

**KENTUCKY GEOLOGICAL  
SURVEY. BULLETIN NO. 3.  
CHEMICAL REPORT OF THE  
COALS, CLAYS, MINERAL  
WATERS, ETS. OF KENTUCKY**

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**ROBERT PETER**

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CHEMICAL REPORT OF THE  
COALS, CLAYS, MINERAL  
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# Kentucky Geological Survey

CHARLES J. NORWOOD, Director.

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BULLETIN NO. 3.

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## CHEMICAL REPORT

OF THE

Coals, Clays, Mineral Waters, Etc.

OF KENTUCKY.

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BY

**ROBERT PETER, M. D.**

LATE CHEMIST TO THE SURVEY.

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Being the Ninth Chemical Report in the Second Series and the Thirteenth  
Since the Beginning of the Survey.

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COMPILED FROM THE LABORATORY NOTE BOOKS BY  
ALFRED M. PETER.

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Office of the Survey: Lexington, Ky.

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1905.

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## LETTER OF TRANSMITTAL.

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*To His Excellency, J. C. W. BECKHAM,  
Governor of Kentucky.*

*Sir:* I have the honor to transmit for publication the accompanying report of chemical analyses made by Dr. Robert Peter, who was for so many years the honored and distinguished Chemist of the Kentucky Geological Survey. The analyses were, at my request, compiled from the laboratory books by Prof. Alfred M. Peter, present Chemist to the Survey.

Very respectfully,

CHARLES J. NORWOOD,

State Geologist.

Lexington, Ky.



**LETTER OF SUBMITTAL.**

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LEXINGTON, KY., May 1, 1905.

PROF. CHARLES J. NORWOOD,

*Director of the Geological Survey of Kentucky, etc.*

SIR: I have the honor to submit to you herewith a report of the chemical analyses made by Dr. Robert Peter, late Chemist to the Survey, from January 22, 1890, up to the discontinuance of the survey under Mr. Procter, and still remaining unpublished, compiled by me from the laboratory note-books, and including a few more recent analyses found recorded in the same books.

Very respectfully,

ALFRED M. PETER.

## INTRODUCTORY.

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When the Geological Survey of Kentucky under Director John R. Procter was discontinued, in 1892, on account of the failure of the Legislature to make the necessary appropriations, Dr. Robert Peter, then Chemist of the Survey, submitted to Director Procter, for publication, a manuscript report of the chemical work completed up to that time, not included in the previous report, covering a period from January 22, 1890, to May 1, 1892.

Through lack of funds this report was not published, and the manuscript seems to have been misplaced or lost, all efforts of the present Director to find it having proved unsuccessful. As both Director Procter and Dr. Robert Peter have passed away, and as the belongings of the Survey have gone through the hands of several custodians in the last twelve years, further search for the lost manuscript seemed hopeless, and, accordingly, Director Norwood requested the present writer to make a compilation of the analyses included in that report, for publication.

The following pages comprise such a compilation, and are a faithful and almost literal copy of the analyses as found recorded in the original laboratory note-book, with such remarks or comments as are there found, and without any attempt at discussion or comment by the present writer. It has been thought proper to include also a few more recent analyses found in the note-books, distinguishable by their dates, some of them made by the present writer. There are here reported 236 analyses of coals, clays, waters, and other materials, including analyses of fourteen coals and two cokes from Tennessee, adjacent to our southeastern coal field. These analyses may be classified as follows:

- 1 Bituminous sandstone—Breckenridge county.
- 43 Clays—Bell county, 5; Boyd, 7; Breckenridge, 2; Caldwell, 1; Carter, 5; Crittenden, 6; Daviess, 1; Estill, 1; Fayette, 1; Graves, 1; Hancock, 2; Henry, 1; Jefferson, 2; Lawrence, 1; Leslie, 1; Livingston, 1; Meade, 2; McCracken, 1; Rockcastle, 2.
- 126 Coals—Bell county, 39; Boyd, 1; Breathitt, 3; Carter, 2; Clay, 3; Floyd, 8; Greenup, 2; Hopkins, 1; Johnson, 1; Knox, 1; Lawrence, 4; Leslie, 6; Magoffin, 5; Martin, 7; Morgan, 9; Ohio, 3; Pike, 15; Wayne, 1; Whitley, 1; Tennessee, 14.
- 10 Cokes—Bell county, 8; Tennessee, 2.
- 1 Fire-brick—Carter county.
- 6 Iron ores—Bell county, 1; Caldwell, 1; Carter, 1; Franklin, 1; Lawrence, 1; Rowan, 1.
- 5 Lead and zinc ores—Clark county, 1; Crittenden, 2; Jessamine, 1; Trigg, 1.
- 7 Limestones—Bell county, 3; Meade, 2; Rockcastle, 2.
- 4 Soils—Meade county, 2; Warren, 2.
- 33 Mineral waters—Adair county, 2; Anderson, 1; Barren, 2; Clay, 1; Daviess, 2; Fulton, 1; Graves, 2; Hardin, 4; Hickman, 1; Hopkins, 3; Larue, 1; Laurel, 1; Marion, 1; Mercer, 1; Nelson, 1; Nicholas, 1; Ohio, 2; Wayne, 1; Warren, 4; Woodford, 1.

In the following pages these analyses are arranged by counties, as usual, the names of the counties being given in alphabetical order.—A. M. P.