

University of Kentucky  
College of Arts and Sciences  
KENTUCKY GEOLOGICAL SURVEY  
Lexington

In Cooperation With  
AGRICULTURAL AND INDUSTRIAL  
DEVELOPMENT BOARD OF KENTUCKY  
Frankfort

**SERIES IX**

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**REPORT OF INVESTIGATIONS — NO. 4**

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## Industrial Limestones of Kentucky No. 2

By

John A. Stokley and Arthur C. McFarlan



Chemical Analyses Made In Cooperation With The  
COLLEGE OF ENGINEERING, UNIVERSITY OF KENTUCKY

Printed by the Authority of the State of Kentucky

LEXINGTON, KENTUCKY

1952

KENTUCKY GEOLOGICAL SURVEY

ARTHUR C. McFARLAN, Director  
DANIEL J. JONES, State Geologist

AGRICULTURAL AND INDUSTRIAL  
DEVELOPMENT BOARD OF KENTUCKY

GEORGE W. HUBLEY, JR., Executive Director  
PHIL M. MILES, Chief, Maps and Minerals Division

LETTER OF TRANSMITTAL

February 5, 1952

Dean M. M. White  
College of Arts and Sciences  
University of Kentucky

Dear Dean White:

I am transmitting for publication Report of Investigations No. 4, Industrial Limestones of Kentucky No. 2 by John A. Stokley and Arthur C. McFarlan. This is the second report of the Survey on this subject. Again, analyses show high-calcium limestone in adequate commercial thicknesses, particularly in the Ste. Genevieve and Lower Chester formations of both eastern and western Kentucky. While limestone for carbide is imported because of high specifications of purity, current investigations show Kentucky limestone approaching that figure and adequate for many other industrial purposes. This report is a report of progress of a continuing investigation.

There are many limestone formations in the state, but those of desirable character are comparatively few, though widespread in occurrence. A brief analysis of the stratigraphic framework and means for recognition of these beds is included.

Sincerely yours,

Arthur C. McFarlan  
Director

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## ACKNOWLEDGMENTS

The writers wish to make acknowledgment to the following persons for their contributions to the completion of this report:

1. Harry W. Settle, for his assistance in measuring sections, in logging, sampling, and photographing quarries.
2. Preston McGrain, E. B. Wood, Frank H. Walker, and Eugene M. Luttrell for work in the field.
3. Thomas A. Kendall for supervising the making of the chemical analyses, and developing several pieces of mechanical equipment that speeded the preparation and increased the accuracy of the analyses.

Unless otherwise noted, chemical analyses were made in the College of Engineering, Mining Laboratory, under the direction of Mr. Kendall. This was handled through a cooperative arrangement with that organization which bore a considerable part of the cost.

The writers also wish to express their appreciation to quarry owners and operators, who permitted and aided the investigation. In some instances they contributed analyses of cores.

## INTRODUCTION

This report is based on current investigations of the industrial limestone deposits of Kentucky. It is a progress report of a continuing investigation. A previous publication<sup>1</sup> outlined the belts of probable high-calcium limestones and listed a number of rather general chemical analyses of limestones from a few quarries. Recent field investigations and additional, more detailed chemical analyses have produced a better understanding of the stratigraphy involved and have indicated certain locations in the high-calcium limestone belts that contain favorable deposits of industrial limestones. As indicated previously, the more promising limestones occur in eastern Kentucky in the Lower Chester formations and in southern and western Kentucky in the Ste. Genevieve and Lower Chester formations.

It is the purpose of this report to present the additional information in the hope that it will be of use to quarry operators and others interested in the expansion of the stone industry in Kentucky.

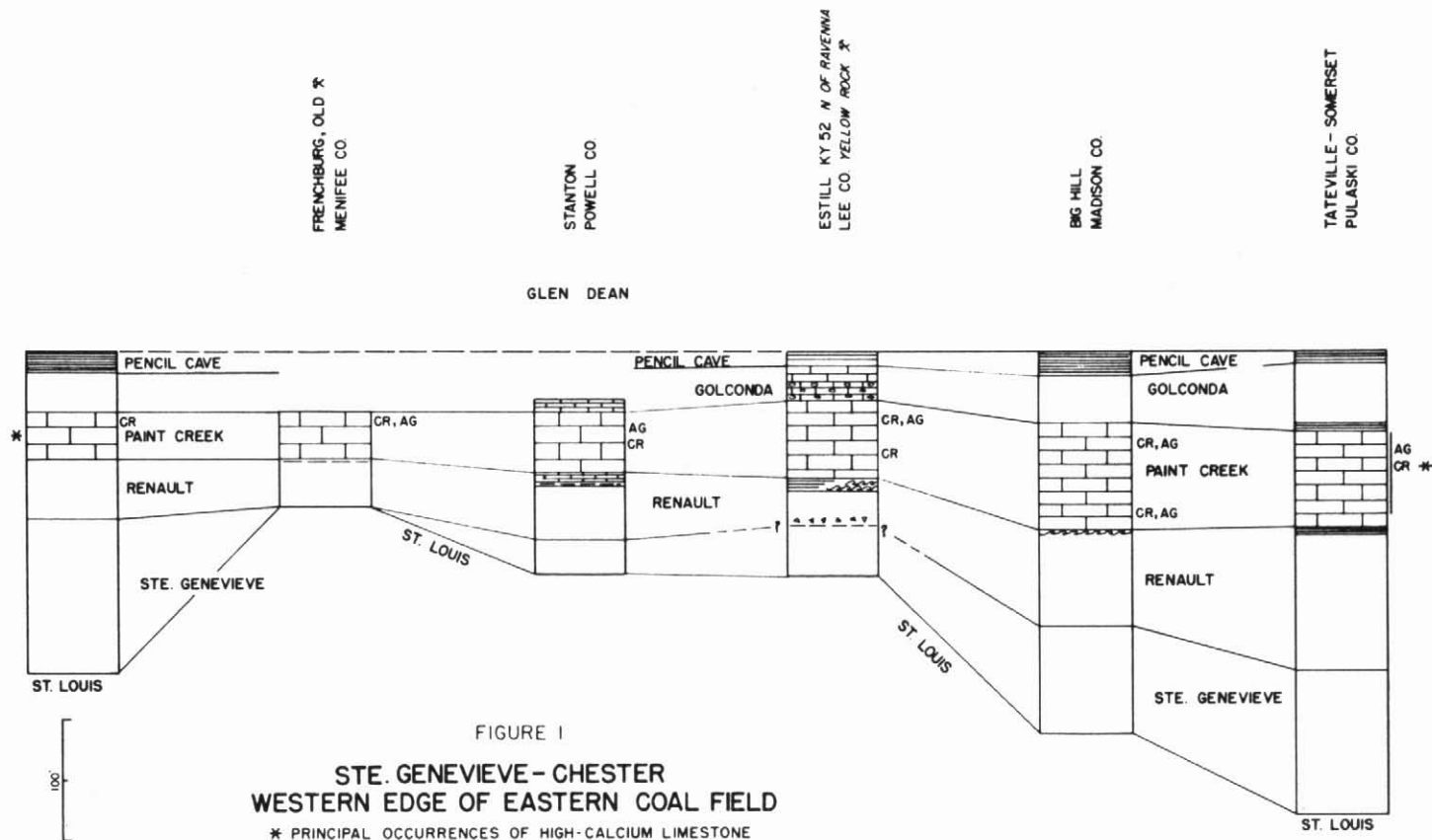
## STRATIGRAPHIC NOTES

For the succession of the different limestones and other formations of the state the reader is referred to the Geology of Kentucky.<sup>2</sup>

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1. Stokley, J. A., Industrial limestones of Kentucky: Kentucky Geol. Survey Rept. Inv., ser. 9, no. 2, 51 pp., 1949.

2. McFarlan, A. C., Geology of Kentucky, University of Kentucky, 1943.



CR - LARGE CRINOID ZONE  
 AG - AGASSIZOCRINUS

The following notes deal only with Middle and Upper Mississippian beds and are given to clarify some of the relationships and to outline some of the means of differentiating them. These notes are restricted to the Ste. Genevieve and Lower Chester beds which constitute the principal but not the only source of high-calcium limestone.

Ste. Genevieve and Chester formations along the western border of the Eastern Coal Field in Kentucky. See figure 1.

1. The several sandstones of the Chester in western Kentucky are represented here by interruptions in the limestone succession marked by thin bedding, cobbly or brecciated character, and shale partings.
  - a. Hardinsburg sandstone - Pencil Cave, a persistent clay shale.
  - b. Cypress sandstone (base of Golconda) - a thin-bedded zone, in places with several feet of shale.
  - c. Bethel sandstone (base of Paint Creek) - shale and cobbly or conglomeratic limestone.
2. The basal Ste. Genevieve characteristically carries a chert and limestone breccia derived from the St. Louis. North of Ravenna the upper 8 feet of St. Louis is itself conglomeratic and the bedding irregularly twisted.
3. The Paint Creek is a massive, often white, crinoidal limestone, in places oolitic, with a cobbly or conglomeratic limestone associated with shale at its base. It is marked off, not only by its massive character, but also by the presence of a very large unidentified crinoid stem. This fossil (CR) occurs throughout but has been more commonly found in the upper part. Butts<sup>3</sup> called attention to it and emphasized it as a horizon marker. It is present throughout this entire belt of outcrop and along Pine Mountain. It is also known in the Golconda and Glen Dean. Agassizocrinus occurs throughout but is more commonly found in the upper part of the CR range and just above.

The Paint Creek is the important high-calcium limestone of the western edge of the Eastern Coal Field.

4. The Chester overlaps on to the St. Louis in the vicinity of Frenchburg as shown in the old quarries west of that town. The lower 17 feet of rock, underlying the CR zone and referred to the Renault, is mainly a gray to dove vaughanitic limestone with a dearth of fossils.

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3. Butts, Charles, The Mississippian series of eastern Kentucky: Kentucky Geol. Survey, ser. 6, vol. 7, 188 pp., 7 figs., 8 pls., sections sheet, 1922.

That it is Renault and not Ste. Genevieve is shown to the north where this same vaughanitic zone intervenes between 60 feet of sandy Ste. Genevieve and the Paint Creek. The vaughanitic character can be used for correlation purposes over an area of several counties but the same lithology is common in the Ste. Genevieve farther south and in western Kentucky.

There is, thus, a limited area where there is no Ste. Genevieve but this is a matter of overlap, not removal of Ste. Genevieve by erosion.

5. North of Ravenna in Estill County and at Yellow Rock in Lee County the CR zone (Paint Creek) rests on 25 to 35 feet of rather non-fossiliferous oolite which Butts<sup>4</sup> regarded as Ste. Genevieve. Platycrinus penicillus has not been found this far north. This would eliminate the Renault from the section and give two oppositely directed wedges with (a) the Ste. Genevieve out near Frenchburg and (b) the Renault out as noted above. It would seem better, pending further fossil evidence, to recognize the Chester-Ste. Genevieve boundary at an obscure limestone breccia 18 feet above the base in the Yellow Rock quarry, thus recognizing both Renault and Ste. Genevieve in this 25-to 35-foot zone.
6. The Golconda is separated from the Paint Creek below by a shale break or a zone of thin-bedded limestone. In Estill and Lee Counties the lower thin-bedded part carries nodules and plates of gray chert. It is not cherty at Tateville, Pulaski County; Monticello, Wayne County; or Big Hill, Madison County. At Tateville there is a 3-foot shale break and above it 6 feet of good oolite. Agassizocrinus is common and Archimedes intermedius and Archimedes meekanus are also common. A large Pentremites approaching Pentremites obesus, and Prismopora serrulata are present at Tateville. Blocky white chert is characteristic of the Golconda along the eastern margin of the Western Coal Field, but does not seem to be widely present in the eastern area.

The faunal distinction between the Golconda and Glen Dean is more of a problem in the eastern part of the state than in the flourspar region of western Kentucky, where the lower Golconda is marked by Pterotocrinus capitalis. In Butler, Warren, and Edmonson Counties along the southeastern margin of the Western Coal Field this marker has not been found, and common Glen Dean index fossils such as Archimedes laxus, Archimedes sublaxus, and Prismopora serrulata are equally common in the Golconda.

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4. Butts, Charles, op. cit.

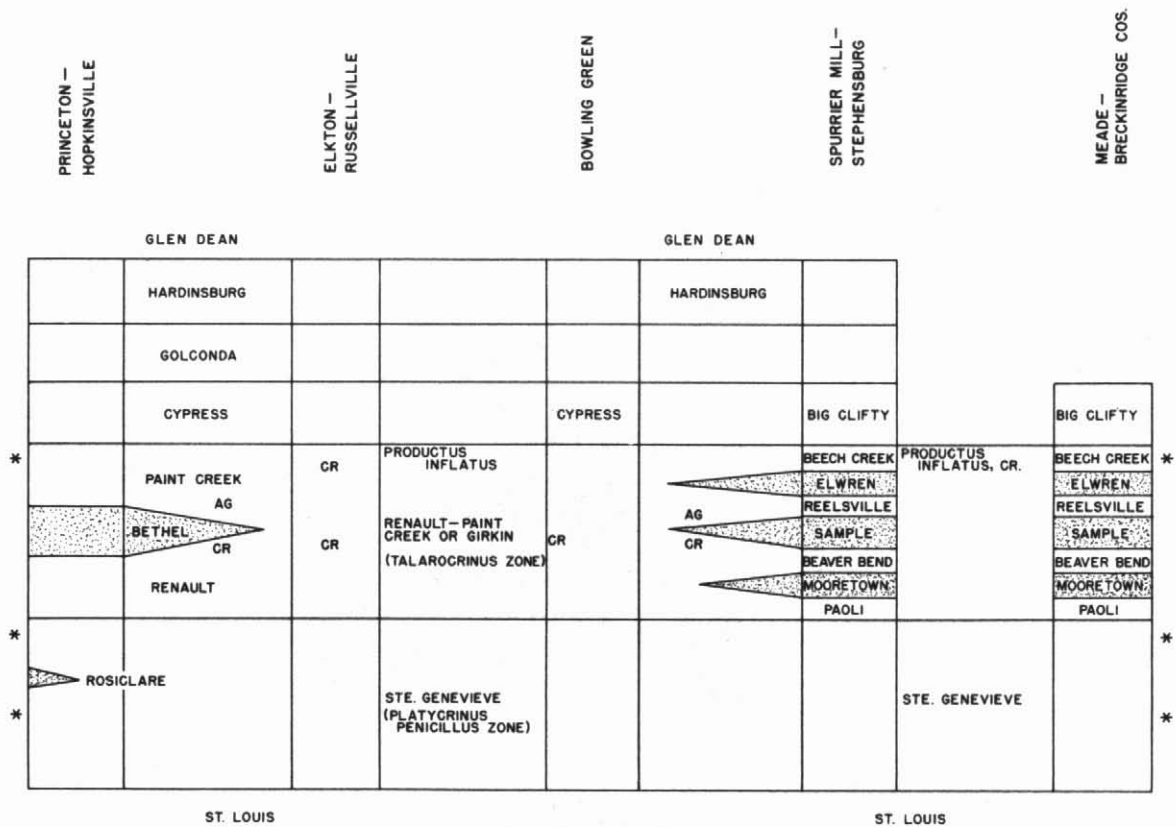


FIGURE 2

STE. GENEVIEVE-CHESTER BORDERING  
THE WESTERN COAL FIELD

CR - LARGE CRINOID STEMS  
AG - AGASSIZOCRINUS

\* PRINCIPAL OCCURRENCES OF HIGH-CALCIUM LIMESTONE

7. The Pencil Cave is a consistent zone of clay shale 3 to 10 feet thick throughout the area and is regarded as the Hardinsburg equivalent.
8. Northward along the belt of outcrop the higher beds of the Mississippian are progressively cut out and in the northernmost counties the Pottsville rests on the Waverly over considerable areas. This includes much of Lewis and Greenup Counties and parts of eastern Rowan and western Carter Counties.

Ste. Genevieve and Chester formations in the area bordering the Western Coal Field. See figure 2.

1. There is some uncertainty in some of the correlations shown in figure 2 as has been suggested by Dana and Scobey<sup>5</sup> and Swann and Atherton<sup>6</sup> in their subsurface studies across the Illinois Basin. They find that:
  - a. Cypress sandstone of Illinois = Elwren of Indiana and adjoining parts of Kentucky. This places the Beech Creek and "Cypress" (Big Clifty of early workers) in the Golconda. These two formations may be traced without interruption from Butler County to the Ohio River.
  - b. Bethel = Mooretown instead of Sample.
2. The Bowling Green region, with Lower Chester and Rosiclare sandstones out, is a continuous succession of similar rock, much of it oolite, and formations can best be distinguished faunally.
3. From Caldwell County to Grayson County the large crinoid stems occur in a zone just beneath the Bethel and Sample sandstones. It recurs again high in the Paint Creek which seems to correspond with its characteristic occurrence in the Beech Creek of Meade and Breckinridge Counties where it is associated with Productus inflatus. Similar large crinoid stems and perhaps the same species, also are present both in the Golconda and Glen Dean elsewhere.

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5. Dana, P. L., and Scobey, E. H., Cross section of the Illinois Basin: Am. Assoc. Petroleum Geologists Bull., vol. 25, no. 5, pp. 871-882, 1941.

6. Swann, D. H., and Atherton, Elwood, Subsurface correlations of lower Chester strata of the Eastern Interior Basin, in Weller, J. M., ed., Symposium on problems of Mississippian stratigraphy and correlation: Jour. Geology, vol. 56, no. 4, pp. 269-287, illus. index map, 1948; reprinted as Illinois State Geol. Survey Rept. Inv. no. 135, 1948; abs., Geol. Soc. America Bull., vol. 58, no. 12, p. 1279, 1947.

This Productus inflatus zone, with CR abundant in the northern counties, is a fine marker from the Ohio River to Warren and Butler Counties. There can be no question of the Beech Creek-Big Clifty sequence over this entire line of outcrop along the eastern and southeastern margin of the Western Coal Field. Throughout this distance it caps the Dripping Springs escarpment. If the Cypress is Elwren instead of Big Clifty the change in the bed capping this escarpment to the west and the reason for the miscorrelation is west of Butler County along the south flank of the Western Coal Field.

The Pentremites are helpful. Large typical Pentremites pyriformis (and relatives) become common in the upper Renault (below the Bethel) with an occasional P. godoni. The latter becomes abundant in the Paint Creek. Agassizocrinus comes in, in abundance, just above the Bethel and marks the Paint Creek. This sequence of the fluorspar region seems to be matched in the rocks underlying and overlying the Sample sandstone of Grayson County and north, though Agassizocrinus apparently can also be found just below the Sample. These relationships hold in the limestone succession constituting the undifferentiated Renault-Paint Creek around Bowling Green. A similar succession of Pentremites and Agassizocrinus is found in the eastern area of outcrop.

4. Two zones of soft white, high-calcium oolite occur in the Ste. Genevieve limestone throughout its outcrop in western Kentucky varying in individual thickness and in interval between. This rock is used at the Kosmosdale quarry near Brandenburg in Meade County and at Fredonia in Caldwell County. Similar oolite occurs in the Paint Creek limestone in Christian and Todd Counties, and again at Spurrier Mill (Reelsville) in Grayson County. At Horse Cave the Renault displays the same facies.
5. The lower Chester, Renault-Paint Creek (Gasper, Girkin) is the Talarocrinus zone. The Ste. Genevieve is the Platycrinus penicillus zone. Wherever these beds are reasonably fossiliferous the contact can be established within close limits. The limestone conglomerate or cobbly zone noted at their contact is not consistently present. In many places along the eastern margin of the Western Coal Field there is little to suggest unconformity. It is hard to conceive of a contact which is as difficult to place, with similar lithology above and below, as being one of major unconformity. The limestone conglomerate itself need not indicate more than shoaling of the water bringing the sediment above wave base. The faunal change is a marked one but it need not indicate marked hiatus.

Weller<sup>7</sup> in his work in Edmonson County called attention

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7. Weller, J. M., Geology of Edmonson County, Kentucky: Ky. Geol. Survey, ser. 6, vol. 28, 246 pp., 56 figs. and pls., 1927.

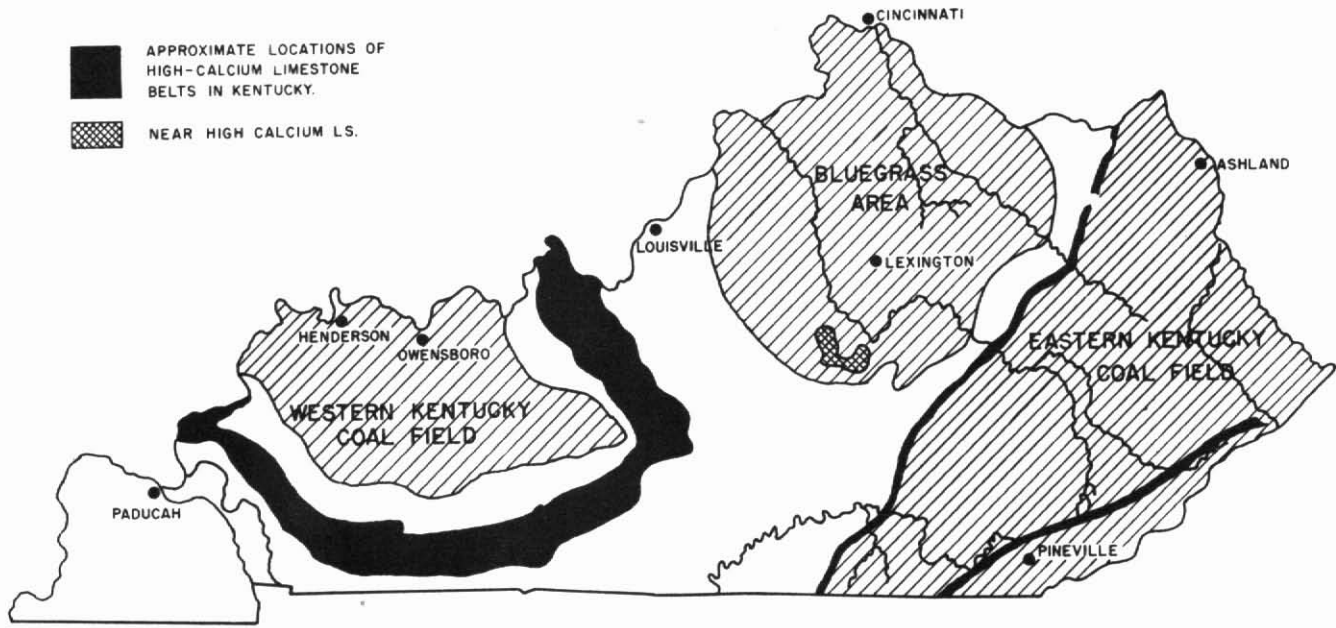


FIGURE 3

to certain quartz rosettes occurring in the Renault-Paint Creek which seemed to be rather distinctive. In Grayson County similar rosettes are common in the Ste. Genevieve, also in the lower Renault (Paoli). Whatever their origin they do suggest a continuity of similar environment from Ste. Genevieve into early Chester.

### FAVORABLE AREAS

A partially completed investigation of Kentucky's high-calcium limestone belts (fig. 3) has revealed that the stratigraphic location, quality of limestone, and thicknesses of high-calcium limestone layers vary within the belts. (High-calcium limestone is defined as a carbonate rock containing 95 percent or more of calcium carbonate.) Some parts of the belts have shown a lack of high-calcium limestones of any considerable thicknesses. The greater parts of these belts have not as yet been adequately investigated. However, some localities investigated appear to have limestones of desirable purity and in considerable thicknesses. Some of these areas do not, at present, seem to be favorably located in relation to markets, transportation, power, etc. Some of the desirable deposits of limestone that are more favorably located in this respect are noted in the following section of this report. Since road cuts and cores are considered as potential quarry sites their chemical analyses are included as quarry reports, and all are numbered consecutively.

#### Vicinity of Fredonia, Caldwell County

This area is considered worthy of further investigation because:

1. Deposits of high-calcium limestone up to 36 feet in thickness are known and may have considerable areal extent.
2. It is near T. V. A. electric power (Kentucky Dam).
3. It is near railroad and highway transportation.
4. Most of the accompanying limestone is suitable for the usual construction purposes. However, the volume of the reserves of high-calcium limestone is yet to be determined.

Quarry report no. 3, page 28 (Baker and Barnes quarry) shows the nature and thicknesses of the high-calcium zones. Figure 4 shows the location of the quarry roads, railroads, and of the Bethel sandstone (Dripping Springs) escarpment. Figure 5 shows the relation of the high-calcium limestone zones to the surface of the ground from the quarry to, and under, the escarpment. It is the escarpment that is considered worthy of investigation as a source of high-calcium limestone that may be equal to that in the Baker and Barnes quarry. Behind the escarpment, the reserves are probably adequate for large operations. At the quarry site they are limited.

# FREDONIA VICINITY, CALDWELL CO.

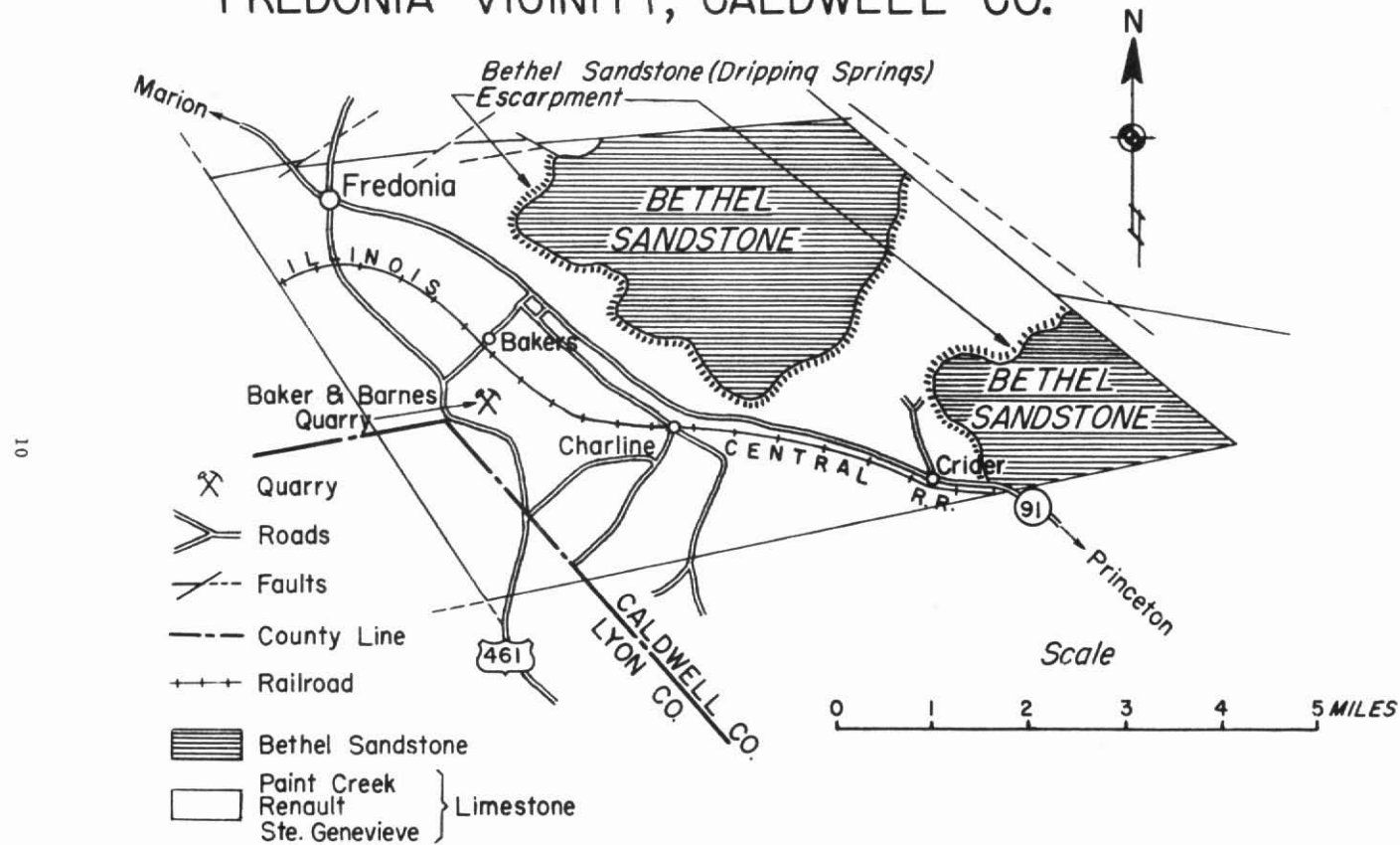


FIGURE 4

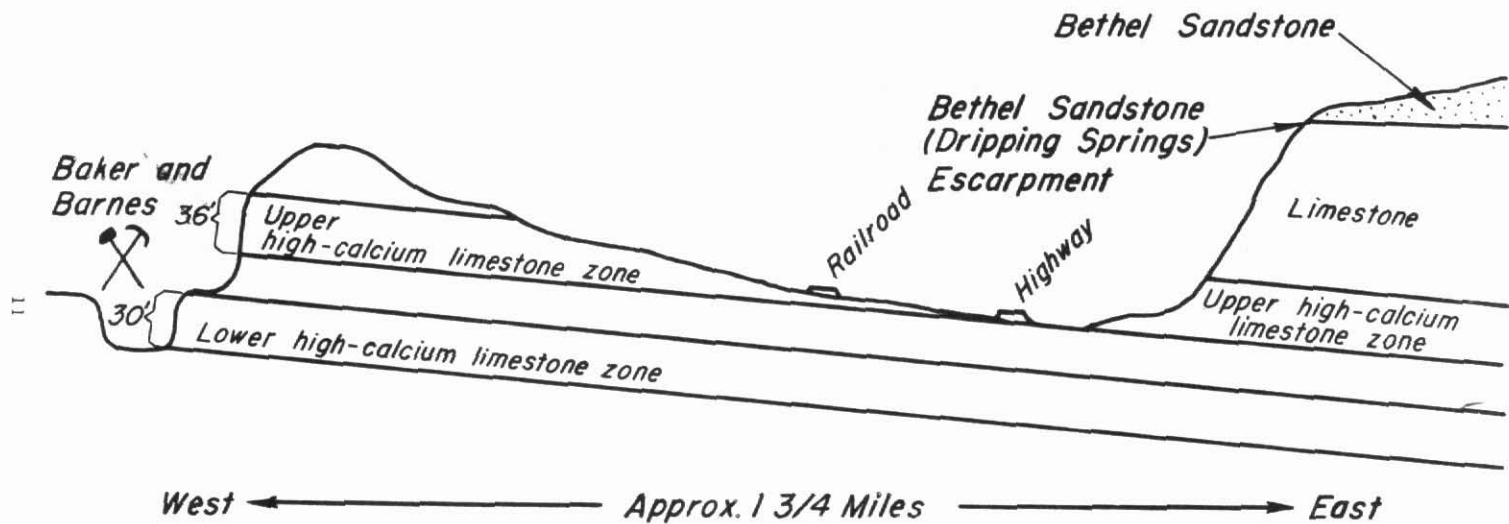


FIGURE 5

Baker and Barnes quarry, (quarry report no. 3, page 28 ) approximately 2-1/2 miles south of Fredonia, was sampled in detail and analyzed. At the bottom, this quarry contains a zone, 30 feet thick, which averages above 97 percent  $\text{CaCO}_3$ . Near the top is a zone, 36 feet thick, which averages 98.2 percent  $\text{CaCO}_3$ . The quarry is situated on an isolated hill, of limited areal extent, approximately 1-3/4 miles west of the Bethel sandstone (Dripping Springs) escarpment. Therefore, though considerable, the quantity of stone available at the quarry site may be too limited for some large operations. These same limestone formations, in great areal extent, underlie the Bethel sandstone to the east and the valley between the quarry and the Bethel sandstone (fig. 5). Here the quantity of the stone available is enormous. The thickness and chemical content of these limestones may vary considerably in relatively short distances. However, it is believed probable that deposits equal in thickness and quality to those in the Baker and Barnes quarry may be found beneath the Bethel sandstone and beneath the valley between the quarry and the Bethel sandstone escarpment. It is believed likely that both upper and lower high-calcium limestone zones are available at the escarpment. The lower high-calcium limestone zone is probably available at comparatively shallow depths between the quarry hill and the Bethel sandstone escarpment.

Since these zones of high-calcium limestones are 30 or more feet thick, drift or tunnel mines may be practical. It is not known whether the cover rock is thick enough and of such nature to make a satisfactory mine roof. Core drilling would be necessary to establish thicknesses and location and to evaluate chemical desirability and mining conditions.

The rock between the two high-calcium limestone zones and much of the limestone above the upper high-calcium zone on the escarpment are thought to be suitable for most construction uses.

### Southeastern Kentucky Pulaski, Wayne, and Clinton Counties

Figure 6 outlines the general location of the outcrop of the Ste. Genevieve and Lower Chester limestones in this area. Chemical analyses from scattered quarries indicate that considerable thicknesses of high-calcium limestones are present in these formations (quarry reports nos. 8, 17, and 22).

The A. J. Colyer quarry (quarry report no. 17, page 75) illustrates the probable quality and quantities of industrial limestones available in the vicinity of Somerset. This area appears worthy of further investigation by the stone industry because:

1. Thicknesses of high-calcium limestones of 35 feet are known.
2. The probable reserves are adequate for large operations.
3. Most of the accompanying limestones are suitable for the usual construction purposes.

PULASKI, WAYNE,  
AND CLINTON COUNTIES

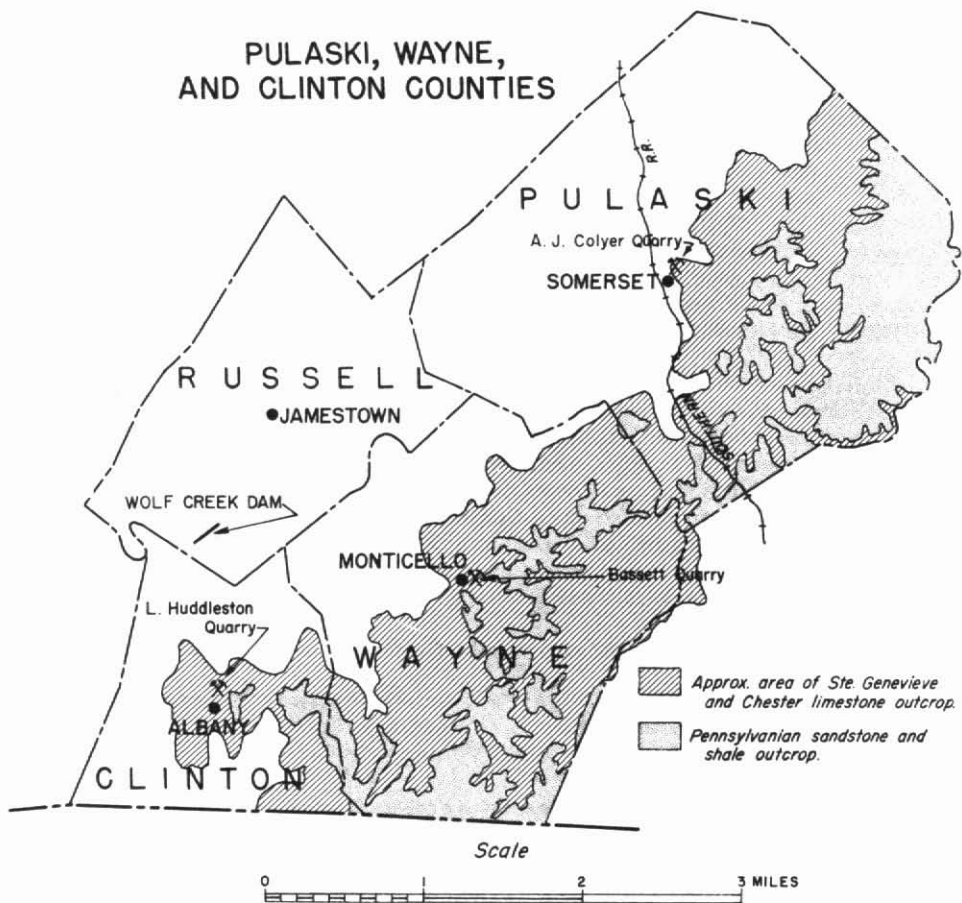


FIGURE 6

4. T. V. A. electrical power (Wolf Creek Dam) is near.
5. Railroad transportation is available.

The Bassett Products Company quarry (quarry report no. 22, page 89) contains a 29-foot zone of very pure high-calcium limestone which averages over 98 percent  $\text{CaCO}_3$ . The zone is consistent in its purity. The lowest of the 29 samples contained 96.5 percent  $\text{CaCO}_3$ . However, there is a small amount of chert present at one level. This high-calcium limestone zone should lend itself well to either open pit or tunnel mining. This area is deemed worthy of further investigation because:

1. Thicknesses of high-calcium limestones up to 29 feet are known to be present.
2. The reserves are probably adequate for the largest operation.
3. Most of the accompanying limestone is suitable for the usual construction purposes.
4. T. V. A. electrical power (Wolf Creek Dam) is near. The closest railroad, however is 20 miles away.

Analyses of the Huddleston quarry (quarry report no. 8, page 48) indicate that the limestones in the southwestern part of this area are less pure than those to the northeast. However, their total carbonate content is high and may deserve consideration for some purposes because of nearness to T.V.A. electrical power. Possible transportation on the lake behind the Wolf Creek Dam would be limited to the lake itself, as there are no locks on the dam.

#### Northwest of Brandenburg, Meade County

This area is considered worthy of further investigation because:

1. Thick deposits of high-calcium limestones with low sulphur and phosphorus content are known.
2. The reserves are probably adequate for large operations.
3. Most of the limestones between and over the high-calcium zones are satisfactory for construction purposes.
4. It is near cheap river transportation.

The Kosmos Cement Company quarry, about 7 miles northwest of Brandenburg, is considered to contain stone representative of what may be found in this area (quarry report no. 13, page 64). It was sampled in detail and analyzed. It contains one zone of high-calcium limestone 35 feet thick which averages more than 97 percent  $\text{CaCO}_3$ , and another, 30 feet thick, that averages almost 97 percent  $\text{CaCO}_3$ . These zones also show a low sulphur and phosphorus content, making them satisfactory for the manufacture of calcium carbide and as flux for blast furnaces.

Most of the rock between, above, and immediately below the high-calcium limestone zones is thought to be suitable for most construction uses. These zones outcrop along the Ohio River where they could be loaded almost directly into barges for cheap transportation. The probable reserves are adequate for the largest of operations. Core drillings are suggested as a method of checking location and thicknesses and of evaluating chemical desirability and mining conditions.

The two high-calcium limestone zones which are mostly in the top 60 feet of the Ste. Genevieve formation, apparently retain their character southward as far as Munfordville in Hart County.

### Miscellaneous Locations

Some other quarries and outcrops show considerable thicknesses of high-calcium limestone but are not at present favorably located relative to transportation, known markets, etc. A few of the better ones are noted below.

#### Eastern Kentucky

The Old W. P. A. quarry (quarry report no. 16, page 72), south of Stanton in Powell County, contains a 21-foot zone near the top in the Paint Creek formation which averages 98 percent  $\text{CaCO}_3$ . Lower in this same quarry is a 10-foot zone in the Renault formation and a 11-foot zone in the Ste. Genevieve formation, both of which average more than 97 percent  $\text{CaCO}_3$ .

About 6-1/2 miles south of Morehead in Rowan County, is a quarry owned by the Cumberland National Forest (quarry report no. 20, page 85). This quarry contains a 12-foot zone of very white limestone, in the Paint Creek formation, which averages 98.6 percent  $\text{CaCO}_3$ . Apparently this same zone occurs in the Montgomery-Nash quarry (quarry report no. 15, page 71) half a mile east of Frenchburg in Menifee County.

In Lee County at Yellow Rock, the Kentucky Stone Company quarry (quarry report no. 11, page 57) contains a 23-foot zone and a 14-foot zone, each of which averages nearly 96 percent  $\text{CaCO}_3$ . Railroad transportation is available at this quarry.

Tests were made on rock exposed in a road cut on U. S. Route 421, near Big Hill in Madison County (quarry report no. 12, page 61). A 9-foot zone in the Renault formation and a 13-foot zone in the Ste. Genevieve formation showed an average  $\text{CaCO}_3$  content in excess of 97 percent. The Paint Creek formation has not, as yet, been sampled in this vicinity.

#### Western Kentucky

Cedar Bluff quarry (quarry report no. 4, page 32), approximately 2-1/2 miles southeast of Princeton, Caldwell County, has been only partially analyzed. However, a visual examination suggests that complete testing will reveal one or more high-calcium limestone zones of considerable thickness. This investigation is in progress.

There are two other areas in western Kentucky in which visual inspection suggests that thick zones of high-calcium limestone are present. In the vicinity of Fairview, near the Todd-Christian County line, an outcrop of the Paint Creek formation of considerable thickness appears to be very pure. In Warren County, approximately 6 miles west of Bowling Green, the Whitestone quarry contains a zone of light-colored, oolitic limestone about 33 feet thick. It is thought that all of this may prove to be high-calcium limestone. However, there is a 2-foot layer near the middle of this 33-foot zone that may be less pure than the remainder. This quarry has been logged and sampled and chemical analyses should be available by the time of the publication of this report.

## METHODS OF INVESTIGATION

In order that interested persons may evaluate the accuracy of the chemical analyses reported, the following outline of procedure is presented.

### 1. Sampling:

The rock is marked off into "ledges" on the basis of lithologic similarity. Ledges are divided into one-foot vertical intervals. Chips of fresh rock are taken from each one-foot interval in such manner that all of the rock in that interval is represented. These chips are bagged, identified, and taken to the chemical laboratory for analysis.

### 2. Sample preparation:

In the laboratory all chips taken from a one-foot interval are ground mechanically, mixed mechanically, and reduced to sample size by means of a mechanical sample "splitter."

### 3. Chemical analyses:

Chemical analyses are accomplished by approximately standard, industrial chemical methods for limestone.

By these means it is believed that a result is achieved that is a good representation of the average composition of each foot of rock.

## DEFINITION OF TERMS USED IN ROCK DESCRIPTIONS,

Fine-grained - from grains too small to be seen to grains the size of sugar grains.

Medium-grained - from grains the size of sugar grains to the size of small pea.

Coarse-grained - grains larger than a small pea.

Dense - compact, no space between grains. Opposite of porous.

Vaughanitic limestone - a pure, very fine grained, dense, homogenous limestone which is usually dove-colored, and breaks with a smooth conchoidal fracture.

Crystalline - composed of crystals.

Oolitic - composed of small spheres. Resembles a mass of fish eggs in structure.

Earthy - possesses the dull appearance of dirt. Contains clay (earth) material.

High-calcium limestone - a carbonate rock containing 95 percent or more calcium carbonate.

LIST OF QUARRIES INVESTIGATED  
(ALPHABETICALLY BY COUNTY)

THIS REPORT COUNTY	QUARRY	PREVIOUS REPORT* COUNTY	QUARRY
1. ■ ANDERSON	KY. STONE CO.	24. ● BARREN	B. H. JACKSON
2. ■ BRECKINRIDGE	LOUISVILLE CEMENT CO.	25. ● BOYLE	CALDWELL STONE CO.
3. ■ CALDWELL	BAKER AND BARNES	26. ● CARTER	STANDARD SLAG AND STONE CO.
4. ■ CALDWELL	CEDAR BLUFF STONE CO.	27. ● CARTER	STANDARD SLAG AND STONE CO.
5. ■ CHRISTIAN	CHRISTIAN QUARRIES INC.	28. ● CLARK	LEVI GOFF
6. ■ CHRISTIAN	HOPKINSVILLE STONE CO.	29. ● CRITTENDEN	TURNER BROS.
7. ■ CHRISTIAN	(OLD COOK STONE CO.)	30. ● FAYETTE	CENTRAL ROCK CO.
8. ■ CLINTON	L. HUDDLESTON ROADCUT	31. ● FAYETTE	H. H. GIVEN
9. ■ ESTILL	JEFFERSON CO.	32. ● HARDIN	KY. STONE CO.
10. ■ JEFFERSON	JEFFERSON CO.	33. ● HARDIN	H. L. SHEARER
11. ■ LEE	KY. STONE CO. ROADCUT	34. ● HARLAN	CHESTER GREEN
12. ■ MADISON	ROADCUT	35. ● JEFFERSON	JEFFERSON CO.
13. ■ MEADE	KOSMOS CEMENT CO.	36. ● LOGAN	SCOTT HALL
14. ■ MEADE	LOUISVILLE CEMENT CO. (CORE)	37. ● LOGAN	KY. STONE CO.
15. □ MENIFEE	MONTGOMERY-NASH (OLD W. P. A. QUARRY)	38. ● MEADE	A. D. WALLACE
16. ■ POWELL	A. J. COLYER	39. ● MORGAN	LEE GLAY PRODUCTS CO.
17. ■ PULASKI	KY. HIGHWAY DEPT.	40. ● ROCKCASTLE	KY. STONE CO.
18. ■ PULASKI	SLOANS VALLEY	41. ● ROWAN	JONES
19. ■ PULASKI	CUMBERLAND	42. ● SIMPSON	HARRIS AND CROWDEN
20. ■ ROWAN	NATIONAL FOREST	43. ● TODD	STINSON AND OLDHAM
21. ■ WARREN	BILLY WELCH	44. ● WARREN	W. W. HOLMAN
22. ■ WAYNE	BASSETT PRODUCTS CO.		
23. ■ WOODFORD	LAURA JESSE		

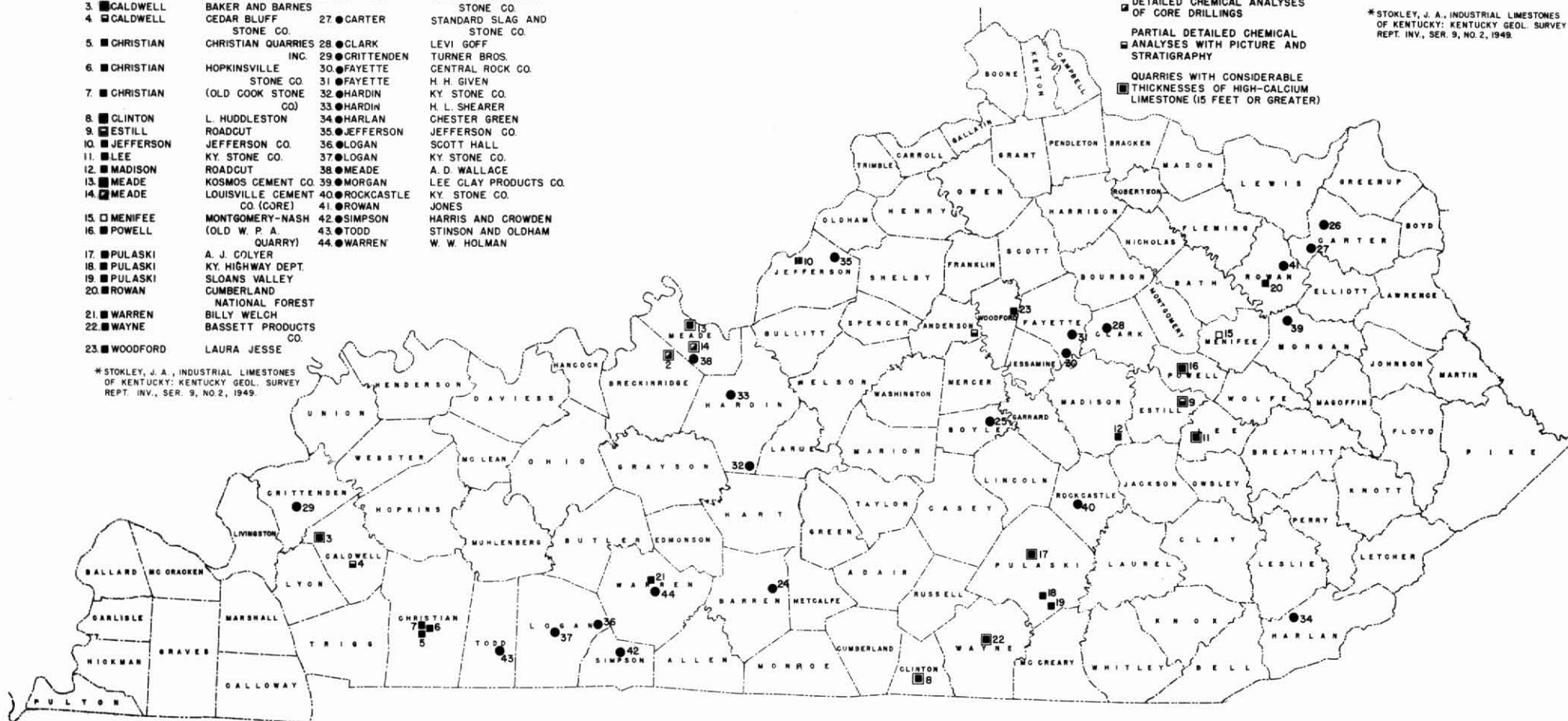
\*STOKLEY, J. A., INDUSTRIAL LIMESTONES OF KENTUCKY: KENTUCKY GEOL. SURVEY REPT. INV., SER. 9, NO. 2, 1949.

FIGURE 7

EXPLANATION

- |   |   |
|---|---|
| THIS REPORT   | PREVIOUS REPORT *   |
| ■ DETAILED CHEMICAL ANALYSES WITH PICTURE AND STRATIGRAPHY                              | ● CHEMICAL ANALYSES (NOT IN DETAIL) AND STRATIGRAPHY (NOT SHOWN IF COVERED IN MORE DETAIL IN THIS LATER REPORT) |
| □ PICTURE AND STRATIGRAPHY ONLY   |   |
| ■ DETAILED CHEMICAL ANALYSES OF CORE DRILLINGS  |   |
| ■ PARTIAL DETAILED CHEMICAL ANALYSES WITH PICTURE AND STRATIGRAPHY                      |   |
| ■ QUARRIES WITH CONSIDERABLE THICKNESSES OF HIGH-CALCIUM LIMESTONE (15 FEET OR GREATER) |   |

\*STOKLEY, J. A., INDUSTRIAL LIMESTONES OF KENTUCKY: KENTUCKY GEOL. SURVEY REPT. INV., SER. 9, NO. 2, 1949.



INDEX OF QUARRY REPORTS  
(By County)

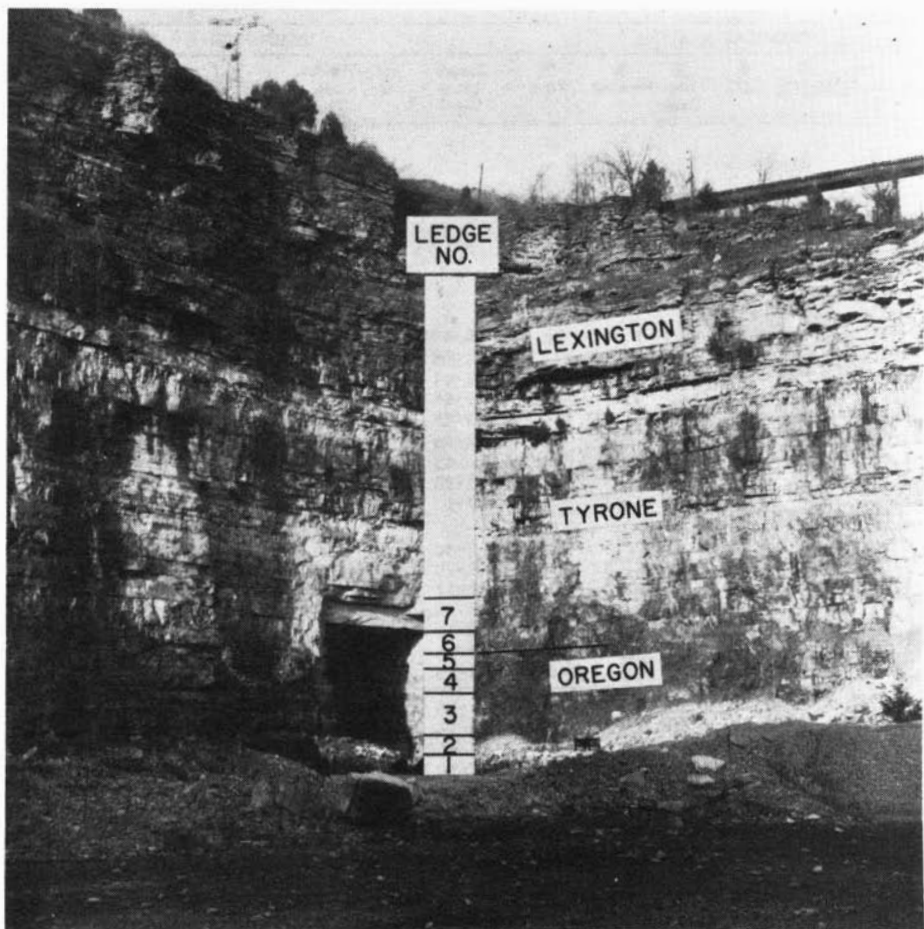
<u>Quarry Number</u>	<u>Quarry</u>	<u>Location</u>	<u>Page</u>
ANDERSON COUNTY			
1	Kentucky Stone Company	Lawrenceburg, Ky., 2 miles east on U. S. Route 62 at Tyrone Bridge.	23
BRECKINRIDGE COUNTY			
2	Henderson Farm (Louisville Cement Company) (core)	Webster, Ky., approximately half a mile southwest on Henderson farm.	26
CALDWELL COUNTY			
3	Baker and Barnes	Fredonia, Ky., 2-1/2 miles south on Ky. Route 93 turn left and go 500 yards.	28
4	Cedar Bluff Stone Company	Princeton, Ky., 2-1/2 miles southeast on Ky. Route 91 (Hopkinsville Road).	32
CHRISTIAN COUNTY			
5	Christian Quarries, Inc.	Hopkinsville, Ky., near west city limits on U. S. Route 68.	36
6	Hopkinsville Stone Company	Hopkinsville, Ky., 1 mile north on U. S. Route 41 turn east and go 400 yards.	41
7	?Old Cook Stone Company	Hopkinsville, Ky., approximately 2 miles north on U. S. Route 41.	44
CLINTON COUNTY			
8	L. Huddleston	Albany, Ky., 2-1/2 miles north on Ky. Route 35 (Rowena Road).	48
ESTILL COUNTY			
9	Road Cut	Ravenna, Ky., approximately 6 miles east on north side of Ky. Route 52.	51
JEFFERSON COUNTY			
10	Jefferson County	Louisville, Ky., 1.2 miles north-east of city limits on U. S. Route 42 turn right on Hubbard Lane and go 100 yards.	54

<u>Quarry Number</u>	<u>Quarry</u>	<u>Location</u>	<u>Page</u>
		LEE COUNTY	
11	Kentucky Stone Company	Beattyville, Ky., 6 miles northwest on Ky. Route 52 (Irvine Road) turn left onto Yellow Rock Road and go 6.6 miles.	57
		MADISON COUNTY	
12	Road Cut	Big Hill, Ky., 3 miles south on west side of U. S. Route 421.	61
		MEADE COUNTY	
13	Kosmos Cement Company	Brandenburg, Ky., 7 miles north- west on Ky. Route 228 (Battle- town Road) near Oolite, Ky.	64
14	Louisville Cement Company (core)	Guston, Ky., vicinity.	69
		MENIFEE COUNTY	
15	Montgomery- Nash	Frenchburg, Ky., half a mile west on Ky. Route 40 turn right and go 300 yards.	71
		POWELL COUNTY	
16	Old W. P. A. quarry	Stanton, Ky., 2 miles south on Furnace Road on top of hill.	72
		PULASKI COUNTY	
17	A. J. Colyer	Somerset, Ky., 1 mile north on Ky. Route 391 (Crab Orchard Road) turn right and go 300 yards.	75
18	Kentucky High- way Department	Tateville, Ky., half a mile south on U. S. Route 27 (Whitley City Road) on left side of road.	80
19	Sloans Valley	Sloans Valley, Ky., half a mile west on north side of U. S. Route 27.	83
		ROWAN COUNTY	
20	Cumberland National Forest	Morehead, Ky., half a mile south- east on U. S. Route 60 turn left at Clearfield and go 6 miles (Frenchburg Road).	85

<u>Quarry Number</u>	<u>Quarry</u>	<u>Location</u>	<u>Page</u>
		WARREN COUNTY	
21	Billy Welch	Bowling Green, Ky., 2 miles north on Woodford Avenue turn west at school and go 9 miles.	87
		WAYNE COUNTY	
22	Bassett Products Company	Monticello, Ky., three-fourths of a mile southeast on Ky. Route 92 turn left and go 400 yards.	89
		WOODFORD COUNTY	
23	Laura Jesse	Versailles, Ky., approximately 5 miles east on U. S. Route 60 (Lexington Road) at junction with Pisgah Road.	92

County: ANDERSON  
Location: LAWRENCEBURG, Ky., 2 miles east on U.S. Route 62, at Tyrone Bridge.

QUARRY NO. 1  
Property Owner: KY. STONE CO. (Tyrone, Ky.)



QUARRY REPORT NO. 1

County: Anderson

Property Owner: Ky. Stone Co.

Operator: Ky. Stone Co.

Location: Lawrenceburg, Ky., 2 miles east on U. S. Route 62, at Tyrone Bridge

Sampled By: W. H. Settle

Analyzed By: Mining Eng. Lab., U. of Ky.

Date Sampled: 7/27/49

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
TOP OF QUARRY										
Abandoned ledges										
NO SAMPLES										
84.3	10.5	2.52	0.27	0.30	98.4	48-49				
96.6	1.21	0.93	0.10	0.24	99.1	47-48				
94.9	1.62	2.03	0.13	0.31	99.0	46-47				
86.4	6.8	3.10	0.30	0.60	97.2	45-46	7	9	Limestone. Dove Gray. Fine grain. Dense (Vaughanitic). Flecked with calcite crystals (Birdseye).	
83.9	10.0	4.54	0.32	1.06	99.8	44-45				
84.8	8.2	5.19	0.33	1.22	99.8	43-44				
84.4	8.4	5.24	0.30	1.34	99.7	42-43				
84.1	8.9	5.09	0.36	1.53	100.0	41-42				
87.2	8.5	2.95	0.22	1.04	99.9	40-41				
NO SAMPLE TOP OF MINE										
88.2	4.7	2.75	0.15	0.77	96.6	39-40		1/4	Black Shale.	
85.3	10.8	3.66	0.15	0.55	100.5	38-39			Limestone. Dove gray. Fine grain. Dense	
83.9	11.7	3.46	0.53	0.62	100.2	37-38			(Vaughanitic). Flecked with calcite crystals (Birdseye).	
85.0	10.1	3.40	0.30	0.72	99.5	36-37	6	7		
88.9	6.7	3.14	0.20	1.15	100.1	35-36				
80.0	11.4	5.01	0.32	1.54	98.3	34-35				
78.5	12.4	5.71	0.37	1.73	98.7	33-34				
90.8	6.4	2.20	0.15	0.42	100.0	32-33			Limestone. Gray to buff, locally mottled. Fine grain.	
91.4	4.4	2.64	0.15	0.40	99.0	31-32				
82.3	12.3	2.80	0.25	0.75	98.4	30-31	5	5	Dense (Vaughanitic). Occasionally calcite crystal.	
93.5	4.5	1.84	0.13	0.37	100.3	20-30				
91.6	6.2	1.29	0.13	0.27	99.5	28-29				
77.9	19.1	2.56	0.52	0.37	100.4	27-28				
73.5	23.6	2.28	0.23	0.33	99.9	26-27			Limestone. Magnesian. Buff. Fine grain. Dense.	
84.5	12.7	2.25	0.18	0.35	100.0	25-26			Locally has dark mottlings. Thick bedded.	
74.6	20.8	2.75	0.32	0.54	100.0	24-25	4	7		
71.0	25.3	2.60	0.32	0.63	99.9	23-24				
82.0	12.8	1.98	0.23	0.52	97.5	22-23				
76.4	19.1	2.05	0.55	0.23	98.3	21-22				
57.1	36.3	3.03	0.43	0.46	97.3	20-21				
55.7	37.0	2.80	0.44	0.55	96.5	19-20			Limestone. Magnesian. Gray to buff, locally has dark mottlings. Fine grain. Dense. Two inch shale seam at bottom.	
70.3	23.2	2.92	0.27	0.54	97.2	18-19				
70.7	23.0	2.70	0.28	0.39	97.1	17-18				
58.5	33.4	3.28	0.37	0.94	96.5	16-17	3	13		
61.4	32.3	4.67	0.17	1.48	99.7	15-16				
63.9	29.8	4.49	0.44	1.03	99.7	14-15				
62.4	31.5	4.04	0.47	0.97	99.4	13-14				
59.2	35.2	4.00	0.33	0.76	99.5	12-13				
57.1	37.4	3.65	0.37	1.05	99.6	11-12				
56.4	38.8	3.46	0.40	0.66	99.7	10-11				
59.3	34.8	4.00	0.50	1.19	99.8	9-10				
61.8	32.6	3.52	0.38	0.92	99.2	8-9				

Tyrone

Oregon

QUARRY REPORT NO. 1

County: Anderson

Property Owner: Ky. Stone Co.

Operator: Ky. Stone Co.

Location:

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
82.5	12.4	3.49	0.23	0.50	99.1	7-8			Limestone. Light gray to tan gray, occasional dark streak. Fine grain. Dense. Contains calcite stringers and crystal groups.	Oregon
78.5	15.6	3.80	0.30	0.92	99.1	6-7				
76.8	16.9	4.00	0.33	1.03	99.3	5-6	2	6		
87.1	8.6	3.10	0.27	0.73	99.8	4-5				
92.5	5.0	2.31	0.15	0.13	100.1	3-4				
90.7	5.2	3.23	0.20	0.45	99.8	2-3				
85.7	5.2	5.78	0.47	1.89	99.0	1-2	1	2	Limestone. Light greenish gray, mottled with dove and dark gray. Fine grain. Dense. Contains several thin bentonitic layers.	Oregon
85.3	4.5	5.36	0.42	1.96	97.5	0-1				

BOTTOM OF QUARRY

QUARRY REPORT NO. 2 (CORE # 5, Company identification)

County: Breckinridge Property Owner: Henderson Operator:  
 Location: Webster, Ky., Approx. 1/2 mile southwest on Henderson Farm. Elevation-640  
 Sampled By: Louisville Cement Analyzed By: Louisville Cement Co.  
 Date Sampled: 10/18/50 Date Received: Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.
						TOP OF CORE HOLE.				
NO SAMPLES						0-4	4		Soil overburden.	
94.64	1.48	3.84	0.40			4-11				
95.03	1.87	2.80	0.30			11-17	1	17	Limestone. Light to dark gray. Fine grain. Dense. Medium thick beds.	Renault
95.99	1.17	2.60	0.24			17-21				
89.40	4.66	5.54	0.40			21-35	2	14	Limestone. Gray to dark gray. Fine grain. Hard oolite to coarse soft oolite.	
NO SAMPLES						35-37	3	2	Shale. Green. Clay.	
91.73	3.37	4.40	0.50			37-38				
95.99	1.61	1.80	0.60			38-39				
96.96	1.00	1.40	0.64			39-40				
97.16	0.92	1.50	0.42			40-41				
96.30	1.78	1.84	0.08			41-42				
95.60	2.58	1.72	0.10			42-43			Limestone. Light gray.	
96.96	1.38	1.50	0.16			43-44			Fine to medium grain.	
95.99	2.55	1.40	0.06			44-45			Crystalline to hard	
95.60	2.78	1.50	0.12			45-46	4	17	oolite.	Ste. Genevieve
80.48	17.07	2.26	0.22			46-47				
85.32	12.24	1.76	0.68			47-48				
93.09	4.99	1.52	0.40			48-49				
97.93	0.79	1.10	0.18			49-50				
96.96	1.58	1.22	0.24			50-51				
95.99	1.77	2.06	0.18			51-52				
89.23	7.45	3.04	0.28			52-53				
92.70	3.50	3.52	0.28			53-54				
94.64	1.32	3.70	0.34			54-55			Limestone. Light gray.	
96.18	0.94	2.58	0.30			55-56			Coarse grain. Crystal-	
96.18	0.90	2.66	0.26			56-57	5	6	line.	
95.03	0.73	4.00	0.24			57-58				
97.16	1.76	0.20	0.88			58-59				
98.90	0.48	0.52	0.01			59-60				
98.90	0.46	0.54	0.10			60-61				
97.16	0.84	1.84	0.16			61-62				
99.09	0.31	0.52	0.08			62-63	6	5	Limestone. White. Medium grain. Oolite. Soft.	

↑  
Av. 96.82%

QUARRY REPORT NO. 2 (CORE # 5)

County: Breckinridge

Property Owner: Henderson

Operator:

Location:

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

Av. 96.82 %

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>2</sub>	% MgCO <sub>2</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
98.13	0.87	0.90	0.10			63-64				
98.90	0.14	0.76	0.20			64-65				
98.13	0.67	0.80	0.40			65-66				
96.96	1.24	1.52	0.28			66-67	7	4	Limestone. Gray. Fine grain. Dense.	
95.80	1.80	2.00	0.40			67-68				
91.53	1.47	6.40	0.60			68-69				
90.18	4.22	5.00	0.60			69-70				
94.25	2.73	2.90	0.12			70-71			Limestone. Gray.	
91.73	2.27	5.76	0.24			71-72			Medium grain. Crystalline and hard oolite.	
95.03	1.79	2.84	0.34			72-73	8	9		
95.89	1.69	2.14	0.18			73-74				
94.83	2.87	2.00	0.30			74-75				
96.38	2.52	0.70	0.40			75-76				
90.76	7.54	1.00	0.70			76-77				
NO SAMPLES						77-78				
57.40	40.84	1.30	0.46			78-82				
79.90	17.16	2.68	0.26			82-88	9	10	Ls. Gray. Fine grain. Crystalline. Dolomitic.	
77.57	19.43	2.66	0.34			94-95			Ls. Light gray. Fine to medium grain. Crystalline.	
81.45	15.45	2.70	0.40			95-96	10	2		
83.19	12.29	3.92	0.60			96-97				
82.81	10.71	5.88	0.60			97-98	11	4	Limestone. Dark gray. Medium grain. Oolite. Thick beds.	
93.47	1.79	4.46	0.28			98-99				
89.60	2.68	7.10	0.62			99-100				
BOTTOM OF CORE HOLE										

Ste. Genevieve

QUARRY NO. 3

County: CALDWELL

Property Owner: BAKER AND BARNES

Location: FREDONIA, KY., 2½ miles south on Ky. Route 93 turn left and go 500 yards.



high-calcium limestone. 36 feet thick. CaCO<sub>3</sub> average - 98.2%.

high-calcium limestone. 30 feet thick. CaCO<sub>3</sub> average - 97.2%.

This vicinity is considered worthy of further investigation because:

1. Thick deposits of high-calcium limestone are known.
2. Railroad and highways run through the area.
3. T.V.A. electrical power is near.
4. Industries using such material are developing in this vicinity.

See figures 4 and 5 for location, roads, railroad and most favorable areas to prospect.

QUARRY REPORT NO. 3

County: Caldwell

Property Owner: Baker & Barnes Operator: Fredonia Val. Stone

Location: Fredonia, Ky. 2 1/2 miles South on Ky Route 93 turn left and go 500 yds.

Sampled By: Harry W. Settle

Analyzed By: Mining Eng. Lab. University of Ky.

Date Sampled: 8/3/49-1/51

Date Received:

Date Reported: 7/3/50-2/26/51

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
TOP OF QUARRY										
NO SAMPLES										
Soil and Limestone - not yet opened for use.										
98.6	0.38	0.60	0.18	0.00	99.8	91-92				
98.5	0.86	0.45	0.14	0.00	100.0	90-91				
98.5	0.75	0.57	0.16	0.00	100.0	89-90				
98.2	0.61	0.60	0.23	0.00	99.6	88-89				
98.2	0.68	0.58	0.19	0.00	99.7	87-88				
98.5	0.46	0.60	0.18	0.00	99.7	86-87				
98.1	0.81	0.72	0.23	0.00	99.9	85-86				
98.1	0.61	0.69	0.23	0.00	99.6	84-85				
98.1	0.65	0.66	0.18	0.00	99.6	83-84				
98.2	0.45	0.68	0.18	0.00	99.5	82-83				
98.5	0.68	0.54	0.13	0.00	99.9	81-82				
98.7	0.53	0.55	0.15	0.00	100.0	80-81	7	36	Limestone. Medium grain. Soft. Oolitic. White. Weathers buff. Massive.	
98.9	0.60	0.30	0.15	0.04	100.0	79-80				
97.9	0.86	0.96	0.12	0.17	100.0	78-79				
98.5	0.79	0.58	0.05	0.00	99.9	77-78				
98.5	0.62	0.75	0.05	0.00	99.9	76-77				
98.9	0.58	0.72	0.03	0.00	99.6	75-76				
97.8	0.94	0.82	0.04	0.00	100.0	74-75				
98.3	0.97	0.68	0.04	0.00	100.0	73-74				
98.6	0.58	0.66	0.06	0.08	100.0	72-73				
98.9	0.62	0.49	0.04	0.00	100.0	71-72				
98.2	0.39	0.64	0.04	0.00	99.3	70-71				
98.5	0.62	0.73	0.06	0.00	99.9	69-70				
98.4	0.62	0.90	0.05	0.00	100.0	68-69				
98.5	0.60	0.86	0.06	0.00	100.0	67-68				
97.5	0.53	1.76	0.06	0.00	99.9	66-67				
97.5	0.58	1.82	0.06	0.00	100.0	65-66				
98.1	0.54	1.30	0.05	0.00	100.0	64-65				
98.1	0.92	0.95	0.05	0.03	100.0	63-64				
98.3	0.91	0.73	0.05	0.05	100.0	62-63				
98.1	0.89	0.78	0.05	0.19	100.0	61-62				
98.3	0.80	0.81	0.05	0.07	100.0	60-61				
98.5	0.94	0.44	0.06	0.03	100.0	59-60				
98.5	0.94	0.32	0.06	0.06	99.9	58-59				
96.8	1.12	1.83	0.07	0.07	99.9	57-58				
95.3	1.36	2.48	0.07	0.22	99.4	56-57				
74.8	19.0	4.50	0.58	1.09	100.0	55-56				
72.8	16.6	7.56	0.50	1.91	99.4	54-55				
80.3	9.0	6.93	0.49	1.58	98.3	53-54				
71.4	14.0	8.95	0.75	2.54	97.6	52-53				
76.6	11.3	7.82	0.62	2.23	98.6	51-52				
73.9	12.4	9.26	0.68	2.20	98.4	50-51				
77.1	11.5	8.00	0.68	1.96	99.2	49-50				

Av. 98.2%

Ste. Genevieve

QUARRY REPORT NO. 3

County: Caldwell

Location: Fredonia, Ky.

Sampled By:

Date Sampled:

Property Owner: Baker & Barnes Operator:

Analyzed By:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.	
79.6	9.4	8.67	0.64	2.20	100.5	48-49	6	14	Limestone. Medium to coarse grain. Crystalline. Gray to dark gray. Weathers bluish gray. Fossiliferous. Contains some thin interbedded shale seams and shaly limestone.		
85.7	6.5	5.94	0.43	1.37	99.4	47-48					
79.6	9.0	8.23	0.58	1.71	99.1	46-47					
89.3	5.0	4.47	0.38	0.82	100.0	45-46					
79.3	11.3	6.83	0.50	1.59	99.5	44-45					
80.7	9.5	6.23	0.65	1.37	98.5	43-44					
67.3	16.1	10.11	1.08	2.72	97.3	42-43					
90.7	4.6	2.89	0.36	0.81	99.4	41-42			Ls. Fine to medium grain. Crystalline. Brownish gray. Weathers gray.		
94.3	2.7	2.25	0.32	0.20	99.8	40-41	5	3			
91.4	2.9	2.67	0.63	0.18	97.8	39-40					
94.2	3.2	2.23	0.30	0.16	100.0	38-39			Limestone. Medium to coarse grain. Brownish gray. Weathers gray.		
95.3	2.3	1.68	0.38	0.00	99.7	37-38					
95.0	1.97	2.65	0.32	0.00	99.9	36-37	4	5			
94.6	2.2	2.41	0.20	0.00	99.4	35-36					
97.1	1.51	1.06	0.20	0.00	99.9	34-35					
66.4	32.2	0.89	0.42	0.06	99.6	33-34			Limestone. Fine grain. Dense. Dove gray. Flecked with calcite crystals		
74.3	24.3	1.19	0.27	0.30	100.4	32-33	3	3			
75.4	21.5	2.08	0.22	0.25	99.7	31-32					
						NO SAMPLE			Shale 6" to 1'.		
97.1	1.4	1.34	0.20	0.01	100.1	29-30			Ls. Medium to coarse grain. Crystalline. Dark gray. Weathers bluish gray. Fossiliferous. Thick beds.		
95.7	2.3	1.32	0.23	0.00	99.6	28-29					
92.0	5.7	2.06	0.23	0.08	100.1	27-28					
97.8	1.36	0.70	0.13	0.18	100.2	26-27					
98.9	0.42	0.89	0.15	0.00	100.3	25-26	2	8			
97.8	1.01	0.88	0.13	0.13	100.0	24-25					
97.8	1.33	0.83	0.14	0.95	100.0	23-24					
97.8	1.21	0.86	0.10	0.04	100.0	22-23					
97.8	1.39	0.68	0.17	0.00	100.0	21-22					
93.2	5.40	0.70	0.33	0.00	99.6	20-21					
97.2	1.92	0.70	0.17	0.00	100.0	19-20					
97.9	1.24	0.52	0.13	0.17	100.0	18-19					
96.8	2.1	0.50	0.20	0.50	100.2	17-18					
97.1	2.4	0.44	0.15	0.24	100.3	16-17					
97.5	2.3	0.29	0.17	0.00	100.2	15-16					
97.5	1.31	0.01	0.18	0.00	99.0	14-15					
98.4	1.04	0.41	0.13	0.00	100.0	13-14					
96.3	1.74	0.26	0.15	0.00	98.5	12-13	1	22			
98.9	0.74	0.03	0.18	0.00	99.8	11-12					
98.2	0.95	0.21	0.13	0.00	99.5	10-11					
96.4	3.30	0.40	0.25	0.00	100.3	9-10					
98.2	1.50	0.53	0.16	0.00	100.4	8-9					
98.5	0.83	0.56	0.14	0.00	100.0	7-8					
97.8	1.12	0.91	0.16	0.00	99.6	6-7					
98.7	0.47	0.69	0.19	0.00	100.0	5-6					

Av. 97.2%

Ste. Genevieve

QUARRY REPORT NO. 3

County: Caldwell  
 Location: Fredonia, Ky.  
 Sampled By:  
 Date Sampled:

Property Owner: Barker & Barnes Operator:

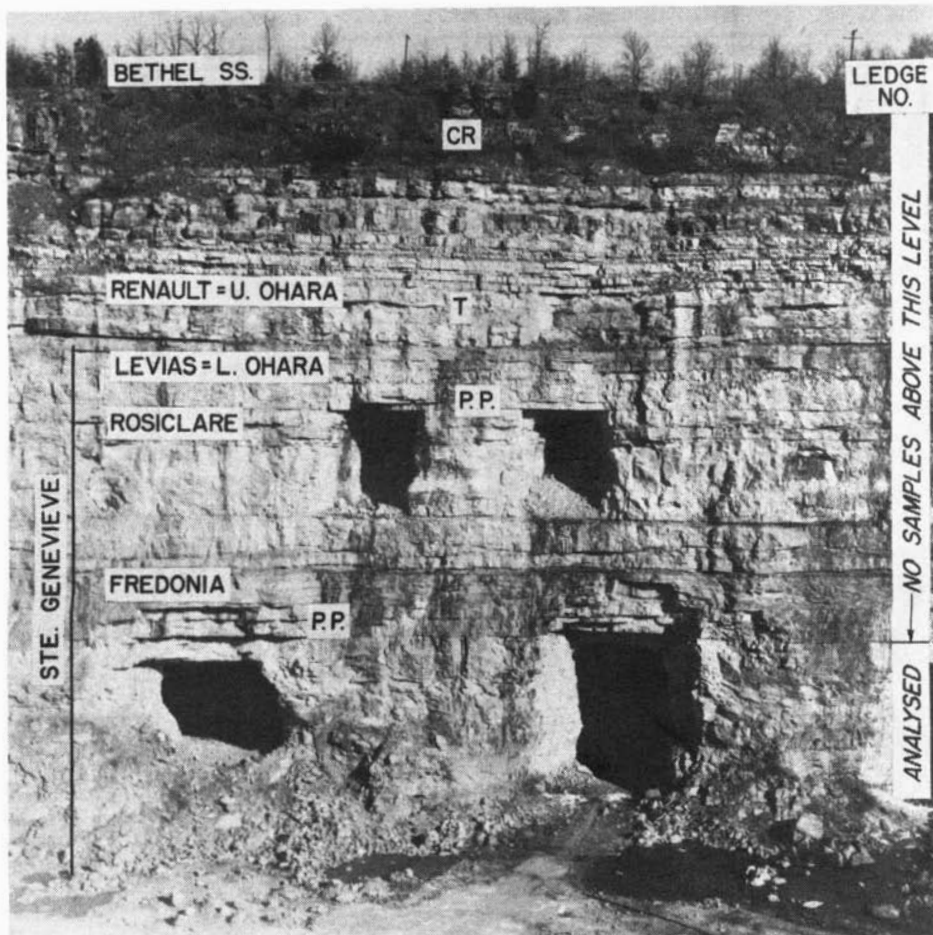
Analyzed By:  
 Date Received: Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
96.7	1.81	0.51	0.13	0.00	98.3	4-5				
95.3	4.30	0.42	0.15	0.03	100.2	3-4				
98.2	0.23	0.78	0.18	0.00	99.5	2-3				
96.3	1.93	1.53	0.14	0.00	100.0	1-2				
97.5	0.68	1.73	0.14	0.00	100.0	0-1				

BOTTOM OF QUARRY

Ste. Genevieve

QUARRY NO. 4  
 County: CALDWELL  
 Property Owner: CEDAR BLUFF STONE CO.  
 Location: PRINCETON, KY., 2½ miles southeast on Ky. Route 91 (Hopkinsville Rd.).



A visual inspection suggests the possibility of one or more layers of high-calcium limestone in the untested zone of this quarry.

Abbreviations: CR. = large crinoid stem (unidentified), L = lower, P.P. = Platycrinus penicillus, T = Talarocrinus, U = upper.

**QUARRY REPORT NO. 4**

County: Caldwell

Location: Princeton, Ky., 2 1/2 miles southeast on Ky. Route 91. (Hopkinsville Rd.)

Sampled By: E. B. Wood

Date Sampled:

Property Owner: Cedar Bluff Stone Operator: Cedar Bluff Stone Co.

Analyzed By: Mining Engineering Lab. Univ. of Ky.

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fms
							TOP OF QUARRY			
							Thin soil.			
							Limestone of varied character.			
NO SAMPLES										
							150+			
88.4	4.46	5.52	0.59	0.97	99.9	71-72				
86.0	4.64	6.73	0.70	1.04	99.1	70-71				
70.1	8.57	13.25	0.95	3.61	96.5	69-70				
91.0	2.39	5.95	0.36	0.64	100.3	68-69				
NO SAMPLES							67-68			
90.0	2.64	5.44	0.29	0.76	99.1	66-67				
88.4	2.93	5.77	0.32	1.05	98.5	65-66	15	12	Limestone. Light gray. Fine to medium grain.	Ste. Genevieve
87.8	3.34	5.13	0.30	1.06	97.6	64-65			Crystalline and oolitic.	
91.0	2.64	4.54	0.45	1.17	99.9	63-64			Becomes finer grained and darker downward.	
94.3	1.89	3.21	0.10	0.31	99.8	62-63				
89.4	3.74	4.95	0.31	0.47	99.8	61-62				
78.6	7.66	11.04	0.46	1.26	99.0	60-61				
92.2	4.22	1.64	0.18	0.36	98.6	59-60				
97.5	1.54	1.07	0.15	0.07	100.3	58-59				
97.2	1.18	0.89	0.12	0.00	99.4	57-58	14	7	Limestone. Light gray to white. Fine grain. Crystalline to medium grain, soft oolitic.	
97.2	0.95	1.34	0.23	0.00	99.7	56-57				
96.6	1.07	1.44	0.31	0.00	99.4	55-56				
96.7	1.44	1.32	0.10	0.00	99.6	54-55				
97.5	1.22	0.88	0.13	0.00	99.7	53-54				
96.0	1.31	1.54	0.22	0.35	99.4	52-53				
95.9	1.36	2.05	0.20	0.48	100.0	51-52	13	2	Ls. Dove gray. Fine grain. Dense. Flecked with calcite crystals.	
97.5	1.18	1.39	0.14	0.16	100.4	50-51				
97.9	1.13	1.30	0.17	0.12	100.6	49-50	12	2	Limestone. Light gray. Oolitic. Soft.	
91.6	3.49	3.43	0.25	0.77	99.5	48-49				
95.6	1.25	0.93	0.16	0.18	98.1	47-48	11	3	Limestone. White to gray. Medium grain. Oolitic.	
NO SAMPLES							46-47			
NO SAMPLES							45-46			

QUARRY REPORT NO. 4

County: Caldwell

Location:

Sampled By:

Date Sampled:

Property Owner: Cedar Bluff Stone Operator:

Analyzed By:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
81.8	7.16	7.64	0.42	1.23	98.3	44-45			Limestone. Light gray.	
79.9	9.00	7.69	0.40	1.26	98.3	43-44			Fine grain. Dense.	
80.4	7.57	8.87	0.48	1.28	98.6	42-43	10	7	Flecked with calcite crystals. Becomes darker toward top.	
82.4	7.20	7.81	0.43	1.28	99.1	41-42				
76.0	11.55	9.15	0.56	1.72	99.0	40-41				
92.7	2.69	2.74	0.22	0.27	98.6	39-40				
96.0	1.41	0.68	0.17	0.00	98.3	38-39				
95.8	2.04	0.78	0.14	0.06	98.8	37-38				
92.3	5.19	0.85	0.12	0.69	99.2	36-37			Limestone. Light gray, darker at top. Fine grain.	
89.5	7.25	0.76	0.13	0.73	98.4	35-36	9	7	Dense. Flecked with calcite crystals.	
90.5	6.55	1.12	0.23	0.55	99.0	34-35				
86.0	11.18	0.95	0.19	0.60	98.9	33-34				
98.1	1.15	0.72	0.18	0.29	100.4	32-33				
82.1	13.76	2.68	0.35	0.53	99.5	31-32				
96.7	1.93	1.16	0.20	0.30	100.3	30-31				
96.6	1.31	1.29	0.15	0.43	99.8	29-30			Limestone. Gray. Medium grain. Crystalline. Massive. Fine grain and dense at top.	
97.3	2.97	0.29	0.20	0.33	101.1	28-29	8	8		
89.6	7.64	2.33	0.22	0.10	99.8	27-28				
96.4	3.26	0.86	0.24	0.06	100.7	26-27				
95.4	2.72	0.79	0.27	0.20	99.4	25-26				
96.0	2.21	0.81	0.14	0.25	99.4	24-25				
96.9	1.24	0.56	0.11	0.05	98.9	23-24				
95.4	3.33	1.15	0.13	0.29	100.3	22-23	7	3	Limestone. Gray. Medium grain. Soft. Oolitic.	
96.0	3.78	0.51	0.14	0.19	100.6	21-22				
81.9	16.7	0.93	0.38	0.08	100.0	20-21				
80.2	19.1	1.07	0.50	0.08	100.0	19-20	6	2	Limestone. Gray. Fine grain. Dense. Conchoidal fracture.	
99.5	0.00	0.32	0.08	0.02	99.9	18-19				
98.6	0.76	0.00	0.08	0.14	99.6	17-18				
99.5	0.00	0.22	0.09	0.03	99.8	16-17	5	6	Ls. Light gray to white. Coarse to medium grain. Oolitic. Soft.	
97.1	0.80	0.14	0.12	0.30	98.5	15-16				
98.6	1.39	0.17	0.12	0.02	100.3	14-15				
98.2	1.39	0.37	0.12	0.00	100.1	13-14				
88.5	11.48	0.96	0.30	0.13	101.3	12-13				
83.2	15.20	1.26	0.37	0.17	100.2	11-12	4	2	Ls. Light gray. Fine grain. Dense. Flecked w/ calcite crystals.	
98.2	1.07	0.45	0.12	0.19	100.0	10-11				
98.1	0.98	0.57	0.11	0.20	100.0	9-10				
98.5	1.16	0.45	0.12	0.08	100.3	8-9	3	6	Limestone. Light gray to white. Medium to coarse grain. Oolitic. Soft. Weathers white.	
98.1	0.38	0.44	0.14	0.44	99.5	7-8				
98.1	1.08	0.79	0.10	0.20	100.3	6-7				
97.8	1.10	0.68	0.12	0.24	99.9	5-6				
70.0	26.0	1.71	0.38	0.61	98.7	4-5	2	2	Ls. Light gray. Fine grain. Dense. Flecked w/ calcite crystals.	
72.0	25.1	1.92	0.39	0.59	100.0	3-4				

Sta. Genevieve

QUARRY REPORT NO. 4

County: Caldwell

Property Owner: Cedar Bluff Stone Operator:

Location:

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.
96.0	1.41	1.56	0.24	0.38	99.6	2-3				
95.0	2.30	2.34	0.58	0.26	100.5	1-2	1	3	Ls. Light gray. Medium grain. Oolitic. Soft.	
93.1	2.50	3.06	0.18	0.27	99.1	0-1			BOTTOM OF QUARRY	

Ste. Genevieve

County: CHRISTIAN

QUARRY NO. 5

Property Owner: CHRISTIAN QUARRIES INC.

Location: HOPKINSVILLE, Ky., near west city limits on U.S. Route 68.



Abbreviations: CR = large crinoid stem (unidentified), T = Talarocrinus.

A core boring was made in the bottom of this quarry. A report of the chemical analyses of the core boring follows that of the quarry.

QUARRY REPORT NO. 5

County: Christian

Location: Hopkinsville, Ky., near west city limits on U. S. Route 68.

Sampled By: H. W. Settle

Date Sampled:

Christian

Property Owner: Quarries Inc.

Christian

Operator: Quarries Inc.

Analyzed By: Mining Engineering Lab. University of Ky.

Date Received:

Date Reported: 5/22/50

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
TOP OF QUARRY										
						64-?	8	?	Sandstone.	Bethel
						NO SAMPLES	48-64	7	16	Limestone. Gray. Crystalline.
						NO SAMPLES	44-48	4	Shale. Green. Clay.	
93.9	2.1	2.69	0.38	0.71	99.8	43-44				
93.2	1.90	3.05	0.38	0.73	99.3	42-43				
92.8	2.0	4.46	0.22	0.61	100.1	41-42				
92.8	2.1	4.21	0.33	0.54	100.0	40-41			Limestone. Fine grain. Dense. Shaly in upper	
91.8	2.3	3.90	0.42	0.60	99.0	39-40	6	9	part. Scattered zones of	
80.3	3.8	10.04	0.76	2.84	97.7	38-39			crystalline limestone.	Renault
85.0	2.9	7.39	0.68	1.81	97.8	37-38				
86.0	2.3	7.85	0.38	0.76	97.3	36-37				
89.6	2.3	6.09	0.33	0.61	98.9	35-36				
94.6	2.2	2.06	0.38	0.54	99.8	34-35				
93.9	1.98	3.33	0.19	0.17	99.6	33-34				
92.8	2.0	3.38	0.27	0.75	99.2	32-33			Limestone. Light gray. Oolitic with hard dense	
96.0	1.62	1.56	0.15	0.23	99.6	31-32	5	11	texture. Thick beds.	
91.2	7.1	0.88	0.30	0.49	100.0	30-31				
91.4	6.8	0.97	0.22	0.06	99.5	29-30				
88.5	9.1	0.86	0.11	0.37	98.9	28-29				
90.5	7.5	0.27	0.30	0.0	98.6	27-28				
90.5	8.0	0.31	0.40	0.14	99.4	26-27				
95.4	3.0	0.67	0.13	0.27	99.5	25-26				
94.0	3.5	0.52	0.20	0.94	99.2	24-25				

QUARRY REPORT NO. 5

Christian

County: Christian

Property Owner: Quarries Inc.

Operator:

Location: Hopkinsville, Ky., near west city limits on U. S. Route 68

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
77.1	15.6	3.96	0.92	1.54	99.1	23-24				
97.4	1.3	2.7	0.13	0.31	99.4	22-23				
97.1	2.2	0.64	0.30	0.0	100.2	21-22				
91.4	5.3	2.83	0.19	0.43	100.1	20-21				
89.9	5.6	3.31	0.20	0.62	99.6	19-20				
92.4	4.38	2.76	0.22	0.39	100.1	18-19				
90.6	5.8	2.64	0.28	0.71	100.0	17-18				
91.6	3.48	3.34	0.26	0.56	99.2	16-17	4	16	Limestone. Fine grain. Dense. Thin beds, with interbedded shale at top.	
90.4	3.55	4.75	0.27	0.71	99.7	15-16				
91.4	3.25	4.06	0.26	0.58	99.6	14-15				
94.9	2.40	2.22	0.23	0.33	100.1	13-14				
94.1	3.02	2.50	0.25	0.45	100.3	12-13				
93.9	2.12	2.35	0.23	0.47	99.1	11-12				
93.9	2.78	2.44	0.19	0.22	99.5	10-11				
93.6	2.72	1.65	0.19	0.25	98.4	9-10				
94.4	3.08	2.32	0.24	0.51	100.5	8-9				
88.5	6.2	3.47	0.30	0.48	99.0	7-8	3	2	Limestone. Fine grain. Dense.	
85.4	7.9	4.04	0.43	0.63	99.4	6-7				
65.4	17.5	10.82	1.16	3.19	98.1	5-6	2	1	Limestone. Green. Shaly.	
92.4	3.71	2.89	0.30	0.14	99.4	4-5				
92.0	2.88	2.37	0.25	0.26	97.8	3-4				
91.8	4.15	2.91	0.24	0.14	99.2	2-3	1	5	Limestone. Fine grain. Dense. Thick bed.	
87.5	8.5	2.89	0.35	0.19	99.4	1-2				
83.9	11.0	3.28	0.42	0.45	99.1	0-1				
QUARRY FLOOR										

Renault

QUARRY REPORT NO. 5

County: Christian

Location: Hopkinsville, Ky., near west city limits on U. S. Route 68

Sampled By: H. W. Settle

Date Sampled:

Christian

Property Owner: Quarries Inc.

Christian

Operator: Quarries Inc.

Analyzed By: Mining Engineering Lab., University of Ky.

Date Received:

Date Reported: 5/22/50

CHEMICAL ANALYSIS					CORE		DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
QUARRY FLOOR AND TOP OF CORE HOLE										
88.0	7.3	3.23	0.45	0.38	99.4	0-1				
89.4	6.0	2.87	0.45	0.44	99.2	1-2	1	3	Limestone. Fine grain. Dense.	
87.5	5.6	4.12	0.50	0.64	99.4	2-3				
78.4	10.8	7.12	0.70	1.43	98.5	3-4				
81.4	7.9	7.85	0.77	1.41	99.3	4-5				
76.0	8.6	9.37	0.94	2.83	97.7	5-6			Limestone. Shaly. Greenish gray. Slightly rubbly.	
71.7	9.5	11.84	1.10	3.03	97.2	6-7	2	8		
73.5	9.3	11.60	1.00	3.44	98.8	7-8				
67.9	10.5	13.33	1.10	4.13	97.0	8-9				
77.5	7.9	9.10	0.75	2.02	97.3	9-10				
70.4	9.4	11.67	0.40	4.11	96.0	10-11				
88.1	6.1	4.28	0.70	0.10	99.3	11-12				
89.5	5.7	3.37	0.38	0.17	99.1	12-13				
88.9	6.5	3.28	0.33	0.12	99.1	13-14			Limestone. Fine grain. Dense. Contains much black nodular chert.	
91.9	4.6	2.60	0.75	0.01	99.4	14-15				
93.5	3.9	2.14	0.20	0.0	99.7	15-16				
91.6	4.8	2.70	0.22	0.0	99.3	16-17	3	15	Thin beds.	Renault
89.5	6.2	3.24	0.25	0.17	99.4	17-18				
92.5	4.2	2.29	0.20	0.04	99.3	18-19				
85.0	8.9	4.30	0.38	0.66	99.3	19-20				
90.5	5.3	2.52	0.27	0.18	98.8	20-21				
82.1	10.0	4.56	0.50	0.78	97.9	22-23				
92.8	3.1	3.02	0.22	0.06	99.2	24-25				
83.6	5.6	7.69	0.53	1.10	98.5	26-27				
93.5	2.6	3.30	0.25	0.37	100.0	28-29	4	5	Limestone. White. Crystalline and oolitic. Medium beds.	
84.8	3.8	8.49	0.60	1.28	99.0	30-31				
93.5	4.8	1.20	0.0	0.0	99.5	32-33				
73.9	22.1	3.47	0.17	0.0	99.6	34-35				
92.7	3.2	3.24	0.21	0.0	99.4	36-37			Limestone. Fine grain. Dense. Oolitic in places.	
94.5	3.1	2.37	0.0	0.0	100.0	38-39	5	5	Medium to thick beds.	
92.9	3.3	2.87	0.15	0.0	99.2	40-41				
93.0	3.1	3.03	0.17	0.12	99.4	42-43				
87.0	6.6	5.62	0.38	0.84	100.4	44-45				
91.0	4.8	4.14	0.26	0.40	100.6	46-47				
88.9	5.5	4.98	0.31	0.63	100.3	48-49			Limestone. Fine grain. Dense. Oolitic in places.	
91.0	5.6	2.90	0.25	0.58	100.3	50-51				
85.9	8.7	4.86	0.30	0.58	100.3	52-53				
87.6	3.9	6.47	0.50	0.99	99.5	54-55				
85.0	3.4	8.23	0.63	1.51	98.8	56-57				
94.0	2.4	2.15	0.52	0.67	99.7	58-59				
93.5	1.9	2.38	0.30	0.41	98.5	60-61				
82.5	2.8	8.55	0.65	2.72	96.6	62-63	7	10	Limestone. Oolitic. White. Thick beds, thinner at top.	Ste. Genevieve

only every second sample

QUARRY REPORT NO. 5

County: Christian

Location: Hopkinsville, Ky., near west city limits on U. S. Route 60

Sampled By:

Date Sampled:

Christian  
Property Owner: Quarries Inc.

Operator:

Analyzed By:

Date Received:

Date Reported:

CHEMICAL ANALYSIS						CORE		DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.	
NO SAMPLES						63-65	8	2	Shale, Clay.		
36.4	31.6	21.49	2.23	6.32	98.0	65-66					
48.2	24.4	17.98	1.75	5.64	98.0	67-68			Limestone, Dolomitic		
59.3	17.0	15.22	1.24	3.49	96.3	69-70	9	8	and siliceous, Fine grain. Dense.		
69.3	17.9	8.17	0.67	1.46	98.0	71-72					
NO SAMPLES						72-74	10	2	Breccia, Shale and Ls.		
90.7	2.9	2.77	0.35	0.80	97.5	74-75	11	2	Limestone, Gray, Oolitic.		
71.4	14.6	9.73	0.33	3.30	99.4	75-76					
96.0	2.3	2.04	0.19	0.00	100.5	77-78	12	8	Limestone, Fine grain. Dense.		
81.4	8.6	7.21	0.60	1.58	99.4	79-80					
91.0	4.8	3.83	0.30	0.15	100.1	81-82					
96.0	2.2	1.58	0.25	0.17	100.2	83-84					
96.4	2.0	1.35	0.20	0.04	100.0	85-86					
96.8	2.0	1.04	0.24	0.01	100.1	87-88					
96.0	2.1	0.65	0.23	0.04	100.0	89-90			Limestone, White.		
95.7	2.5	1.61	0.25	0.48	100.0	91-92	13	19	Medium to coarse grain. Soft to hard. Fossiliferous.		
94.9	2.3	1.12	0.24	0.25	98.8	93-94					
96.0	2.3	0.54	0.22	0.0	99.1	95-96					
96.4	1.7	0.97	0.18	0.0	99.2	97-98					
93.5	2.9	1.97	0.28	0.19	98.8	99-100					
95.7	2.0	1.17	0.23	0.05	99.2	101-102	14	3	Limestone, Gray, Medium grain, Crystalline.		
95.0	2.0	1.51	0.29	0.18	99.0	103-104			BOTTOM OF CORE		

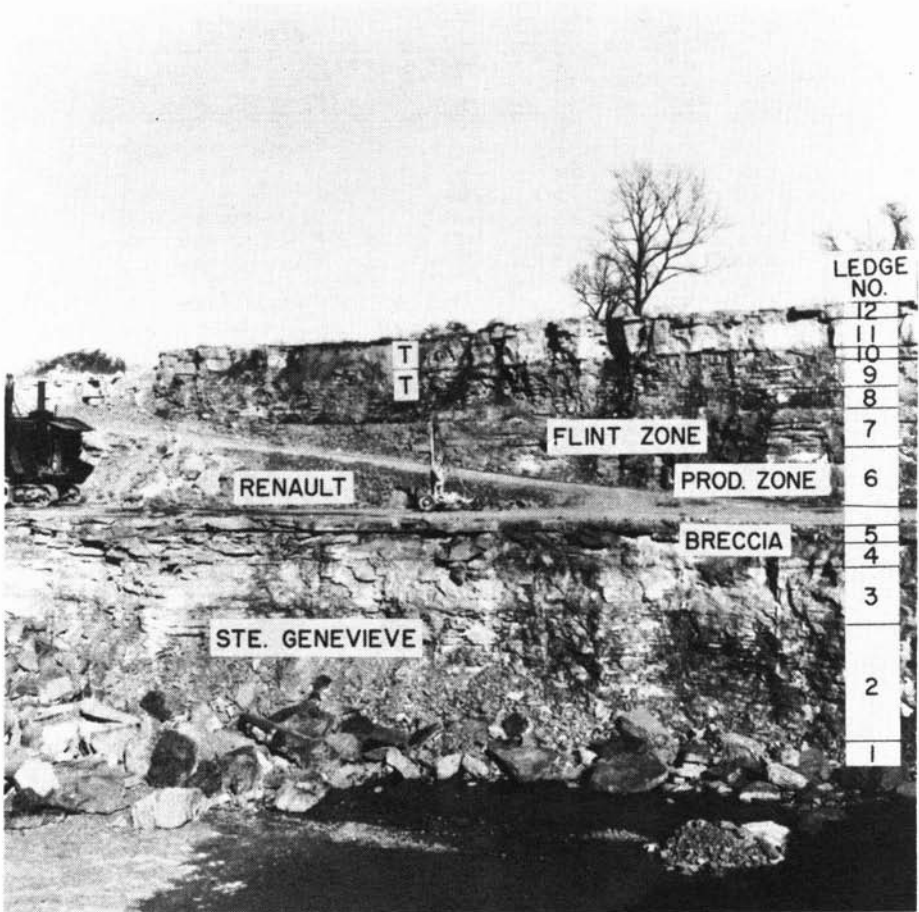
Ste. Genevieve

QUARRY NO. 6

County: CHRISTIAN

Property Owner: HOPKINSVILLE STONE CO.

Location: HOPKINSVILLE, KY., 1 mile north on U.S. Route 41, turn east and go 400 yards.



Abbreviations: PROD. = Productus, T = Talarocrinus.

QUARRY REPORT NO. 6

County: Christian

Location: Hopkinsville, Ky., 1 mile north on U. S. 41, turn east and go 400 yds.

Sampled By: H. W. Settle

Date Sampled: 11/8/50

Hopkinsville

Property Owner: Stone Co.

Hopkinsville

Operator: Stone Co.

Analyzed By: Mining Engineering Lab., University of Ky.

Date Received:

Date Reported: 3/27/51

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.	
							TOP OF QUARRY				
NO SAMPLES							58+	0-8	Stripping, Soil and vegetation.		
91.0	2.6	4.60	0.43	0.46	99.1	57-58					
94.3	2.1	2.24	0.18	0.0	98.8	56-57					
93.5	2.1	3.67	0.25	0.0	99.6	55-56	12	6	Limestone, Gray, Fine grain. Dense to crystal-		
93.5	2.7	3.11	0.25	0.0	99.6	54-55			line. Slightly fossil-		
92.8	4.0	2.91	0.23	0.0	100.0	53-54			iferous.		
86.8	8.5	3.50	0.40	0.09	99.2	52-53					
95.0	2.7	1.66	0.20	0.11	98.6	51-52			Limestone, Gray, Fine		
94.3	2.3	1.68	0.25	0.04	98.5	50-51			grain. Dense. Some		
94.3	2.4	2.53	0.25	0.47	99.9	49-50	11	4	fine grain oolitic,		
95.3	2.3	1.59	0.25	0.07	99.5	48-49			Hard.		
94.2	2.2	3.23	0.28	0.10	100.0	47-48	10	2	Limestone, Gray, Fine		
95.0	2.4	1.60	0.23	0.27	99.5	46-47			grain. Oolitic. Hard.		
92.1	3.2	3.21	0.30	0.64	99.5	45-46			Limestone, Gray, Fine		
88.5	4.3	5.00	0.38	1.04	99.3	44-45	9	5	grain. Dense. Thin		
88.9	3.9	4.40	0.33	0.89	98.3	43-44			beds. Some green		
93.2	3.0	2.61	0.20	0.50	99.5	42-43			shale interbedded.		
91.4	3.2	3.82	0.30	0.72	99.4	41-42					
82.5	5.6	9.32	0.45	1.28	99.1	40-41					
84.3	5.8	7.10	0.45	0.94	98.5	39-40	8	4	Limestone, Gray, Fine		
81.8	7.0	8.83	0.60	1.83	99.9	38-39			grain. Dense. Medium		
87.1	5.2	5.77	0.40	0.86	99.3	37-38			thick beds.		
93.2	3.0	3.48	0.20	0.19	100.0	36-37					
92.4	3.4	3.51	0.20	0.47	100.0	35-36					
92.6	3.4	3.22	0.20	0.51	100.0	34-35	7	6	Limestone, Gray, Fine		
92.5	3.5	3.39	0.20	0.38	100.0	33-34			grain. Dense. Abundant		
93.2	2.8	3.03	0.20	0.11	99.3	32-33			black nodular chert.		
92.8	2.5	2.90	0.20	0.01	98.4	31-32			Thin beds.		
88.9	5.2	3.72	0.28	0.41	98.5	30-31					
88.9	4.6	3.64	0.25	0.50	97.9	29-30					
89.6	4.5	3.83	0.25	0.27	98.5	28-29	6	8	Ls. Dark gray, with blue		
90.0	4.2	3.84	0.20	0.43	98.6	27-28			streaks. Fine grain.		
85.3	6.2	4.64	0.25	0.71	97.1	26-27			Dense. Medium thick		
88.2	4.7	4.45	0.25	0.51	98.1	25-26			beds.		
90.3	4.6	3.74	0.23	0.25	99.1	24-25					
89.6	3.4	4.11	0.22	0.22	97.6	23-24					
83.1	3.9	10.37	0.43	2.25	100.0	22-23					
92.8	2.8	3.13	2.3	0.52	99.5	21-22	5	2½	Limestone, Dark gray.		
95.0	2.2	1.70	0.18	0.40	99.4	20½-21			Oolitic. Soft. Brecciated.		

Renault

QUARRY REPORT NO. 6

Hopkinsville

County: Christian

Property Owner: Stone Co.

Operator:

Location:

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
97.7	1.71	0.58	0.09	0.0	100.0	19-20 <sup>1</sup> / <sub>2</sub>				
97.8	1.63	0.49	0.08	0.05	100.0	18-19			Limestone. Dark gray.	
97.4	1.71	0.64	0.09	0.09	100.0	17-18	4	4 <sup>1</sup> / <sub>2</sub>	Medium grain. Oolitic.	
96.8	1.71	1.43	0.07	0.01	100.0	16-17			Soft. Porous.	
95.7	1.66	1.85	0.13	0.04	99.4	15-16				
95.0	1.72	2.58	0.12	0.05	99.4	14-15	3	3	Limestone. Light gray.	
95.0	1.68	2.31	0.06	0.12	99.1	13-14			Fine grain. Dense.	
93.5	2.3	2.88	0.18	0.64	99.5	12-13				
92.8	2.3	2.95	0.15	0.56	98.8	11-12				
93.9	2.3	3.21	0.20	0.0	99.6	10-11			Limestone. Gray. Fine	
93.5	2.4	2.94	0.20	0.0	99.1	9-10			grain. Dense. Thin	
94.6	2.3	2.77	0.12	0.06	99.9	8-9	2	9	beds.	
92.7	2.7	3.57	0.20	0.65	99.2	7-8				
88.9	2.9	4.81	0.25	0.85	97.7	6-7				
90.7	2.9	5.06	0.30	0.85	99.8	5-6				
92.1	2.8	3.78	0.22	0.57	99.5	4-5				
91.4	3.4	4.22	0.26	0.74	100.0	3-4			Limestone. Light Gray.	
94.3	0.97	2.60	0.17	0.25	98.3	2-3	1	4	Medium grain. Oolitic.	
93.5	3.0	2.74	0.22	0.49	100.0	1-2			Hard. Fossiliferous.	
95.4	2.1	2.21	0.12	0.22	100.0	0-1			Medium thick beds.	

Ste. Genevieve

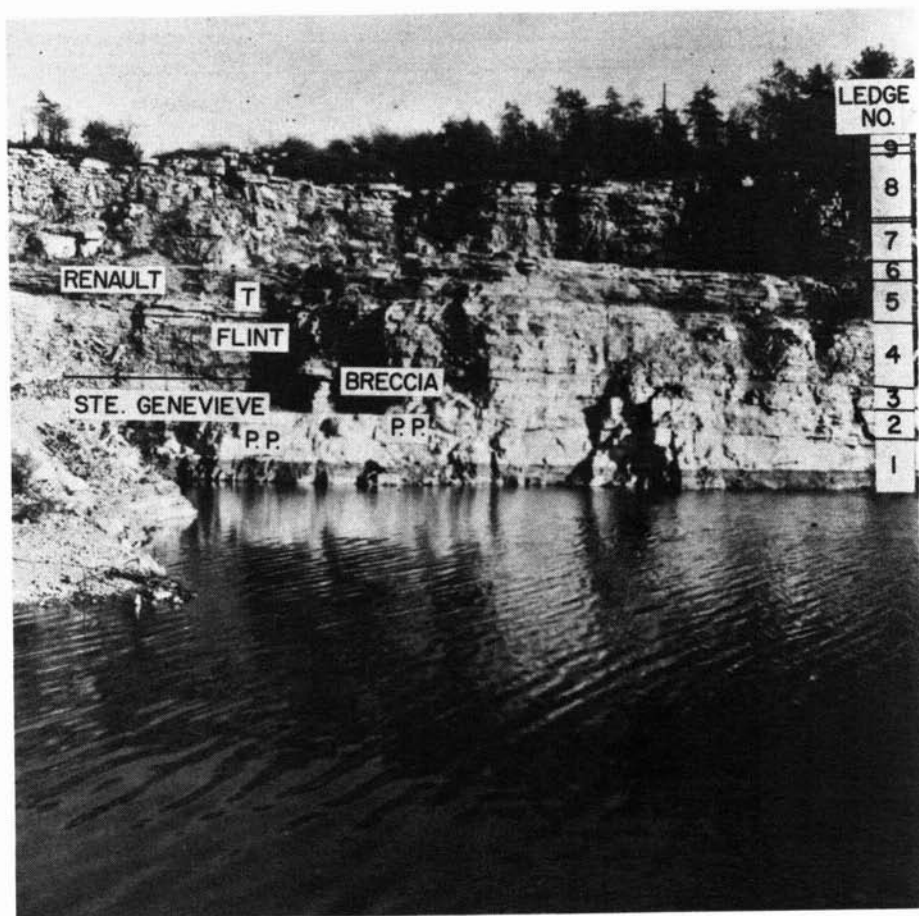
BOTTOM OF QUARRY

QUARRY NO. 7

County: CHRISTIAN

Property Owner: ? (Old Cook Stone Co.)

Location: HOPKINSVILLE, KY., approx. 2 miles north on U.S. Route 41.



Abbreviations: P.P. = Platycrinus penicillus, T = Talarocrinus.

QUARRY REPORT NO. 7

? Old Cook

County: Christian

Property Owner: Stone Co.

Operator: Abandoned

Location: Hopkinsville, Ky., approx. 2 miles north on U. S. Route 41.

Sampled By: H. W. Settle

Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 9/2/49

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
							TOP OF QUARRY			
							? Stripping. Sandstone and soil.			
							Bethel			
NO SAMPLES							12	5	Limestone. Gray. Medium grain. Oolitic. Weathers white.	
NO SAMPLES							11	9	Limestone. Dove gray. Fine grain. Dense. Flecked with calcite crystals. Weathers white.	Renault
NO SAMPLES							10	1-2	Clay. White. Limey.	
91.4	3.39	3.80	0.70	0.82	100.1	70 $\frac{1}{2}$ -71 $\frac{1}{2}$	9	2	Limestone. White. Medium grain. Oolitic.	
97.0	0.91	1.84	0.10	0.04	99.9	69 $\frac{1}{2}$ -70 $\frac{1}{2}$				
94.0	1.51	3.15	0.23	0.18	99.1	68 $\frac{1}{2}$ -69 $\frac{1}{2}$				
94.0	2.27	2.25	0.25	0.53	99.3	67 $\frac{1}{2}$ -68 $\frac{1}{2}$				
93.1	2.43	2.34	0.22	0.36	98.5	66 $\frac{1}{2}$ -67 $\frac{1}{2}$				
94.1	2.12	2.02	0.23	0.21	98.7	65 $\frac{1}{2}$ -66 $\frac{1}{2}$				
93.5	2.95	3.01	0.23	0.46	100.2	64 $\frac{1}{2}$ -65 $\frac{1}{2}$				
94.5	2.21	2.66	0.20	0.36	99.9	63 $\frac{1}{2}$ -64 $\frac{1}{2}$	8	18	Limestone. Dove gray. Fine grain. Dense. Flecked with calcite crystals. Thick beds. Weathers white.	
90.5	2.15	4.86	0.27	0.80	98.6	62 $\frac{1}{2}$ -63 $\frac{1}{2}$				
93.3	2.10	3.22	0.22	0.36	99.2	61 $\frac{1}{2}$ -62 $\frac{1}{2}$				
93.6	2.27	2.95	0.24	0.44	99.5	60 $\frac{1}{2}$ -61 $\frac{1}{2}$				
94.9	1.82	2.45	0.22	0.14	99.5	59 $\frac{1}{2}$ -60 $\frac{1}{2}$				
94.5	1.70	2.99	0.20	0.04	99.4	58 $\frac{1}{2}$ -59 $\frac{1}{2}$				
93.9	2.37	2.41	0.25	0.07	99.8	57 $\frac{1}{2}$ -58 $\frac{1}{2}$				
95.5	1.63	1.67	0.23	0.01	99.0	56 $\frac{1}{2}$ -57 $\frac{1}{2}$				
95.4	1.90	1.55	0.25	0.13	99.2	55 $\frac{1}{2}$ -56 $\frac{1}{2}$				
94.6	1.92	1.90	0.25	0.00	98.7	54 $\frac{1}{2}$ -55 $\frac{1}{2}$				
94.0	2.48	2.13	0.30	0.12	99.0	53 $\frac{1}{2}$ -54 $\frac{1}{2}$				
90.0	4.50	5.29	0.38	0.17	100.3	52 $\frac{1}{2}$ -53 $\frac{1}{2}$				
88.1	5.44	5.16	0.44	0.51	99.7	51 $\frac{1}{2}$ -52 $\frac{1}{2}$				

QUARRY REPORT NO. 7

? Old Cook

County: Christian

Property Owner: Stone Co.

Operator:

Location: Hopkinsville, Ky., approx. 2 miles north on U. S. Route 41

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
61.9	12.80	15.56	1.48	5.50	97.2	51-51 $\frac{1}{2}$	1		Shale, green to shaly ls.	
88.9	4.00	4.55	0.50	0.80	98.8	50-51				
93.4	2.84	2.78	0.25	0.16	99.4	49-50				
94.0	2.27	2.31	0.22	0.00	98.8	48-49	7	7	Limestone. Dove gray. Medium to fine grain.	
91.5	4.50	3.42	0.25	0.00	99.7	47-48			Dense. Flecked with calcite crystals. Fossiliferous. Weathers white.	
79.9	13.60	4.73	0.48	0.29	99.0	46-47				
76.0	16.70	5.31	0.63	0.37	99.0	45-46				
84.5	10.40	3.55	0.54	0.56	99.6	44-45				
95.8	1.77	1.02	0.32	0.22	99.1	43-44				
94.1	2.12	2.18	0.38	0.21	99.0	42-43	6	3	Limestone. Light gray. Fine grain. Oolitic. Weathers bluish white.	
94.1	2.12	3.06	0.44	0.12	99.8	41-42				
89.8	3.56	4.57	0.57	0.69	99.2	40-41				
86.7	4.05	6.14	0.63	0.98	98.5	39-40				
87.4	4.14	5.72	0.64	0.84	98.7	38-39				
87.1	3.78	6.36	0.68	0.85	98.8	37-38				
80.0	5.50	8.13	1.05	1.97	96.7	36-37	5	9	Limestone. Shaly. Greenish blue. Crystalline. Rubby. Slightly fossiliferous.	
80.2	4.80	7.93	0.93	1.69	95.6	35-36				
77.5	6.50	10.07	0.95	2.38	97.4	34-35				
83.5	5.30	6.76	0.86	1.29	97.7	33-34				
80.1	8.00	7.89	0.83	1.92	98.7	32-33				
91.8	2.72	4.80	0.24	0.18	99.7	31-32				
94.4	3.34	2.39	0.17	0.23	100.5	30-31				
94.0	3.86	2.20	0.22	0.20	100.5	29-30				
93.0	3.26	2.09	0.19	0.26	98.8	28-29				
91.1	3.88	2.22	0.22	0.34	97.8	27-28	4	13	Ls. Dove gray. Fine grain. Dense. Flecked with calcite crystals. Contains black chert (flint) nodules scattered throughout. Thin beds. Weathers white.	
91.9	3.56	2.10	0.22	0.22	98.0	26-27				
89.5	5.16	3.02	0.25	0.43	98.4	25-26				
92.0	3.55	2.27	0.20	0.11	98.1	24-25				
92.9	3.96	2.37	0.19	0.00	99.4	23-24				
91.4	3.96	2.78	0.18	0.00	98.3	22-23				
92.3	3.45	2.33	0.18	0.02	98.3	21-22				
91.0	3.93	2.93	0.20	0.35	98.4	20-21				
84.5	8.43	5.66	0.41	0.72	99.7	19-20				
89.5	2.97	5.30	0.24	0.43	98.4	18-19				
92.1	2.42	4.60	0.20	0.23	99.6	17-18				
96.4	2.11	1.08	0.13	0.39	100.1	16-17				
97.5	1.72	0.33	0.10	0.12	99.8	15-16	3	5 $\frac{1}{2}$	Ls. Gray, whiter at bottom. Medium grain. Oolitic to crystalline. Brecciated near middle. Black chert (flint) streaks in bottom part.	
98.1	1.51	0.15	0.10	0.08	99.9	14-15				
96.5	1.98	1.42	0.13	0.20	100.2	13 $\frac{1}{2}$ -14				
94.6	1.83	2.27	0.17	0.19	99.1	12 $\frac{1}{2}$ -13 $\frac{1}{2}$				
95.0	1.90	2.83	0.20	0.20	100.1	11 $\frac{1}{2}$ -12 $\frac{1}{2}$				
93.5	2.57	3.42	0.22	0.32	100.0	10 $\frac{1}{2}$ -11 $\frac{1}{2}$	2	7 $\frac{1}{2}$	Limestone. Dove gray. Fine grain. Dense. Flecked with calcite crystals. Weathers white.	
95.0	1.42	2.72	0.16	0.37	99.7	9 $\frac{1}{2}$ -10 $\frac{1}{2}$				
95.0	2.69	2.08	0.18	0.25	100.2	8 $\frac{1}{2}$ -9 $\frac{1}{2}$				
95.0	2.48	2.13	0.15	0.34	100.1	7 $\frac{1}{2}$ -8 $\frac{1}{2}$				
95.0	3.02	0.55	0.15	0.00	98.7	7 - 7 $\frac{1}{2}$				
95.6	2.29	0.47	0.11	0.30	98.8	6 - 7				

Renault

Ste. Genevieve

QUARRY REPORT NO. 7

? Old Cook

County: Christian

Property Owner: Stone Co.

Operator:

Location: Hopkinsville, Ky., approx. 2 miles north on U. S. Route 41.

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
92.1	6.40	0.72	0.23	0.00	99.5	5-6				
91.4	7.40	0.43	0.28	0.00	99.5	4-5			Limestone, White.	
94.5	4.20	0.45	0.15	0.00	99.3	3-4	1	6	Medium grain. Oolitic.	
91.0	7.85	0.21	0.27	0.00	99.2	2-3			Soft. Massive.	
91.0	7.75	0.57	0.27	0.00	99.5	1-2				
93.1	4.64	1.26	0.27	0.03	99.3	0-1				

WATER LEVEL IN QUARRY

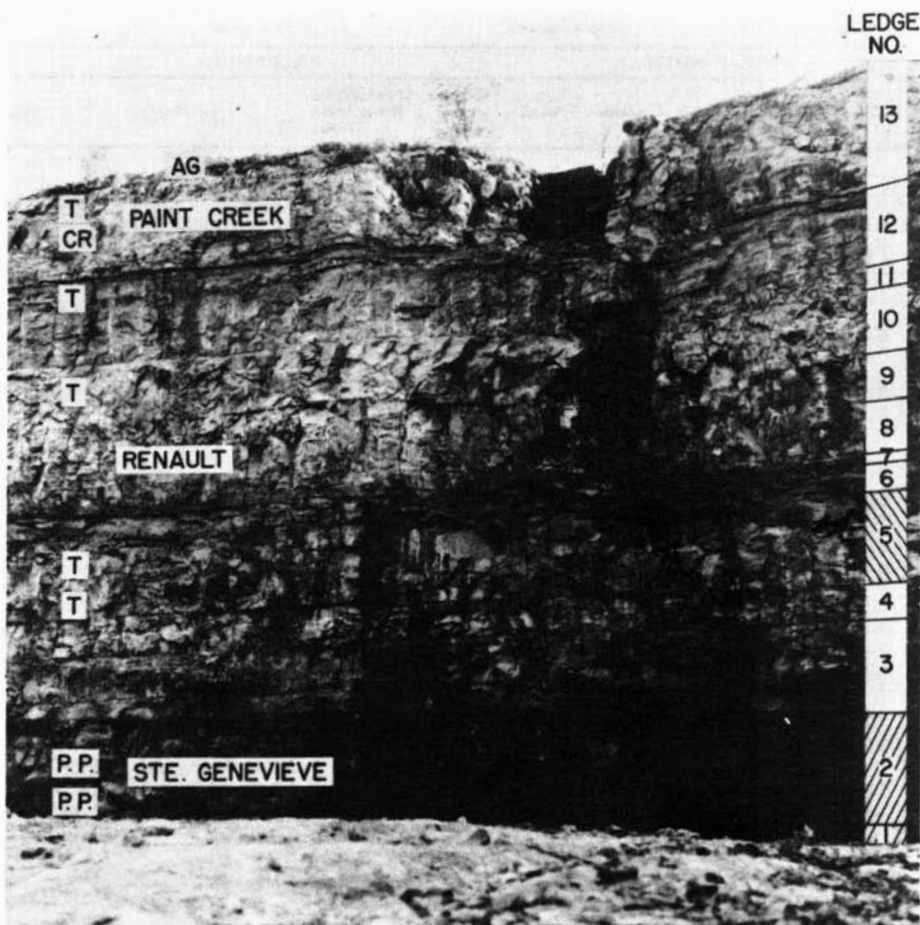
Ste. Genevieve


QUARRY NO. 8


County: CLINTON

Property Owner: L. HUDDLESTON

Location: ALBANY, KY., 2½ miles north on Ky. Route 35 (Rowena Rd.).



 high-calcium limestone. 15 feet thick. CaCO<sub>3</sub> average - 96.0%.

 high-calcium limestone. 10 feet thick. CaCO<sub>3</sub> average - 97.2%.

Abbreviations: AG = Agassizocrinus, CR = large crinoid stem (unidentified),  
P.P. = Platycrinus penicillus, T = Talarocrinus.

QUARRY REPORT NO. 8

County: Clinton

Property Owner: L. Huddleston

Operator: Not operating

Location: Albany, Ky., 2-1/2 miles north on Ky. Route 35 (Rowena Rd).

Sampled By: H. W. Settle

Analyzed By: Mining Engineering Lab.

University of Ky.

Date Sampled: 7/10/49

Date Received: 7/10/50

Date Reported: 9/12/50

CHEMICAL ANALYSIS						DESCRIPTION					
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
TOP OF QUARRY											
NO SAMPLES						83+	?		?	Sandstone and limestone as yet not uncovered for sampling or production.	
NO SAMPLES						82-83 81-82 80-81 79-80 78-79 77-78 76-77 75-76	13	8	Limestone. Fine grain. Dense. Sugary. thin beds.	Paint Creek	
NO SAMPLES						74-75 73-74 72-73 71-72 70-71 69-70 68-69 67-68 66-67 65-66	12	10	Limestone. Oolitic. Gray. Thin beds.	Renault	
NO SAMPLES						64-65 63-64 62-63	11	3	Limestone. Fine grain. Dense. Gray. Weathers buff.		
NO SAMPLES						61-62 60-61 59-60 58-59 57-58 56-57 55-56 54-55 53-54	10	9	Limestone. Medium to coarse grain. Gray. Crystalline to oolitic. Thick beds.		
NO SAMPLES						52-53 51-52 50-51 49-50 48-49 47 1/2-48	9	5 1/2	Limestone. Oolitic. Gray. Massive.		

QUARRY REPORT NO. 8

County: Clinton  
 Location: Albany, Ky.  
 Sampled By:  
 Date Sampled:

Property Owner: L. Huddleston

Operator:

Analyzed By:  
 Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
NO SAMPLES							46 $\frac{1}{2}$ -47 $\frac{1}{2}$				
						45 $\frac{1}{2}$ -46 $\frac{1}{2}$	8	6	Limestone. Fine grain.		
						44 $\frac{1}{2}$ -45 $\frac{1}{2}$			Buff. Sugary. Massive.		
						43 $\frac{1}{2}$ -44 $\frac{1}{2}$					
						42 $\frac{1}{2}$ -43 $\frac{1}{2}$					
						41 $\frac{1}{2}$ -42 $\frac{1}{2}$					
						40 $\frac{1}{2}$ -41 $\frac{1}{2}$	7	1	Ls. Dark gray. Fine grain.		
92.8	2.2	3.54	0.25	0.48	99.3	39 $\frac{1}{2}$ -40 $\frac{1}{2}$					
89.6	2.7	6.48	0.30	0.73	99.8	39--39 $\frac{1}{2}$	6	4 $\frac{1}{2}$	Limestone. Dove colored.		
90.3	2.9	5.03	0.25	0.40	98.9	38--39			Fine grain. Dense. Limestone.		
90.0	2.8	5.41	0.28	0.40	98.9	37--38			Gray. Medium grain.		
88.5	3.0	7.04	0.24	0.45	99.2	36--37			Oolitic.		
97.5	1.98	0.24	0.0	0.0	99.7	35--36					
96.7	2.1	1.15	0.0	0.0	100.0	34--35					
97.1	1.78	1.21	0.0	0.0	100.1	33--34					
96.9	1.78	1.09	0.0	0.0	99.8	32--33	5	10	Limestone. Gray. Medium grain.		
97.8	1.62	0.76	0.0	0.0	100.2	31--32			Oolitic. Massive.		
97.8	1.67	0.86	0.0	0.0	100.3	30--31					
96.5	1.27	0.57	0.0	0.0	98.3	29--30					
97.4	1.96	0.67	0.05	0.0	100.1	28--29					
97.1	1.43	0.59	0.0	0.0	99.1	27--28					
97.8	1.06	0.57	0.0	0.0	99.4	26--27					
61.8	32.1	3.98	0.35	0.46	98.7	25 $\frac{1}{2}$ -26					
60.0	32.5	5.78	0.39	0.64	99.3	24 $\frac{1}{2}$ -25 $\frac{1}{2}$					
62.1	27.2	6.08	0.39	0.67	96.4	23 $\frac{1}{2}$ -24 $\frac{1}{2}$	4	4 $\frac{1}{2}$	Limestone. Dove gray to white.		
63.2	30.2	6.45	0.39	0.59	100.8	22 $\frac{1}{2}$ -23 $\frac{1}{2}$			Fine grain. Dense.		
59.3	32.6	6.95	0.43	1.04	100.3	21 $\frac{1}{2}$ -22 $\frac{1}{2}$			Hard. Weathers dirty white.		
92.1	4.9	2.12	0.20	0.07	99.4	21--21 $\frac{1}{2}$					
88.9	5.2	4.40	0.25	0.48	99.3	20--21					
92.1	3.5	3.70	0.20	0.20	99.7	19--20	3	6 $\frac{1}{2}$	Limestone. Gray to dove colored.		
91.4	4.6	3.52	0.28	0.49	100.3	18--19			Fine grain. Dense.		
93.2	3.5	2.63	0.20	0.25	99.8	17--18			Flecked with calcite crystals.		
88.9	7.0	4.02	0.25	0.43	100.6	16--17			Coarser at bottom.		
90.3	1.69	5.34	0.30	0.76	98.4	15--16					
95.3	1.38	1.29	0.15	0.24	98.4	14--15					
97.8	0.94	0.77	0.10	0.07	99.7	13--14					
98.5	0.80	0.69	0.10	0.01	100.1	12--13			Limestone. Gray. Coarse grain.		
97.8	1.08	0.84	0.10	0.13	100.0	11--12	2	12	Oolitic to crystal-line with some fine grain		
97.1	0.69	1.02	0.10	0.12	99.0	10--11			dense stone interbedded.		
96.4	1.08	1.43	0.15	0.19	99.3	9--10			8'-10' contains dark chert.		
96.0	1.54	1.45	0.13	0.13	99.2	8--9			At 13' is conglomerate with		
96.8	1.21	1.32	0.15	0.10	99.5	7--8			some chert. 1" shale zone at		
96.0	1.45	1.29	0.15	0.13	99.1	6--7			bottom of ledge. 2" dark		
96.4	1.47	1.66	0.14	0.16	99.9	5--6			nodular limestone at top.		
96.4	1.51	1.30	0.13	0.16	99.5	4--5					
94.6	1.59	2.59	0.24	0.30	99.3	3--4					
94.3	2.6	2.17	0.24	0.67	99.9	2--3					
96.0	1.88	1.79	0.18	0.26	100.2	1--2	1	3	Ls. Gray. Coarse grain.		
89.6	3.10	5.79	0.33	0.75	99.6	0--1			Oolitic. Fine grain at bottom.		
									Contains chert stringers.		
BOTTOM OF QUARRY											

Av. 97.2%

Av. 96.0%

Renault

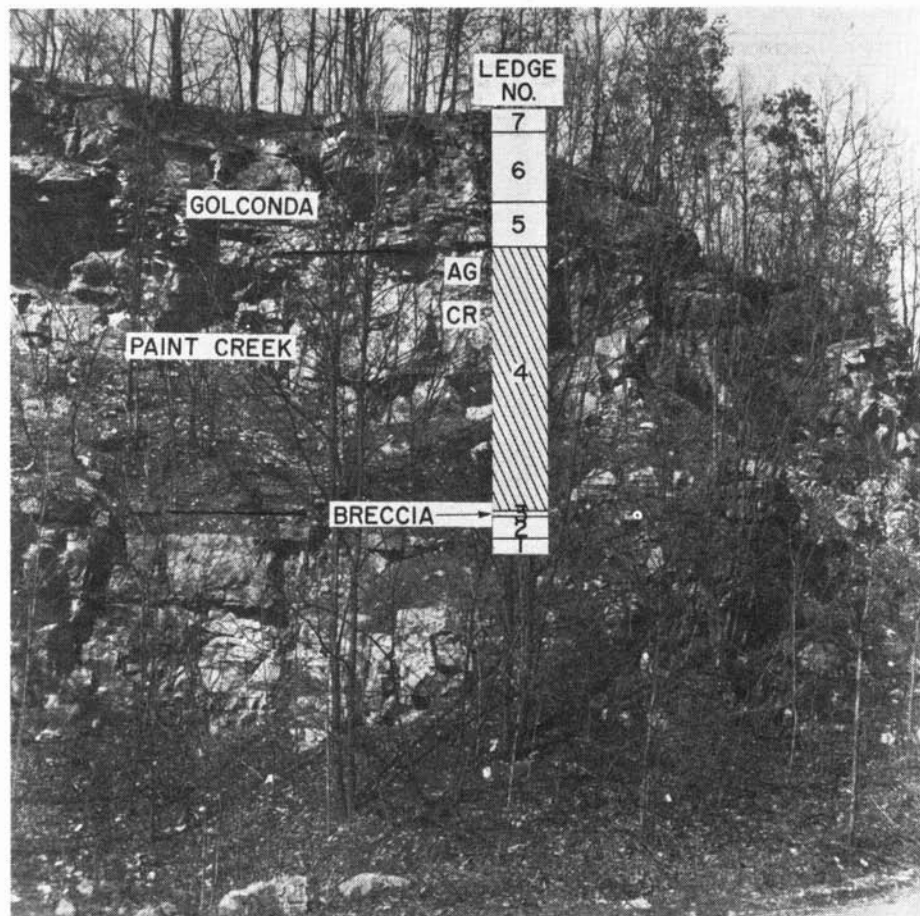
Ste. Genevieve

QUARRY NO. 9

County: ESTILL

Property Owner: ROAD CUT

Location: RAVENNA, KY., approx. 6 miles east on south side of Ky. Route 52.



 high-calcium limestone. 28 feet thick.  $\text{CaCO}_3$  average - 96.2 %.

Abbreviations: AG = Agassizocrinus, CR = large crinoid stem (unidentified).

**QUARRY REPORT NO. 9**

**County:** Estill

**Property Owner:** Road Cut

**Operator:**

**Location:** Ravenna, Ky., approx. 6 miles east on south side of Ky. Route 52.

**Sampled By:** McFarlan, Stokley

**Analyzed By:** Mining Engineering Lab., University of Ky.

**Date Sampled:** 3/3/51

**Date Received:**

**Date Reported:** 10/29/51

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.	
NO SAMPLE									Soil and weathered limestone.		
NO SAMPLES							37½-43½	7	6	Limestone. Medium grain. Oolitic. Hard. Gray. Massive.	Golconda
NO SAMPLE							33-37½	6	4½	Limestone. Medium to coarse grain. Crystalline. Gray. Beds 1" to 6". Contains 2" nodules and layers of fine grain, gray chert.	
NO SAMPLE							32½-33	5	½	Sh. Green. Clay. Soft.	
94.4	2.6	2.07	0.30	0.50	99.9	31½-32½					
92.2	3.5	2.56	0.22	0.97	99.5	30½-31½					
95.0	0.91	2.96	0.35	0.61	99.8	29½-30½					
96.5	0.71	1.88	0.23	0.50	99.8	28½-29½					
95.5	2.4	1.07	0.13	0.66	99.8	27½-28½					
95.8	2.0	1.36	0.33	0.57	100.0	26½-27½					
96.7	0.63	1.56	0.35	0.50	99.7	25½-26½					
97.3	0.45	0.70	0.13	0.61	99.2	24½-25½					
96.9	0.76	1.24	0.18	0.34	99.4	23½-24½					
95.7	2.3	1.09	0.14	0.79	100.0	22½-23½	4	28	Limestone. Medium grain. Oolitic and crinoidal. Soft to medium hard.	Paint Creek	
97.0	1.58	0.96	0.15	0.34	100.0	21½-22½					
94.0	1.67	1.67	0.38	0.82	98.5	20½-21½					
97.0	0.48	1.14	0.18	0.79	99.6	19½-20½					
95.8	1.43	0.47	0.29	0.55	98.5	18½-19½					
97.5	0.30	0.94	0.31	0.52	99.6	17½-18½					
96.8	0.33	1.09	0.35	0.70	99.3	16--17					
94.6	1.31	1.29	0.35	0.73	98.3	15--16					
96.0	1.31	0.78	0.31	0.71	99.1	14--15					
97.6	0.51	0.88	0.31	0.71	99.1	13--14					
97.9	0.57	0.56	0.28	0.49	99.8	11½-13					
96.0	1.56	1.25	0.28	0.76	99.8	10½-11½					
96.5	1.13	1.21	0.33	0.66	99.8	9--10					
95.6	1.34	0.93	0.25	0.48	98.6	8--9					
96.1	1.43	0.71	0.30	0.42	99.0	7--8					
96.5	0.44	0.63	0.25	0.63	98.5	6½--7½					

Av. 96.2%

QUARRY REPORT NO. 9

County: Estill

Property Owner:

Operator:

Location: Ravenna, Ky., approx. 6 miles east on south side of Ky. Route 52.

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.
97.1	1.06	0.46	0.25	0.72	99.6	5 $\frac{1}{2}$ -6 $\frac{1}{2}$				
97.0	0.32	1.23	0.26	0.98	99.8	4 $\frac{1}{2}$ -5 $\frac{1}{2}$				
							4---4 $\frac{1}{2}$	3	$\frac{1}{2}$	Ls. breccia. Fine grain. Gray.
							2---4	2	2	Ls. Medium grain. Gray. Oolitic. 3'' green clay at top.
							0---2	1	2	Ls. Fine grain. Crystal-line. Gray. 3'' green clay at top. Limestone. Lithology and thickness uninvestigated.

Renault

QUARRY NO. 10

County: JEFFERSON

Property Owner: JEFFERSON COUNTY

Location: LOUISVILLE, KY., 1.2 miles northeast of City Limits on U.S. Route 42  
turn right on Hubbard Lane and go 100 yards.



QUARRY REPORT NO. 10

County: Jefferson

Property Owner: Jefferson Co.

Operator: Jefferson Co.

Location: Louisville, Ky., 1.2 miles northeast of city limits on U.S. Route 42, turn right

Sampled By: H. W. Settle

Analyzed By: Mining Engr. Lab. Univ. of Ky. (Hubbard Lane - 100

Date Sampled: 7/30/49

Date Received:

Date Reported: 3/3/50 yds

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
TOP OF QUARRY										
NO SAMPLES						62-70	6	8	Soil and weathered limestone.	
NO SAMPLES						57-62	5	5	Limestone. Dark gray. Fine grain. Dense. Calcite streaks and flecks. Fossiliferous. Massive.	Jeffersonville (Devonian)
75.6	19.8	2.52	0.50	0.26	98.7	56-57				
70.0	22.1	4.84	0.50	0.52	98.0	55-56				
75.4	17.3	4.61	0.50	0.58	98.4	54-55				
63.9	27.1	6.39	0.63	0.99	99.0	53-54	4	6	Limestone. Dolomitic. Light gray. Medium grain. Fossiliferous. Crystalline. Thick beds.	
65.8	23.8	7.83	0.54	1.47	99.4	52-53				
64.4	25.9	6.63	0.60	1.30	98.8	51-52				
78.4	14.8	4.95	0.48	1.10	99.7	50-51				
66.4	25.2	6.05	0.45	1.06	99.2	49-50				
73.5	19.4	5.35	0.43	0.62	99.3	48-49				
54.4	35.1	6.44	0.63	1.95	98.5	47-48				
59.3	29.0	7.11	0.68	2.06	98.2	46-47				
53.1	34.0	8.48	0.67	2.40	98.7	45-46				
51.3	33.0	9.96	0.70	2.74	97.4	44-45	3	14	Limestone. Dolomitic. Light gray. Medium grain. Contains calcite streaks.	
72.9	16.7	8.01	0.40	1.05	99.1	43-44				
61.0	27.2	7.66	0.48	1.22	97.6	42-43				
52.9	34.8	8.72	0.63	1.96	99.0	41-42				
54.4	34.7	6.13	0.68	1.79	97.7	40-41				
51.5	34.1	10.23	0.70	1.94	98.5	39-40				
57.8	31.3	7.44	0.67	1.36	98.6	38-39				
56.1	32.4	7.41	0.62	1.54	98.1	37-38				
65.9	25.4	6.04	0.47	1.10	98.9	36-37				
66.3	27.2	4.02	0.42	0.69	98.6	35-36				
54.4	35.7	6.73	0.68	1.33	98.8	34-35				
69.4	25.2	3.61	0.45	0.18	98.8	33-34				
72.1	24.9	2.32	0.38	0.00	99.7	32-33				
67.0	28.9	2.52	0.46	0.00	98.9	31-32				
73.4	21.7	3.77	0.43	0.45	99.8	30-31				
71.9	23.8	2.39	0.33	0.35	98.8	29-30				
74.0	23.0	1.81	0.33	0.14	99.3	28-29				
75.9	21.1	1.71	0.29	0.10	99.1	27-28				
69.9	28.9	1.17	0.33	0.13	100.4	26-27				

Jeffersonville (Devonian)

Louisville (Silurian)

**QUARRY REPORT NO. 10**

County: Jefferson

Property Owner: Jefferson Co.

Operator:

Location: Louisville, Ky., 1.2 miles northeast of city limits on U.S. 42, turn right

Sampled By: Analyzed By: on Hubbard Lane and go 100 yds.

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.
67.4	28.2	3.11	0.43	0.52	99.7	25-26	2	19	Limestone. Dolomitic.	
65.5	30.9	1.83	0.45	0.39	99.1	24-25			Gray with darker	
63.4	33.6	1.88	0.43	0.26	99.6	23-24			streaks. Fine grain.	
70.5	27.5	1.56	0.40	0.00	100.0	22-23			Crystalline. Fossilifer-	
75.4	22.8	0.91	0.30	0.00	99.4	21-22			ous. Contains calcite	
74.0	24.7	0.77	0.40	0.00	99.9	20-21			streaks and vugs.	
59.6	37.5	1.74	0.43	0.00	99.3	19-20				
58.4	39.4	1.34	0.54	0.00	99.7	18-19				
57.6	38.8	2.12	0.73	0.61	99.9	17-18				
56.2	35.2	4.77	0.68	1.73	98.6	16-17				
55.2	36.3	5.35	0.63	2.08	99.6	15-16				
55.5	36.2	3.82	0.56	1.57	97.7	14-15				
54.5	31.5	4.85	0.62	1.62	93.1	13-14				
55.0	32.4	5.09	0.55	1.23	94.3	12-13				
58.5	33.7	4.57	0.68	0.99	98.4	11-12				
57.9	33.8	5.43	0.58	1.34	99.0	10-11	1	17	Limestone. Dolomitic.	
51.5	34.6	8.16	0.62	2.43	96.7	9-10			Light gray to buff with	
53.0	33.5	6.77	0.67	2.77	96.7	8-9			darker streaks. Fine	
51.5	31.7	7.86	0.63	3.50	95.2	7-8			to medium grain. Beds	
51.6	35.2	7.84	0.68	3.43	98.8	6-7			up to 4 feet thick.	
51.5	33.9	3.90	0.60	2.69	97.6	5-6				
46.3	32.4	12.70	0.78	4.92	97.1	4-5				
57.1	36.7	2.96	1.00	0.83	98.6	3-4				
55.5	35.8	2.53	2.52	0.32	96.7	2-3				
58.4	38.6	1.42	0.85	0.24	99.5	1-2				
58.4	38.5	1.72	0.72	0.35	99.9	0-1				

Louisville (Silurian)

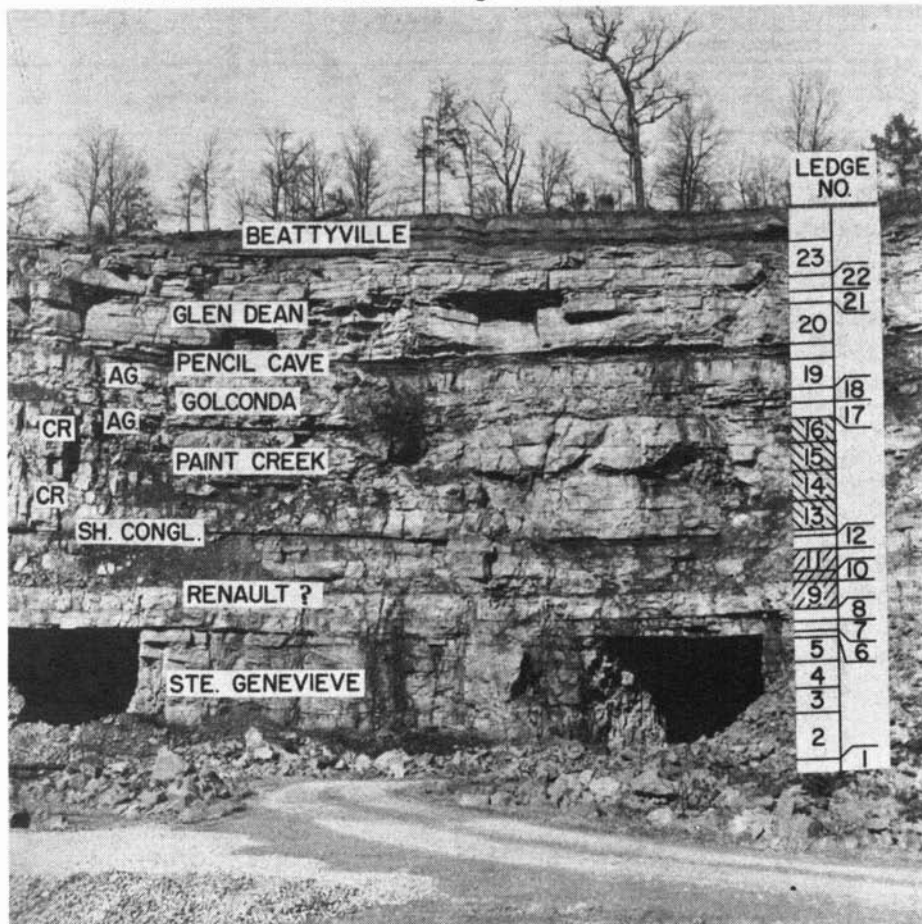
BOTTOM OF QUARRY

QUARRY NO. 11


County: LEE

Property Owner: KENTUCKY STONE CO.

Location: BEATTYVILLE, KY., 6 miles northwest on Ky. Route 52 (Irvine Road)  
turn left on Yellow Rock Road and go 6.6 miles.



 high-calcium limestone. 23 feet thick. CaCO<sub>3</sub> average - 95.7%.

 high-calcium limestone. 14 feet thick. CaCO<sub>3</sub> average - 95.7%.

Rail transportation is available.

Coal supply is near.

Abbreviations: AG. = Agassizocrinus, CR. = large crinoid stem (unidentified),  
SH. CONGL. = shale conglomerate.

QUARRY REPORT NO. 11

County: Lee

Property Owner: Ky. Stone Co.

Operator: Ky. Stone Co.

Location: Beattyville, Ky., approx. 9 miles west on Kentucky River.

Sampled By: E. Luttrell

Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 8/9/50

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
TOP OF QUARRY											
NO SAMPLES						Stripping	24		Stripping, Brown shale. Thin limestone and sandstone beds and soil.		
90.6	1.51	4.59	0.75	1.11	98.6	97-100			Ls. Blue to gray blue. Medium grain. Crystalline.	Glen Dean	
87.0	2.5	6.44	0.75	1.89	98.6	96-97			Ls. Gray blue. Weathers yellowish. Medium to fine grain. Massive.		
86.5	2.5	6.54	0.75	1.78	98.1	95-96	23	6	Massive to medium beds.		
88.4	2.4	5.58	0.57	1.40	98.4	94-95					
87.0	1.71	7.30	0.97	1.60	98.5	93-94	22	3	Ls. Gray blue. Weathers yellowish. Medium to fine grain. Massive.		
83.5	1.72	8.49	1.05	1.82	96.6	92-93					
87.9	1.66	6.47	0.82	0.38	98.2	91-92					
87.0	1.81	6.74	0.78	1.74	98.1	90-91			Ls. Blue. Medium grain. Crystalline.		
85.9	2.5	6.51	0.62	1.58	97.1	89-90	21	2			
84.1	3.0	7.89	0.70	2.03	97.7	88-89			Ls. Bluish gray. Medium grain. Medium beds with prominent bedding planes.		
85.0	3.2	7.33	0.77	1.94	98.0	87-88					
74.6	7.0	13.40	1.38	3.64	100.0	86-87	20	4			
84.8	3.5	7.47	0.62	1.80	98.2	85-86					
NO SAMPLES						82-85	3		Sh. brown with thin irregular limestone interbedded.	Pencil Cave	
89.3	4.3	4.00	0.57	0.53	98.7	81-82					
83.9	8.9	5.47	1.06	0.69	100.0	80-81					
95.6	1.81	1.49	0.40	0.23	99.7	79-80			Ls. Brownish gray. Coarsely crystalline. Somewhat oolitic. Weathers brownish yellow. One bed crinoidal.		
96.0	1.66	1.61	0.35	0.36	100.0	79-79	19	6			
94.9	1.42	2.34	0.32	0.40	99.4	77-78					
95.4	1.09	2.77	0.26	0.52	100.0	76-77					
91.8	1.44	4.18	0.28	1.29	99.0	75-76			Ls. Light brownish gray. Coarsely crystalline and slightly oolitic.		
94.5	1.20	3.20	0.34	0.45	99.8	74-75	18	3			
83.9	0.91	12.90	0.16	0.71	98.6	73-74					
90.5	1.21	5.93	0.36	1.15	99.2	72-73			Ls. Gray. Coarsely crystalline and oolitic. Thin beds. Contains chert stringers.		
90.5	1.51	5.82	0.40	1.44	98.2	71-72	17	3			
93.8	1.05	3.86	0.35	0.36	99.4	70-71					
NO SAMPLES						1/4			Shale. Gray.	Golconda	
93.0	1.86	4.00	0.35	0.39	99.6	69-70					
93.6	2.4	2.80	0.45	0.15	99.4	68-69					
94.5	3.0	1.38	0.55	0.30	99.7	67-68	16	5	Limestone. Brownish gray. Crystalline and oolitic. Crinoidal.		
95.1	1.14	1.70	0.40	0.31	98.7	66-67					
96.5	1.19	1.06	0.33	0.07	99.2	65-66					
96.5	0.83	1.09	0.30	0.07	98.8	64-65					
96.0	0.65	1.55	0.35	0.02	98.6	63-64	15	6	Limestone. Brownish gray. Crystalline and slightly oolitic. Crinoidal. Thick beds.		
96.5	0.76	1.26	0.36	0.00	98.9	62-63					
96.4	0.91	1.59	0.43	0.16	99.5	61-62					
93.5	2.8	1.96	0.54	0.28	99.1	60-61					
96.5	1.67	1.19	0.41	0.00	99.8	59-60					

—Av. 95.7%

QUARRY REPORT NO. 11

County: Lee

Property Owner: Ky. Stone Co.

Operator: Ky. Stone Co.

Location:

Sampled By: E. Luttrell

Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 8/9/50

Date Received:

Date Reported:

CHEMICAL ANALYSIS

DESCRIPTION

% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fm.
96.8	1.14	1.00	0.18	0.00	99.1	58-59				
97.0	1.21	1.01	0.33	0.01	99.6	57-58	14	6	Limestone. White. Oolitic. Thick beds.	
96.0	1.66	1.25	0.21	0.00	99.1	56-57			Weathers yellowish.	
97.3	1.00	0.93	0.24	0.04	99.5	55-56				
96.1	1.34	1.46	0.23	0.03	99.2	54-55				
96.8	1.30	1.36	0.26	0.01	99.7	53-54				
97.1	0.91	1.44	0.28	0.02	99.7	52-53				
96.3	1.24	1.48	0.13	0.27	99.4	51-52				
98.0	0.86	0.66	0.20	0.06	99.8	49-50	13	6	Limestone. Light gray. Very oolitic. Weathers yellowish. Thick beds.	Paint Creek
97.8	1.06	0.77	0.30	0.06	100.0	48-49				
97.1	1.36	1.10	0.37	0.04	100.0	47-48				
92.6	2.90	2.75	0.45	0.38	99.1	46-47				
NO SAMPLES						45-46		1	Sh. Gray. Weathers greenish.	
91.6	1.28	4.98	0.24	0.92	99.0	44-45	12	3	Ls. Light gray. Fn. grn. Dns. Conchoidal fracture. Massive. Conglomeritic and rubbly in top 8".	
84.0	11.2	2.84	0.73	0.41	99.2	43-44				
70.6	21.4	4.72	1.16	0.97	98.9	42-43				
90.7	7.1	1.10	0.60	0.06	99.6	41-42				
97.0	1.13	1.04	0.20	0.07	99.4	40-41				
95.5	2.7	1.20	0.30	0.38	100.1	39-40	11	6	Limestone. Gray. Dense. Oolitic. Massive to medium thick beds. Weathers yellow.	
95.5	2.0	1.40	0.40	0.02	99.3	38-39				
96.0	0.15	1.85	0.18	0.23	98.4	37-38				
95.5	0.02	2.31	0.21	0.18	98.2	36-37				
96.0	0.30	2.50	0.27	0.53	99.6	35-36				
93.1	0.86	4.12	0.32	0.91	99.3	34-35	10	2	Ls. Dove gray. Fine grain. Dense. Conchoidal fracture. Thin beds.	Renault
97.7	0.32	0.65	0.22	0.07	99.0	33-34				
96.9	0.22	0.90	0.20	0.10	98.3	32-33				
97.6	0.42	1.03	0.18	0.03	99.3	31-32	9	6	Limestone. Light gray. Coarsely oolitic. Very coarsely oolitic at top. Weathers white.	
93.5	0.51	1.44	0.24	0.12	95.8	30-31				
98.0	0.29	0.94	0.17	0.00	99.4	29-30				
97.8	0.36	0.93	0.22	0.00	99.3	28-29				
94.5	0.90	3.09	0.25	0.34	99.1	27-28				
96.0	0.32	2.32	0.25	0.59	99.4	26-27	8	2½	Ls. Brown gray. Dense. Conchoidal fracture. Calcite flecked. Slightly oolitic.	
89.0	0.61	8.52	0.30	1.64	100.1	25½-26				
89.7	1.28	7.73	0.27	1.04	100.0	24½-25½	7	2	Ls. Gray. Oolitic. More crystalline at top.	
89.4	0.83	8.46	0.28	1.06	100.0	23½-24½				
91.6	1.21	4.54	0.33	1.95	99.6	23-23½	6	½	Ls. Brown. Conglomeritic. Shaly.	Ste. Genevieve
94.0	0.77	4.15	0.20	0.87	100.0	22-23				
95.0	0.53	3.40	0.21	0.55	99.7	21-22				
92.9	0.68	5.16	0.31	0.76	99.8	20-21	5	5	Limestone. Gray. Oolitic. Contains lenses of soft, brown stone. Calcite stringers present.	
92.9	0.68	5.09	0.25	0.96	99.9	19-20				
91.0	1.06	5.93	0.25	0.75	99.0	18-19				

Av. 95.7%

QUARRY REPORT NO. 11

County: Lee

Property Owner: Ky. Stone Co.

Operator: Ky. Stone Co.

Location:

Sampled By: E. Luttrell

Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 8/9/50

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
94.5	0.23	3.25	0.21	0.52	98.7	17-18					
93.9	0.85	4.26	0.20	0.51	99.7	16-17					
92.4	0.75	5.52	0.18	0.53	99.4	15-16	4	5	Limestone, Gray. Oolitic, Massive beds.		
94.1	0.61	3.88	0.18	0.42	99.2	14-15					
93.4	0.87	4.51	0.15	0.42	99.4	13-14					
92.5	0.60	5.33	0.23	0.46	99.1	12 $\frac{1}{2}$ -13					
82.4	1.27	13.16	0.35	1.75	98.9	11 $\frac{1}{2}$ -12 $\frac{1}{2}$	3	3 $\frac{1}{2}$	Ls. Same as above but with quartz grains and chert present. Cross-bedded in part.		
79.5	1.11	14.60	0.42	2.44	98.1	10 $\frac{1}{2}$ -11 $\frac{1}{2}$					
77.4	0.85	16.25	0.37	2.91	97.8	9 $\frac{1}{2}$ -10 $\frac{1}{2}$					
95.4	0.88	2.49	0.22	0.58	99.6	8 $\frac{1}{2}$ -9 $\frac{1}{2}$					
96.0	0.70	1.53	0.21	0.58	99.0	7 $\frac{1}{2}$ -8 $\frac{1}{2}$					
94.9	1.03	2.35	0.13	1.02	99.4	6 $\frac{1}{2}$ -7 $\frac{1}{2}$	2	8	Limestone, Brownish gray. Fine grain, Dense. Brittle, Conchoidal fracture. Contains dark brown chert stringers.		
96.4	0.58	1.69	0.25	0.37	99.3	5 $\frac{1}{2}$ -6 $\frac{1}{2}$					
83.9	0.84	12.83	0.90	0.41	98.9	4 $\frac{1}{2}$ -5 $\frac{1}{2}$					
68.4	0.73	29.25	1.25	0.40	100.0	3 $\frac{1}{2}$ -4 $\frac{1}{2}$					
92.1	0.75	5.62	0.44	0.28	99.2	2 $\frac{1}{2}$ -3 $\frac{1}{2}$					
88.0	0.97	8.46	0.21	1.22	98.9	1 $\frac{1}{2}$ -2 $\frac{1}{2}$					
86.1	0.89	9.09	0.21	1.26	97.6	$\frac{1}{2}$ -1 $\frac{1}{2}$	1	1 $\frac{1}{2}$	Ls. Greenish gry. Fn grn. Dense. Conchoidal fracture.		
88.4	1.15	8.67	0.30	1.14	100.0	0-- $\frac{1}{2}$					
BOTTOM OF QUARRY											

Ste. Genevieve

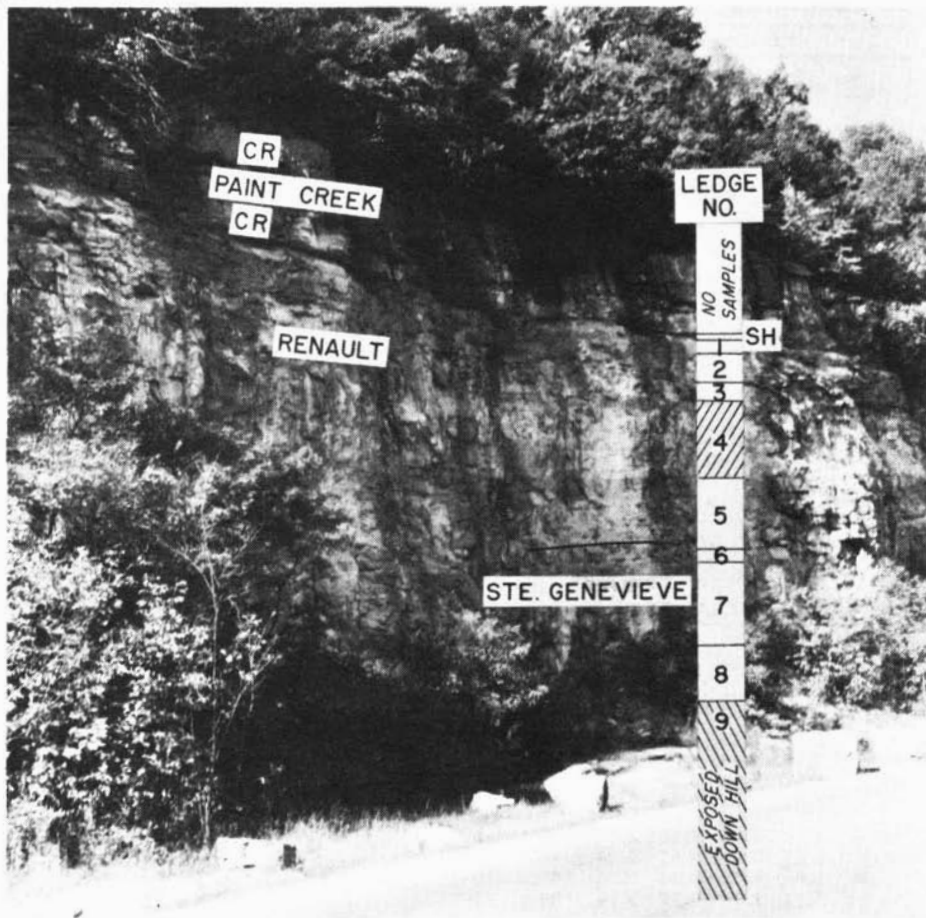
St. Louis

QUARRY NO. 12

County: MADISON

Property Owner: ROAD CUT

Location: BIG HILL, KY., 3 miles south on west side of U.S. Route 421.



 high-calcium limestone. 9 feet thick.  $\text{CaCO}_3$  average - 97.7%.

 high-calcium limestone. 13 feet thick.  $\text{CaCO}_3$  average - 97.2%.

Abbreviations: CR. = large crinoid stem (unidentified), SH = shale.

**QUARRY REPORT NO. 12**

County: Madison

Location: Big Hill, Ky., 3 miles south on west side of U. S. Route 421.

Sampled By: H. W. Settle

Date Sampled: 10/6/50

Property Owner: Road Cut

Operator:

Analyzed By: Mining Engineering Lab., University of Ky.

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.	
TOP OF ROAD CUT											
							?		Overburden. Soil and rock. Thickness and nature not determined.		
NO SAMPLES							7		Limestone. Gray. Crystalline. Thick beds.	Paint Creek and higher	
NO SAMPLES							3		Limestone. Gray. Shaly. Thin beds.		
NO SAMPLE							1		Shale. Green. Clay.		
87.8	1.82	7.37	0.62	1.16	98.8	0-1	1	2	Limestone. Fine grain. Dense.		
89.6	1.72	5.45	0.24	1.06	98.1	1-2					
94.7	1.54	2.85	0.20	0.27	99.6	2-3	2	6	Limestone. Gray. Medium grain. Oolitic. Soft.		
93.9	1.56	3.16	0.23	0.40	99.3	3-4					
93.5	1.59	4.32	0.18	0.23	99.8	4-5					
93.4	1.59	4.58	0.22	0.29	100.1	5-6					
93.2	1.51	3.93	0.21	0.42	99.3	6-7					
93.9	1.41	3.61	0.55	0.48	100.0	7-8					
84.3	1.75	8.63	1.52	2.27	97.5	8-9	3	4	Limestone. Buff color. Crystalline.		
95.3	1.21	2.76	0.53	0.14	99.9	9-10					
95.5	1.24	2.08	0.94	0.20	100.0	10-11					
96.1	1.01	1.94	0.85	0.04	99.9	11-12					
97.5	0.96	0.84	0.25	0.04	99.6	12-13	4	9	Limestone. White. Oolitic. Soft. Massive.	Renault	
98.1	0.91	0.78	0.26	0.02	100.1	13-14					
97.5	0.91	0.63	0.30	0.11	99.5	14-15					
97.6	0.65	0.59	0.28	0.12	99.2	15-16					
98.5	0.66	0.70	0.02	0.0	99.9	16-17					
97.5	0.68	0.85	0.08	0.0	99.1	17-18					
98.3	0.79	0.48	0.0	0.0	98.3	18-19					
97.0	0.95	0.76	0.0	0.0	98.7	19-20					
97.5	0.88	0.83	0.0	0.0	99.2	20-21					
96.8	0.92	1.06	0.22	0.05	99.1	21-22					
96.0	1.17	2.10	0.25	0.07	99.6	22-23					
94.6	1.06	2.94	0.27	0.32	99.2	23-24					
91.4	1.40	5.57	0.25	0.61	99.2	24-25					

Av. 97.7%

QUARRY REPORT NO. 12

County: Madison

Property Owner: Road cut

Operator:

Location: Big Hill, Ky., 3 miles south on U. S. Route 421.

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
90.4	1.21	6.57	0.18	0.59	99.0	25-26				
87.8	1.09	8.18	0.28	0.86	98.2	26-27	5	9	Limestone. Dark gray.	Renault
89.1	1.15	6.87	0.20	0.68	98.0	27-28			Fine grain. Dense.	
89.9	1.07	5.76	0.26	0.56	97.6	28-29			Chert in top 2 feet.	
90.7	1.85	5.85	0.27	0.73	99.4	29-30			Breccia at top.	
88.6	1.75	7.18	0.30	1.07	98.9	30-31	6	2	Limestone. Fine grain.	
72.2	17.0	6.59	0.55	1.89	98.2	31-32			Shaly.	
76.8	1.96	16.96	0.33	1.15	97.2	32-33				
82.8	1.91	13.41	0.25	1.06	99.4	33-34				
94.0	1.80	3.65	0.22	0.30	100.0	34-35				
90.5	1.84	5.32	0.25	0.46	98.4	35-36				
89.3	3.1	5.45	0.28	0.41	98.5	36-37	7	13	Limestone. Dark gray.	St. Genevieve
87.9	2.0	7.52	0.22	0.54	98.2	37-39			Oolitic. Soft. Small amount of chert in top 3 feet.	
90.5	1.40	6.29	0.37	0.64	99.2	39-41				
90.7	1.32	5.75	0.35	0.46	98.6	41-43				
88.5	1.42	8.07	0.22	0.78	99.0	43-45				
93.1	1.30	3.75	0.25	0.54	98.9	45-46				
95.0	1.21	3.07	0.22	0.22	99.7	46-47				
92.1	1.19	5.38	0.25	1.03	100.0	47-48				
89.2	1.19	6.41	0.25	0.75	97.8	48-49				
92.8	1.18	3.47	0.19	0.46	98.1	49-50	8	8	Limestone. Gray.	St. Louis
91.8	1.06	5.33	0.26	0.44	98.9	50-51			Fine grain. Dense.	
92.1	1.36	4.66	0.24	0.43	98.8	51-52			Coarser and slightly crystalline at top.	
93.9	1.15	3.00	0.20	0.10	98.4	52-53				
97.1	0.97	1.17	0.12	0.0	99.4	53-54				
96.8	0.75	1.20	0.10	0.0	98.9	54-55				
97.8	0.88	0.94	0.10	0.0	99.7	55-56				
98.5	0.63	0.76	0.15	0.03	100.1	56-57				
98.5	0.61	0.64	0.15	0.08	100.1	57-58				
98.1	0.62	0.64	0.14	0.0	99.5	58-59				
97.8	0.68	0.92	0.15	0.0	99.6	59-60				
95.0	0.74	3.52	0.19	0.16	99.6	60-61	9	13	Limestone. White.	St. Louis
97.7	0.58	1.35	0.20	0.0	99.8	61-62			Medium grain. Oolitic.	
95.7	0.68	1.97	0.17	0.01	98.5	62-63			Soft.	
98.1	0.98	1.08	0.17	0.09	100.0	63-64				
96.4	0.89	1.61	0.20	0.30	99.4	64-65				
96.1	0.92	2.64	0.12	0.24	99.8	65-66				

↑ Av. 97.2% ↓

BOTTOM OF SAMPLED SECTION

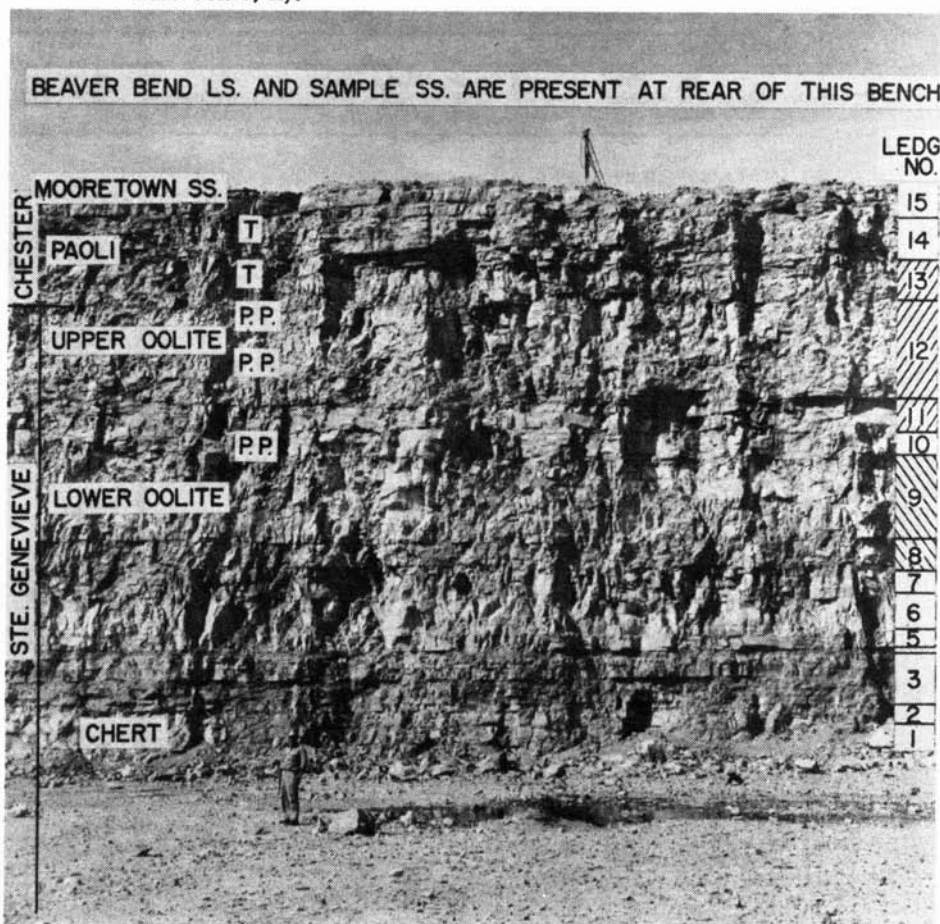
Below this zone are many feet of limestone that were not analyzed.

QUARRY NO. 13

County: MEADE

Property Owner: KOSMOS CEMENT CO.

Location: BRANDENBURG, KY., 7 miles northwest on Ky. Route 228 (Battletown Rd.) near Oolite, Ky.



high-calcium limestone. 35 feet thick. CaCO<sub>3</sub> average - 97.0 %.

high-calcium limestone. 26 feet thick. CaCO<sub>3</sub> average - 96.4 %.

This vicinity is considered worthy of further investigation because:

1. Thick deposits of high-calcium limestone with low phosphorous and sulfur content are known.
2. Most of the accompanying limestones are satisfactory for construction purposes.
3. Probably reserves adequate for large operations.
4. It is near cheap river transportation.

Abbreviations: LS. = limestone, P.P. = Platycrinus penicillus, SS. = sandstone, T = Talarocrinus.

QUARRY REPORT NO. 13

County: Meade

Location: Brandenburg Ky., 7 miles northwest on Ky. Route 228 (Battletown Road)

Sampled By: H. W. Settle, E. B. Wood Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 10/19/50

Date Received:

Kosmos Cement

Operator: Co.

Kosmos Cement

Date Reported: 6/5/51

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.	
							TOP OF QUARRY				
							Stripping soil and weathered limestone.				
NO SAMPLES							18	30±	Sandstone. Medium grain. Quartz. Gray. Weathers brown.	Sample	
NO SAMPLES							130-136	17	6	Limestone. Fine grain. Oolitic. White. Hard. Fossiliferous. Weathers white. Thick beds.	Beaver Bend
NO SAMPLES							124-130	16	6	Ls. Medium grain. Crystalline. Gray. Weathers gray. Thick beds.	
NO SAMPLES								0.3	Sandstone.	Mooretown	
98.1	0.45	0.33	0.13	0.00	99.0	123-124					
98.0	0.28	0.53	0.13	0.00	98.9	122-123					
97.8	0.67	0.60	0.08	0.00	99.2	121-122					

QUARRY REPORT NO. 13

County: Meade

Property Owner:

Operator:

Location: Brandenburg, Ky., 7 miles northwest on Ky. Route 228 (Battletown Road)

Sampled By: H. W. Settle, E. B. Wood Analyzed By: Mining Engineering Lab. University of Ky.

Date Sampled: 10/19/50

Date Received:

Date Reported: 6/5/51

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
98.0	0.48	0.39	0.08	0.00	98.8	120-121				
98.0	0.33	0.39	0.08	0.00	98.8	119-120				
96.0	0.80	1.89	0.13	0.12	99.1	118-119	15	10	Limestone. Fine grain. Bluish gray. Earthy appearance. Thin beds.	
96.0	0.78	1.53	0.26	0.16	98.7	117-118				
94.6	2.6	1.52	0.43	0.37	99.5	116-117				
90.6	4.7	2.49	0.73	0.27	98.8	115-116				
84.4	10.6	2.16	1.17	0.26	98.6	114-115			Contains some disseminated pyrite. Contains clay partings.	
87.4	9.3	2.06	1.00	0.20	100.0	113-114				
90.6	5.5	2.11	0.47	0.09	98.8	112-113				
96.4	1.23	1.85	0.22	0.28	100.0	111-112				
96.3	1.24	1.93	0.23	0.27	100.0	110-111	14	10	Limestone. Medium grain. Crystalline. Gray. Fossiliferous. Medium to thin beds.	
93.6	3.2	1.58	0.15	0.46	99.0	109-110				
93.6	3.3	2.13	0.20	0.39	99.6	108-109				
94.9	1.9	2.30	0.23	0.47	99.8	107-108				
93.5	3.5	2.05	0.31	0.42	98.9	106-107				
90.7	2.9	4.25	0.35	0.75	99.0	105-106				
91.5	1.36	4.74	0.27	1.00	98.9	104-105				
98.1	0.45	1.18	0.07	0.11	99.9	103-104				
98.0	0.50	0.99	0.10	0.06	99.7	102-103				
97.0	0.68	1.23	0.13	0.18	99.2	101-102				
98.1	0.38	0.86	0.09	0.03	99.5	100-101	13	10	Limestone. Fine to medium grain. Crystalline. Gray. Earthy appearance. Fossiliferous. Medium beds.	
97.8	1.16	0.90	0.07	0.08	100.0	99-100				
96.9	1.16	1.13	0.08	0.14	99.4	98-99				
96.8	1.19	1.30	0.18	0.52	100.0	97-98				
96.2	0.98	2.17	0.18	0.34	99.9	96-97				
95.0	1.68	2.53	0.35	0.40	100.0	95-96				
96.9	1.08	1.52	0.10	0.36	100.0	94-95				
97.5	1.04	1.12	0.18	0.17	100.0	93-94				
97.4	1.12	1.17	0.05	0.23	100.0	92-93				
96.5	1.16	0.87	0.10	0.00	98.6	91-92				
96.5	1.18	0.82	0.10	0.13	98.7	90-91				
96.5	1.15	0.94	0.08	0.27	98.9	89-90				
96.5	0.67	1.20	0.08	0.05	98.5	88-89				
97.5	0.78	1.28	0.08	0.06	99.8	87-88				
97.5	0.75	1.09	0.03	0.06	99.4	86-87				
97.0	0.91	1.20	0.05	0.17	99.3	85-86				
94.6	0.92	3.05	0.15	0.51	99.2	84-85	12	18		
95.2	0.94	2.23	0.18	0.27	98.8	83-84				
96.4	0.94	2.06	0.13	0.22	99.8	82-83				
98.4	0.62	0.88	0.08	0.04	100.0	81-82				
97.6	0.63	0.74	0.03	0.07	99.0	80-81				
97.7	0.58	0.84	0.08	0.00	99.4	79-80				
97.9	0.62	0.96	0.08	0.00	99.6	78-79				
98.5	0.59	0.80	0.03	0.05	100.0	77-78				
98.6	0.54	0.84	0.03	0.00	100.0	76-77				
97.0	0.39	0.94	0.03	0.00	98.4	75-76				
96.5	0.56	1.27	0.08	0.00	98.7	74-75				
96.4	0.50	1.50	0.10	0.00	98.5	73-74				
97.0	0.63	1.03	0.03	0.00	98.7	72-73	11	7	Limestone. Fine grain. Dense. Gray. Medium beds.	
95.0	0.63	1.42	0.03	0.50	97.6	71-72				
95.1	0.63	2.49	0.05	0.00	98.3	70-71				
97.0	0.70	1.29	0.08	0.00	99.1	69-70				

Av 97.0%

Paoli

Ste. Genevieve

QUARRY REPORT NO. 13

County: Meade

Property Owner: Kosmos Cement Co.

Operator: Kosmos Cement Co.

Location: Brandenburg, Ky., 7 miles northwest on Ky. Route 228 (Battletown Road)

Sampled By:

Analyzed By:

Near Oolite, Ky.

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
92.5	1.04	4.28	0.23	0.54	98.6	68-69			Limestone. Coarse grain. Crystalline. Gray. Fossiliferous.	
91.6	1.27	4.42	0.28	0.86	98.4	67-68	10	4		
86.5	6.00	4.95	0.43	0.89	98.8	66-67				
88.2	0.48	5.53	0.48	1.13	95.8	65-66				
95.4	1.16	1.83	0.05	0.26	98.7	64-65				
93.9	1.03	2.88	0.26	0.38	98.5	63-64				
95.0	0.83	1.78	0.15	0.05	97.8	62-63				
94.1	0.95	3.31	0.21	0.40	99.0	61-62				
98.6	0.66	0.53	0.03	0.08	100.0	60-61				
97.3	0.75	0.47	0.06	0.04	98.6	59-60				
97.8	0.53	0.88	0.08	0.11	99.4	58-59				
91.0	6.3	2.07	0.18	0.48	100.0	57-58				
91.8	4.1	2.79	0.36	0.53	99.6	56-57				
88.2	6.6	2.92	0.71	0.60	99.0	55-56				
97.8	0.50	1.06	0.08	0.23	99.7	54-55	9	18	Limestone. Medium grain. Soft oolitic. White. Weathers light. Massive.	
98.2	0.74	0.70	0.05	0.04	99.7	53-54				
98.4	0.65	0.82	0.05	0.10	100.0	52-53				
97.6	0.72	0.90	0.05	0.12	99.4	51-52				
97.6	0.87	1.18	0.16	0.15	99.9	50-51			"LOWER OOLITE"	
98.1	0.66	1.02	0.33	0.17	100.0	49-50				
97.6	0.98	0.77	0.01	0.00	99.4	48-49				
96.5	0.75	0.74	0.07	0.00	98.1	47-48				
97.4	0.86	0.65	0.08	0.00	99.0	46-47				
96.4	0.60	0.74	0.08	0.00	97.8	45-46				
98.4	1.10	0.48	0.08	0.00	100.0	44-45				
98.2	1.10	0.46	0.03	0.00	99.8	43-44				
98.2	1.00	0.56	0.03	0.11	99.9	42-43	8	8	Limestone. Medium grain. Crystalline and oolitic. Gray. Mostly thick beds.	
96.4	0.83	1.04	0.10	0.12	98.5	41-42				
98.6	0.78	0.57	0.05	0.02	100.0	40-41				
97.8	0.95	0.77	0.08	0.00	99.6	39-40				
88.1	9.0	1.66	0.16	0.04	100.0	38-39				
89.2	9.2	1.54	0.08	0.08	100.0	37-38				
84.4	10.5	1.52	0.20	0.00	96.6	36-37	7	5	Limestone. Fine grain. Earthy. Buff.	
84.0	11.0	1.88	0.18	0.00	97.1	35-36				
80.9	7.1	7.50	0.22	0.62	96.3	34-35				
95.3	1.20	0.80	0.08	0.00	97.4	33-34				
95.2	1.07	0.70	0.08	0.00	97.1	32-33				
96.0	1.95	0.60	0.08	0.08	98.7	31-32				
54.6	43.4	0.85	0.28	0.24	99.4	30-31	6	8	Limestone. Fine grain. Dense. Gray.	
NO SAMPLE							29-30			
54.9	42.6	1.12	0.45	0.32	99.4	28-29				
54.2	43.6	1.20	0.45	0.33	99.8	27-28				
55.0	42.4	1.05	0.40	0.30	99.2	26-27				
63.6	32.1	1.30	0.32	0.35	97.7	25-26				
69.0	28.2	1.69	0.24	0.36	99.5	24-25	5	4	Limestone. Fine grain. Slightly crystalline. Gray.	
73.8	22.2	1.90	0.17	0.52	98.6	23-24				
76.8	18.9	2.08	0.22	0.35	98.4	22-23				
56.4	41.6	1.14	0.25	0.46	99.9	21-22	4	2	Dolomite. Fine grain. Bluish. Shaly and soft.	
52.2	41.4	5.72	0.35	0.32	100.0	20-21				

Av. 96.4%

Ste. Genevieve

QUARRY REPORT NO. 13

County: Meade

Location: Brandenburg, Ky., 7 miles northwest on Ky. Route

Sampled By:

Date Sampled:

Kosmos Cement

Property Owner: Co.

7 miles northwest on Ky. Route

Analyzed By:

Date Received:

Kosmos Cement

Operator: Co.

228 (Battletown Road)

near Oolite, Ky.

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
54.6	42.4	2.37	0.23	0.42	100.0	19-20				
55.4	37.9	3.26	0.26	0.46	97.3	18-19				
71.2	24.8	3.26	0.23	0.31	99.8	17-18				
58.5	28.2	9.69	0.43	1.77	98.6	16-17				
71.5	15.0	9.46	0.33	1.89	98.2	15-16			Limestone. Fine grain.	
94.0	1.04	3.22	0.08	0.23	98.6	14-15	3	10	Tan to gray. Chert in	
87.5	1.51	7.57	0.15	0.87	97.6	13-14			lower 3 feet. Thin beds.	
81.6	2.3	10.02	0.28	3.07	97.3	12-13				
NO SAMPLES						11-12				
83.1	1.97	9.04	0.36	0.99	95.5	10-11				
94.5	1.50	2.30	0.10	0.14	98.5	9-10			Limestone. Fine to med-	
95.1	1.62	1.76	0.05	0.30	98.8	8-9			ium grain. Tan to brown.	
96.1	1.60	1.78	0.06	0.33	99.9	7-8	2	4	Powdery appearance.	
94.8	1.62	2.72	0.11	0.40	99.7	6-7				
91.4	3.1	4.51	0.25	0.45	99.7	5-6				
84.2	10.4	4.72	0.18	0.39	99.9	4-5	1	6	Limestone. Fine grain.	
46.5	35.7	15.81	0.53	1.28	99.8	3-4			Dense. Gray. Somewhat	
43.7	35.2	18.36	0.87	1.84	100.0	2-3			earthy. Contains black	
46.5	35.2	16.08	0.66	1.34	99.8	1-2			nodular chert.	
77.5	16.0	5.01	0.26	0.70	99.4	0-1				

BOTTOM OF QUARRY

Ste. Genevieve

QUARRY REPORT NO. 14

County: Meade

Louisville

Property Owner: Cement Co.

Operator:

Location: Guston, Ky., vicinity

CORE # 4\*

\*Company number

Sampled By: Louisville Cement Co

Analyzed By: Louisville Cement Co.

Date Sampled: 10/18/50

Date Received:

Date Reported:

CHEMICAL ANALYSIS					DESCRIPTION					
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% R <sub>2</sub> O <sub>3</sub>	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
TOP OF CORE HOLE										
NO SAMPLES						18			Overburden. Soil and weathered sandstone.	
NO SAMPLES						0-28	1	28	Sandstone. Gray. Medium, even grain. Contains thin seams of black and gray shale. Weathers brown.	Sample
94.23	2.84	3.00	0.80			28-42	2	14	Limestone. Dark. Fine to medium grain. Sandy. Thin beds.	Beaver Bend
NO SAMPLES						42-44	3	2	Shale. Black. Clay.	Moortown
89.66	2.84	7.00	0.50			44-48	4	4	Limestone. Dark. Medium grain. Crystalline.	
96.32	1.54	1.80	0.34			48-50				
97.27	1.65	0.88	0.20			50-52				
97.65	1.29	1.00	0.06			52-55	5	16	Limestone. Gray. Fine grain. Dense.	Paoli
96.32	1.62	1.80	0.26			55-58				
96.32	1.48	1.80	0.40			58-61				
94.23	1.73	3.72	0.32			61-64				
54.44	24.76	15.40	5.40			64-67				
87.56	3.16	9.18	0.10			67-70				
84.14	2.64	13.16	0.06			70-73	6	15	Limestone. Dark gray. Medium grain. Oolitic and crystalline. Thick beds.	Ste. Genevieve
97.28	1.56	1.08	0.08			73-76				
93.28	4.92	1.40	0.40			76-79				
84.90	10.10	4.60	0.40			79-83				
92.51	4.61	2.80	0.08			83-88	7	14	Limestone. Gray. Fine grain. Dense. Thick beds.	
91.94	4.90	2.90	0.26			88-93				

QUARRY REPORT NO. 14

County: Meade

Location: Guston, Ky., vicinity.

Sampled By:

Date Sampled:

Louisville

Property Owner: Cement Co.

CORE # 4

Analyzed By:

Date Received:

Operator:

Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	R <sub>2</sub> O <sub>3</sub>	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
59.77	31.53	7.80	0.90			93-96	8	3	Limestone. Gray. Fine grain. Dolomitic.	
95.18	2.14	2.60	0.08			96-98				
97.20	1.80	0.88	0.12			98-100				
97.20	1.46	1.20	0.14			100-101	9	7	Limestone. Dark. Medium grain. Oolitic and crystalline.	
93.28	2.48	4.40	0.16			101-103				
72.90	21.18	5.06	0.86			103-106	10	3	Ls. Gray. Fine grain. Earthy. Brecciated.	
73.09	20.51	5.00	1.40			106-110				
85.47	9.89	4.50	0.14			110-114				
84.89	10.77	3.80	0.54			114-117	11	14	Limestone. Gray. Fine grain. Dense. Dolomitic.	
52.91	34.01	11.14	1.94			117-120				
94.79	2.11	2.70	0.40			120-122				
93.85	2.69	2.90	0.56			122-124				
92.89	4.51	2.00	0.60			124-125	12	6	Limestone. Dark gray. Coarse grain. Crystalline.	
95.56	3.44	0.60	0.40			125-126				
97.08	2.32	0.40	0.20			126-127				
98.03	0.99	0.64	0.34			127-128				
98.80	0.36	0.54	0.30			128-129				
98.22	0.80	0.68	0.30			129-130				
98.41	0.97	0.38	0.24			130-131				
98.03	1.37	0.54	0.06			131-132				
98.41	1.15	0.36	0.08			132-133				
98.90	0.74	0.30	0.06			133-134	13	17	Limestone. White. Medium grain. Oolitic. Soft.	
98.03	1.47	0.20	0.30			134-135				
98.03	1.37	0.30	0.30			135-136				
98.03	1.29	0.38	0.30			136-137				
98.03	1.47	0.20	0.30			137-138				
98.61	0.85	0.40	0.14			138-139				
98.80	0.64	0.48	0.08			139-140				
98.22	1.26	0.28	0.24			140-141				
98.99	0.65	0.20	0.16			141-142				
97.08	2.06	0.50	0.36			142-143				
83.75	13.49	2.52	0.24			143-144	14	2	Limestone. Gray. Fine grain. Crystalline.	
86.81	10.23	2.64	0.32			144-145				
91.20	6.36	2.34	0.10			145-146				
92.33	5.23	2.10	0.24			146-147				
92.89	4.41	2.60	0.10			147-148				
93.47	4.13	2.34	0.06			148-149	15	8	Limestone. Gray. Oolitic. Soft.	
90.43	4.91	4.52	0.14			149-150				
96.16	2.44	1.34	0.06			150-151				
93.66	3.86	2.40	0.08			151-152				
94.61	2.31	3.00	0.08			152-153				
60.15	1.47	37.20	1.18			153-155				
62.25	35.25	1.70	0.08			155-157	16	10	Limestone. Gray. Fine grain. Crystalline to lithographic. Earthy at top.	
69.67	28.33	1.60	0.40			157-159				
71.57	25.77	2.40	0.26			159-163				



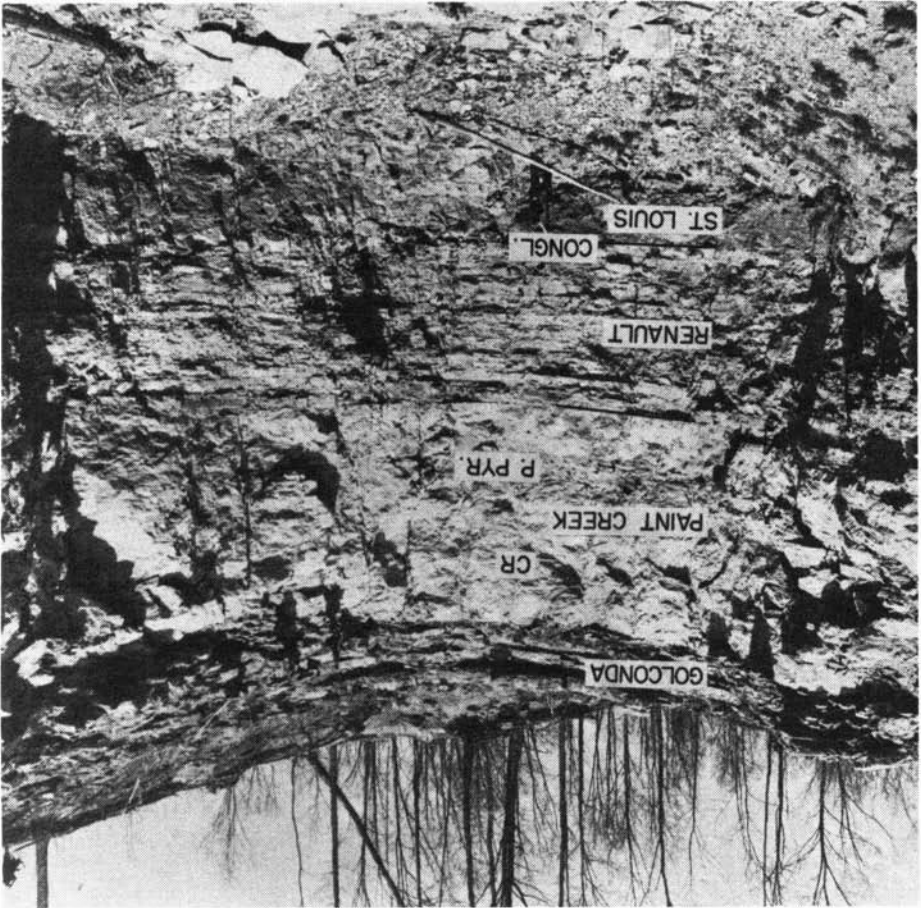
Ste. Genevieve

BOTTOM OF CORE.

17 feet averages 98.2% CaCO<sub>3</sub>. This plus the overlying 8 feet comprise a 25 foot layer that averages 96.9% CaCO<sub>3</sub>.

Abbreviations: CONGL. = conglomerate, CR = large crinoid stem (unidentified), P. PYR. = *Pentremites pyriformis*.

Though not as yet tested, the white stone of the Paint Creek formation appears to be of the same high purity as the Paint Creek formation in quarry No. 20, Cumberland National Forest quarry in Rowan County.



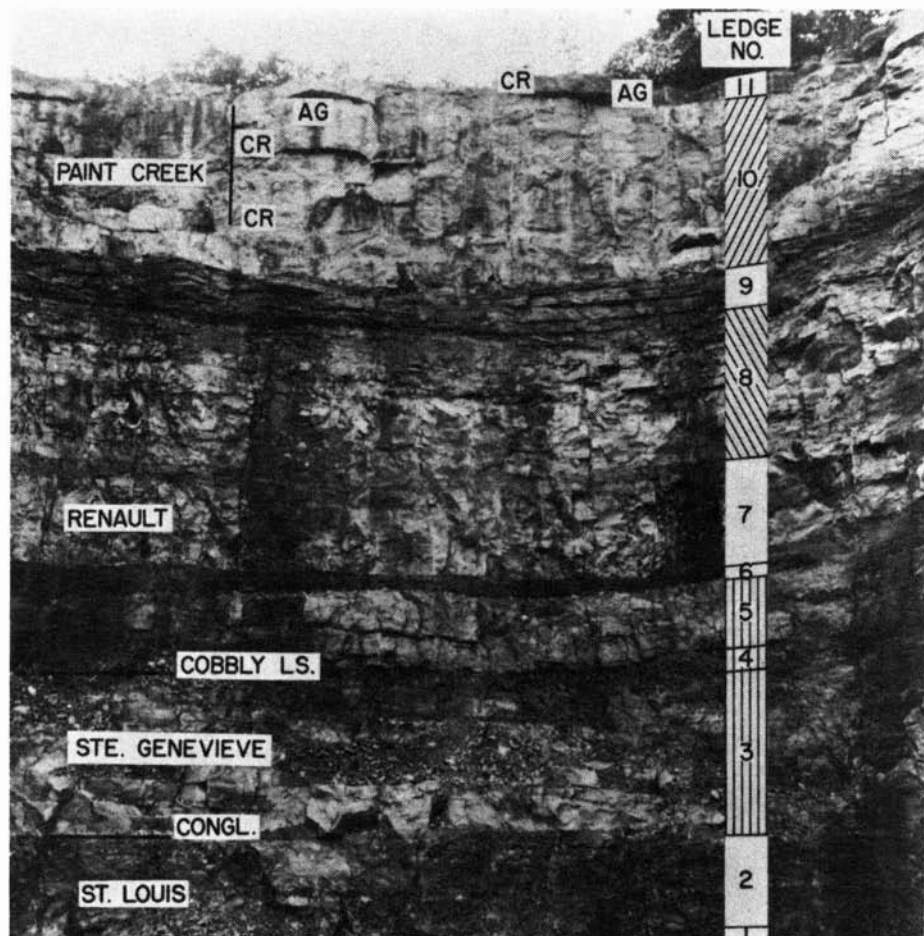
QUARRY NO. 15  
 County: MENIFEE  
 Location: FRENCHBURG, KY., half a mile west on Ky. Route 40 turn right and go 300 yards.




QUARRY NO. 16

County: POWELL

Property Owner: ? (Old W.P.A. Quarry)

Location: STANTON, KY., 2 miles south at top of hill (Furnace Rd.)



-  high-calcium limestone. 21 feet thick. CaCO<sub>3</sub> average - 98.0%.
-  high-calcium limestone. 10 feet thick. CaCO<sub>3</sub> average - 97.8%.
-  high-calcium limestone. 11 feet thick. CaCO<sub>3</sub> average - 97.2%.

Abbreviations: AG = Agassizocrinus, CONGL. = conglomerate, CR = large crinoid stem (unidentified), LS. = limestone

QUARRY REPORT NO. 16

County: Powell

Property Owner: Old W.P.A.

Operator: Abandoned

Location: Stanton, Ky., 2 miles south at top of hill.

Sampled By: H. W. Settle, E. B. Wood Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
TOP OF QUARRY											
78.9	13.9	2.68	3.45	0.36	99.3	67-68	11	2	Stripping 0' to 8'.		
94.5	2.8	1.40	1.00	0.38	100.1	66-67			Ls. Gray. Medium grain. Crystalline. Weathers w/ iron stain.		
95.3	0.86	2.51	0.43	0.58	99.7	65-66					
98.5	0.70	0.64	0.32	0.12	100.2	64-65					
98.2	0.45	0.83	0.24	0.22	99.9	63-64					
98.1	0.32	1.04	0.29	0.30	100.0	62-63			Ls. gray. Hard. Fine grain. Oolitic. Slightly crystalline. Massive beds. Weathers white.		
98.5	0.24	0.74	0.26	0.06	99.8	61-62					
97.8	0.21	0.99	0.30	0.19	99.5	60-61					
98.2	0.24	0.84	0.30	0.30	99.6	59-60					
97.1	0.23	1.37	0.27	0.30	99.3	58-59					
97.5	0.44	0.98	0.30	0.03	99.2	57-58					
98.5	0.23	0.60	0.25	0.25	99.6	56-57	10	21			
97.8	0.47	0.56	0.24	0.0	99.1	55-56					
98.5	0.29	0.54	0.25	0.0	99.6	54-55					
98.5	0.33	0.84	0.28	0.05	100.0	53-54					
98.2	0.15	0.97	0.25	0.16	99.7	52-53					
98.8	0.60	0.68	0.28	0.0	100.0	51-52					
98.2	0.70	0.83	0.25	0.06	100.0	50-51					
98.5	0.57	0.66	0.25	0.0	99.9	49-50					
98.3	0.61	0.85	0.28	0.0	100.0	48-49					
98.0	0.34	0.70	0.24	0.0	99.3	47-48					
98.5	0.31	0.85	0.29	0.0	100.0	46-47					
96.4	0.65	1.64	0.32	0.62	99.6	45-46					
75.3	3.9	18.12	0.79	1.01	99.2	44-45	9	5	Ls. Fine grain. Semi-vaughanitic. Gray. Thin beds, with shaly partings. Brown streaks. Paint Creek-Renault break.		
80.0	2.6	15.02	0.54	0.77	98.9	43-44					
83.2	1.95	12.81	0.47	0.76	99.2	42-43					
91.0	1.41	4.74	0.57	1.04	98.8	41-42					
91.0	1.41	4.65	0.28	1.13	98.5	40-41					
96.0	1.34	1.58	0.20	0.0	99.0	39-40					
97.1	0.71	1.26	0.29	0.0	99.4	38-39					
97.5	0.29	1.74	0.32	0.12	99.9	37-38	8	12	Ls. Fine grain. Hard. Silty. Oolitic. Slightly crystalline. Light gray. Massive beds. Weathers white. Contains black and red chert stringers.		
98.5	0.39	0.62	0.32	0.0	99.7	36-37					
98.8	0.47	0.70	0.20	0.0	100.0	35-36					
97.5	0.39	1.42	0.25	0.0	99.3	34-35					
98.2	0.59	1.16	0.23	0.0	99.9	33-34					
97.8	0.47	1.10	0.25	0.0	99.6	32-33					
98.5	0.32	0.75	0.25	0.0	99.9	31-32					
98.5	0.58	0.89	0.10	0.0	100.1	30-31					
91.1	0.94	6.10	0.28	1.62	100.0	29-30					
75.0	0.97	20.84	0.32	1.22	98.3	28-29					
82.8	0.85	12.72	0.29	0.77	97.5	27-28					
80.3	0.73	17.73	0.25	1.18	100.2	26-27	7	7	Limestone. Hard. Very fine grain. Slightly crystalline. Oolitic. Dark gray. Massive beds. Contains black chert stringers.		
89.6	0.97	5.62	0.37	0.84	97.4	25-26					
93.2	1.06	4.10	0.25	1.30	99.9	24-25					
93.5	1.15	2.81	0.27	2.41	100.1	23-24					

Av. 98.0%

Av. 97.8%

Paint Creek

Renault

QUARRY REPORT NO. 16

County: Powel

Property Owner: Old W. P. A.

Operator: Abandoned

Location: Stanton, Ky., 2 miles south at top of hill.

Sampled By: H. W. Settle, E. B. Wood Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
88.2	0.97	7.98	0.28	0.78	98.2	22-23	6	1	Ls. Dark gray. Fine grain. Gnarly.	Renault	
95.0	1.36	0.95	0.19	0.73	98.2	21-22			Ls. Hard. Oolitic. Bedding		
96.4	1.32	1.51	0.17	0.65	100.0	20-21	5	3	6" to 3'.1/2" phosphatic nodules at base.		
97.8	1.32	0.75	0.20	0.04	100.0	19-20				St. Genevieve	
98.2	1.19	0.60	0.17	0.0	100.1	18-19	4	2	Ls. Dark brown. Fine grain. Cobbly.		
97.8	0.97	0.64	0.13	0.01	99.6	17-18					
97.5	1.10	1.11	0.13	0.05	99.8	16-17			Limestone. Gray. Hard.		
97.1	0.92	1.53	0.20	0.0	99.8	15-16			Oolitic and slightly crystalline. Cherty at 16.5 feet		
97.5	1.10	1.36	0.20	0.0	100.1	14-15	3	6	from bottom.		
97.4	0.80	1.59	0.18	0.0	100.0	13-14					
97.5	1.00	1.38	0.23	0.0	100.0	12-13					
97.4	0.85	1.55	0.20	0.0	100.0	11-12					
NO SAMPLES						10-11					St. Louis
						9-10					
						8-9	2	6	Limestone. Vaughnitic. Dark gray. Medium beds. Black nodular chert abundant.		
						7-8					
						6-7					
						5-6					
						4-5					
						3-4					
NO SAMPLES						2-3	1	5	Limestone. Shaly. Light green. Thin beds.		
						1-2					
						0-1					
BOTTOM OF QUARRY											

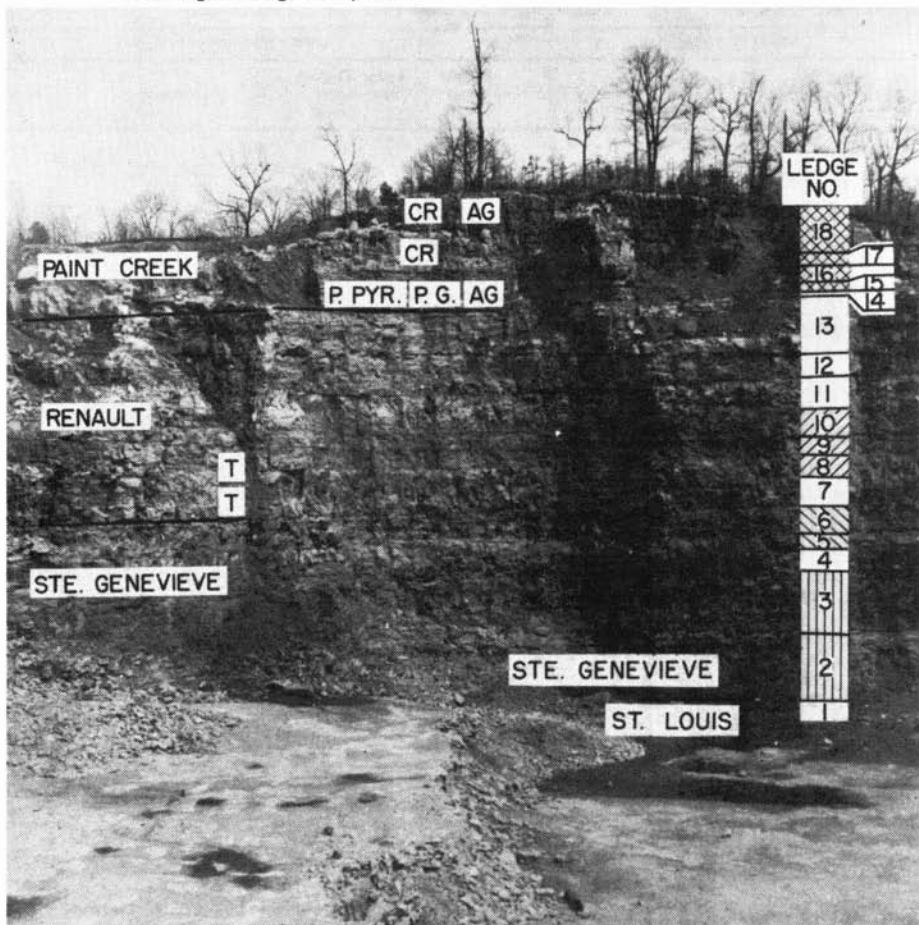
Av. 97.2 %





QUARRY NO. 17

County: PULASKI

Property Owner: A. J. COLYER

Location: SOMERSET, KY., 1 mile north on Ky. Route 39 (Crab Orchard Road)  
turn right and go 300 yards.



-  high-calcium limestone. 35 feet thick. CaCO<sub>3</sub> average - 96.1%.
-  high-calcium limestone. 13 feet thick. CaCO<sub>3</sub> average - 97.2%.
-  high-calcium limestone. 9 feet thick. CaCO<sub>3</sub> average - 97.2%.
-  high-calcium limestone. 35 feet thick. CaCO<sub>3</sub> average - 96.8%.

Abbreviations: AG = Agassizocrinus, CR = large crinoid stem (unidentified),  
P.G. = Pentremites godoni, P. PYR. = Pentremites pyriformis,  
T = Talarocrinus.

- This vicinity is considered worthy of further investigation because:
1. Thick layers of high calcium limestone are known to be present.
  2. Railroad transportation is available.
  3. Probably reserves are adequate for large operations.

**QUARRY REPORT NO. 17**

County: Pulaski

Property Owner: A. J. Colyer

Operator: Strunk Const. Co.

Location: Somerset, Ky., 1 mi. N. on Ky. R.R. 39 (Crab Orchard Rd.) turn right, go 300 yds.

Sampled By: Wood, Settle, Walker Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 7/19/49

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
TOP OF QUARRY											
Soil. Weathered sand-stone and weathered limestone.											
NO SAMPLES											
↑ Av. 96.1% ↓	96.7	1.10	0.94	0.23	0.38	99.4	153-154				
	97.8	1.20	0.62	0.20	0.24	100.00	152-153				
	97.4	1.14	0.83	0.18	0.26	99.8	151-152				
	97.5	1.19	0.84	0.18	0.27	100.0	150-151				
	97.8	0.87	0.86	0.18	0.12	99.8	149-150				
	97.5	1.17	1.06	0.20	0.09	100.0	148-149				
	96.7	1.16	0.91	0.18	0.24	99.2	147-148				
	98.0	1.17	0.45	0.15	0.26	100.0	146-147				
	97.8	0.87	0.44	0.15	0.15	99.4	145-146	18	18	Limestone. Gray. Crystalline to oolitic.	
	97.5	1.16	0.60	0.15	0.22	99.6	144-145			Crinoidal in part.	
	97.8	0.81	0.79	0.22	0.27	99.9	143-144				
	96.4	0.45	1.12	0.30	0.30	98.7	142-143				
	96.3	0.90	1.27	0.46	0.34	99.3	141-142				
	96.8	1.48	1.05	0.33	0.29	100.0	140-141				
	98.1	1.21	0.43	0.13	0.18	100.0	139-140				
	97.4	1.47	0.39	0.25	0.23	99.7	138-139				
	96.1	1.24	1.89	0.35	0.44	100.0	137-138				
	94.5	1.72	3.02	0.24	0.55	100.0	136-137				
	96.7	1.23	1.32	0.41	0.36	100.0	135-136				
	97.5	1.16	0.89	1.13	0.21	99.9	134-135	17	3	Limestone. Gray. Fine to medium grain.	
97.2	1.32	1.07	0.16	0.21	100.0	133-134			Crystalline.		
93.9	1.96	3.07	0.18	0.52	99.6	132-133					
96.6	1.63	1.31	0.27	0.19	100.0	131-132					
95.1	2.7	1.31	0.25	0.24	99.6	130-131	16	6	Limestone. Gray. Medium to coarse grain. Crinoidal and oolitic. Massive.		
95.1	1.24	3.26	0.25	0.08	99.9	129-130					
95.3	2.5	1.90	0.23	0.02	100.0	128-129					
94.0	2.7	2.28	0.25	0.74	100.0	126-127					
92.9	2.7	3.09	0.25	1.09	100.0	125-126					
92.8	1.48	3.87	0.33	0.77	99.2	124-125	15	8	Limestone. Gray. Fine to medium grain. Crystalline and oolitic.		
95.1	2.2	2.28	0.17	0.25	100.0	123-124					
95.3	2.2	1.70	0.23	0.56	100.0	122-123					
95.8	2.8	1.04	0.19	0.12	100.0	121-122					
96.3	1.51	1.31	0.25	0.17	99.5	120-121					
97.2	1.21	1.29	0.20	0.14	100.0	119-120					
NO SAMPLES											
						117½-119	14	1½	Sh. Green. Clay. Contains some thin limey layers.		

Top of Fmn. Not Determined

Paint Creek

QUARRY REPORT NO. 17

County: Pulaski  
 Location: Somerset, Ky.  
 Sampled By:  
 Date Sampled:

Property Owner: A. J. Colyer

Operator: Strunk Const. Co.

Analyzed By:  
 Date Received:

Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
96.7	1.27	1.39	0.18	0.30	98.9	116-117 $\frac{1}{2}$				
						115-116				
						<del>114-115</del>				
96.4	1.39	1.57	0.19	0.34	99.6	113-114				
						112-113				
						<del>111-112</del>				
85.7	3.67	6.37	0.52	1.52	97.8	110-111				
						109-110				
						<del>108-109</del>				
91.8	0.97	5.02	0.43	1.27	99.4	107-108				
						106-107				
98.2	1.03	1.02	0.10	0.26	100.6	105-106	13	24 $\frac{1}{2}$	Limestone. Gray. Fine grain. Dense. Contains some layers of medium grain, gray, oolitic limestone.	
						<del>104-105</del>				
82.1	5.5	6.76	0.57	0.52	95.9	103-104				
						<del>102-103</del>				
97.8	0.78	1.33	0.18	0.65	100.7	101-102				
						<del>100-101</del>				
96.8	0.0	2.12	0.24	1.03	100.1	99-100				
						<del>98-99</del>				
90.0	1.13	5.06	0.63	0.29	97.1	97-98				
						<del>96-97</del>				
97.1	0.50	1.74	0.43	0.18	100.0	95-96				
						<del>94-95</del>				
95.3	1.20	2.63	0.48	0.43	99.3	93-94				
91.0	4.2	2.90	0.50	0.43	99.1	91 $\frac{1}{2}$ -93				
95.7	1.13	2.41	0.40	0.32	99.9	90-91 $\frac{1}{2}$	12	6	Limestone. Light gray. Medium to coarse grain. Crystalline and oolitic. Fossiliferous.	
93.9	0.0	2.51	0.42	0.56	97.4	88 $\frac{1}{2}$ -90				
95.7	0.0	1.17	0.28	0.22	97.4	87-88 $\frac{1}{2}$				
						86-87				
						<del>85-86</del>				
85.0	0.0	4.23	0.63	1.12	91.1	<del>84-85</del>				
						83-84				
88.8	0.0	5.92	0.60	1.40	96.7	<del>82-83</del>				
						81-82	11	10	Limestone. Buff. Fine grain. Hard. Earthy. Siliceous.	
87.8	0.0	6.98	0.79	1.64	97.2	<del>80-81</del>				
						79-80				
84.3	0.0	8.00	0.69	1.56	94.6	<del>78-79</del>				
						77-78				
						<del>76-77</del>				
						75 $\frac{1}{2}$ -77				
97.4	0.0	1.37	0.14	0.0	98.9	74-75 $\frac{1}{2}$			Limestone. Light gray. Coarse grain. Crystalline and oolitic. Fossiliferous.	
97.7	0.0	1.20	0.13	0.17	99.2	72 $\frac{1}{2}$ -74	10	6		
96.4	0.0	1.93	0.17	0.22	98.7	71-72 $\frac{1}{2}$				
96.8	0.0	1.26	0.17	0.35	98.6					
						<del>70-71</del>				
96.7	0.0	2.41	0.10	0.21	99.4	69-70	9	4	Limestone. Dove gray. Fine grain. Dense. Flecked with calcite crystals. Conchoidal fracture.	
96.7	0.0	2.58	0.13	0.15	99.6	68-69				
96.7	0.0	2.61	0.17	0.36	99.8	67-68				
96.8	0.0	2.25	0.22	0.45	99.7					

Renault

↑ Av. 97.2%

QUARRY REPORT NO. 17

County: Pulaski  
 Location: Somerset, Ky.  
 Sampled By:  
 Date Sampled:

Property Owner: Colyer

Analyzed By:  
 Date Received:

Operator: Strunk Const. Co.

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
95.5	0.0	3.76	0.10	0.36	99.7	66-67	8	7	Limestone. Gray. Fine to medium grain. Oolitic. Hard. Fossiliferous. Weathers buff.		
						65-66					
97.4	0.0	2.32	0.09	0.31	100.1	64-65					
						63-64					
99.2	0.0	0.57	0.10	0.34	100.2	62-63					
98.8	0.0	0.79	0.13	0.33	100.0	61-62					
98.2	0.0	1.43	0.13	0.43	100.2	60-61					
83.4	15.1	0.88	0.17	0.30	100.0	59-60			Limestone. Dolomitic. Gray. Fine to medium grain. Dense to oolitic. Finer and blocky in lower 1 foot. Weathers buff.		
85.0	13.6	1.26	0.18	0.31	100.3	58-59					
90.0	8.4	1.84	0.14	0.35	100.7	57-58	7	6			
60.3	36.0	2.74	0.35	0.77	100.2	56-57					
71.0	23.0	4.61	0.48	1.25	100.3	55-56					
						54-55					
96.0	0.0	1.75	0.25	0.71	98.7	53-54			Ls. Gray to Bluish. Fine grain. Dense. Flecked with calcite crystals. Thin beds.		
93.5	0.0	3.67	0.43	0.15	98.7	52-53	6	3			
97.5	0.0	1.70	0.20	0.42	99.8	51-52					
97.8	0.0	2.19	0.15	0.30	100.4	50-51			Limestone. White to gray. Medium grain. Oolitic and crystalline. Weathers buff to gray.		
98.5	0.0	1.82	0.09	0.22	100.6	49-50					
98.4	0.0	1.27	0.12	0.17	100.0	48-49	5	6			
98.2	0.0	1.52	0.13	0.19	100.0	47-48					
97.8	0.0	1.31	0.19	0.15	99.5	46-47					
97.1	0.0	1.13	0.19	0.26	98.7	45-46					
56.0	38.6	4.28	0.35	0.66	99.9	44-45			Limestone. Dolomitic. Gray. Fine grain. Dense. Weathers buff. Soft and powdery. Pinches to 0' to south side of quarry.		
57.1	34.4	5.89	0.40	0.65	98.4	43-44					
59.2	33.1	6.46	0.40	0.63	99.8	42-43	4	5			
57.5	34.4	6.47	0.48	0.70	99.6	41-42					
58.2	36.4	4.29	0.38	0.40	99.7	40-41					
91.0	1.36	5.85	0.25	0.97	99.4	39-40			Limestone. Gray to bluish gray. Mostly oolitic and slightly crystalline. Contains layers of fine grain, dense limestone. Coarse crystalline at top. 2'' shale break at 33½'. Ledge thickens to south side of quarry.		
91.8	0.0	4.63	0.34	0.34	97.1	38-39					
94.6	0.0	2.19	0.33	0.0	97.1	37-38					
96.4	0.0	2.48	0.20	0.0	99.1	36-37					
95.3	0.0	3.28	0.23	0.09	98.9	35-36					
96.8	0.0	2.40	0.22	0.03	99.5	34-35					
97.7	0.0	1.50	0.0	0.0	99.2	33-34	3	15			
97.8	0.0	1.18	0.0	0.0	99.0	32-33					
98.2	0.0	1.11	0.0	0.0	99.3	31-32					
97.8	0.0	1.14	0.18	0.20	97.8	30-31					
97.1	0.0	0.59	0.16	0.12	98.0	29-30					
98.9	0.0	0.70	0.08	0.0	99.7	28-29					
98.2	0.0	0.27	0.15	0.08	98.7	27-28					
						26-27					
						25-26					
						NO SAMPLES					
97.8	0.0	0.89	0.08	0.0	98.8	24-25			Limestone. Light gray. Medium to coarse grain. Crystalline. Contains calcite stringers. Thin beds.		
						23-24					
						22-23					
97.8	0.0	0.90	0.08	0.0	98.8	21-22	2	20			
						20-21					
98.2	0.0	0.90	0.01	0.0	99.1	19-20					

Renault

Stc. Genevieve

QUARRY REPORT NO. 17

County: Pulaski  
 Location: Somerset, Ky.  
 Sampled By:  
 Date Sampled:

Property Owner: Colyer  
 Analyzed By:  
 Date Received:

Operator: Strunk Const. Co.  
 Date Reported:

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
97.8	0.0	0.72	0.09	0.0	98.6	18-19				
						17-18				
97.8	2.1	1.33	0.17	0.0	101.4	16-17				
						15-16				
						14-15				
97.5	2.1	1.76	0.32	0.0	101.7	13-14				
						12-13				
97.5	2.4	1.55	0.21	0.0	101.7	11-12				
						10-11				
97.8	1.84	1.44	0.01	0.0	101.3	9-10				
						8-9				
96.4	1.53	1.34	0.02	0.0	99.3	7-8				
						6-7				
93.9	2.4	1.50	0.88	0.0	98.6	5-6				
NO SAMPLES						4-5			Limestone. Dark gray. Fine to medium grain. Contains black, nodular chert. Brecciated at top.	
						3-4				
						2-3	1	5		
						1-2				
						0-1				
									BOTTOM OF QUARRY	

Ste. Genevieve

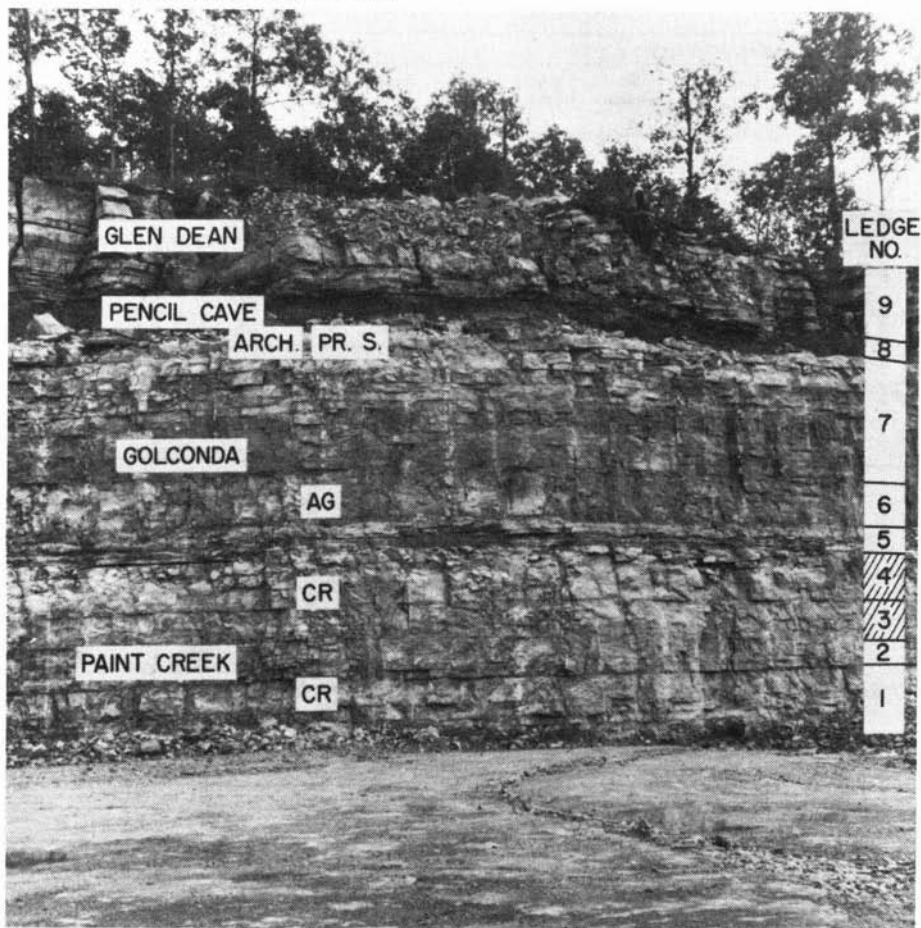
St. Louis


QUARRY NO. 18

County: PULASKI

Property Owner: KY. HIGHWAY DEPARTMENT

Location: TATEVILLE, KY., half a mile south on U.S. Route 27 (Whitley City Rd.)  
on northeast side of road.



 high-calcium limestone. 12 feet thick.  $\text{CaCO}_3$  average - 95.6 %.

Abbreviations: AG = Agassizocrinus, ARCH. = Archimedes, CR = large crinoid stem (unidentified), PR. S. = Prismopora serrulata.

QUARRY REPORT NO. 18

County: Pulaski

Location: Tateville, Ky., 1/2 mile south on U.S. Route 27 (Whitley City Road) left side.

Sampled By: H. W. Settle

Date Sampled: 10/10/50

Kentucky

Property Owner: Highway Dept.

Operator: Strunk Constr. Co.

Analyzed By: Mining Engineering Lab., University of Ky.

Date Received:

Date Reported: 5/8/51

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
TOP OF QUARRY										
NO SAMPLES							1-3		Stripping. Soil. Brown.	
NO SAMPLES							9	10+	Limestone. Blue. Coarse grain. Crystal- line. Weathers dark. Distinct thin beds. Contains many mud seams and pockets.	Glen Dean
NO SAMPLES										
NO SAMPLES							8	11	Shale. Soft. Dark.	Pencil Cave
93.6	1.59	1.55	0.25	0.65	97.6	49-50				
89.4	1.82	3.96	0.42	0.19	95.8	48-49				
88.4	2.60	4.27	0.43	0.35	96.1	47-48				
94.5	1.32	1.33	0.15	0.09	97.4	46-47				
95.0	1.57	1.36	0.15	0.12	98.2	45-46	7	19	Limestone. Blue. Coarse grain. Crystal- line. Weathers dark. Distinct thin beds. Contains some mud pockets and seams.	Golconda
94.6	0.85	1.24	0.23	0.18	97.1	44-45				
94.4	1.12	2.42	0.27	0.35	98.6	43-44				
94.0	0.94	1.81	0.20	0.39	97.3	42-43				
94.5	0.85	1.58	0.25	0.45	97.6	41-42				
94.1	1.16	1.23	0.20	0.18	96.9	40-41				
95.0	1.09	1.08	0.20	0.10	97.5	39-40				
94.0	1.30	2.29	0.20	0.51	98.3	38-39				
94.9	1.06	1.74	0.18	0.31	98.2	37-38				
96.1	1.74	1.66	0.16	0.31	100.0	36-37				
94.8	1.74	2.77	0.22	0.45	100.0	35-36				
95.5	1.81	2.21	0.16	0.27	100.0	34-35				
86.6	2.3	6.59	0.45	0.51	96.5	33-34				

QUARRY REPORT NO. 18

County: Pulaski

Kentucky  
Property Owner: Highway Dept.

Operator: Strunk Constr. Co.

Location: Tateville, Ky., 1/2 mile south on U.S. Route 27 (Whitley City Road) left side.

Sampled By:

Analyzed By:

Date Sampled:

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alamina	% Total	Sample Level (Feet)	Ledge No.	Thick-ness (Feet)	Lithology	Fmn.
96.0	1.80	1.55	0.18	0.22	99.8	32-33				
93.5	1.91	4.04	0.23	0.32	100.0	31-32				
95.4	1.88	1.88	0.20	0.25	99.6	30-31				
96.0	1.88	0.97	0.18	1.02	100.0	29-30	6	4	Limestone. Gray. Med-ium grain. Oolite. Thick bed.	Golconda
95.1	1.70	1.67	0.20	0.00	98.7	28-29				
87.4	8.10	2.46	0.35	0.59	98.9	27-28				
20.3	18.9	36.9	1.92	15.78	93.1	26-27				
42.9	31.2	15.91	1.25	5.54	96.8	25-26	5	4	Limestone. Bluish green. Shaly. Contains shale seams.	
39.0	27.7	22.15	1.63	5.94	96.4	24-25				
44.6	31.8	15.56	1.35	0.19	93.5	23-24				
93.3	3.9	1.50	0.27	0.16	99.1	22-23				
93.4	2.9	2.59	0.29	0.43	99.6	21-22				
96.4	1.19	1.59	0.21	0.37	99.8	20-21				
97.1	1.16	0.92	0.18	0.29	99.7	19-20	4	7	Limestone. Gray. Medium grain. Oolitic thick beds.	Paint Creek
94.6	1.98	2.02	0.27	0.53	99.4	18-19				
97.4	1.16	0.74	0.16	0.28	99.7	17-18				
97.6	0.97	0.96	0.13	0.30	100.0	16-17				
95.6	1.39	2.17	0.20	0.61	100.0	15-16				
92.6	1.74	3.82	0.26	1.08	99.5	14-15	3	5	Limestone. Gray. Coarse grain. Crystalline. Shaly.	
97.1	1.39	1.09	0.13	0.31	100.0	13-14				
96.1	1.51	1.85	0.18	0.32	100.0	12-13				
96.4	1.32	1.29	0.15	0.19	99.4	11-12				
			NO SAMPLE				10-11			
			NO SAMPLE				9-10	2	3	Limestone. Coarse grain. Gray. Crystalline. Crinoidal.
			NO SAMPLE				8-9			
97.0	1.36	1.34	0.14	0.18	100.0	7-8				
95.0	1.10	3.20	0.14	0.25	99.7	6-7				
91.8	2.00	4.05	0.27	0.93	99.0	5-6	1	8	Ls. Dark brown. Fine to medium grain. Crystalline. Weathers dark. Thin beds with thin shale seams between.	
91.8	2.20	4.20	0.28	0.85	99.3	4-5				
92.8	2.20	3.40	0.26	0.81	99.5	3-4				
			NO SAMPLE				2-3			
			NO SAMPLE				1-2			
95.7	1.78	1.72	0.20	0.81	99.7	0-1				

BOTTOM OF QUARRY

↑ Av. 95.6% ↓

QUARRY NO. 19

County: PULASKI

Property Owner: ? SLOANS VALLEY

Location: SLOANS VALLEY, KY., half a mile west on north side of U.S. Route 27.



Abbreviations. PR. S. = Prismopora serrulata.

QUARRY REPORT NO. 19

County: Pulaski

Location: Sloans Valley, Ky., 1/2 mile west on north side of highways 27 and 90.

Sampled By: H. W. Settle

Date Sampled: 10/10/50

Property Owner:

Operator:

Analyzed By: Mining Engineering Lab. University of Ky.

Date Received:

Date Reported: 2/19/51

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
NO SAMPLE										
NO SAMPLES						24-25	2	2		
93.2	1.71	3.59	0.62	0.0	99.0	22-23				
91.0	2.3	4.09	0.52	0.61	98.6	21-22				
94.3	1.76	2.76	0.25	0.58	99.6	20-21				
89.3	3.5	4.56	0.38	1.11	98.8	19-20				
87.8	4.1	5.32	0.55	1.22	99.0	18-19				
87.5	4.3	5.63	0.55	1.33	99.3	17-18				
86.8	3.2	6.02	0.53	1.83	98.3	16-17				
91.8	2.2	3.65	0.34	0.89	98.8	15-16				
89.6	3.1	4.57	0.35	1.14	98.8	14-15				
86.8	3.4	6.17	0.54	1.80	99.7	13-14	1	23	Limestone. Dark gray. Coarse grain. Crystalline. Rubbly. Fossiliferous. Medium thick indistinct beds.	Glen Dean
79.6	8.3	7.68	0.60	2.27	98.5	12-13				
79.6	6.5	8.24	0.68	2.66	97.7	11-12				
77.8	7.6	8.63	0.78	3.09	97.7	10-11				
95.0	1.47	2.00	0.35	0.40	99.2	9-10				
95.0	1.54	2.52	0.25	0.49	99.8	8-9				
74.3	11.8	8.82	0.83	2.74	98.5	7-8				
74.3	13.6	7.99	0.79	2.40	99.0	6-7				
72.8	10.9	9.81	0.38	3.83	97.8	5-6				
70.3	13.4	11.37	0.80	3.14	99.0	4-5				
75.7	11.3	8.76	0.90	1.98	98.5	3-4				
73.5	13.4	8.90	0.85	2.10	98.8	2-3				
86.4	6.4	5.16	0.62	0.89	99.5	1-2				
62.8	20.4	11.45	1.07	3.15	98.9	0-1				

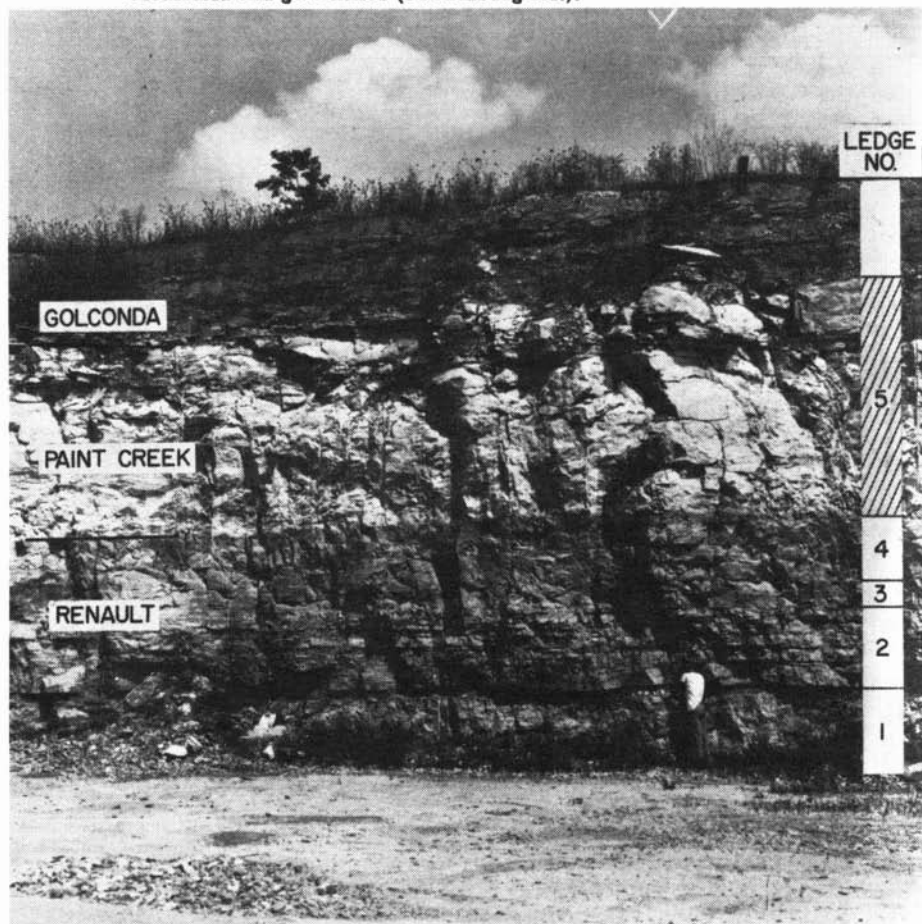
BOTTOM OF QUARRY


QUARRY NO. 20

County: ROWAN

Property Owner: CUMBERLAND NATIONAL FOREST

Location: MOREHEAD, KY., half a mile southeast on U.S. Route 60 turn left at Clearfield and go 6 miles (Frenchburg Rd.).



 high-calcium limestone. 12 feet thick.  $\text{CaCO}_3$  average - 98.6%.

Though thin (12 feet), this rock (Paint Creek formation) is of high purity ( $\text{CaCO}_3$  average = 98.6%) and contains only a trace of  $\text{MgCO}_3$ .

QUARRY REPORT NO. 20

Cumberland

County: Rowan

Property Owner: National Forest

Operator: Abandoned

Location: Morehead, Ky., 1/2 mile S.E. on Route 60 turn left at Clearfield, go 6 miles.

Sampled By: E. B. Wood, H. W. Settle Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 9/15/49

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.	
TOP OF QUARRY											
NO SAMPLE							6-8		Stripping. Shale, thin ls. beds and soil.	Colconda	
↑ Av. 98.6% ↓	97.5	Trace	1.64	0.43	0.19	99.7	26-27				
	98.0	Trace	1.40	0.40	0.30	100.1	25-26				
	98.2	Trace	1.05	0.25	0.34	99.8	24-25				
	98.6	Trace	0.30	0.22	0.06	99.2	23-24				
	99.1	Trace	0.80	0.25	0.25	100.4	22-23				
	98.4	Trace	0.95	0.25	0.26	99.9	21-22	5	12	Limestone. Crystalline and oolitic. White. Massive. Stands out as white, massive ledge.	Paint Creek
	99.5	Trace	0.20	0.23	0.29	100.2	20-21				
	98.6	Trace	0.50	0.35	0.10	99.6	19-20				
	98.3	Trace	0.50	0.30	0.10	99.2	18-19				
	99.4	Trace	0.34	0.18	0.13	100.1	17-18				
99.7	Trace	0.12	0.22	0.12	100.2	16-17					
98.9	Trace	0.44	0.25	0.23	99.8	15-16					
77.8	17.6	2.12	1.95	0.75	100.2	14-15					
66.4	25.0	5.76	1.93	1.00	100.1	13-14	4	4	Limestone. Fine grain. Dense. Brown. Flecked with calcite crystals. Streaked with gray.		
70.9	19.2	7.28	1.50	1.25	100.1	12-13					
66.0	19.3	10.56	1.65	1.71	100.9	11-12					
56.8	21.1	15.28	2.08	2.50	97.8	10-11	3	2	Ls. Fine grain. Gray. Dense. Thin beds. Fossiliferous. Shaly.		
54.6	21.0	17.10	2.14	2.74	97.6	9-10					
97.1	4.77	13.32	0.77	1.40	99.4	8-9					
80.7	3.06	12.86	0.65	1.80	99.1	7-8					
83.8	3.35	10.05	0.63	1.59	99.4	6-7	2	5	Ls. Fine grain. Dense Gray. Flecked with calcite crystals. 3'' to 6'' green shale top. Thin conglomerate bottom w/ fragments up to 1½''.	Renault	
68.8	4.20	23.88	1.10	1.60	99.6	5-6					
67.8	4.14	25.00	1.03	1.85	99.8	4-5					
89.2	6.74	2.55	0.56	0.66	99.7	3-4					
94.8	0.15	2.12	0.28	0.85	98.2	2-3	1	4	Limestone. Fine grain. Dark gray to brown. Rubby and nodular.		
91.0	0.83	5.52	0.29	1.19	98.8	1-2					
91.1	1.59	4.70	0.46	0.85	98.7	0-1					
BOTTOM OF QUARRY											

QUARRY NO. 21

County: WARREN

Property Owner: BILLY WELCH

Location: BOWLING GREEN, KY., 2 miles north on Woodford Avenue, turn west at school and go 9 miles.



Abbreviations: P.P. = Platycrinus penicillus.

QUARRY REPORT NO. 21

County: Warren

Location: Bowling Green, Ky., 2 miles north on Woodford Ave., turn W. at school go 9 mi.

Sampled By: H. W. Settle

Date Sampled: 8/2/49

Property Owner: Billy Welch

Operator: Lewis & Matthews

Analyzed By: Mining Engineering Lab., University of Ky.

Date Received:

Date Reported: 8/10/50

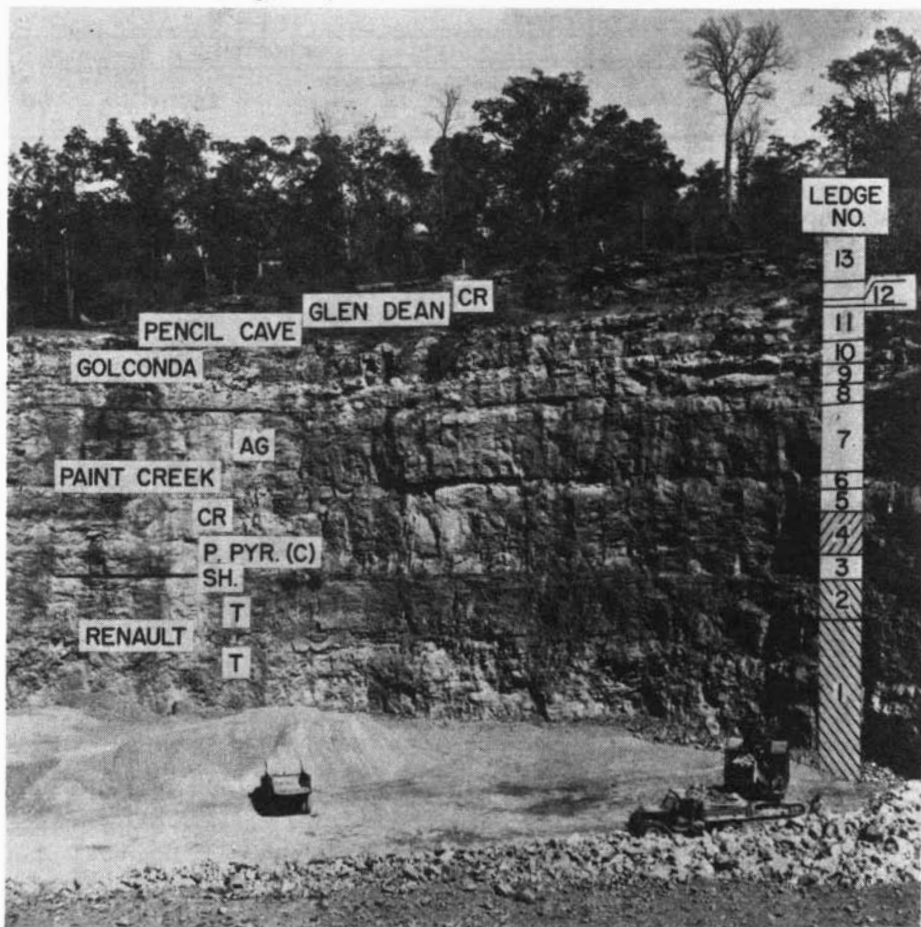
CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
							TOP OF QUARRY			
							Stripping. Soil and weathered limestone.			
NO SAMPLES							5+			
96.1	1.45	1.66	0.17	0.04	99.4	26-27				
94.6	2.6	1.72	0.26	0.06	99.2	25-26				
92.8	4.5	1.96	0.30	0.24	99.8	24-25				
95.7	1.82	1.48	0.20	0.06	99.3	23-24				
96.1	1.50	1.31	0.12	0.0	99.0	22-23				
96.8	1.67	1.34	0.11	0.03	100.0	21-22				
96.0	1.87	1.48	0.15	0.04	99.5	20-21				
92.1	5.7	1.73	0.15	0.12	99.8	19-20				
91.8	5.2	1.88	0.14	0.02	99.0	18-19	4	18	Limestone. Light gray to gray. Fine to medium grain. Coarser at top. Oolitic and crystalline. Fossiliferous at top. Thick beds. Weathers buff to white.	Ste. Genevieve
91.4	5.3	1.87	0.21	0.07	98.9	17-18				
89.6	7.3	1.51	0.19	0.01	98.6	16-17				
94.2	3.6	1.12	0.15	0.16	99.2	15-16				
96.8	0.76	1.27	0.15	0.01	99.0	14-15				
96.7	1.24	0.71	0.10	0.07	98.8	13-14				
89.3	7.5	2.42	0.24	0.26	99.7	12-13				
90.7	6.1	2.42	0.26	0.36	99.8	11-12				
90.6	5.6	2.66	0.27	0.32	99.5	10-11				
92.8	3.2	2.63	0.30	0.31	99.2	9-10				
52.4	35.2	8.11	0.98	3.63	100.3	8-9				
74.9	14.2	7.26	0.77	1.28	98.4	7-8	3	2	Ls. Light gray. Fine grain. Dense. Weathers buff.	
95.3	1.96	1.66	0.32	0.30	97.7	6-7	2	2	Ls. Gray. Coarse grain. Crystalline and oolitic. Shaley. Weathers bluish.	
94.3	1.66	2.89	0.30	0.31	99.5	5-6				
98.9	0.60	0.48	0.10	0.03	100.1	4-5				
98.0	1.21	0.87	0.10	0.0	100.1	3-4				
97.4	2.0	0.66	0.15	0.03	100.2	2-3	1	5	Limestone. Light gray. Fine grain. Oolitic. Thick beds. Weathers buff.	
96.8	1.96	1.41	0.20	0.14	100.5	1-2				
93.4	3.18	2.11	0.10	0.10	98.9	0-1				
							BOTTOM OF QUARRY			


QUARRY NO. 22


County: WAYNE

Property Owner: BASSETT PRODUCTS CO.

Location: MONTICELLO, KY., three-fourths of a mile southeast on Ky. Route 92  
turn left and go 400 yards.



 high-calcium limestone. 29 feet thick.  $\text{CaCO}_3$  average - 98.2%.

 high-calcium limestone. 7 feet thick.  $\text{CaCO}_3$  average - 97.7%.

This vicinity is considered worthy of further investigation because:

1. Thick deposits of high-calcium limestone are known.
2. It is near the power to be developed by the new Wolf Creek dam.
3. Probably reserves are adequate for large operations.

Abbreviations: AG = Agassizocrinus, CR = large crinoid stem (unidentified)  
P. PYR. (c) = Pentremites pyrifomis (common), SH = shale,  
T. = Talarocrinus.

QUARRY REPORT NO. 22

County: Wayne

Location: Monticello, Ky., 3/4 mile southeast on Ky. Route 92, turn left and go 400 yards.

Sampled By: H. W. Settle, E. B. Wood Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 7/18/49

Date Received:

Date Reported: 3/13/50

Bassett

Property Owner: Products Co.

Bassett

Operator: Products Co.

CHEMICAL ANALYSIS						DESCRIPTION				
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
						TOP OF QUARRY				
						Stripping				
						Soil.				
						Limestone. Medium grain. Oolitic. Interbedded fine grained, dense limestones.				
NO SAMPLES						83-96	13	13+		Glen Dean
						WASTE				
						82-83			Shale. Green. Clay.	
						81-82			Pencil Cave	
NO SAMPLE						80-81	12	1	Limestone. Conglomeritic.	
						79-80				
NO SAMPLES						78-79				
						77-78	11	6		
						76-77				
87.1	10.60	1.48	0.45	0.32	100.0	75-76				
93.5	4.33	1.47	0.18	0.26	99.7	74-75			Limestone. Fine grain.	
94.1	3.19	2.06	0.23	0.38	100.0	73-74	10	3	Dense. Tan. Somewhat earthy.	
95.9	1.70	1.64	0.18	0.58	100.0	72-73				
75.7	14.44	7.41	0.85	1.60	100.0	71-72			Limestone. Fine grain.	
76.6	11.10	9.30	0.88	2.12	100.0	70-71	9	6	Dense. Blue gray. Thin beds with thin shale seams between.	
NO SAMPLES						69-70				
						68-69				
						67-68				
						66-67				
NO SAMPLES						65-66				
						64-65				
95.4	2.92	0.88	0.20	0.45	99.9	63-64	8	6	Limestone. Fine grain.	
90.9	4.55	2.63	0.28	0.68	100.0	62-63			Dense. Smooth. Tan to dark gray.	
87.4	6.46	5.21	0.33	0.54	99.9	61-62				
88.9	4.90	4.12	0.35	0.67	98.9	60-61				
93.9	2.27	3.14	0.30	0.35	100.0	59-60				
88.4	3.40	6.07	0.55	1.08	99.5	58-59				
89.9	2.84	3.15	0.54	0.45	96.9	57-58				
94.5	1.78	2.58	0.35	0.23	99.4	56-57				
91.5	2.16	4.99	0.40	0.80	99.9	55-56				
93.0	1.90	2.04	0.38	0.33	97.7	54-55				
95.4	1.13	2.08	0.33	0.62	99.6	53-54				
94.0	2.42	1.83	0.32	0.16	98.7	52-53	7	12	Limestone. Medium grain. Crystalline and oolitic.	
95.0	1.98	2.15	0.31	0.28	97.8	51-52			Finer grain at top.	
93.9	2.45	2.41	0.33	0.32	97.0	50-51			Beds 6" to 3'.	
94.5	1.75	2.12	0.30	0.39	97.3	49-50				
95.9	1.87	1.52	0.27	0.28	99.8	48-49				
88.4	7.10	3.40	0.37	0.48	99.8	47-48				
80.4	11.80	5.38	0.45	0.91	98.9	46-47	6	3	Limestone. Fine grain.	
87.9	7.40	2.50	0.28	0.37	98.5	45-46			Dense. Tan to dove gray.	
									Paint Creek	

QUARRY REPORT NO. 22

County: Wayne

Location: Monticello, Ky., 3/4 mile southeast on Ky. Route 92, turn left and go 400 yards.

Sampled By:

Date Sampled:

Bassett

Property Owner: Products Co.

Operator: Products Co.

Analyzed By:

Date Received:

Bassett

Operator: Products Co.

Date Reported:

CHEMICAL ANALYSIS

DESCRIPTION

	% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thickness (Feet)	Lithology	Fmn.
	81.0	8.00	6.35	0.60	1.53	97.5	44-45				
	83.8	6.30	6.83	0.48	1.74	99.2	43-44				
	88.2	4.30	5.10	0.42	1.28	99.3	42-43	5	5	Limestone. Medium grain. Crystalline and oolitic. Gray.	
	80.1	7.20	8.26	0.70	2.65	98.9	41-42				
	85.6	6.00	4.26	0.35	1.26	99.5	40-41				
↑ Av. 97.7% ↓	98.2	0.83	0.67	0.11	0.09	99.9	39-40				
	98.2	1.00	0.76	0.14	0.16	100.3	38-39				
	97.9	1.34	0.44	0.12	0.11	99.9	37-38				
	98.5	1.22	0.20	0.10	0.12	100.1	36-37	4	7	Limestone. Fine grain. Dense. Smooth. Tan to buff. Brittle.	
	98.0	1.41	0.55	0.12	0.13	100.2	35-36				
	96.0	2.27	1.54	0.19	0.14	100.1	34-35				
	97.2	1.81	0.63	0.18	0.20	100.0	33-34				
	86.6	8.20	4.21	0.30	0.49	99.8	32-33				
	77.2	14.90	6.71	0.43	0.78	100.0	31-32	3	4	Ls. Fine grain. Dense. Smooth. Dark gray. Contains much chert. 2" shale seam at top.	
	76.5	14.70	7.16	0.53	0.92	99.8	30-31				
	77.0	13.30	7.42	0.50	1.75	100.0	29-30				
↑ Av. 98.2% ↓	96.5	1.28	1.63	0.12	0.43	100.0	28-29				
	97.9	0.91	0.91	0.05	0.45	100.2	27-28				
	97.9	0.80	0.62	0.08	0.34	99.7	26-27				
	97.8	0.79	0.84	0.06	0.33	99.8	25-26	2	8	Limestone. Tan gray to gray. Medium to fine grain. Crystalline to smooth.	
	96.9	0.65	1.50	0.12	0.35	99.5	24-25				
	98.0	0.56	1.02	0.10	0.32	100.0	23-24				
	98.5	0.69	0.84	0.08	0.24	100.3	22-23				
	98.9	0.00	0.49	0.12	0.08	99.6	21-22				
	98.4	0.00	0.48	0.10	0.15	99.1	20-21			2 inch shale seam at top of ledge.	
	98.4	0.00	0.76	0.20	0.06	99.4	19-20				
	97.6	0.00	0.25	0.13	0.14	98.1	18-19				
	97.9	0.00	0.48	0.08	0.08	98.5	17-18				
	98.1	0.00	0.56	0.18	0.07	98.9	16-17				
	97.6	0.00	1.19	0.10	0.04	98.9	15-16				
	98.5	0.00	0.43	0.10	0.08	99.1	14-15				
	98.5	0.00	0.31	0.13	0.24	99.2	13-14				
	97.9	0.00	0.72	0.07	0.17	98.9	12-13	1	21	Limestone. Gray to tan gray. Medium grain. Oolitic and crystalline. Weathers light. Top 3 ft. darker. Beds thin to thick. Shale seam at 18 feet. Contains a small amount of scattered chert nodules.	
99.4	0.00	0.35	0.13	0.08	100.0	11-12					
99.0	0.00	0.28	0.08	0.09	99.4	10-11					
99.3	0.00	0.31	0.04	0.08	99.7	9-10					
99.4	0.00	0.24	0.08	0.07	99.8	8-9					
99.4	0.00	0.44	0.07	0.07	100.0	7-8					
98.9	0.00	0.53	0.10	0.07	99.6	6-7					
98.5	0.60	0.56	trace	0.02	99.7	5-6					
97.5	0.68	0.54	trace	0.08	98.8	4-5					
97.9	0.82	0.50	trace	0.03	99.3	3-4					
98.2	0.91	0.67	trace	0.00	99.8	2-3					
98.2	0.61	0.65	trace	0.00	99.5	1-2					
97.5	1.00	0.54	trace	0.02	99.1	0-1					

Paint Creek

Renault

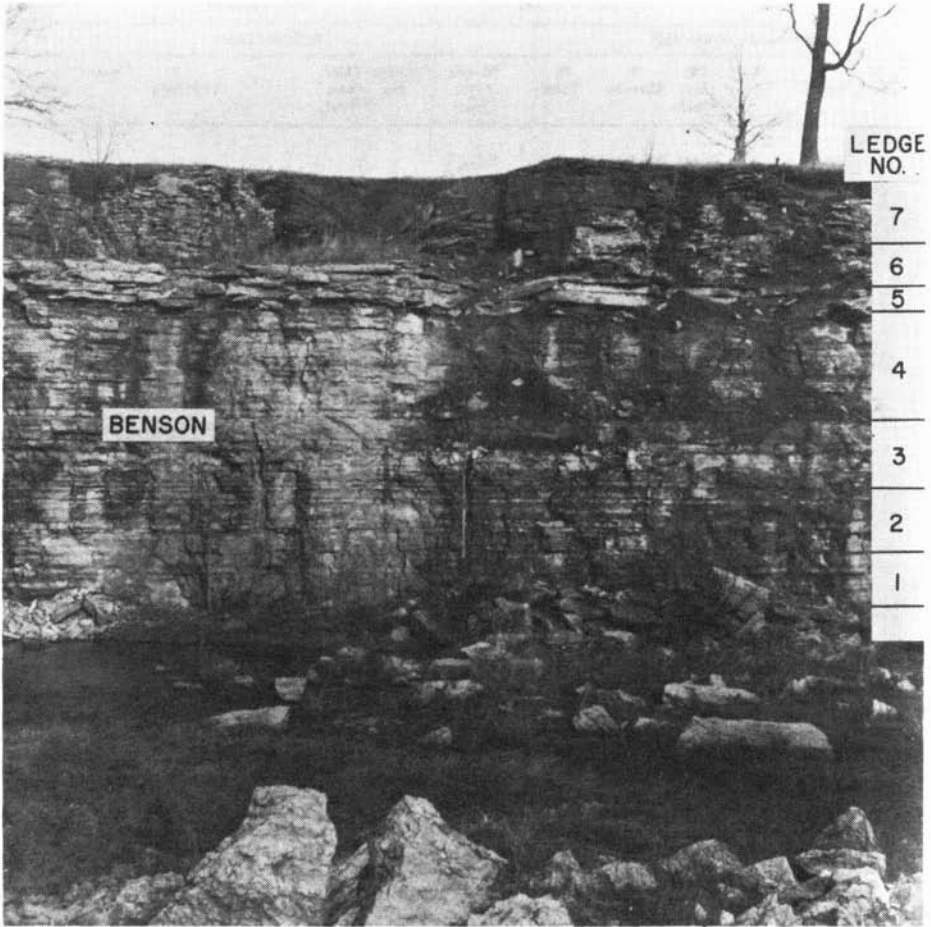
BOTTOM OF QUARRY

QUARRY NO. 23

County: WOODFORD

Property Owner: LAURA JESSE

Location: VERSAILLES, KY., approx. 5 miles east on U.S. Route 60  
(Lexington Road) at junction with Pisgah Road.



QUARRY REPORT NO. 23

County: Woodford

Property Owner: Laura Jesse

Operator: Abandoned

Location: Versailles, Ky., approx. 5 miles E. on U.S. Route 60 (Lex. Rd.) junction Pisgah Rd.

Sampled By: E. M. Luttrell

Analyzed By: Mining Engineering Lab., University of Ky.

Date Sampled: 8/11/50

Date Received:

Date Reported:

CHEMICAL ANALYSIS							DESCRIPTION			
% CaCO <sub>3</sub>	% MgCO <sub>3</sub>	% SiO <sub>2</sub>	% Iron Oxide	% Alumina	% Total	Sample Level (Feet)	Ledge No.	Thick- ness (Feet)	Lithology	Fmn.
TOP OF QUARRY										
Soil and weathered limestone.										
97.2	1.30	.62	.26	.66	100.0	43-44				
95.7	3.0	1.66	.18	.42	99.7	42-43				
95.0	3.0	.84	.24	.49	99.5	41-42	7	7	Limestone. Medium gray.	
95.3	1.57	1.27	.18	.36	98.7	40-41			Medium to coarse grain	
92.8	2.5	3.93	.32	.33	99.9	39-40			Crystalline. 2'' shaly	
93.2	3.5	1.96	.25	.46	99.4	38-39			siltstone at 37'. Chert	
91.8	4.3	2.34	.24	.80	99.4	37-38			from 37' to 42'.	
88.9	4.4	4.31	.35	.44	98.4	36-37			Ls. Light gray. Medium	
91.4	1.60	4.44	.23	.59	98.3	35-36			to coarse grain. Crystal-	
95.7	1.21	1.76	.15	.23	98.0	34-35	6	5	line. Fossiliferous.	
83.2	8.4	4.92	.50	1.67	98.7	33-34			Weathers shaly. 2'' brown-	
86.0	8.1	3.35	.44	1.98	99.9	32-33			ish shale at 32'.	
83.9	8.6	4.67	.19	2.05	99.4	31-32	5	2	Ls. Gray. Coarse grain.	
85.3	6.5	4.51	.42	1.66	98.4	30-31			Crystalline. 2'' shale at 30'.	
83.5	8.7	4.72	.52	2.15	99.6	29-30				
91.0	4.3	2.35	.37	.89	98.9	28-29				
93.9	2.6	3.15	.15	.48	100.3	27-28				
88.5	3.9	3.40	.35	1.38	97.6	26-27			Limestone. Brownish gray.	
88.9	3.4	6.58	.30	.69	99.8	25-26	4	10	Coarse grain. Crystalline.	
88.9	5.2	3.85	.38	1.06	99.5	24-25			Fossiliferous. Weathers	Benson
87.8	3.8	4.93	.35	1.15	98.0	23-24			shaly.	
93.9	2.0	2.72	.18	.26	99.1	22-23				
94.6	2.6	1.27	.19	.48	98.2	21-22				
87.8	6.6	2.17	.34	1.08	98.0	20-21				
88.9	5.9	2.61	.30	1.22	98.9	19-20				
96.8	.95	1.01	.13	.04	98.9	18-19				
88.9	4.8	3.64	.30	.67	98.3	17-18			Limestone. Light gray.	
91.7	2.2	3.15	.23	.47	97.8	16-17	3	7	Coarse grain. Crystalline.	
97.4	1.18	1.50	.15	.23	100.4	15-16			Fossiliferous $\frac{1}{2}$ ''	
90.7	4.2	2.68	.33	.73	98.6	14-15			shale at 13'.	
93.9	1.91	1.91	.20	.49	98.4	13-14				
92.8	3.7	2.15	.25	.94	99.9	12-13			Limestone. Brownish gray.	
97.8	1.18	.93	.15	.29	100.3	11 $\frac{1}{2}$ -12			Coarse grain. Crystalline.	
95.7	2.0	1.49	.23	.77	100.2	10 $\frac{1}{2}$ -11 $\frac{1}{2}$	2	7	Fossiliferous. $\frac{1}{2}$ '' shale	
95.0	3.0	1.21	.30	.53	100.0	9 $\frac{1}{2}$ -10 $\frac{1}{2}$			at 6'.	
94.2	3.5	1.10	.19	.46	99.5	9--9 $\frac{1}{2}$				
79.6	13.3	3.65	.47	2.18	99.2	8--9				
82.1	9.4	4.44	.44	2.08	99.5	7--8				
93.5	3.3	2.00	.27	.88	99.9	6--7				
94.6	3.5	1.40	.24	.46	100.2	5--6				
95.7	2.2	1.71	.20	.19	100.0	4--5				
88.9	4.9	3.83	.35	1.18	99.2	3--4	1	6	Limestone. Medium gray.	
89.6	3.2	3.66	.34	1.02	97.8	2--3			Medium to coarse grain.	
92.8	1.84	2.43	.24	.39	97.7	1--2			Crystalline. Fossiliferous.	
93.5	2.2	3.05	.18	.51	99.4	0--1			Thin beds.	
BOTTOM OF QUARRY										

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