

DEPARTMENT OF PUBLIC WORKS AND BUILDINGS

W. J. PAYES, JR., DIRECTOR

DIVISION OF HIGHWAYS

BUREAU OF MATERIALS

126 EAST ASH STREET

SPRINGFIELD

RALPH R. BARTELSMEYER
CHIEF HIGHWAY ENGINEER

November 7, 1961

Mr. John D. Mattison
District Engineer
6035 North Mt. Hawley Road
Peoria, Illinois

Dear Sir:

We have completed our tests on the two 2-inch limestone cores, Lab. Nos. 61-11872 and 61-11873, which were submitted to us on October 23, 1961 by Ray Jones, Canton, Illinois.

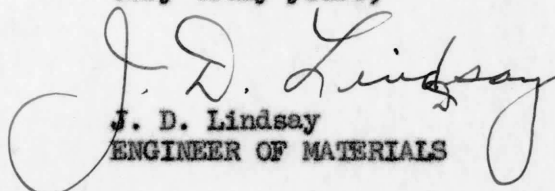
These cores were drilled October 17, 1961, on properties located in Peoria County, Illinois, 4 miles east and 2 miles south of the city of Farmington, in the SE_{1/4}, SW_{1/4}, Sec 15, T6N, R1E.

Herewith is a folder containing copies of the logs we made on these cores. Folders containing copies of the logs are also being sent to Mr. Ray Jones, and to Mr. J. E. Lamar of the Illinois Geological Survey at Urbana.

From the results of the tests we were able to make on the stone provided by these cores, the indications are that the crushed material that would be produced from the 7 feet of ledges represented, should the deposit be opened, would not be of suitable quality for use in any of our work. The soundness losses of 38.1% and 34.1% are greatly in excess of the limit of 25% which is specified for crushed stone for use in Grade 8 for surfacing, and it is also too high to be acceptable under any "special provision" that might be written for it. It is not likely that any special crushing or other beneficiation would improve it.

The information provided by these logs, and the accompanying test data should give a fairly good idea of the quality and characteristics of the stone in the ledges in the deposit from which the cores were taken.

Very truly yours,

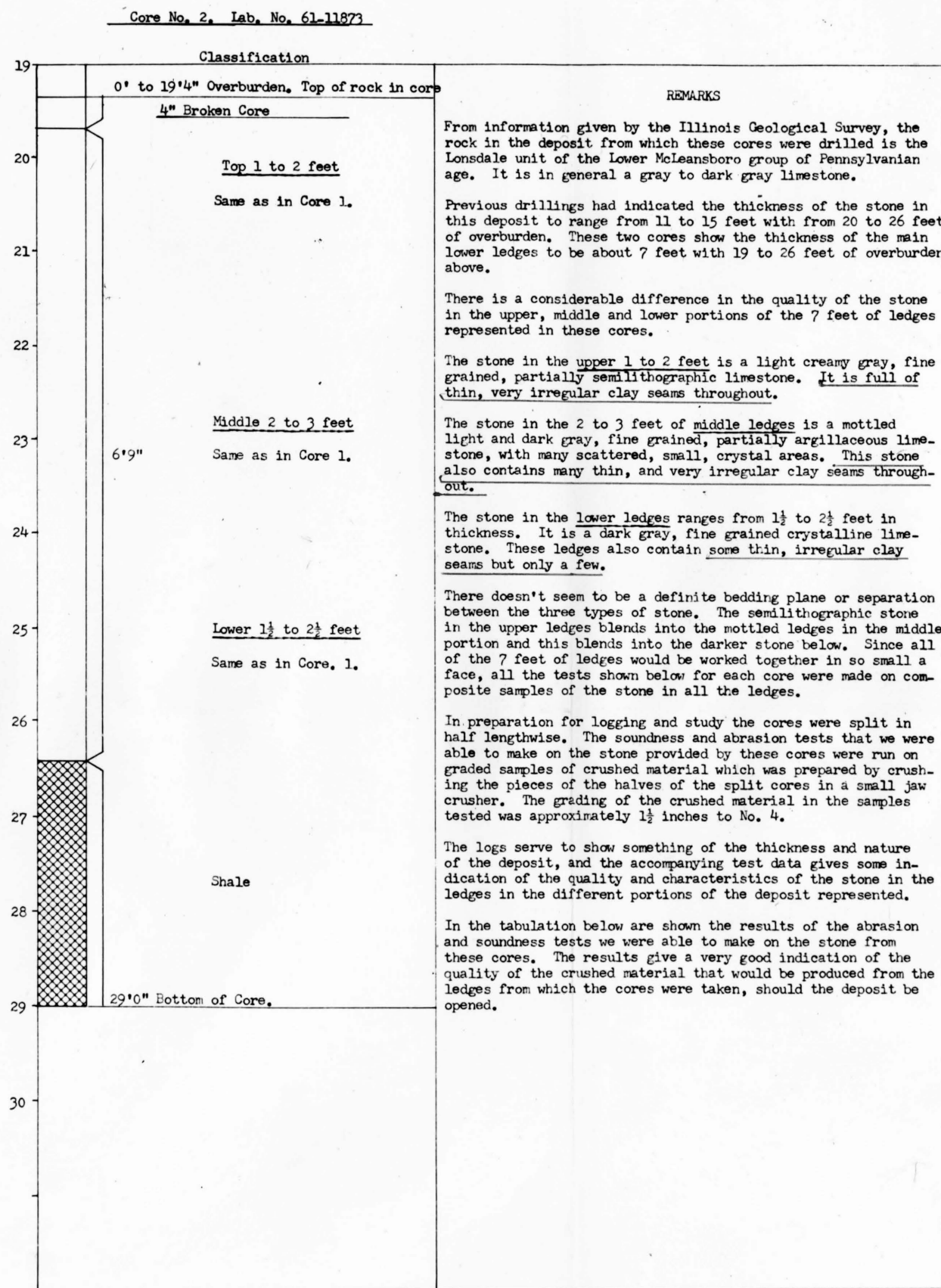
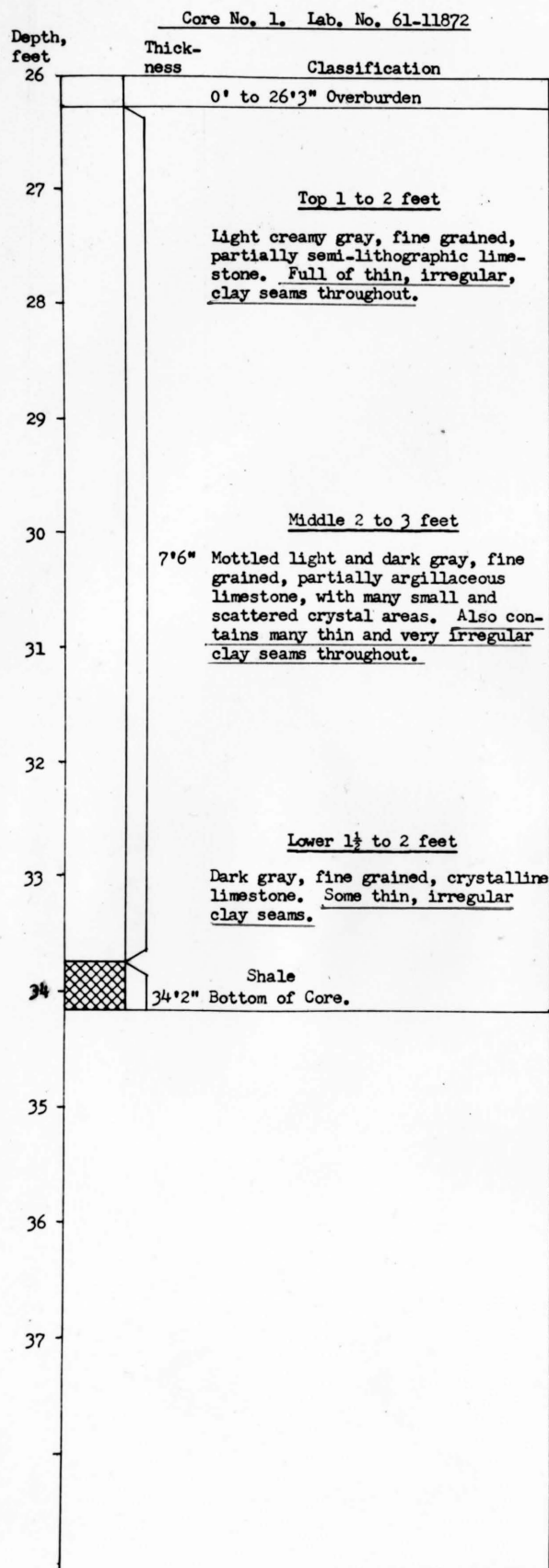


J. D. Lindsay
ENGINEER OF MATERIALS

cc Ray Jones
J. E. Lamar ✓

LOG OF 2" LIMESTONE CORES. Lab. Nos. 61-11872 and 61-11873. Core No. 1 and Core No. 2.

Submitted on October 23, 1961, by Ray Jones, Canton, Illinois
 These two cores were drilled October 17, 1961, in the SE $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 15, T8N, R1E, Peoria County. Core No. 1 was drilled on the Higgs property on the north side of the road and north of the fence at the top of the slope above the opening made a day or so prior to October 11 about 30' east of the creek bed. Hole No. 2 was drilled on the Quinn property on the south side of the road, south of the barn and west of the creek. This deposit is located approximately 4 miles east and 2 miles south of the city of Farmington, and approximately 18 miles west of Peoria.



RESULTS OF ABRASION AND SOUNDNESS TESTS				
Core No. 1				
Lab. No.	Sp. Gr.	% Abs.	Los Ang. Abr. loss, %	Sod. Sulf. Sound. loss, %
61-11872	2.65	1.1	28.6*	38.1
Core No. 2				
61-11873	2.64	1.1	- *	34.1

*Combined for abrasion test.

Note--
 For crushed stone for use in p.c. concrete and I-11 bit. work--
 The abrasion loss limit is ----- 35%
 The sodium sulfate soundness loss limit is ---- 15%
 For crushed stone for Grade 8 for surfacing and base--
 The abrasion loss limit is ----- 45%
 The sodium sulfate soundness loss limit is ---- 25%

