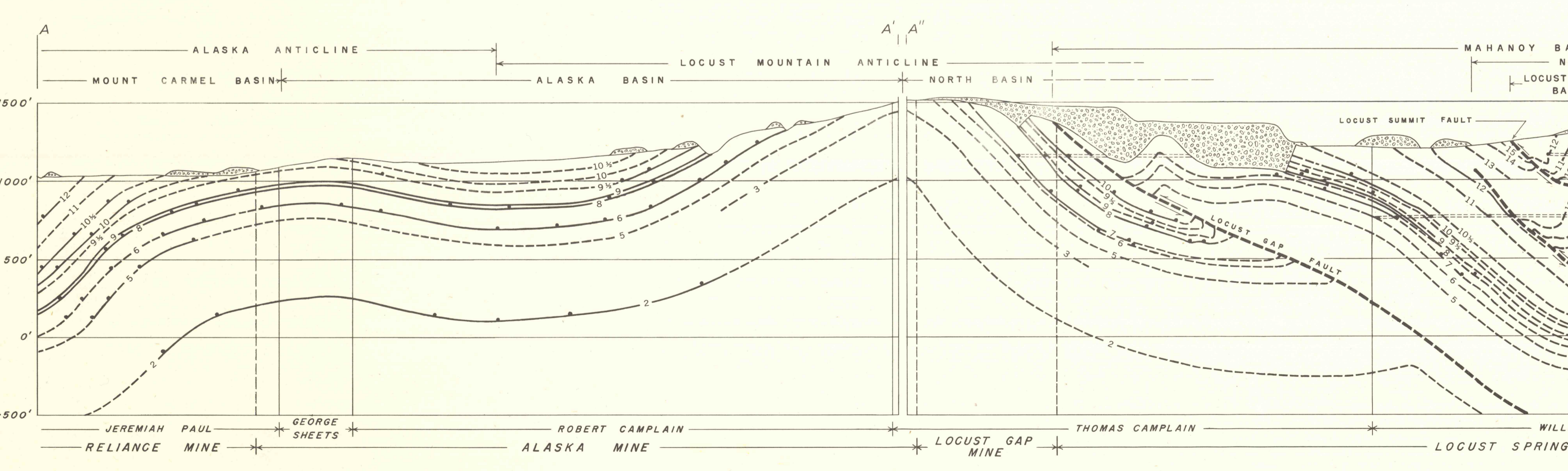
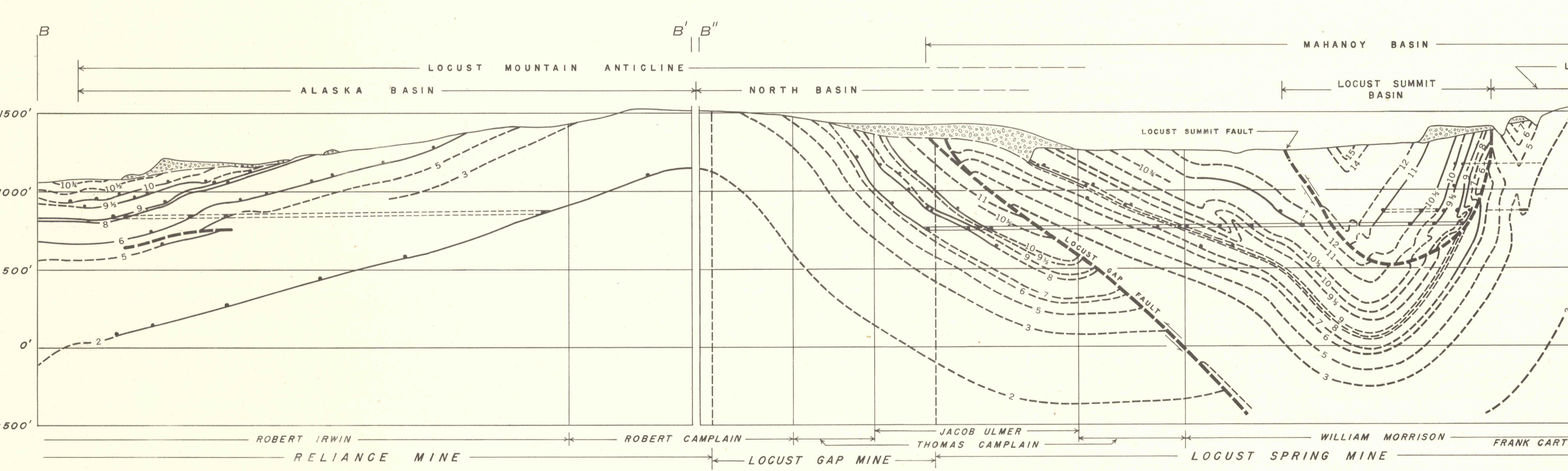
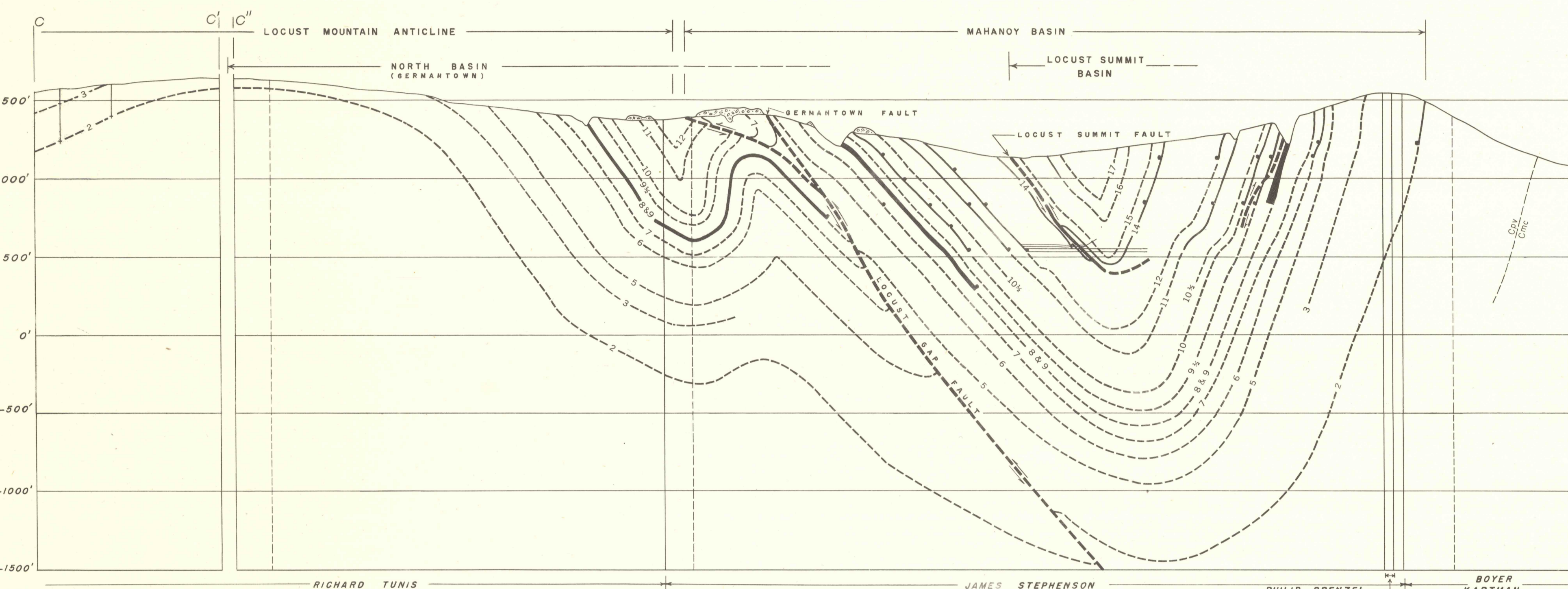
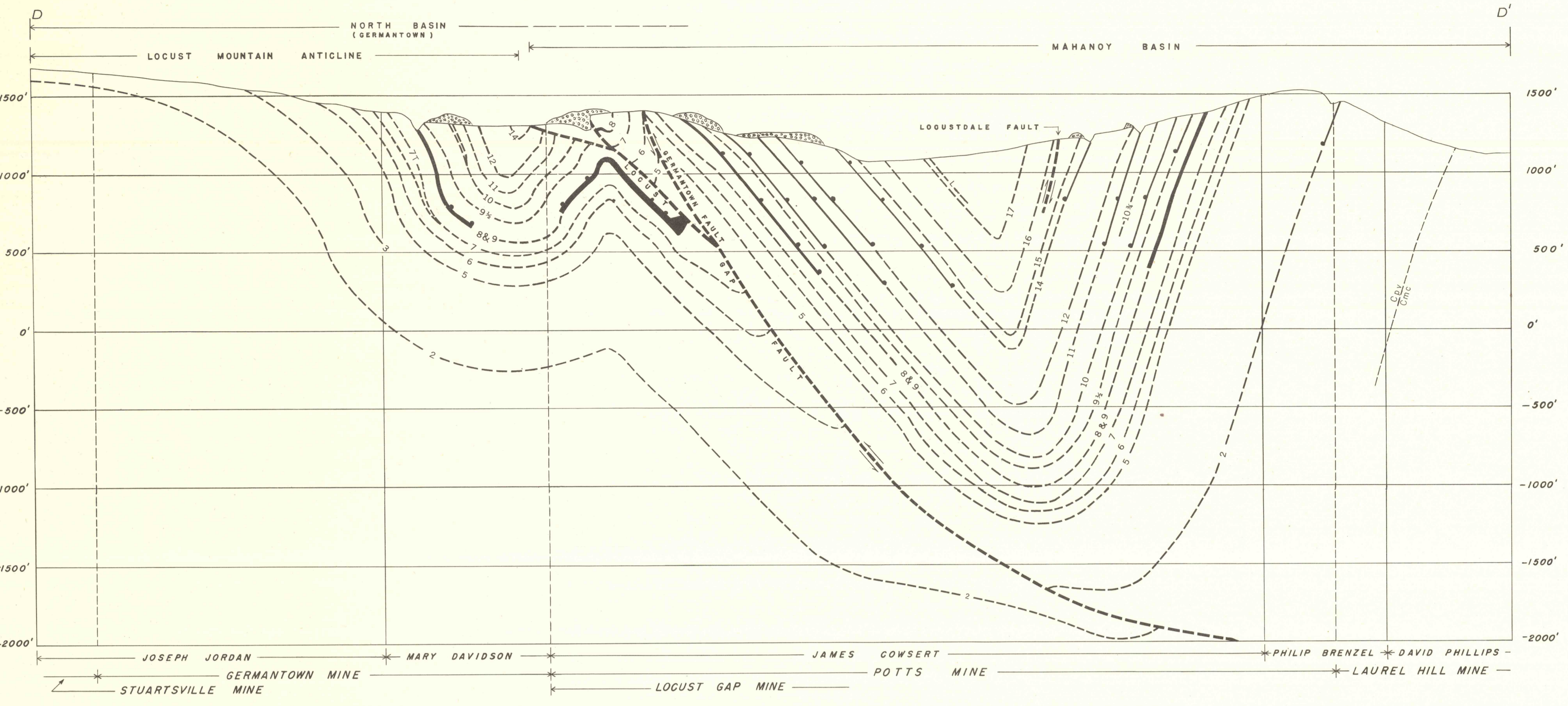


GEOLOGY OF ANTHRACITE IN THE SOUTHEASTERN PART OF THE MOUNT CARMEL QUADRANGLE, PENNSYLVANIA



CROSS SECTIONS SHOWING THE STRUCTURE OF THE COAL BEDS IN THE SOUTHEASTERN PART OF THE MOUNT CARMEL QUADRANGLE

**INTRODUCTION**  
This report is a study of the geology of the southeastern part of the Mount Carmel quadrangle, Pennsylvania. It is the first of a series of reports on the geology of the anthracite fields of Pennsylvania. The other reports are on the geology of the anthracite fields of the Allegheny Mountains, the anthracite fields of the Allegheny Plateau, and the anthracite fields of the Allegheny Valley.

**DESCRIPTION OF THE COAL BEDS**  
The coal beds in the southeastern part of the Mount Carmel quadrangle are of the Allegheny formation. They are of the same age as the coal beds of the Allegheny Mountains and the Allegheny Plateau. The coal beds are of the same thickness and are of the same quality as the coal beds of the Allegheny Mountains and the Allegheny Plateau.

**STRUCTURE**  
The structure of the coal beds in the southeastern part of the Mount Carmel quadrangle is complex. It is characterized by a series of anticlines and synclines. The most prominent anticline is the North Basin (Germantown) anticline. Other anticlines include the Mahanoy Basin anticline and the Locust Mountain anticline. The coal beds are folded and faulted in a complex manner.

**INDEX MAP OF PENNSYLVANIA SHOWING THE LOCATION OF THE ANTHRACITE FIELDS**

**EXPLANATION**

Contact between the Mahanoy (Cm) and the Potsville (Cp) formation

Coal bed with designating number  
Solid where mined, dashed where unmined, or where exact correlation or position of coal bed is uncertain. Thickness of 15 feet or more is shown where mined.

Fault showing relative movement  
Solid where location is known, dashed where uncertain.

Drill hole showing position of coal beds found in core or outcrops  
Solid where drill hole is in the plane of the section, dashed where projected to the section.

Cross section of gangway

Tunnel showing position of intersecting gangway  
Solid where tunnel is in the plane of the section, dashed where projected to the section.

Mine waste

**COMPOSITE OF THE MAPPED AREA**

SECTION	Coal bed designation	Thick. in feet
Little Tracy	17	10-15
Tracy	16	10-15
Little Blaine	15	10-15
Blaine	14	10-15
Little Dickard	13	10-15
Dickard	12	10-15
Little	11	10-15
Little	10	10-15
Little	9	10-15
Little	8	10-15
Little	7	10-15
Little	6	10-15
Little	5	10-15
Little	4	10-15
Little	3	10-15
Little	2	10-15
Little	1	10-15

**RELIANCE BASIN**

SECTION	Operator's designation	Thick. in feet
Little Tracy	17	10-15
Tracy	16	10-15
Little Blaine	15	10-15
Blaine	14	10-15
Little Dickard	13	10-15
Dickard	12	10-15
Little	11	10-15
Little	10	10-15
Little	9	10-15
Little	8	10-15
Little	7	10-15
Little	6	10-15
Little	5	10-15
Little	4	10-15
Little	3	10-15
Little	2	10-15
Little	1	10-15

**MAHANOY BASIN**

SECTION	Operator's designation	Thick. in feet
Little Tracy	17	10-15
Tracy	16	10-15
Little Blaine	15	10-15
Blaine	14	10-15
Little Dickard	13	10-15
Dickard	12	10-15
Little	11	10-15
Little	10	10-15
Little	9	10-15
Little	8	10-15
Little	7	10-15
Little	6	10-15
Little	5	10-15
Little	4	10-15
Little	3	10-15
Little	2	10-15
Little	1	10-15

INDEX MAP OF PENNSYLVANIA SHOWING THE LOCATION OF THE ANTHRACITE FIELDS

EXPLANATION OF COLUMNAR SECTIONS

GEOLOGY OF ANTHRACITE IN THE SOUTHEASTERN PART OF THE MOUNT CARMEL QUADRANGLE, PENNSYLVANIA

By  
Howard E. Rothrock, Holly C. Wagner, Boyd R. Haley and Harold H. Arndt

COAL INVESTIGATIONS  
MAP C 12 (IN 3 SHEETS) SHEET 3  
For sale by U. S. Geological Survey, price \$1.50 per set