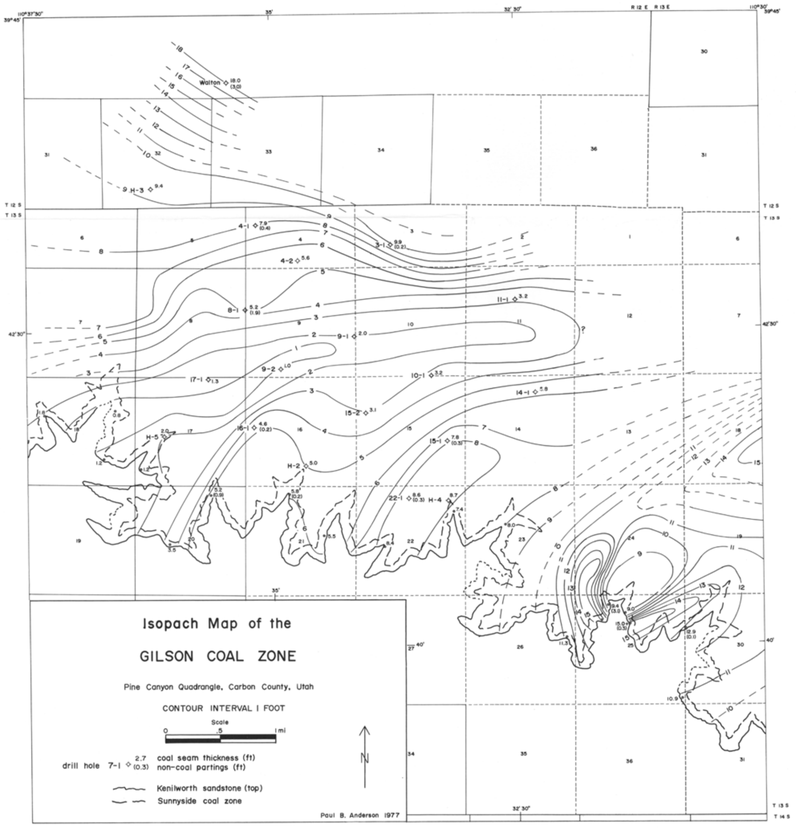
GEOLOGIC MAP OF THE PINE CANYON QUADRANGLE CARBON COUNTY, UTAH

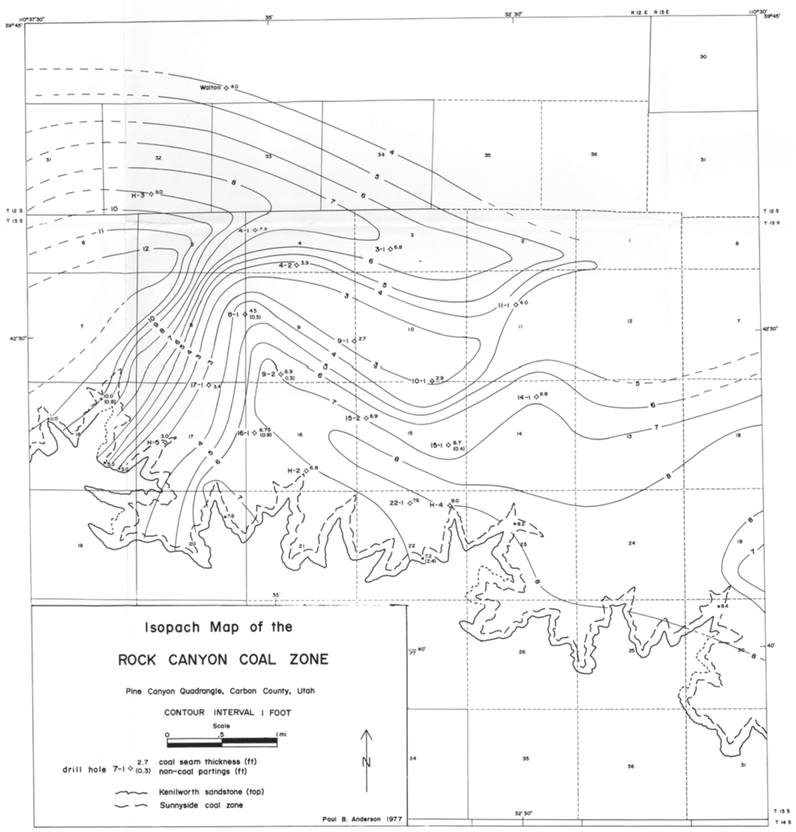
November 1983

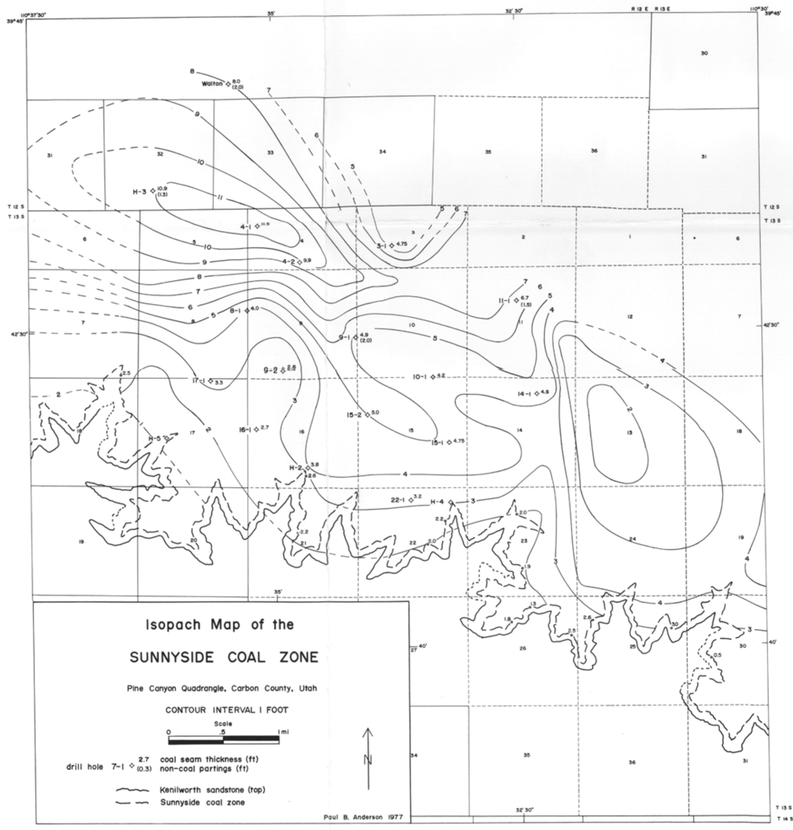
By Paul B. Anderson

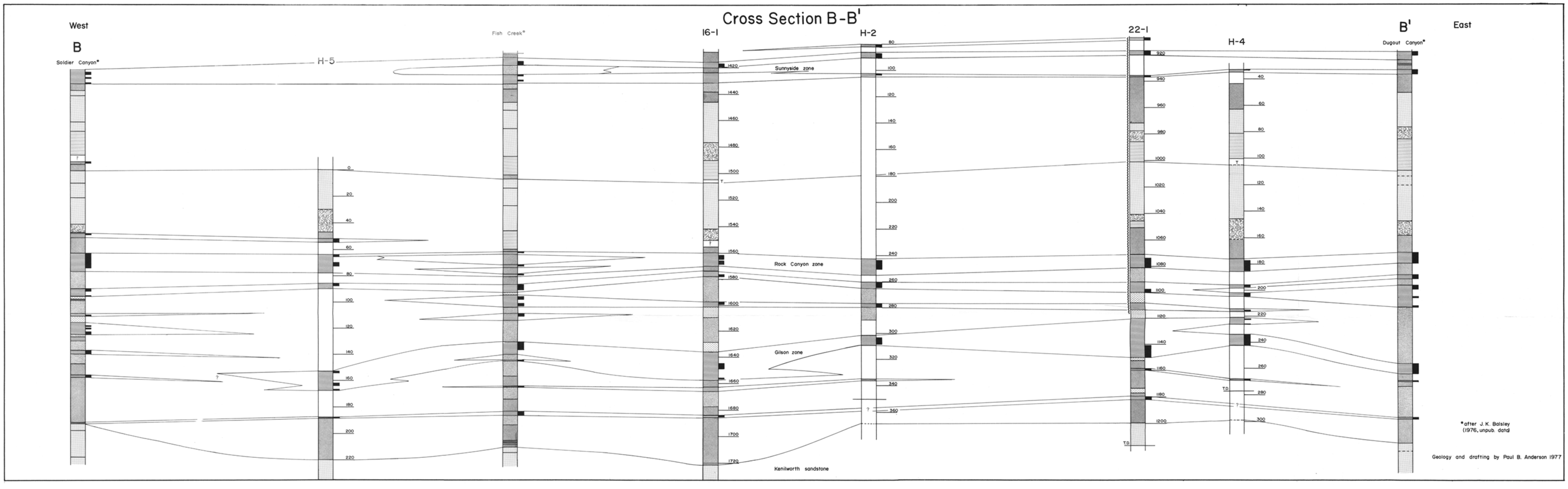
Klaus D. Gurgel, Cartographic Editor
Jessie S. Roy, Cartographer

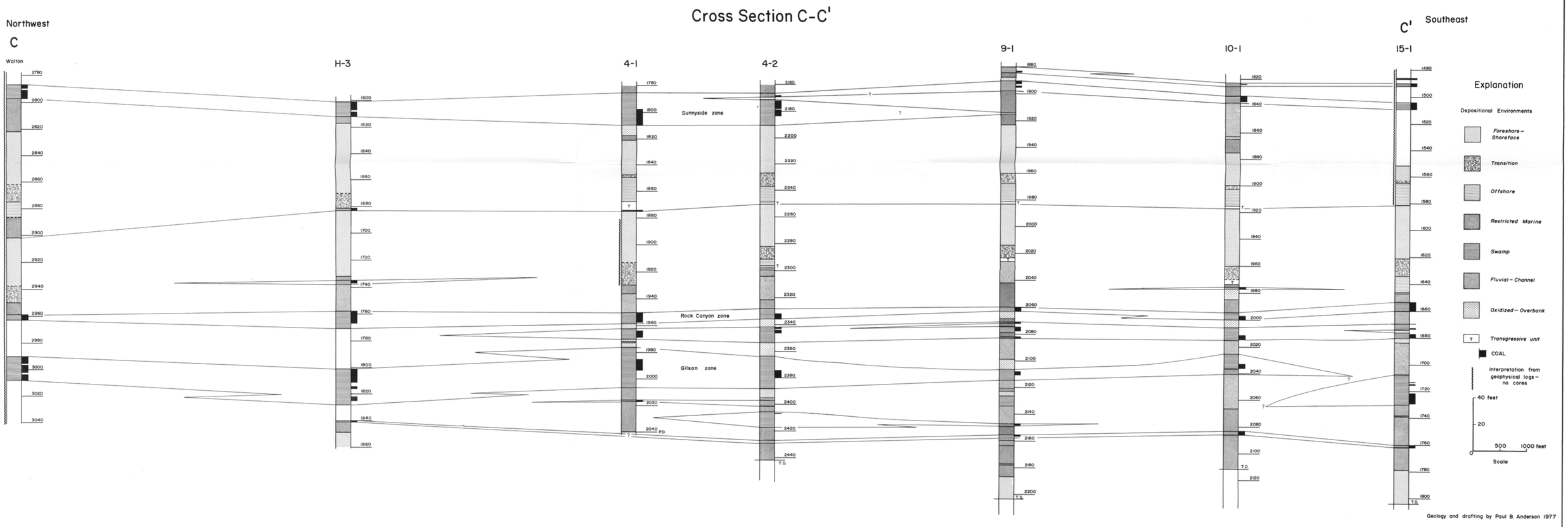

Outcrop Coal Sections
Pine Canyon Quadrangle
T 13 S, R 12 & 13 E, Carbon County, Utah
Explanation
Section numbers correspond to those on the outcrop map.
Unit thickness in feet.
Vertical Scale
Coal-plane thickness not shown
no horizontal scale
interbedded ss. & mudst
sandstone
siltstone
claystone
coal
bone coal
carbonaceous mudstone
muddy sandstone
mudstone
silty mudstone
Sunnyside Zone
Top of Kenilworth Tongue
COAL ZONES
Sunnyside
Rock Canyon
Gilson
Kenilworth


Isopach Map of the
GILSON COAL ZONE
Pine Canyon Quadrangle, Carbon County, Utah
CONTOUR INTERVAL 1 FOOT
drill hole 7-1 2.7 (0.3) coal seam thickness (ft) non-coal partings (ft)
Kenilworth sandstone (top)
Sunnyside coal zone
Paul B. Anderson 1977


Isopach Map of the
ROCK CANYON COAL ZONE
Pine Canyon Quadrangle, Carbon County, Utah
CONTOUR INTERVAL 1 FOOT
drill hole 7-1 2.7 (0.3) coal seam thickness (ft) non-coal partings (ft)
Kenilworth sandstone (top)
Sunnyside coal zone
Paul B. Anderson 1977


Isopach Map of the
SUNNYSIDE COAL ZONE
Pine Canyon Quadrangle, Carbon County, Utah
CONTOUR INTERVAL 1 FOOT
drill hole 7-1 2.7 (0.3) coal seam thickness (ft) non-coal partings (ft)
Kenilworth sandstone (top)
Sunnyside coal zone
Paul B. Anderson 1977


Cross Section B-B'
West
B
Soldier Canyon*
H-5
Fish Creek*
16-1
H-2
22-1
H-4
B'
Dugout Canyon*
East
Sunnyside zone
Rock Canyon zone
Gilson zone
Kenilworth sandstone
T.D.
*after J. K. Balsley (1976, unpub. data)
Geology and drafting by Paul B. Anderson 1977


Cross Section C-C'
Northwest
C
Walton
H-3
4-1
4-2
9-1
10-1
15-1
C'
Southeast
Sunnyside zone
Rock Canyon zone
Gilson zone
T.D.
Explanation
Depositional Environments
Foreshore–Shoreface
Transition
Offshore
Restricted Marine
Swamp
Fluvial–Channel
Oxidized–Overbank
Transgressive unit
COAL
interpretation from geophysical logs–no cores.
40 feet
20
0
500
1000 feet
Scale
Geology and drafting by Paul B. Anderson 1977