

County PUTNAM
T ... 13 N R ... 4 W
Sec ... SE NE SE NW ... 9
Other Survey

Quarry or Pit Core ... ☒ Dim Other
Name ... McCullough Nos. 2 & 3
Former Names
.....
Operator ... Ohio and Indiana Stone Co.
Former Operators

COAL AND INDUSTRIAL MINERALS SECTION
INDIANA GEOLOGICAL SURVEY
DEPARTMENT OF NATURAL RESOURCES
611 NORTH WALNUT GROVE
BLOOMINGTON, INDIANA 47401

MEMORANDUM REPORTS BY:	
Name	Date
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REMARKS

INDIANA GEOLOGICAL SURVEY
INDUSTRIAL MINERALS SECTION
CORE DESCRIPTION

Ohio and Indiana Stone Company

Farm: McCullough No. 2

Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 13 N., R. 4 W.

Locality: About 1 mile north of Putnamville

Surface elevation: 748 feet

Total depth: 54.2 feet

Core description: Priscilla Nelson, July 1972

<u>Unit</u>	<u>Description</u>	<u>Depth in feet</u>	
		<u>from</u>	<u>to</u>
1	No information	0.0	10.2
	Mississippian System Meramac Series		
	<u>Ste. Genevieve Limestone</u> Levias Member		
2	Limestone, light gray (N7), oolitic, iron stained along vertical fractures, massive, dense.	10.2	10.5
3	Limestone, pale yellow brown (10YR6/2) to light olive gray (5Y6/1), micritic, grainy texture, slightly fossiliferous, iron stain, pyritic, chert at 14.2', non-fossiliferous.	10.5	15.1
	Note: 1.1 ft. core missing from interval 10.2' to 14.1'.		
4	Limestone, very light olive gray (5Y8/1), micritic skeletal, chert present from 15.6 to 16.4, brown and gray mottled, slightly fossiliferous with fenestellates.	15.1	17.0
5	Limestone, light olive gray (5Y6/1), micritic, only locally skeletal, grainy texture, glauconitic, stylolitic, pyritic, few shale partings, medium bedded, slightly porous.	17.0	21.9
6	Limestone, light gray (N7), skeletal-micritic, extensively recrystallized, massive, not porous.	21.9	23.0
7	Limestone, as unit 5.	23.0	25.7
8	Limestone, nearly white (N9), skeletal, becoming pelletal-skeletal to micritic-pelletal with depth, many shale partings, medium to thinly bedded, slightly porous, stylolitic.	25.7	29.5
9	Limestone, nearly white, coarsely recrystallized micrite, very few fossils.	29.5	32.1
10	Limestone, very light olive gray (5Y7/1), skeletal, pelletal, in places, lithographic, very few shale partings, stylolites, basal 1" green calcareous shale.	32.1	34.0
11	Limestone, olive gray (5Y5/1), top 2"-oolitic, then micritic-pelletal, grainy texture, few shale breaks, medium bedded, slightly porous.	34.0	35.2
12	Limestone, light olive gray (5Y7/1), micritic pelletal, grainy texture, stylolitic, with iron stain, few shale partings, glauconitic, medium bedded, slightly porous.	35.2	37.1

<u>Unit</u>	<u>Description</u>	<u>Depth in feet</u> <u>from to</u>	
13	Limestone, light olive gray (5Y7/1), micritic, skeletal, locally pelletal (38.6-38.8), chert beds at 38.0, stylolitic, lithographic, glauconitic, massive, not porous.	37.1	42.1
14	Limestone, light olive gray (5Y7/1), micritic-skeletal, grainy texture, many shale breaks, sparsely fossiliferous in zones of shale breaks, thinly bedded, moderately porous.	42.1	44.0
	Spar Mountain Member		
15	Limestone, olive gray (5Y4/2), detrital-skeletal, with sand size rounded chert and/or quartz grains, approximately 2% of rock, grainy texture.	44.0	47.6
	Fredonia Member		
16	Limestone, light olive gray (5Y7/1), micritic skeletal, chert scattered, glauconitic, pyritic, numerous shale partings, thinly bedded, moderately porous.	47.6	54.2

patmccullough 2
67-413-04-09

Ohio and Indiana Stone Company
Farm: McCullough No. 2
Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 13 N., R. 4 W.
Locality: About 1 mile north of Putnamville
Surface elevation: 748 feet
Total depth: 54.2 feet
Core description: Priscilla Nelson, July 1972

Unit	Description	Depth	
1	No information	0.0	10.2
	Mississippian System		
	Meramac Series		
	Ste. Genevieve Limestone		
	Levias Member		
2	Limestone, light gray (N7), oolitic, iron stained along vertical fractures, massive, dense.	10.2	10.5
3	Limestone, pale yellow brown (10YR6/2) to light olive gray (5Y6/1), micritic, grainy texture, slightly fossiliferous, iron stain, pyritic, chert at 14.2', non-fossiliferous.	10.5	15.1
	Note: 1.1 ft. core missing from interval 10.2' to 14.1'.		
4	Limestone, very light olive gray (5Y8/1), micritic skeletal, chert present from 15.6 to 16.4, brown and gray mottled, slightly fossiliferous with fenestellates.	15.1	17.0
5	Limestone, light olive gray (5Y6/1), micritic, only locally skeletal, grainy texture, glauconitic, stylolitic, pyritic, few shale partings, medium bedded, slightly porous.	17.0	21.9
6	Limestone, light gray (N7), skeletal-micritic, extensively recrystallized, massive, not porous.	21.9	23.0
7	Limestone, as unit 5.	23.0	25.7
8	Limestone, nearly white (N9), skeletal, becoming pelletal-skeletal to micritic-pelletal with depth, many shale partings, medium to thinly bedded, slightly porous, stylolitic.	25.7	29.5
9	Limestone, nearly white, coarsely recrystallized micrite, very few fossils.	29.5	32.1
10	Limestone, very light olive gray (5Y7/1), skeletal, pelletal, in places, lithographic, very few shale partings, stylolites, basal 1" green calcareous shale.	32.1	34.0
11	Limestone, olive gray (5Y5/1), top 2"-oolitic, then micritic-pelletal, grainy texture, few shale breaks, medium bedded, slightly porous.	34.0	35.2
12	Limestone, light olive gray (5Y7/1), micritic pelletal, grainy texture, stylolitic, with iron stain, few shale partings, glauconitic, medium bedded, slightly porous.	35.2	37.1
13	Limestone, light olive gray (5Y7/1), micritic, skeletal, locally pelletal (38.6-38.8), chert beds at 38.0, stylolitic, lithographic, glauconitic, massive, not porous.	37.1	42.1

14	Limestone, light olive gray (5Y7/1), micritic-skeletal, grainy texture, many shale breaks, sparsely fossiliferous in zones of shale breaks, thinly bedded, moderately porous.	42.1	44.0
	Spar Mountain Member		
15	Limestone, olive gray (5Y4/2), detrital-skeletal, with sand size rounded chert and/or quartz grains, approximately 2% of rock, grainy texture.	44.0	47.6
	Fredonia Member		
16	Limestone, light olive gray (5Y7/1), micritic skeletal, chert scattered, glauconitic, pyritic, numerous shale partings, thinly bedded, moderately porous.	47.6	54.2

INDIANA GEOLOGICAL SURVEY
INDUSTRIAL MINERALS SECTION
CORE DESCRIPTION

Ohio and Indiana Stone Co.

Farm: McCullough No. 3

Location: NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 13 N., R. 4 W.

Locality: About 0.5 miles north of Putnamville

Surface elevation: 762 feet

Total depth: 75.0 feet

Core description: Priscilla Nelson, September 1972

<u>Unit</u>	<u>Description</u>	<u>Depth in feet</u> <u>from</u> <u>to</u>	
1	No information	0.0	19.7
	Mississippian System Meramac Series <u>Ste. Genevieve Limestone</u> <u>Levias Member</u>		
2	Limestone, lt. olive gray (5Y6/1), skeletal micritic, with lt. green-gray shale breaks, pyritic, med. to thinly bedded, no stylolitics, weathered to a limonitic yellow at top.	19.7	22.2
	NOTE: 0.8' missing from interval 19.7' to 32.5'.		
3	Limestone, lt. olive gray (5Y6/1), skeletal and oolitic, fewer shale breaks than above, pyritic, grainy to crystalline texture, no stylolites.	22.2	27.4
4	Limestone, lt. olive gray (5Y6/1), oolitic skeletal, lithographic texture common, pyritic.	27.4	33.3
5	Limestone, lt. olive gray (5Y6/1), oolites, rock breaks around grains. Stylolitic, no shale breaks, but bands of argillaceous material common, post depositional slumping abundant. Becomes skeletal with depth.	33.3	37.3
	<u>Spar Mtn. Member</u>		
6	Greenish gray (5GY6/1), mudstone, non-fissile, with brecciated intraclasts of oolitic limestone (lt. olive gray, 5Y6/1).	37.3	38.2
7	Limestone, lt. olive gray (5Y6/1), skeletal oolitic, lithographic texture. At 39.1 to 39.6. v. argillaceous with 2% quartz and chert grains. At 40.0-40.8, massive lt. and dk. chert, non-fossiliferous, ramiform.	38.2	41.2
	<u>Fredonia Member</u>		
8	Limestone, lt. olive gray (5Y6/1), pelletal-skeletal, all material of similar grain size, solutional features in top foot, brown and black fossiliferous chert (nodular) at 43.8-44.3', moderately porous, med. to thinly bedded.	41.2	44.9
9	Limestone, lt. olive gray (5Y6/1), micritic, but burrowed with skeletal and oolitic material as burrow fillings. Stylolitic, bryozoans abundant. Chert at 46.1 and 46.6'.	44.9	47.2

Unit	Description	Depth in feet	
		from	to
10	Limestone, lt. olive gray (5Y6/1), skeletal shale breaks, from 49.4 to 50.4, grainy textured, recrystallized, sl. pyritic, med. bedded to thinly bedded in areas of shale breaks.	47.2	51.5
11	Limestone, lt. olive gray (5Y6/1), micritic and skeletal skeletal in places, stylolitic, sl. porous, thinly bedded, shale breaks concentrated near stylolitics.	51.5	55.5
12	Limestone, lt. olive gray (5Y6/1), skeletal med. bedded, stylolitic, very few shale breaks, crystalline texture, sl. porous.	55.5	62.1
13	Limestone, lt. olive gray (5Y6/1), micritic skeletal lithographic texture, med. bedded, few stylolitics, no shale breaks, sl. porous, no pyrite.	62.1	63.4
14	Dolomite, olive gray (5Y4/1), fractured with calcite fillings, vuggy, pyritic, sl. porous, sugary texture microscopically; massive.	63.4	64.3
15	Limestone, lt. olive gray (5Y6/1), pelletal, microskeletal to 65.9', then micritic to 66.4', stylolitic, no shale breaks, minor scattered pyrite.	64.3	66.4
16	Dolomite, olive gray (5Y4/1), sugary, dense, massive, sl. porous, pyritic, iron stain along fracture surfaces.	66.4	66.7
<u>St. Louis Limestone</u>			
17	Limestone, lt. olive gray (5Y6/1), pelletal, skeletal, pyritic, no shale breaks, med. bedded (as unit 15).	66.7	68.3
18	Limestone, lt. olive gray (5Y6/1), skeletal (fragmented). some chert replacement of solitary corals, shale breaks common, medium bedded, sl. to med. porous. CORALS	68.3	69.4
19	Limestone, lt. olive gray (5Y6/1), micritic-lithographic, with bryozoan material scattered, no shale breaks until base of unit, med. bedded.	69.4	70.3
20	Limestone, lt. olive gray (5Y6/1), micritic and skeletal lithographic in places, common is bedded chert, fossiliferous (bryozoans) and lt. and dk. gray in color.	70.3	75.0

put McCullough 3
67-413-04-09

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	Levias Member		
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	Note: 0.8' missing from interval 19.7' to 32.5'.		
3	Limestone, lt. olive gray (5Y6/1), skeletal and oolitic, fewer shale breaks than above, pyritic, grainy to crystalline texture, no stylolites.	22.2	27.4
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11	Limestone, lt. olive gray (5Y6/1), micritic and skeletal in places, stylolitic, si. porous, thinly bedded, shale breaks concentrated near stylolitics.	51.5	55.5
12	Limestone, lt. olive gray (5Y6/1), skeletal med. bedded, stylolitic, very few shale breaks, crystalline texture, si. porous.	55.5	62.1
13	Limestone, lt. olive gray (5Y6/1), micritic skeletal lithographic texture, med. bedded, few stylolitics, no shale breaks, sl. porous, no pyrite.	62.1	63.4
14	Dolomite, olive gray (5Y4/1), fractured with calcite fillings, vuggy, pyritic, sl. porous, sugary texture microscopically; massive.	63.4	64.3
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18	Limestone, lt. olive gray (5Y6/1), skeletal (fragmented) some chert replacement of solitary corals, shale breaks common, medium bedded, sl. to med. porous.	68.3	69.4
19	Limestone, lt. olive gray (5Y6/1), micritic-lithographic, with bryozoan material scattered, no shale breaks until base of unit, med. bedded.	69.4	70.3
20	Limestone, lt. olive gray (5Y6/1), micritic and skeletal lithographic in places, common is bedded chert, fossiliferous (bryozoans) and lt. and dk. gray in color.	70.3	75.0