

HIGH RESOLUTION STRATIGRAPHY OF LOWER
MISSISSIPPIAN STRATA NEAR JANE, MISSOURI

By

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CHAPTER I

INTRODUCTION

The Mississippian Subsystem has become a subject of interest as a result of the hydrocarbon discoveries in the Mid-continent region. Accordingly, in order to have better understanding of the subsurface Mississippian strata, detailed studies of the related outcrops are needed. This report presents results of a detailed stratigraphic analysis of lower Mississippian units that crop out on U.S highway 71, approximately 2.5 kilometers to the west of Jane, McDonald County, Missouri (Figure 1.1). The approximate coordinates of this section are, Latitude 36°32'47.94"N; Longitude 94°19'39.36"W. The units under study, in ascending order are, Bachelor Formation, Compton Limestone, Northview Formation and Pierson Limestone (in large part) of the Tournaisian Stage, and the Pierson Limestone (top only) and Reeds Spring Formation of the Viséan Stage (Figure 1.2).

By convention, the names Compton Limestone, Northview Formation, and Pierson Limestone of Southwestern Missouri are the lithological equivalents of the Louisiana Formation, Hannibal Formation, and Chouteau Formation of northeastern Missouri (Thompson and Fellows, 1970). These three formations are the lateral facies of the lower portion of the St. Joe Limestone in northwestern Arkansas and northeastern Oklahoma (Thompson and Fellows, 1970)

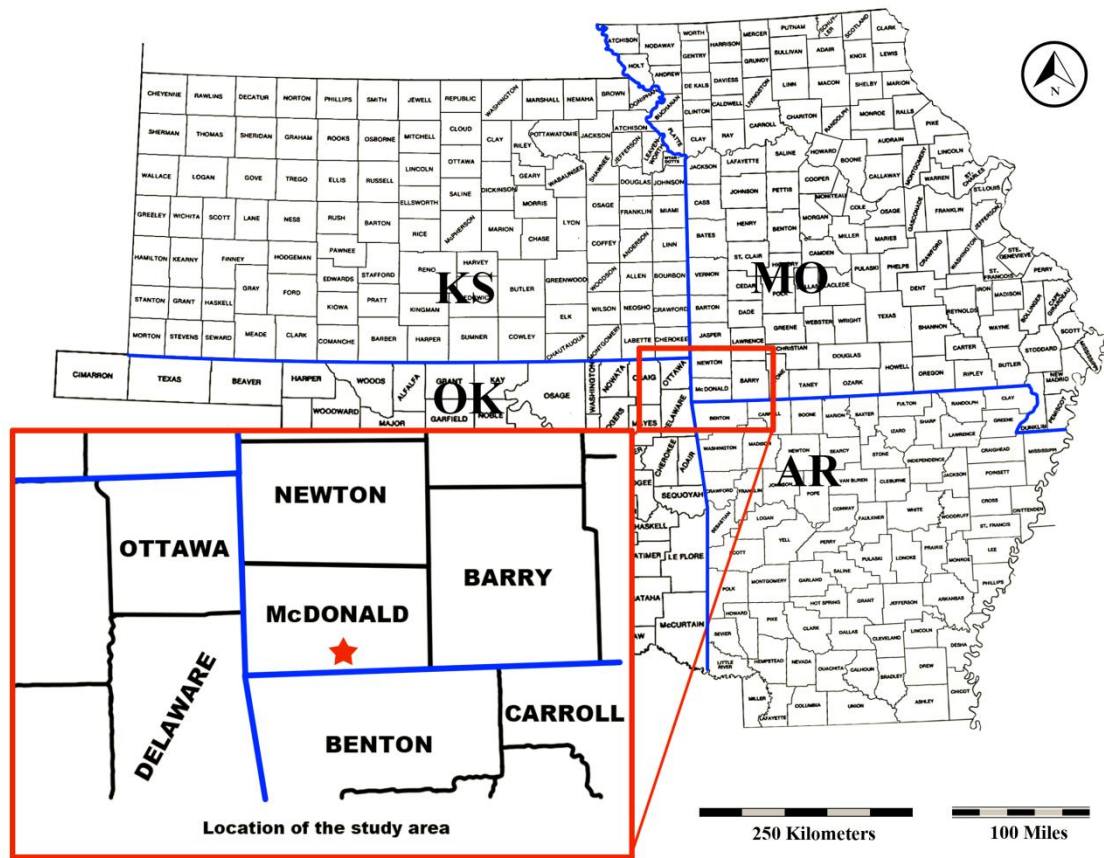


Figure 1.1 Location of study area in southwestern Missouri.

Objectives

The primary objective of this study is to characterize the lithological history of the lower Mississippian units in the study area. On a bed by bed basis, there is no literature on the detrital composition and the depositional history for the lower Mississippian units of southwestern Missouri. Moreover, the sequence stratigraphy based on the sea level fluctuations is still unknown. The current study is an attempt to help unravel the sequence stratigraphy of these units by using detailed stratigraphic and petrographic examination of each bed. Petrographic examination will establish textural changes of the units in the study area.

Previous Studies

The Tournaisian-Viséan stratigraphic succession of southwestern Missouri is well known (Thompson and Fellows, 1970); however, there is little published about the depositional history of these strata. Thompson and Fellows (1970) published a comprehensive study on the lower Mississippian strata in southwestern Missouri and the adjacent areas and presented extensive stratigraphic descriptions of all the units in the study area. Besides, they illustrate the geographic distribution of these units along with their historical nomenclature changes with regions.

Lane (1978) was among the first to build a paleoecological model that included the the same stratigraphic units. Lane used certain fauna species in order to determine the age of the host rocks and to establish the sea level depth. Based on an intensive outcrop study of north central United States, Lane (1979) placed the study area within a carbonate shelf margin setting.

Lane and De Keyser (1980), using the same fundamental faunal analysis used in Lane (1978) were able to construct a paleogeographic map for the Mid-continent region. They compare their carbonate shelf model with a previous model of the same age rocks from Europe called “Kohlenkalk”.

DEV.	MISSISSIPPIAN SUBSYSTEM			Subsystem	Formations
	Kinderhookian Stage	Osagean Stage		North American Stages	
		Tn3	Tn2	Global Stages	
				Viséan Stage	Reeds Spring Formation
				Tournaisian Stage	Pierson Limestone
					Northview Formation
					Compton Limestone
					Bachelor Formation
				Famennian	Woodford Shale

Figure 1.2, schematic diagram of Jane section

CHAPTER II

METHODS OF INVESTIGATION

Field Methods:

The section was measured using a meter tape. The measurement process was divided in two parts. Part 1 was to measure the bed sets of each formation (Figure 2.1). Part 2 was to measure each bed or lamina sets within the bed sets. Moreover, each bed set was described to identify optic features. They included the color on fresh and weathered surfaces, fractures, mechanical and biological structures.

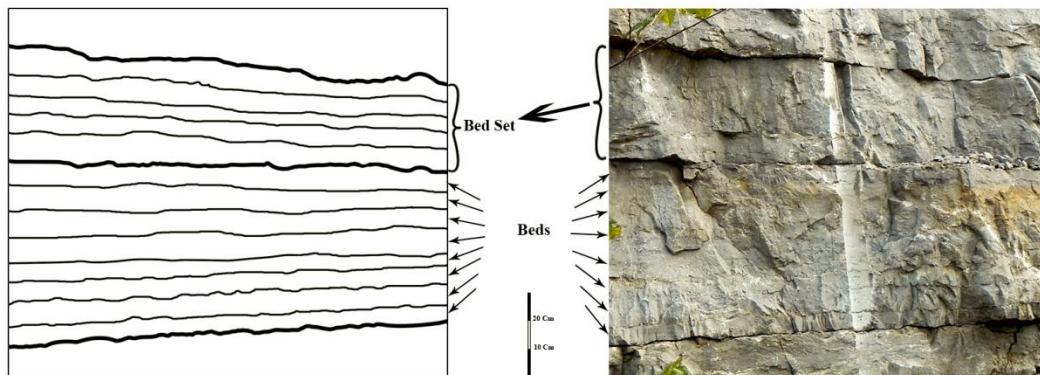


Figure 2.1, Example from the lower Pierson Limestone showing bed sets separation from adjacent sets by a noticeable hiatus and subdivision of sets into thinner beds.

Lab Methods:

Thin Sections:

Forty-six samples were selected to represent the base of each bed set. Each sample was cut, polished, bagged, labeled and sent off for professional thin section preparation.

Acetate Peels Preparation:

Acetate peels were prepared for 128 of the total 136 samples. The materials and tools needed for making the peels were a rock saw, 200 and 600 size silicon carbide powder, 10% dilute hydrochloric acid, acetone, acetate sheets, and a laboratory sink.

Each sample was cut to approximately 4X6 inches with two smooth surfaces on opposed sides. A selected surface was first polished by using 200 grit silicone carbide polishing powder to remove saw marks. The same surface was subjected to another polishing stage using the 600 grit powder on a glass plate. The polished surface was etched in the hydrochloric acid for 10 seconds. The sample was rinsed to remove excess hydrochloric acid and immediately coated with acetone. Before the acetone dried, a precut acetate sheet was placed on the desired surface. After about 20 minutes, the acetate was gently peeled away from the sample. Lastly the peel was mounted between two pieces of 2 by 3 inch glass slides. Before the petrographic examination, each sample was taped and labeled.

Conodonts Recovery:

136 samples were broken and digested for conodont element recovery as follows:

All the samples were crushed to small pieces (2 cm³). A total mass of 2 kilograms of each sample was divided equally into two buckets. A solution of 10% diluted formic acid was poured on the samples. After twenty-four hours of digestion, the samples were wet sieved. Sieve mesh sizes of

30 (0.59 mm) and 100 (0.149mm) were used to recover the non-calcareous residue. The fine sieve fraction was dried and placed in kerosene for few hours to remove any clay contaminants. After drying in the oven for the second time, the samples were enveloped and labeled for later conodont element identification.

Description Methods

Each sample in the study area was described and analyzed based on the texture, grain content and diagenesis using the Leica DM EP polarizing microscope and a Color Guide to the Petrography of Carbonate Rocks book (Scholle *et.al* 2006). Following description, each sample was photographed using an Olympus BX51 microscope.

CHAPTER III

GEOLOGIC FRAMEWORK

The study area is located on the southwestern flank of the Ozark Uplift. The Mississippian outcrop area of the southwestern Missouri, northwestern Arkansas, northeastern Oklahoma is believed to contain carbonate deposited in “a foreland ramp setting” on the southwestern part of the Ozark Uplift (Boardman *et al.*, 2010), and north of Ouachita Trough (Lane, 1978). According to Lane and De Keyser (1980), the units under study were deposited on the Burlington Shelf margin during the time of the late early Mississippian (Figure 3.1). Structurally, the study area was deposited in the Mississippian Valley Graben as a syndepositional tectonic activity of the Ouachita Fold-Belt region. The Ouachita Foreland Basin is characterized as a shallow marine carbonate shelf (Viele and Thomas, 1989, and Thomas, 2004).

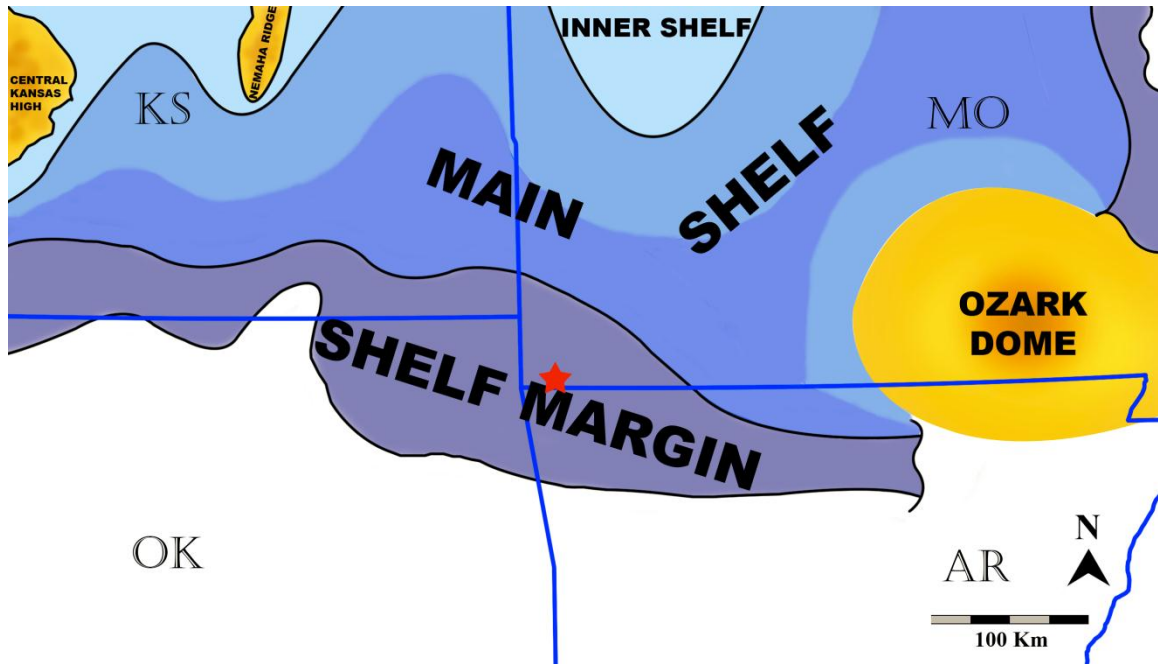


Figure 3.1 Late early Mississippian Paleogeographic map with the study area identified by a red star (*Modified from Lane and De Keyser, 1980*)

DEPOSITIONAL HISTORY AND STRATIGRAPHIC DISTRIBUTION

The Lower Mississippian units under study were deposited during the Tournaisian-Viséan Stage. In most of the localities in the southwestern Missouri area, including the study area, the lower Mississippian strata are unconformably underlain by Upper Devonian Woodford Shale, whereas in some other localities, these strata may unconformably lie on top of the Lower Ordovician. Prior to the deposition of the lower Mississippian succession, the area under study and its adjacent areas underwent series of dynamic erosions. In some localities close to the study area, the lower Mississippian rocks are underlying by Ordovician and Silurian rocks (Thompson and Fellows, 1970).

Bachelor Formation:

This formation is the lowermost unit within the Lower Mississippian. Mehl (1960) named this lithographic unit for outcrops located near Bachelor, Callaway County, and this nomenclature remains the same among the tri-state region. The unit is less than one foot thick around the entire region, and it is subdivided into two members at its type locality section. The type section and reference sections of the Bachelor are mostly located adjacent to the Ozark region. The lower member is a thin (5 to 15 centimeters thick) (~2 to 6 inches), pale buff, medium grained, moderately well to poorly sorted, frosted quartzarenite sandstone.

The upper member is a thin (2.5 to 7.5 centimeters thick) (~1 to 3 inch), light to dark green silty shale. The green shale facies of the Bachelor Formation is characterized by its uniform and predictable distribution. It displays numerous fractures and considerable lamination. The shale on freshly cut surface is loose. It is relatively less resistant to the weathering than the underlying Bachelor Sandstone Member or the Devonian Woodford Shale and the overlying Compton Limestone. The unit is non-calcareous at its base and becomes more calcareous at the top. It lacks apparent sedimentary structure. The basal contact with the Bachelor Sandstone Member, when

present or the Woodford Shale is remarkably sharp. The unit becomes thinner to the east and to the south and was deposited on top of the sandstone member to the east and the northeast of the study area.

In the lower sandstone member, the conodont species (*Siphonodella duplicata*) is a marker species. This fauna is absent in the upper shale member. This, in turn, represents a considerable break in time within the Bachelor Formation (Thompson and Fellows, 1970). The source of the sandstone of the lower member is due to the Ozark Uplift region (Thompson and Fellows, 1970). The Bachelor sandstone member is forming almost a circular rim around the Ozark Dome (Figure 3.2). In the study area, the sandstone member is absent.

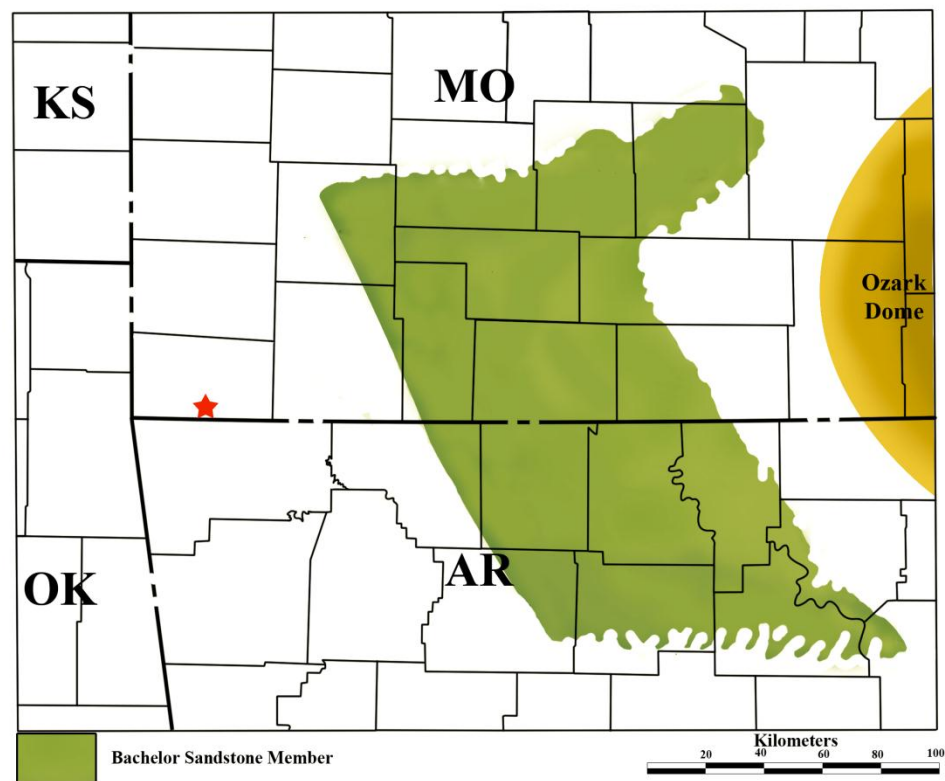


Figure 3.2 Bachelor sandstone member distributions with the location of the study area marked with the red star (modified after Thompson and Fellows, 1970).

Compton Limestone:

The name Compton Limestone was first proposed by Swallow (1855) from Pike County, Missouri. The formation comprises very finely crystalline limestone beds, which in turn have an abundance of widely distributed small crinoidal fragments. The Compton Limestone ranges in thickness from about 1.5 to 9 meters (5 ft. to 30 ft.) The formation typically is grey to greenish grey in color and is interbedded with dark green clay (Thompson and Fellows, 1970). In some locations, the Compton Limestone structure is affected by interbedded mud mounds (Manger and Thompson, 1982).

The Compton Limestone is the result of deposition within a shelf margin environment (Lane 1978). Thompson and Fellows (1970) recorded the geographic distribution as well as the lithographic characteristics of the formation based on inclusive previous studies, and a self-study that they made in the southwestern region. The Compton Limestone is distributed across almost the entire tri-state region. The lithology and the stratification patterns remain almost the same as a thin-bedded microcrystalline limestone. The thickness of the formation, however, changes gradually from normal formation thickness (1.5 to 4.5 meters) (5 to 15 ft.) with an axis trending between Lawrence and Taney counties, Missouri, to almost (0 to 30 centimeters thick) (0 to 1 foot) in the southwestern portions of Delaware and Adair counties, Oklahoma. The formation pinches out to the southeast as well. There, the formation thins to almost 15 centimeters (~6 inches) until it is absent in the southeastern portion of Independence County, Arkansas. In locations where the mud mounds are present, the Compton Limestone has a maximum thickness of about 6 to 9 meters (~20 to 30 ft.). These bodies have an axis trending almost parallel to the Missouri and Arkansas border. This trend may have formed barriers that limited the transportation of the sediment from the northern region to the south (Thompson and Fellows, 1970).

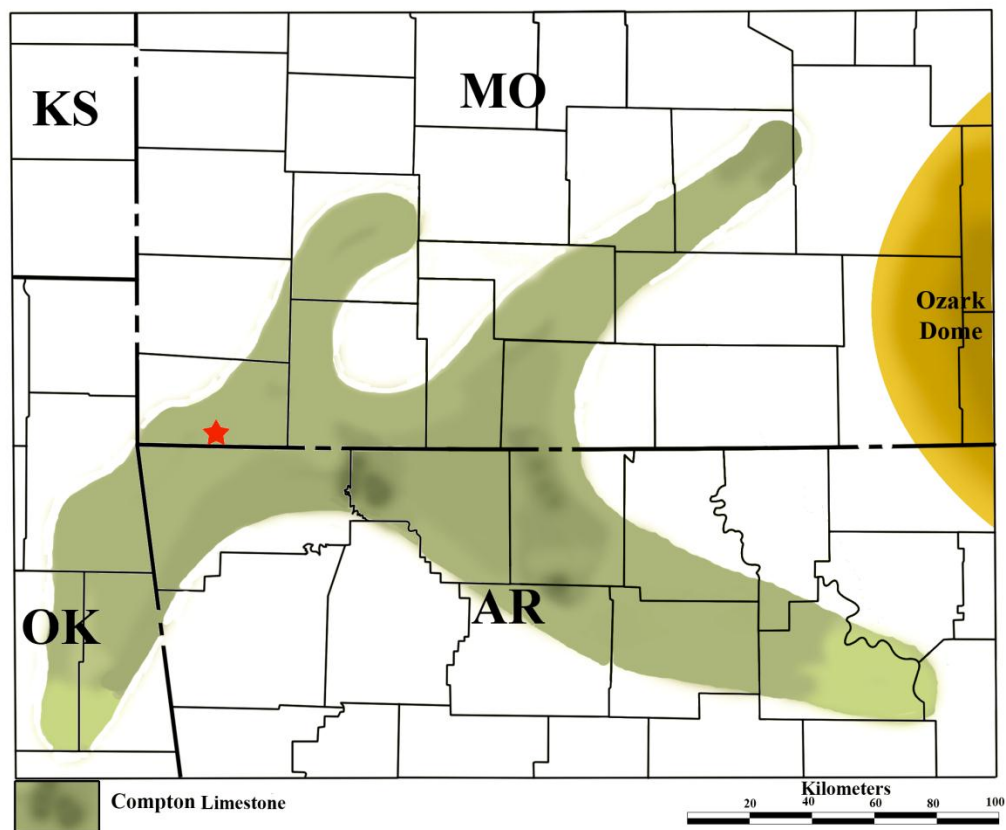


Figure 3.3, Distribution of the Compton Limestone in the western Ozarks..

Northview Formation:

The name of the Northview Formation was first introduced by Swallow (1855). This stratigraphic unit is easily recognizable and distinguished from the lower Compton unit. The thickness of the Northview Formation is noticeably variable from one area to the other. In some localities, it attains a maximum thickness of about 80 ft. This maximum thickness trends northwest to southeast near the middle of the Burlington Shelf (Lane, 1978) just north of Springfield, Missouri. The unit thins to the north and south of this trend, and averages less than 1.5 meters (~ 5 ft.) in thickness to the south and to the north. Recovery of conodonts from the Northview Formation showed that the unit is synchronous thus varies from one location to the other, whereas the time of accumulation was constant.

The Northview Formation can be traced from the northern exposure around Bolivar, Polk County, Missouri, to the northeast around Graff, Wright County, Missouri, where it reaches a thickness of 1.8 meters (6 ft.), down to southwest near Cushman, Independence County, Arkansas where it pinches out, to the southwest near Park Hill, Cherokee County, Oklahoma where it reaches a thickness close to zero (Figure 3.4).

The lithology of the Northview Formation varies with its thickness, ranging from between greenish-brown siltstone, to green silty calcareous shale. In addition, it can range from blue to bluish-gray and grayish-green dolomitic siltstone. As it thins north and south from the previously mentioned trend, it becomes progressively more shaley to the north and more calcareous to the south.

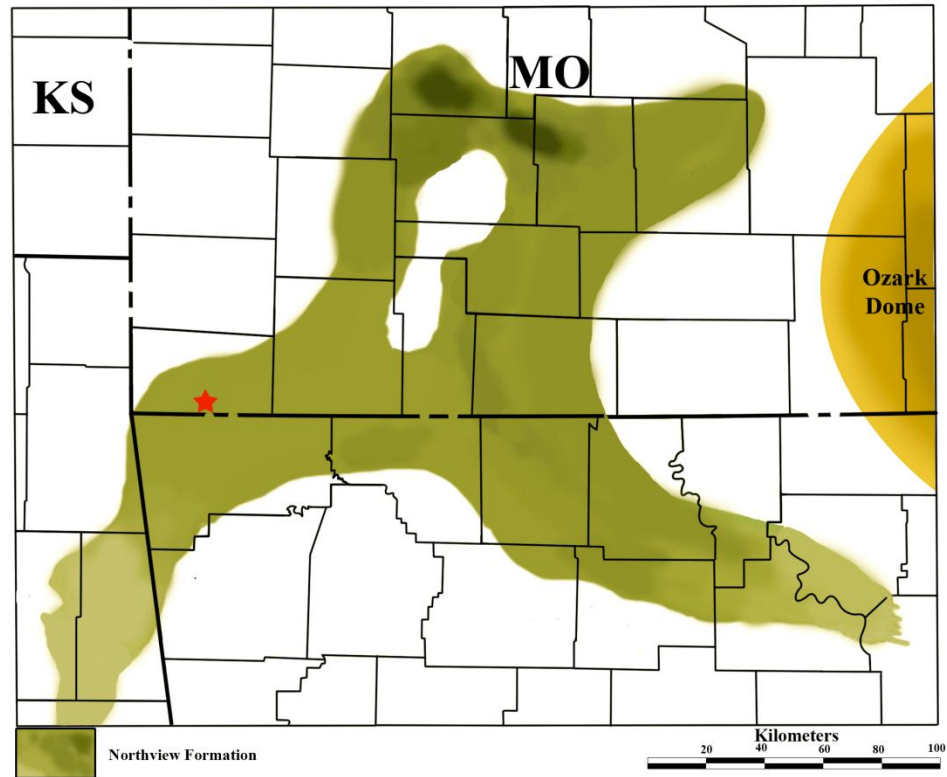


Figure 3.4 Northview Formation exposure distributions. The darker the area the thicker the formation and vice versa.

Pierson Limestone:

The name Pierson was first proposed by Weller (1901). The deposition of the Pierson Limestone began at the base of the Tournaisian 3 sub-stage. The Pierson Limestone is conformably overlies the Northview Formation and is unconformably to conformably overlain by the Reeds Spring Formation (Mazzullo, et al., 2010). The lithology of the Pierson Limestone is similar to that in the Compton Limestone. It consists of buff-colored, evenly thin-bedded and finally crystalline echinodermal and bryozoan, limestone. The Pierson Limestone, however, is thicker, and they become hardly distinguishable from the underlying Compton Limestone in the area of north-central Arkansas and east-central Oklahoma where the Northview Formation is absent.

The maximum thickness of the Pierson Limestone in the area of southwestern Missouri is about 22 meters, (73ft), and about 11 meters (37 ft.) in north Arkansas. According to Thompson and Fellows (1970), the formation is absent in extreme northeast Oklahoma (Figure 3.5). The rate of deposition for the Pierson and the Reeds Spring formations is proportional to the rate of thickness. The Pierson Limestone varies in thickness from 42.6 meters (140 ft.) in the northern part of the study area to about 12.1 meters (40 ft.) herein, and it becomes thinner to the very southeast of the study area.

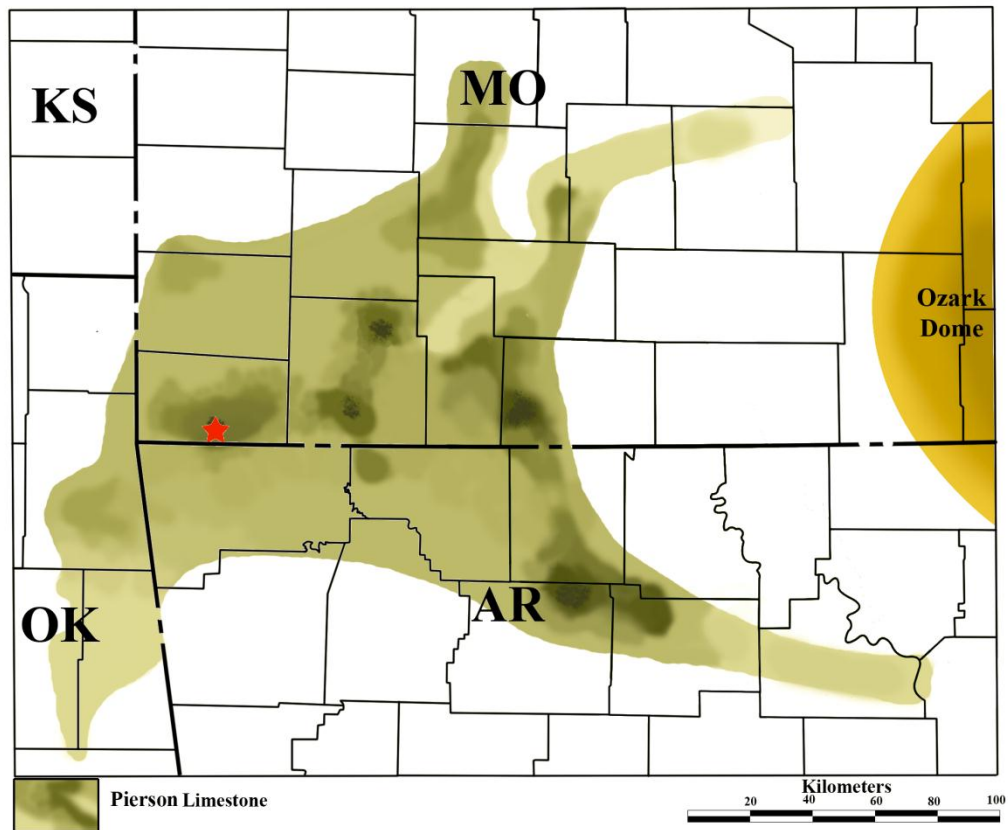


Figure 3.5 Pierson Limestone exposure distribution in the tri-state region with the study area marked with the red star. The darker the areas the thicker the formation and vice versa.

Reeds Spring Formation:

The Reed Spring Formation was named by Moore (1928) who considered it as a member of the Boone Formation. The Reeds Spring Formation is exposed throughout the tri-state region, and it is continuous in the subsurface in southeast Kansas (Mazzullo *et.al* 2010). The total thickness of the formation can be difficult to quantify. A maximum thickness of the Reeds Spring Formation was recorded by Moore (1928) of about 69 meters (225 ft.). However, Mazzullo and others (2010) recorded a maximum exposure thickness of the formation of about 59 meters (194 ft.) near Jane, McDonald County, Missouri (Figure 3.6). The formation consists mainly of grey cherty limestone that is about 60 percent bluish-grey chert. The limestone is finally crystalline and the macrofossils are not common (Thompson and Fellows, 1970).

In localities where the other Lower Mississippian rocks are absent, the Reeds Spring Formation unconformably underlies the upper Devonian Woodford Shale or older rocks. Based on the conodont recovery, it is evident that the Pierson Reeds Spring succession is a diachronous facies complex. For example, approximately 40 miles to the east of the study area, the Reeds Spring is the same age as the uppermost strata of the Pierson Limestone along U.S highway 71 near Jane.

The northernmost exposure of the Reeds Spring Formation is in southern Missouri in southwestern Christian County and northeastern Stone County (Thompson and Fellows, 1970). To the south, the formation distributes far beyond the underlying Compton and Northview formations and pinches out northern Sequoyah County, Oklahoma (Mazzullo *et.al*, 2010). The Reeds Spring Formation exposed in a considerable thickness of about 12 meters (40 ft.) in Independence County, Arkansas.

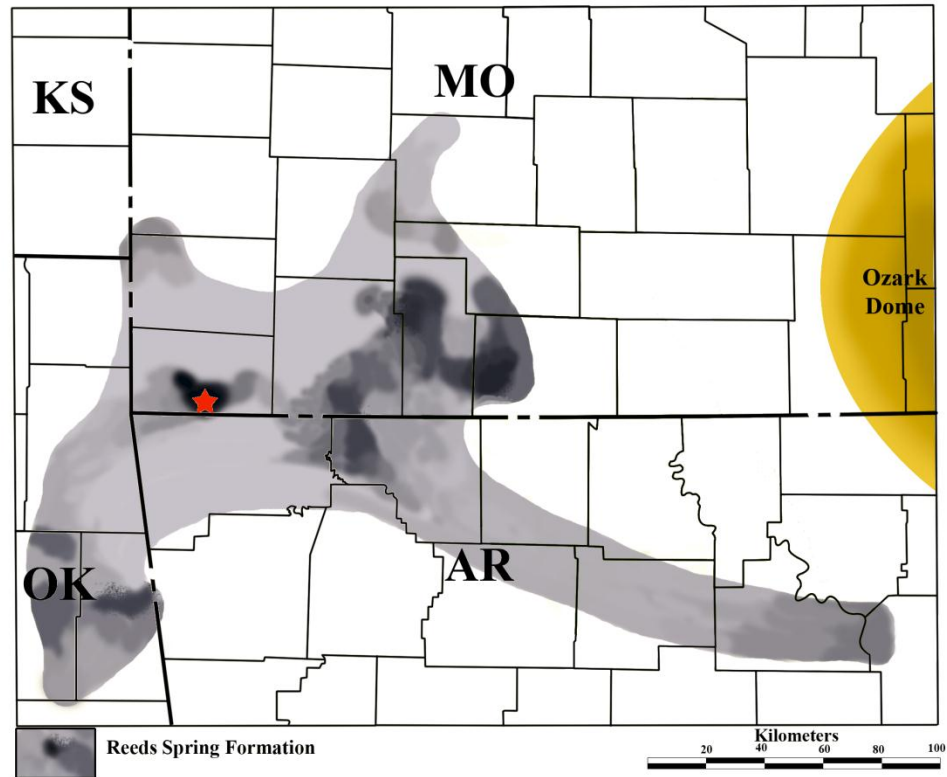


Figure 3.6 Reeds Spring Formation exposure distribution with the location of the study area marked with red star. The darker the color the thicker the formation and vise versa.

CHAPTER IV

FINDINGS

Lower Mississippian rocks are well exposed along U.S highway 71, near Jane in southwestern Missouri. This section was selected for the purpose of a detailed stratigraphic and petrographic examination due to the fact that it is a complete and conformable section. The conodont zonation in this stratigraphic section is continuous and straddles the two different boundaries within the Pierson Limestone (Mazzullo et al, 2010a).

For the purpose of presentations, the entire Jane section is separated into four stratigraphic columns. The first column includes the Bachelor Formation, the Compton Limestone and the lower part of the Pierson Limestone. Moreover, the contact between the Bachelor Formation and the underlying upper Devonian Woodford Shale is illustrated within the first column (Figure 4.1). The second stratigraphic column overlaps with the first column at the bed set NV2 and includes the first 18 bed sets of the Pierson Limestone (Figure 4.2). The third stratigraphic section overlaps with the second section at bed set P18 and includes the remaining Pierson Limestone bed sets and the base of the Reeds Spring Formation (Figure 4.3).

Based on the detailed examination of the depositional texture across, seven major parasequence cycles are designated (Figure 4.4). Each parasequence cycle is derived from textural properties that infer changes in depositional energy. Accordingly, these changes in inferred depositional environment are analyzed in the context of the textural lithographic boundaries. This chapter focuses particularly on the most important changes in texture, as defined by rock constituents including the relative boundaries of grain type, size and matrix content.

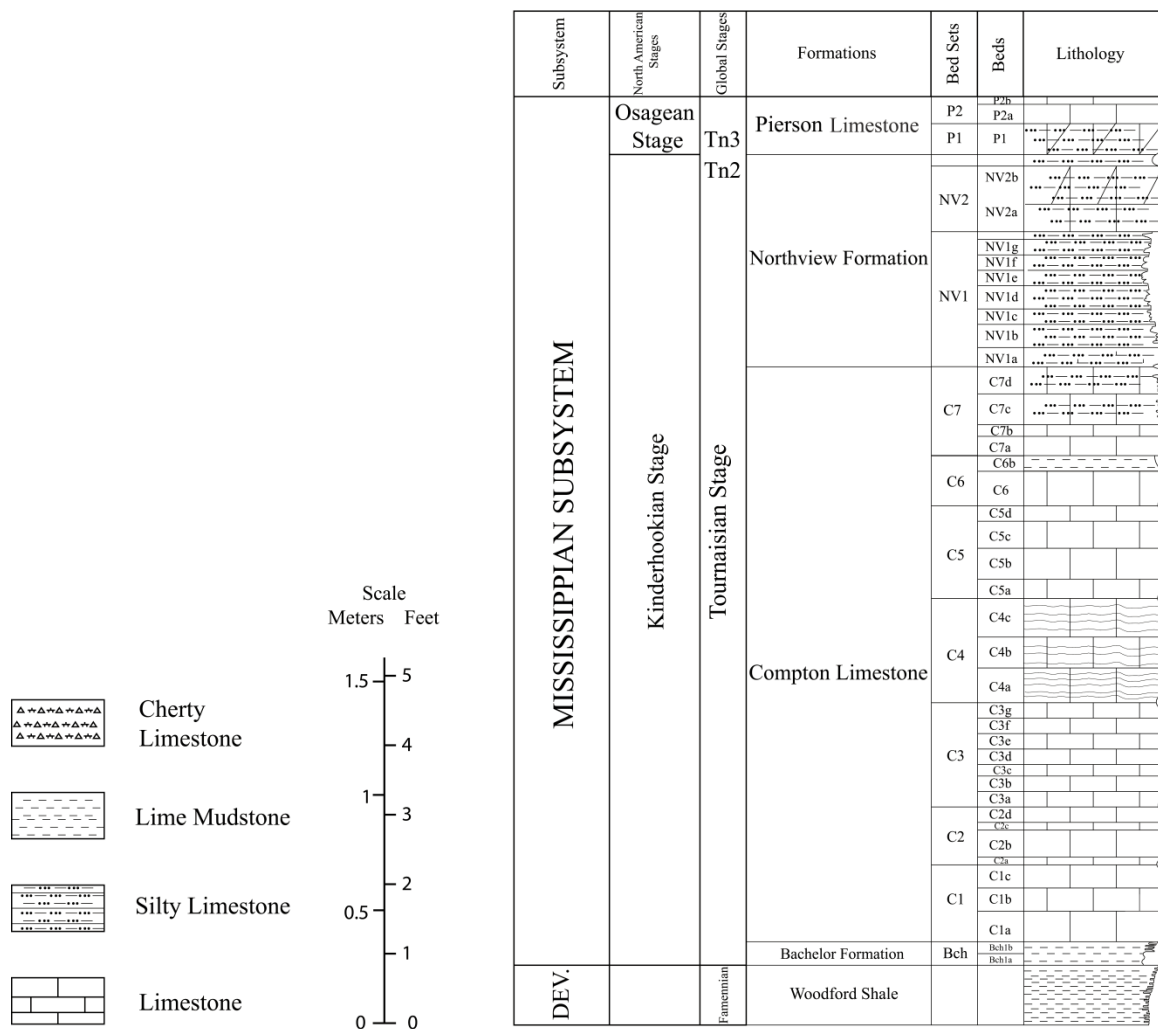


Figure 4.1, Stratigraphic column including Bachelor Formation, Compton Limestone, Northview Formation, and the lower Pierson Limestone, with their subdivisions into bed sets and individual beds respectively.

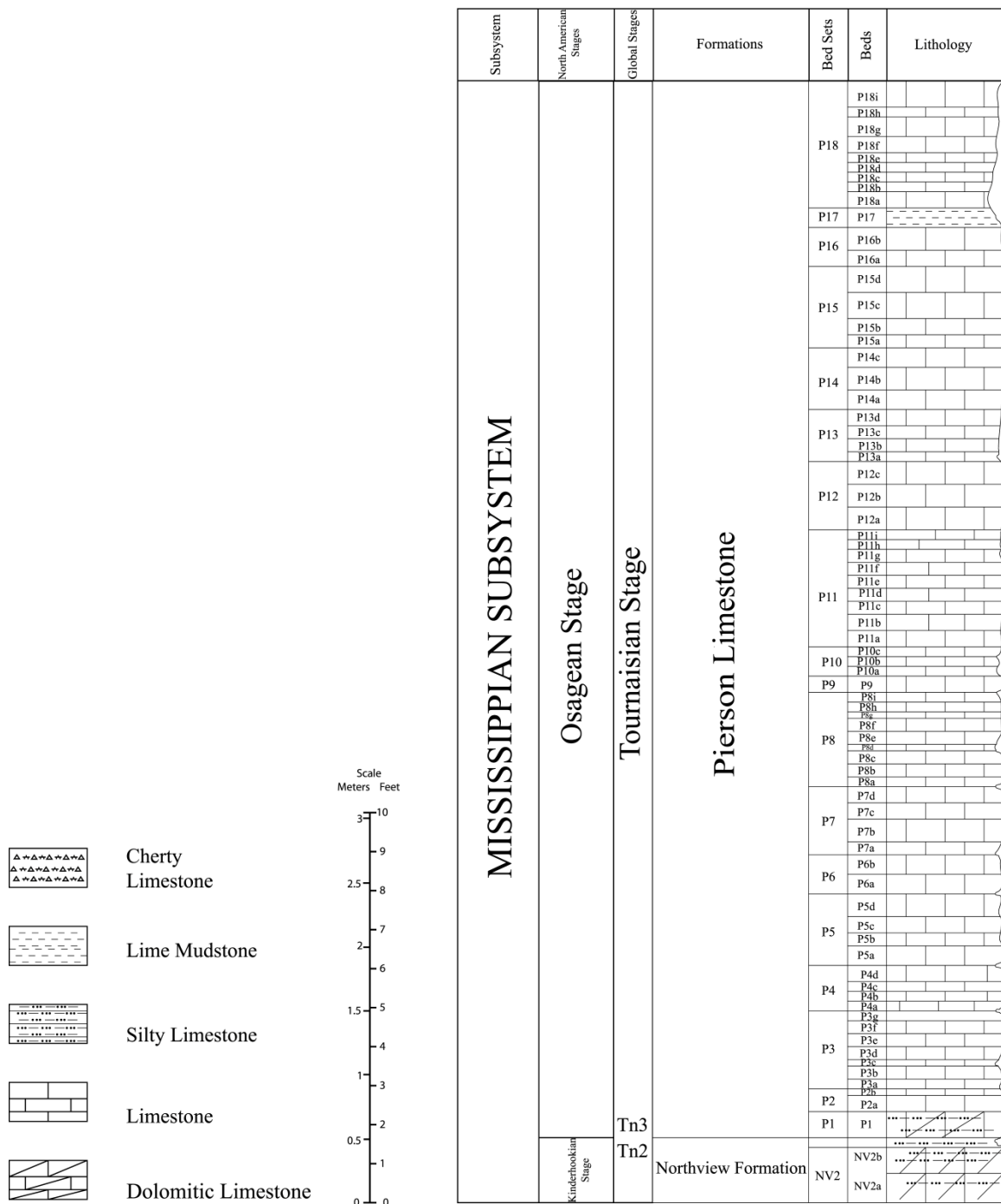


Figure 4 .2, Stratigraphic column including the upper part of the Northview Formation and the lower part of the Pierson Limestone.

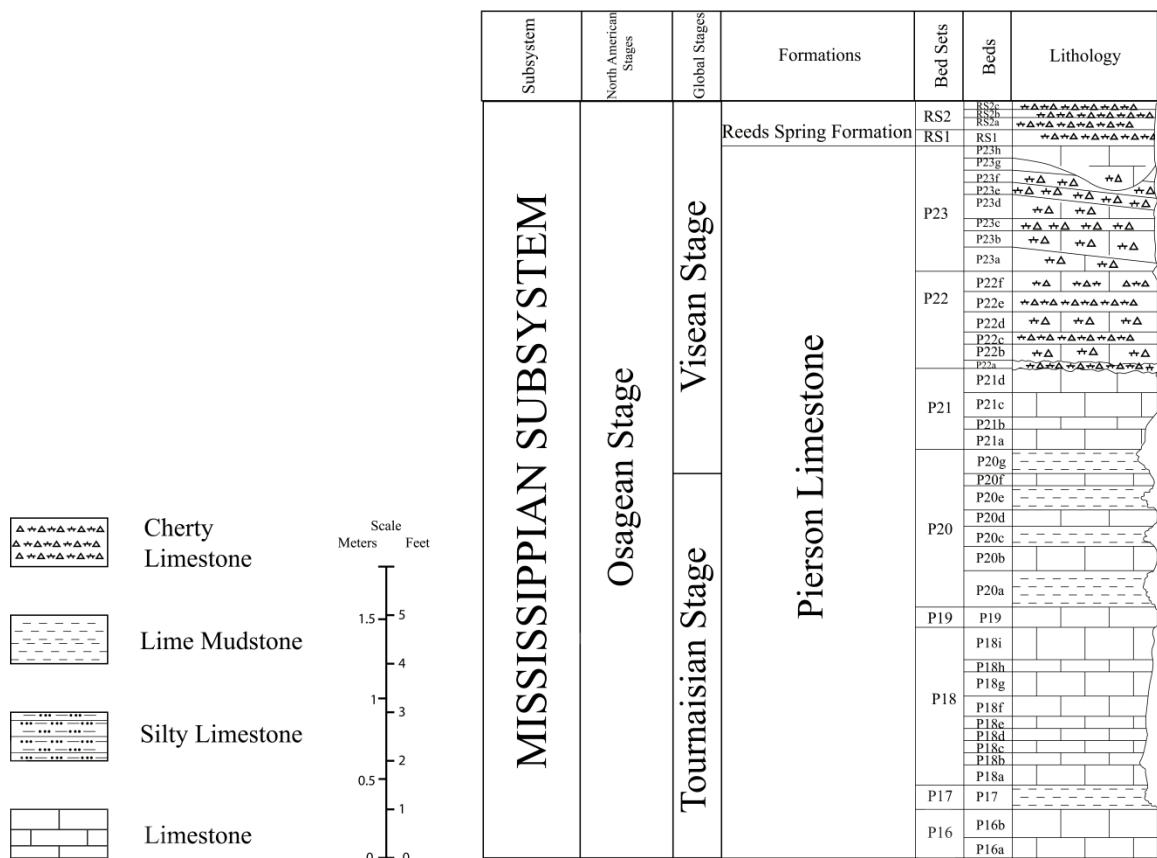


Figure 4.3, Stratigraphic column including the upper part of the Pierson Limestone and the first four beds of the Reeds Spring Formation.

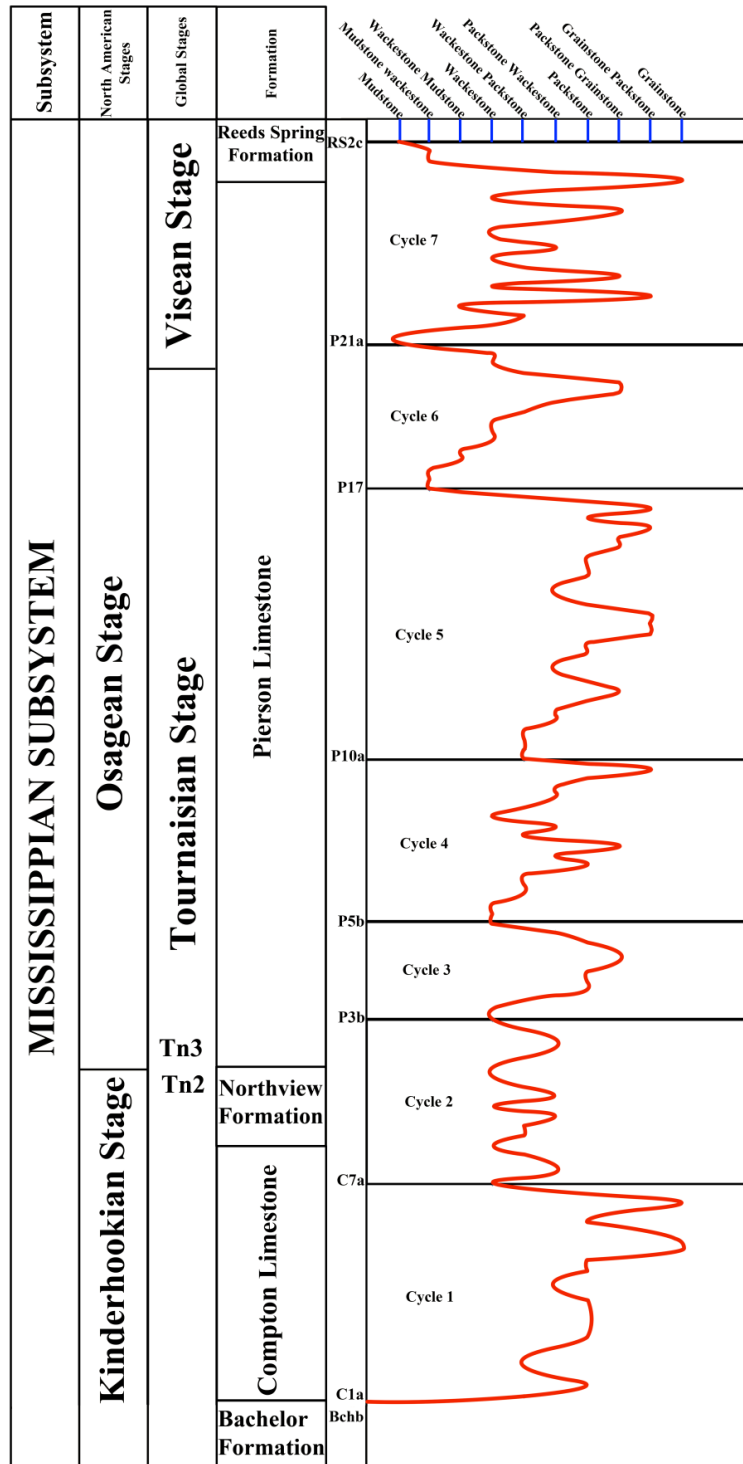


Figure 4.4, Lower Mississippian Stratigraphy and petrographic textures used to define the seven major parasequence cycles recognized in the Compton Limestone, the Northview Formation, the Pierson Limestone and the Reeds Spring Formation.

Bachelor Formation

The Bachelor Formation at the Jane locality consists of the upper shale member only as the lower sandstone member is absent. According to Thompson and Fellows (1970), the lower sandstone member reaches its westward distribution limit in an area located about 72 kilometers (~ 45 miles) to the east of the current location (Figure 3.2). The upper shale member herein is about four inches thick (Figure 4.5a), and it is easily distinguished from the underlying black Woodford Shale and the overlying Compton Limestone (Figure 4.5b). Moreover, this shale unit can be subdivided into two lamina sets. The lower lamina set is about 5 centimeters thick (~2 inches) of bioturbated light greenish gray shale that has a numerous abraded conodonts. The upper lamina set is about 3.8 to 5 centimeters thick (~1.5 to 2 inches) of laminated carbonate shale that is dark greenish gray in color. It includes numerous amounts of well-preserved conodonts.

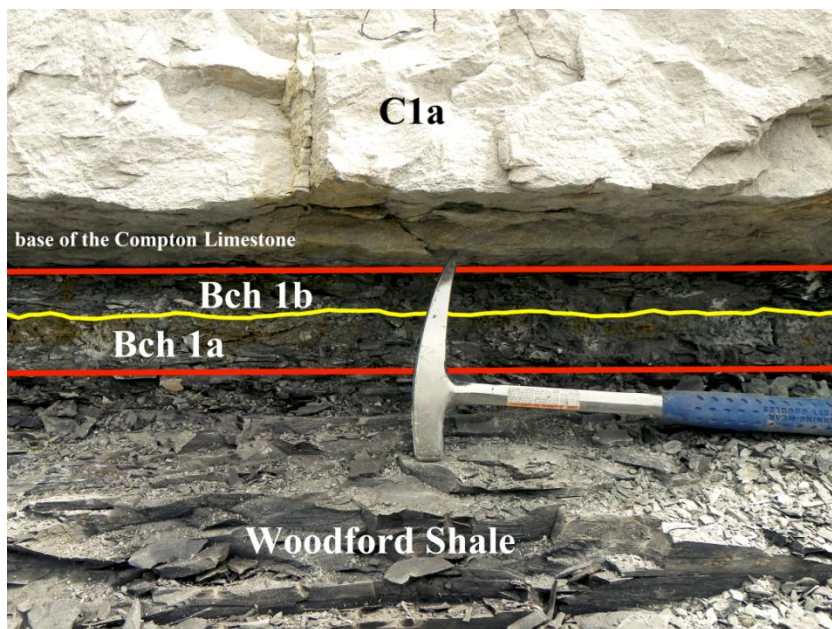
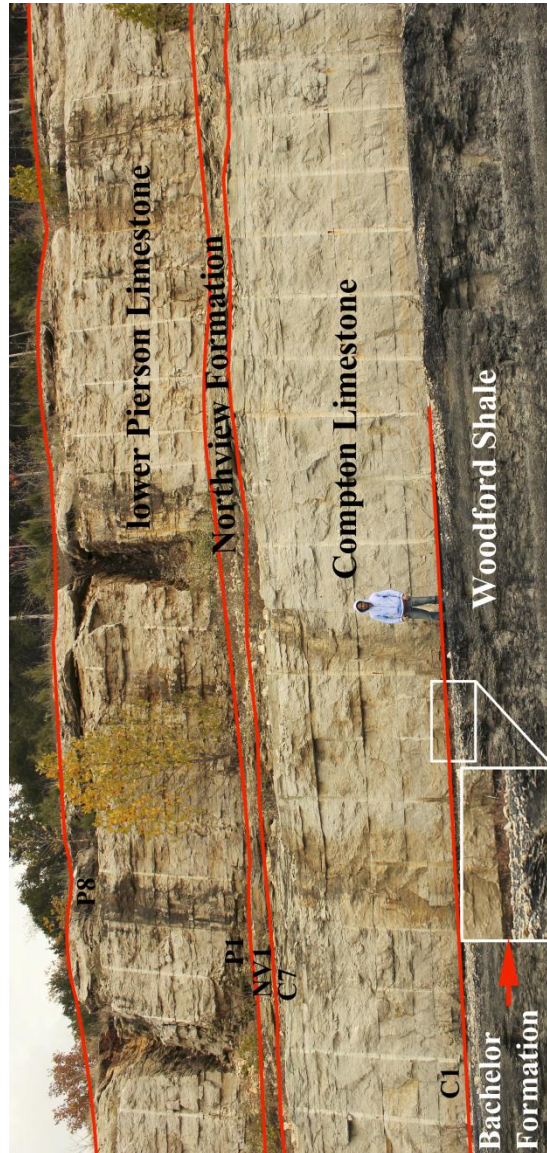


Figure 4.5a, Upper shale member of the Bachelor Formation as it appears in the study area. It is marked at the top and the bottom by the red lines. The subdivision of the formation is marked with the yellow line.



Figuer 4.5b, Outcrops of the Upper Devonian Woodford Shale, Bachelor Formation, Compton Limestone, Northview Formation, and the lower part of the Pierson Limestone along highway 71 near Jane, MO

Compton Limestone:

The Compton Limestone at the Jane locality is about 3.5 meters thick (~11.5 ft.) and mostly light grey to light greenish grey evenly thin bedded and finally crystalline packstone. The most common grain components are bryozoans and echinoderms. The bedding plains are divided by very thin and fairly irregular green clay rich sheets. The green clay is also included within beds as scattered wisps. The Compton Limestone is divided into seven bed sets (Figure 4.6a). Near the location of this described section, the Compton Limestone includes massive mud mounds. Adjacent to these mud mounds, the Compton Limestone beds are flanking away, and sometimes are laterally contiguous with or directly onlapping the massive body (Figure 4.6b).

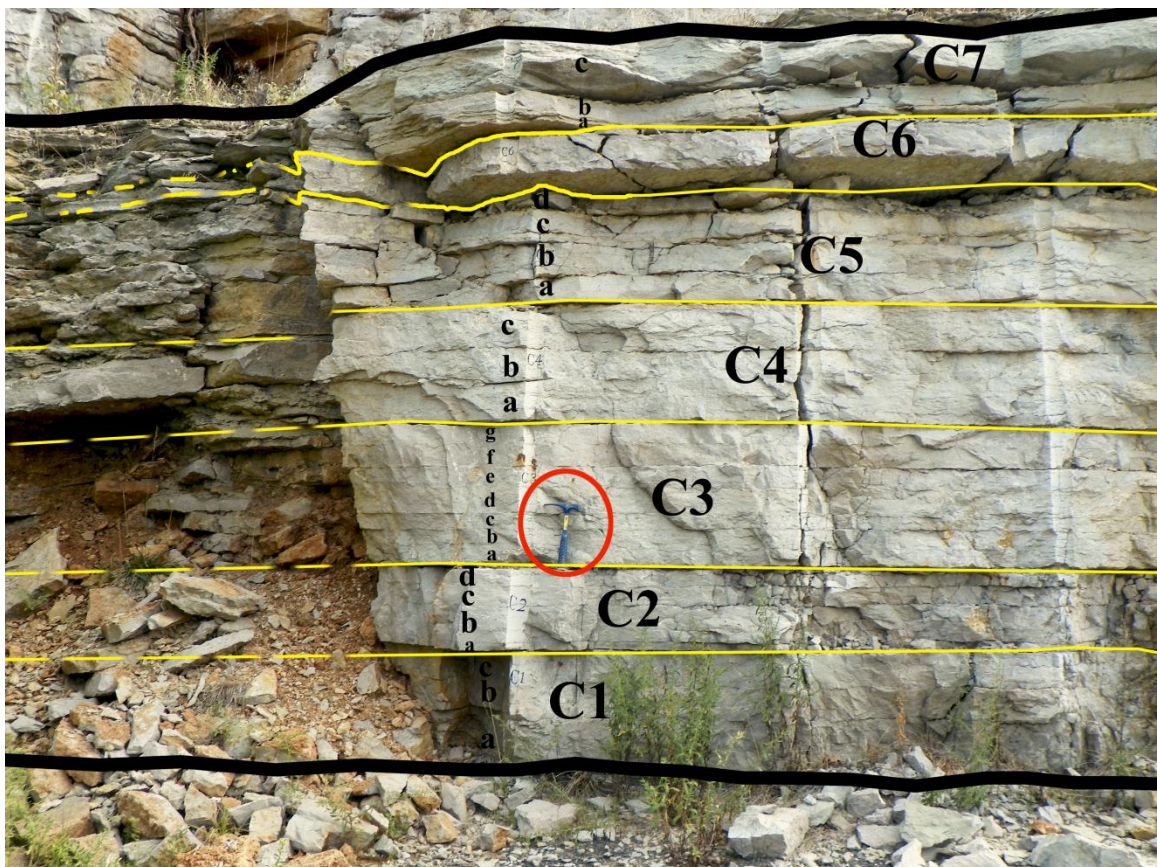


Figure 4.6a, Compton Limestone with its 7 divisions and their subdivisions. A regular rock hammer is for scale (circled).

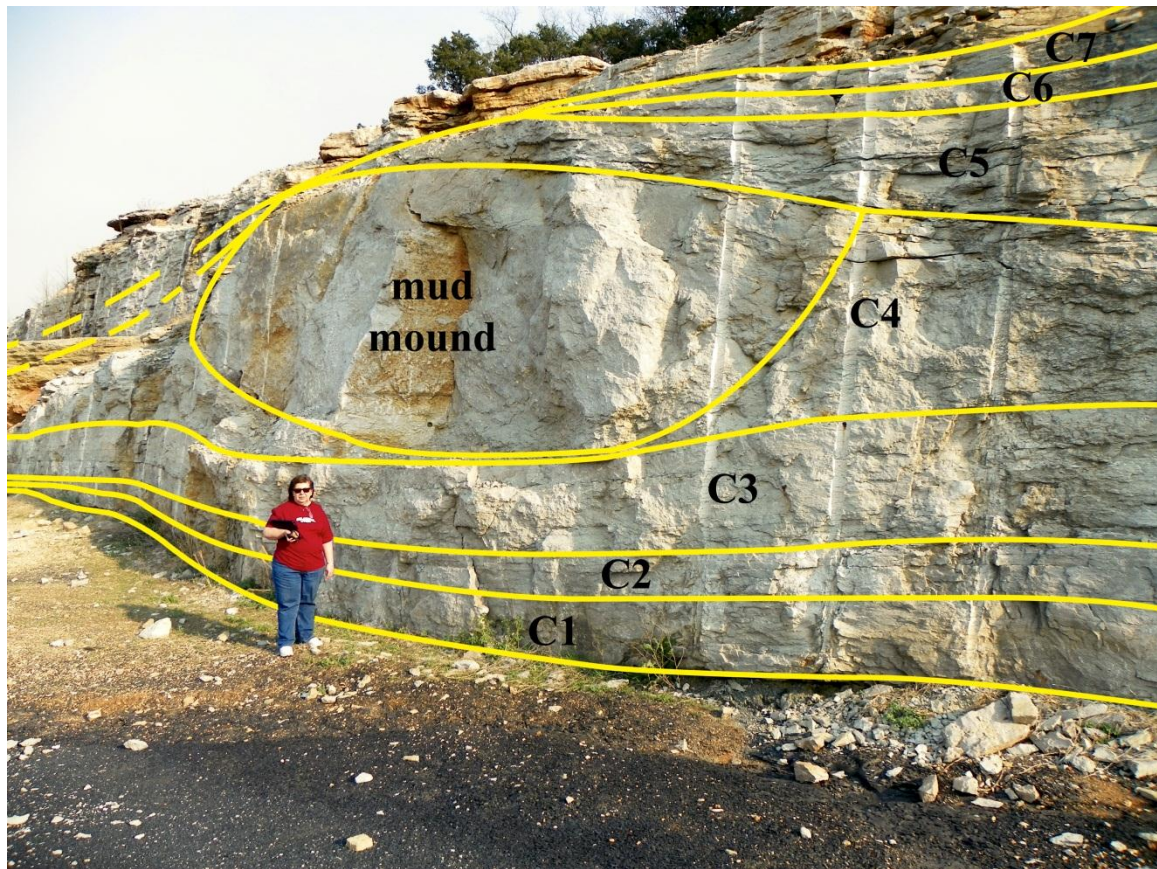


Figure 4.6b, Carbonate mud mounds interbedded within the Compton Limestone near Jane Missouri. Bed set C4 is contiguous with the mound, whereas bed set C5 and the overlying bed sets pinch out on top of the mound.

Petrographic Analyses:

Detailed bed by bed petrographic analyses of the Compton Limestone Shows that the texture fluctuation ranges from wackestone to packstone at the base, through grainstone at bed set C6, and retreats to a wackestone near the top (Figure 4.7). The overall trend, however, is wackestone to packstone (Dunham, 1962).

Transgressively, the contact between the Compton Limestone and the underlying Bachelor Formation is sharp. This is proven by the enrichment of the clay contents at the base of the bed C1a (Figure 4.8). Approximately at the middle of the formation, the bed set C4 is laterally contiguous with the mud mounds. The beds within this bed set are entangled and wiggly, which makes it relatively more difficult to sample from. Three beds within this bed set were collected. Samples C4a (figure 4.9) and C4b are packstone in texture (Figure 4.10). Bed set C6 includes abraded and reworked grains and the fractures are filled with silt size siliciclastics (Figure 4.11).

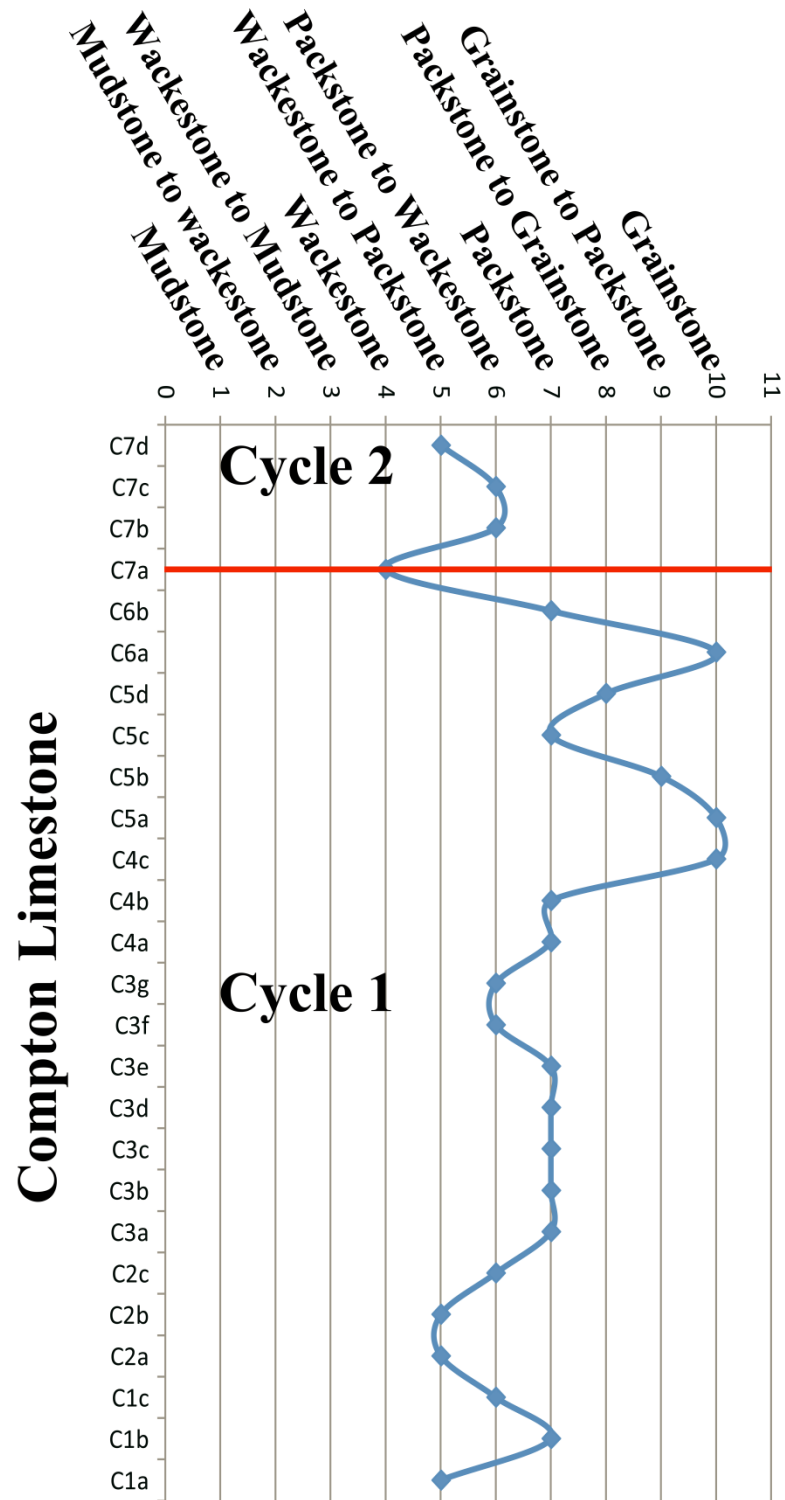


Figure 4.7, Petrographic texture chart showing the textural fluctuation of the Compton Limestone.

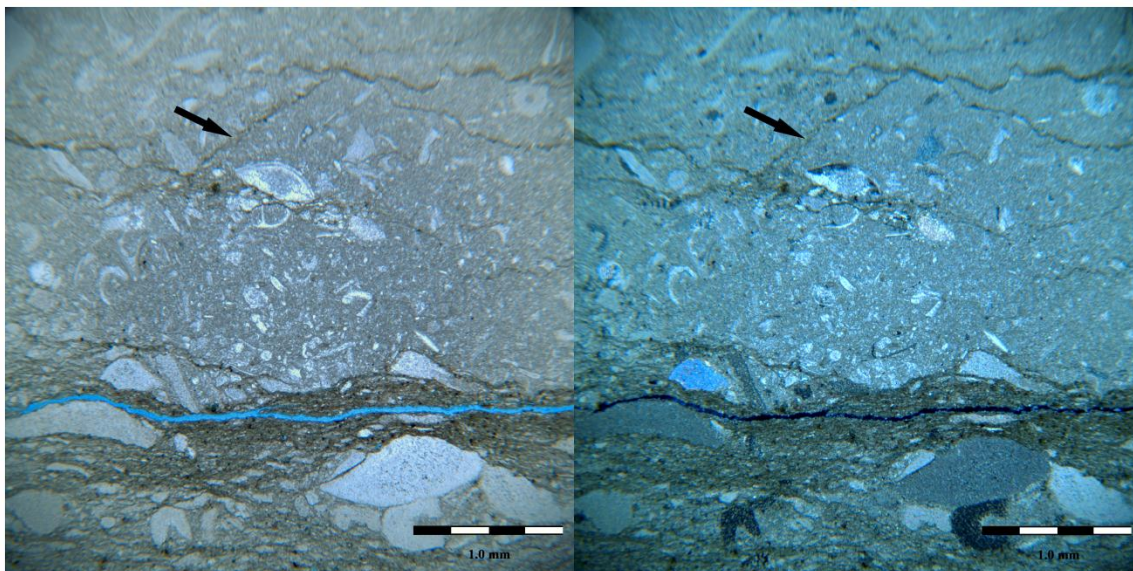


Figure 4.8, Sample C1a, PPL (Left), CPL (right), wackestone to packstone, showing the enrichment of the clay inclusions at the base of the Compton Limestone. The stylolite (arrow) is clay filled

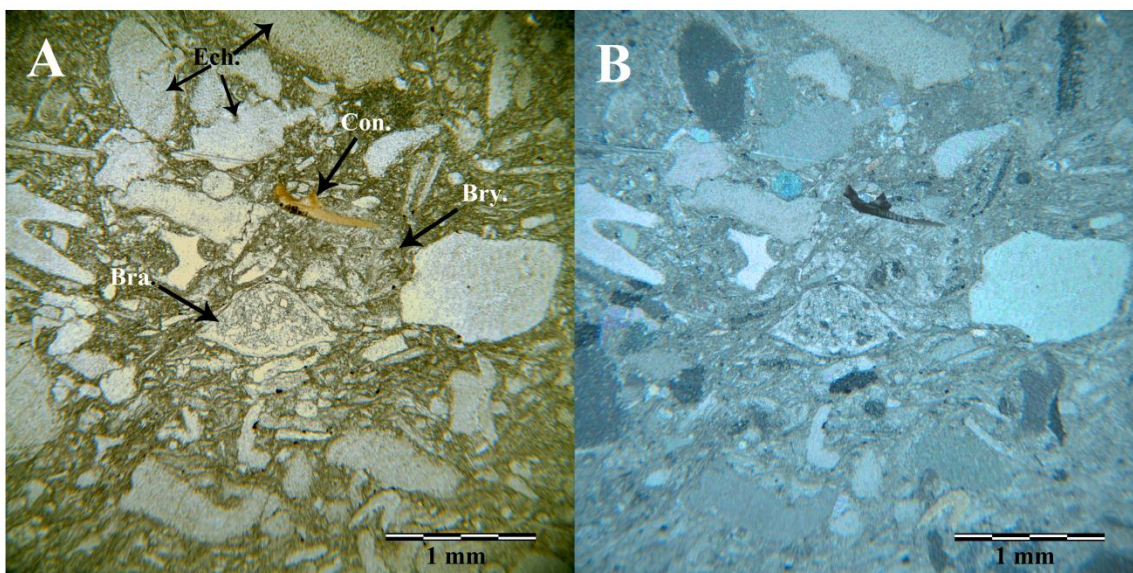


Figure 4.9 Sample C4a, PPL (A), and CPL (B). Packstone. The grains are echinoderms (Ech.), bryozoans (Bry.), Brachiopods (Bra.), conodonts (Con.), and micrite matrix around the grains.

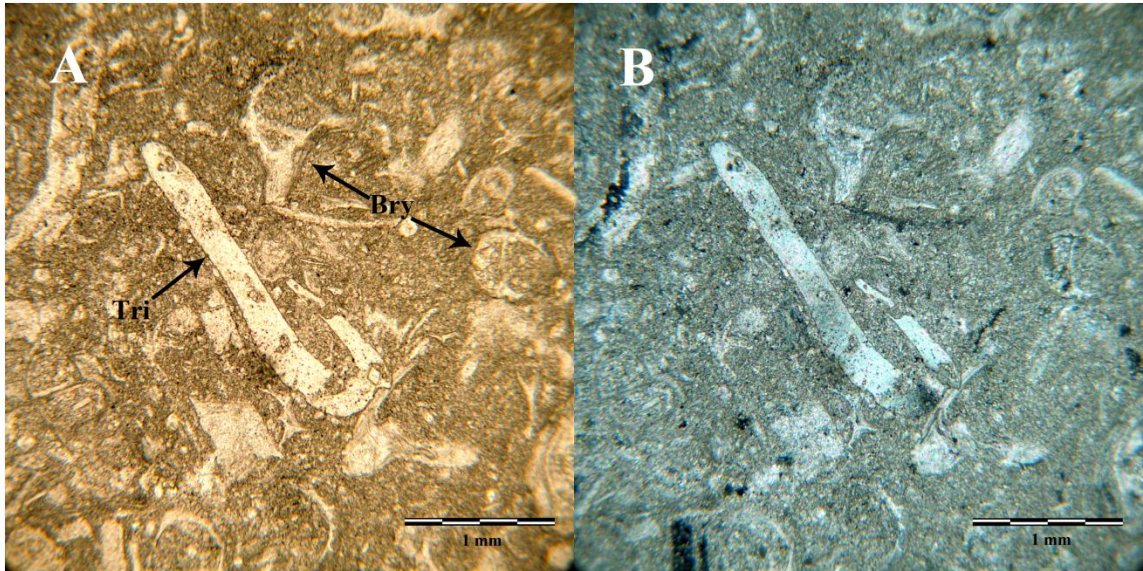


Figure 4.10 Sample C4b, PPL (A), and CPL (B). Packstone includes trilobites (Tri), bryozoans (Bry), and limestone mud matrix.

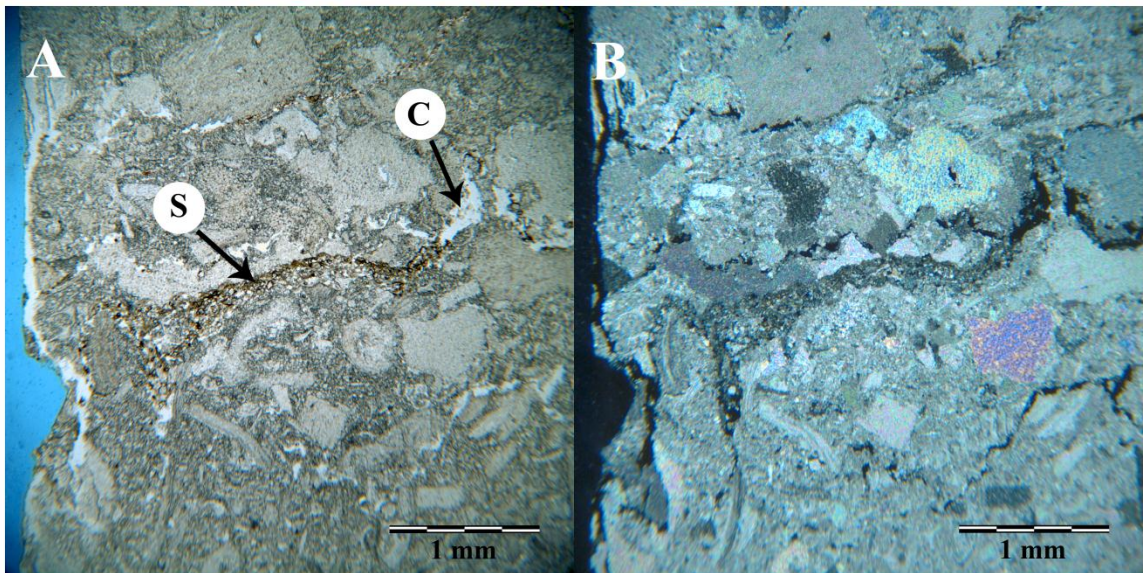


Figure 4.11 Sample C6, PPL (A), and CPL (B). Echinodermal grainstone to packstone. The grains are abraded and the matrix is varies in size. The fractures are filled with silt (S) and calcite cement.

At the top of the Compton Limestone (i.e. bed set C7), the bedding becomes more susceptible to the weathering than the lower bed sets. The weathering susceptibility is due to the increasing contents of siliciclastic grains (Figure 4.12). The increase in the siliciclastic content within the bed set C7 suggested that the contact between the Compton Limestone and Northview Formation is transitional.

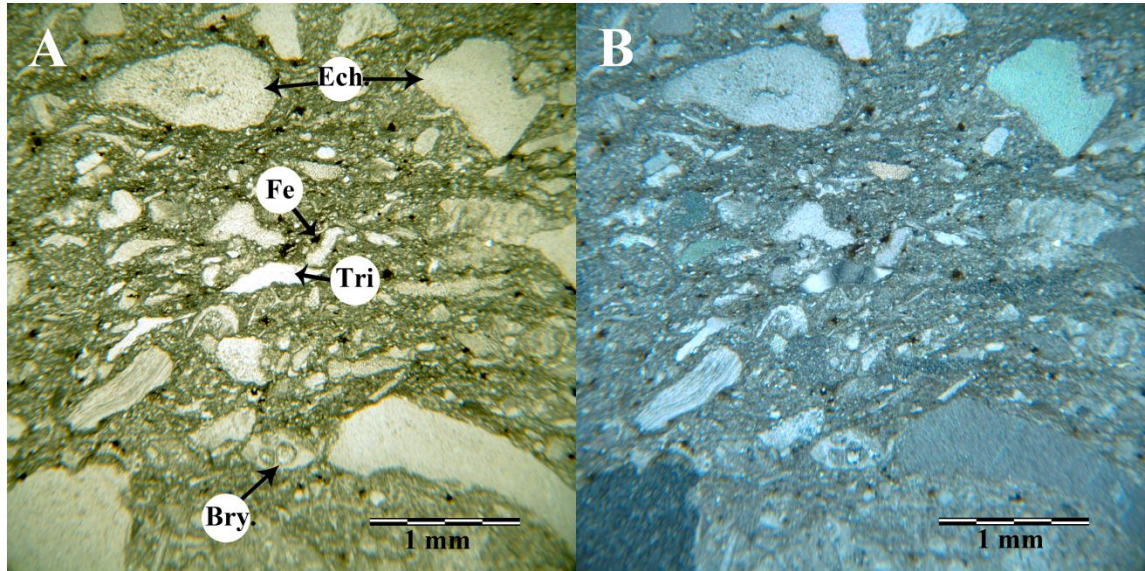


Figure 4.12 Sample C7a, PPL(A), CPL (B). Echinodermal wackestone, echinoderms (Ech.), bryozoans (Bry), Trilobites (Tri), iron minerals (Fe), and silt size siliciclastics within the surrounding matrix.

Northview Formation:

The Northview Formation is averaging in thickness between 0.9 and 1.2 meters (3 and 4 ft.). The unit is divided into two bed sets (Figure 4.13). The lower bed set (NV1) is mostly shaly, calcareous well-laminated siltstone, and the color of the fresh cut of the beds within this bed set is ranging from dark greenish brown at the bottom, to blue and bluish grey in the middle, to light greenish brown at the top. The upper bed set (NV2) is actually a one foot silty dolomitic packstone. This bed is buff to brownish yellow in the fresh cut.



Figure 4.13, Northview Formation is marked from the top and from the bottom with the black lines. The two bed sets separation is marked with the yellow line. The beds are numbered. Note a hammer is for scale.

Petrographic Analysis:

According to the petrographic analyses of all the beds in the Northview Formation, the texture of the formation is symmetrically ranging from wackestone to packstone (Figure 4.14).

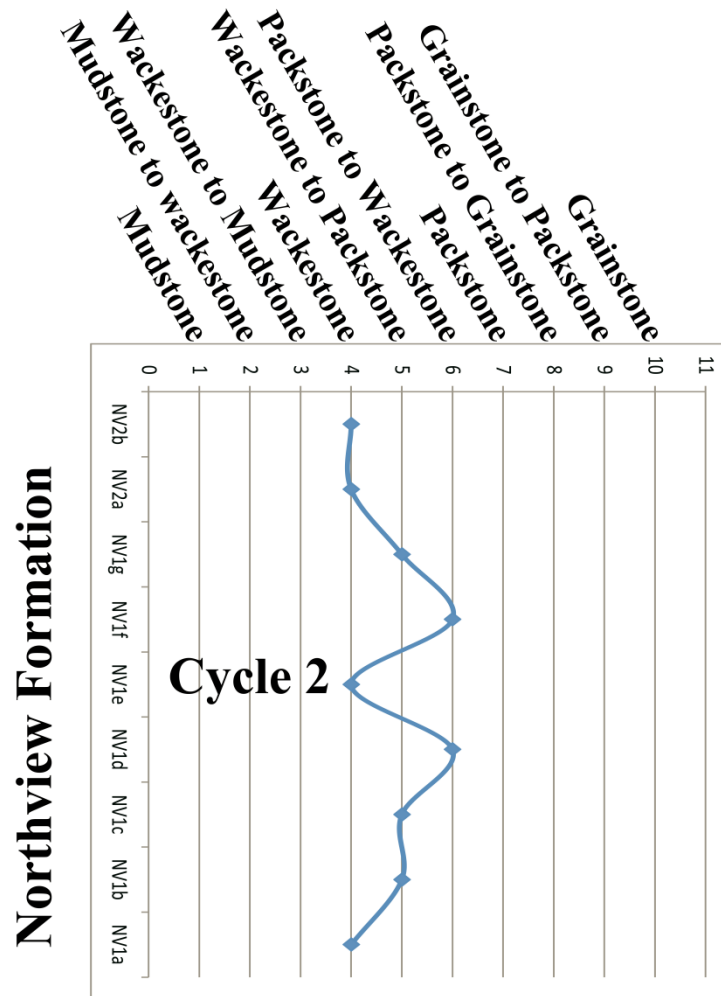


Figure 4.14, Petrographic texture chart showing the textural fluctuation of the Northview Formation.

At the base of the Northview Formation, the siliciclastics content is increased relative to the top of the Compton Limestone. Sample NV1a is mostly siliceous bryozoan packstone, with a small amount of dolomite. The cementation in this sample is blocky calcite (Figure 4.15).

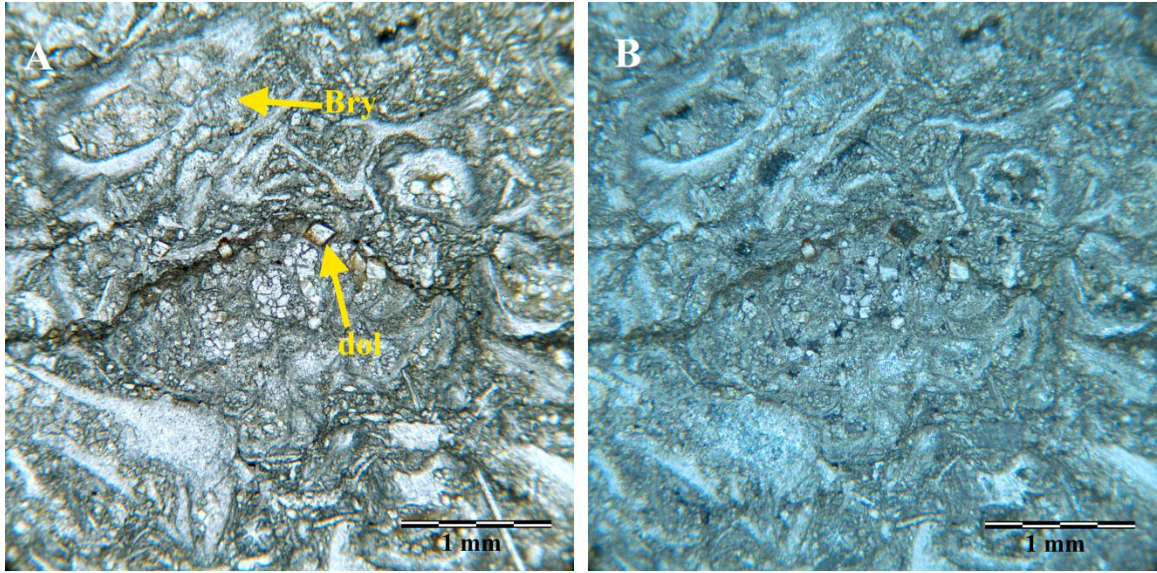


Figure 4.15, Sample NV1a, PPL (A), CPL (B), siliceous wackestone. The grains are mainly bryozoans (Bry), and a small amount of dolomite (dol).

In the middle of the formation, particularly at the sample NV1e, the bed is laminated and blue to dark bluish grey in color. The texture is wackestone, and the grains become more diverse. The amount of the dolomite crystals becomes relatively higher than sample NV1a with an evidence of marine fibrous cementation (Figure 4.16).

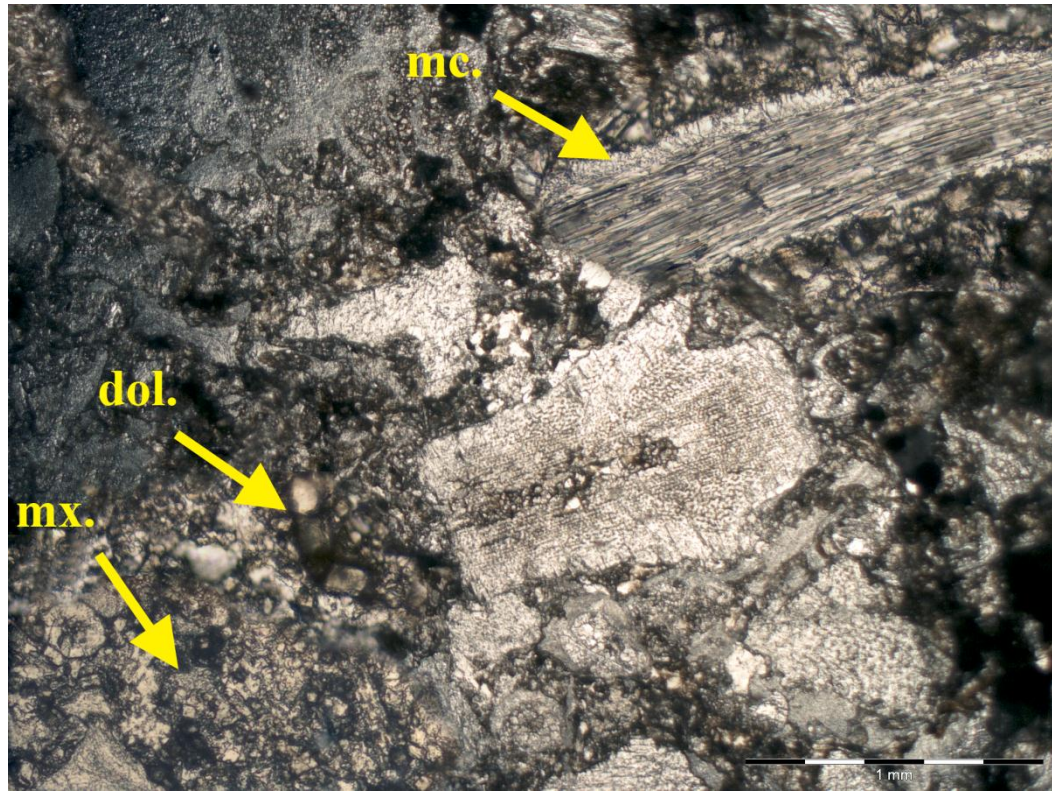


Figure 4.16, Sample NV1e, PPL, Wackestone. The overall texture is wackestone with evidence of primary marine cement (mc.), and the presence of dolomite rhombs (dol.), and the whole sample is surrounded by clay matrix (mx.).

At the top of the bed set NV1, the sample NV1g is structurally more firm, and has a lighter color than the lower beds (see Figure 4.13). The texture of this sample is wackestone to packstone, which includes bryozoans, echinoderms, and brachiopods, and no evidence of dolomite has been recorded in this sample (Figure 4.17).

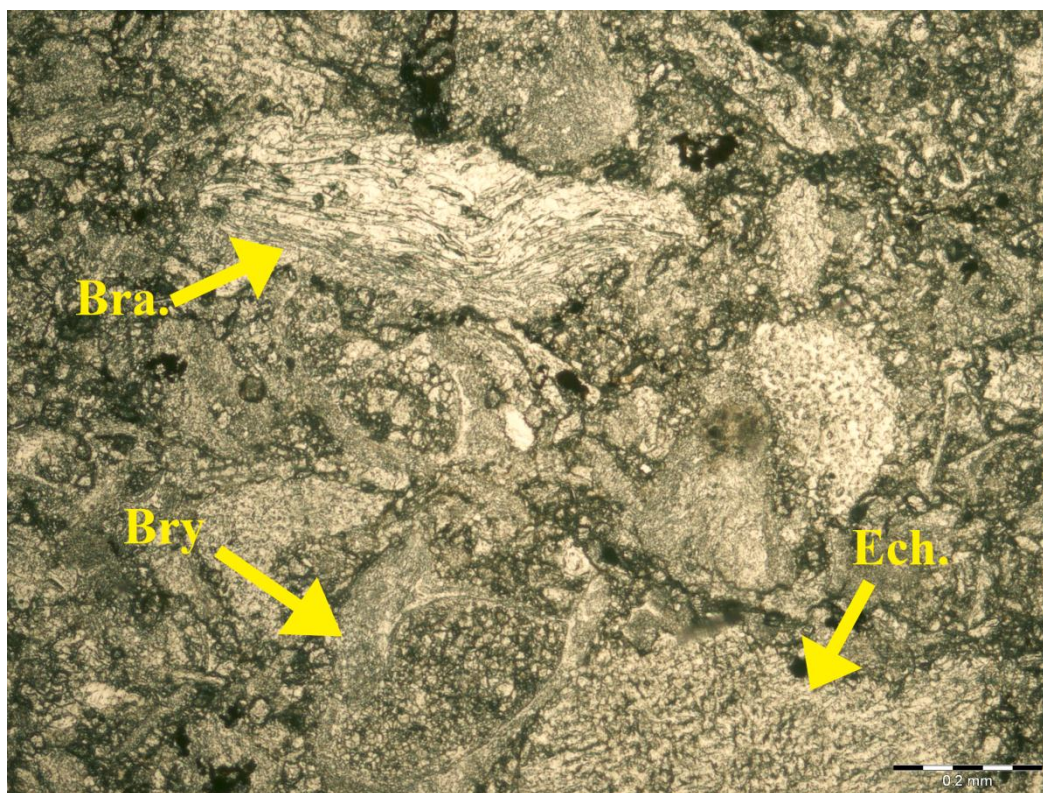


Figure 4.17, Sample NV1g, PPL, wackestone to packstone. The grains as illustrated are Echinoderms (Ech.), Bryozoans (Bry), and a brachiopod shell fragment. The surrounding micritic material is the matrix.

Bed set NV2 is wackestone in texture, and it is subdivided into two beds. The petrographic analysis for this bed set shows that the sample NV2a is siliceous dolomitic crinoidal limestone (Figure 4.18). Sample NV2b has less siliciclastic content and more dolomitic content than the NV2a (Figure 4.19).

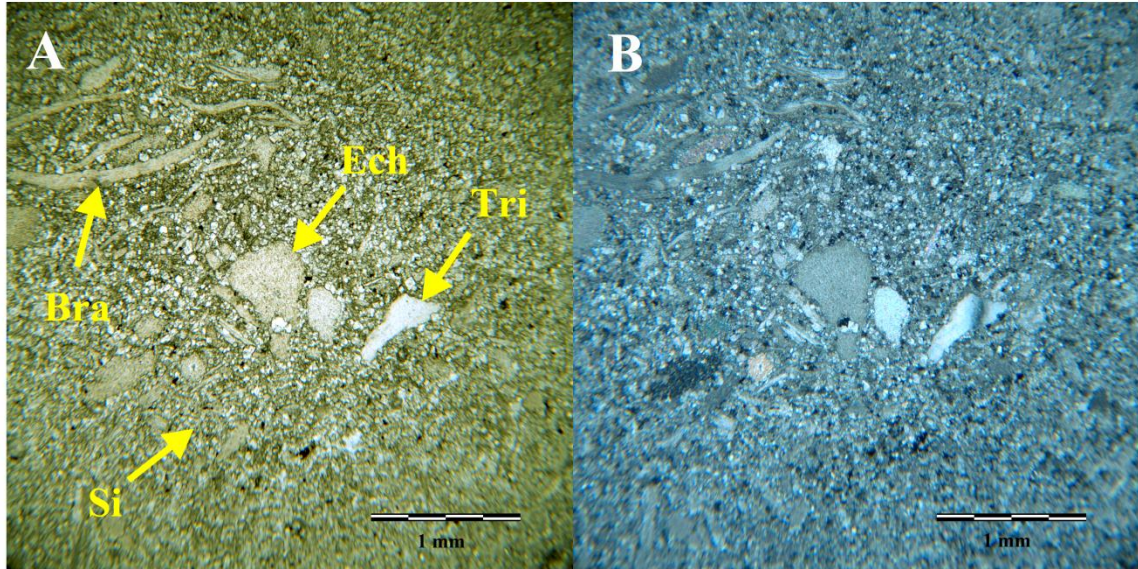


Figure 4.18, Sample NV2a, PPL (A), CPL (B), wackestone. The grain content is echinoderms, brachiopods, trilobites, and silt size siliciclastics.

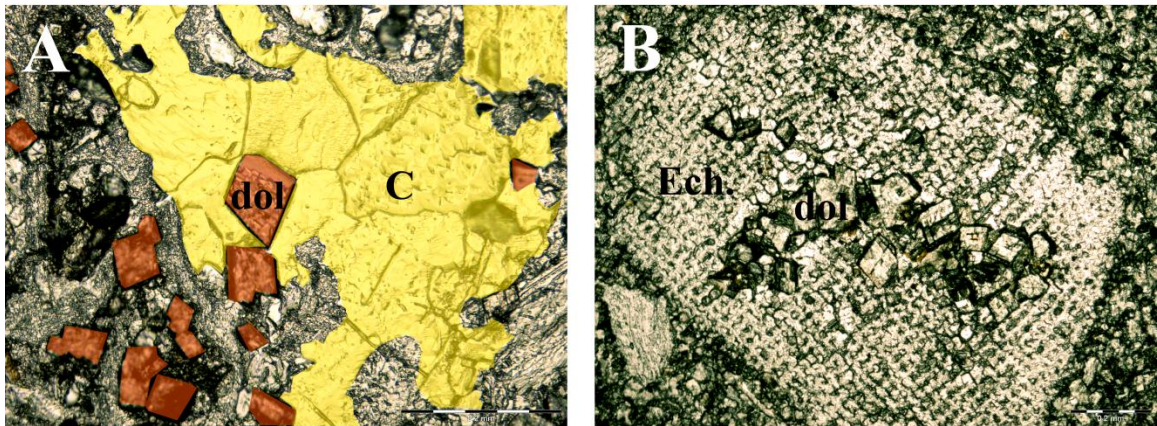


Figure 4.19, Sample NV2b. PPL, wackestone. (A) Blocky calcite cement (yellow shade) occupied by dolomite rhombs (dol). (B) Dissolution in echinoderm grain (Ech) intruded by dolomite rhombs (dol) and it is surrounded by matrix.

Pierson Limestone

The Pierson Limestone is about 11 meters thick (36 ft.) of thinly well-bedded limestone that in some horizons is divided by shale partings. The formation ranges in color from buff to yellowish brown at the bottom to greenish grey in the middle and at the top. The lower 9.75 meters (32 ft.) of the formation are chert free beds, whereas the upper 3.25 meters are gradually increased in the chert content towards the top. The Pierson Limestone is divided into 23 bed sets for the purpose of the petrographic analysis (see Figures 4.20a, b and c)

Petrographic Analysis

The detailed petrographic analysis of each bed within the Pierson Limestone shows that there are several textural fluctuations (several major and minor depositional cycles) (Figure 4.21), and these fluctuations reflect the energy of the deposition, with taking in consideration the size of the grains content. From this stand point, the size of the grains in the matrix from the bed set P1 to bed P 21c is ranging from very fine to very coarse sand size. Whereas, from bed P21d to bed P23g, the grain size within the matrix ranges from very fine to medium pebble size.

The contact between the Pierson Limestone and the underlying Northview Formation is clearly transitional. The lithology of the bed set P1 and the bed set NV2 is almost the same. However, the dolomite content in the bed set P1 is increased. The sample P1 has been stained for the purpose of measuring the percentage of the dolomite within the limestone. The rhombs that can be seen within the matrix are probably dolomitized after they got affected by the stain (Figure 4.22).

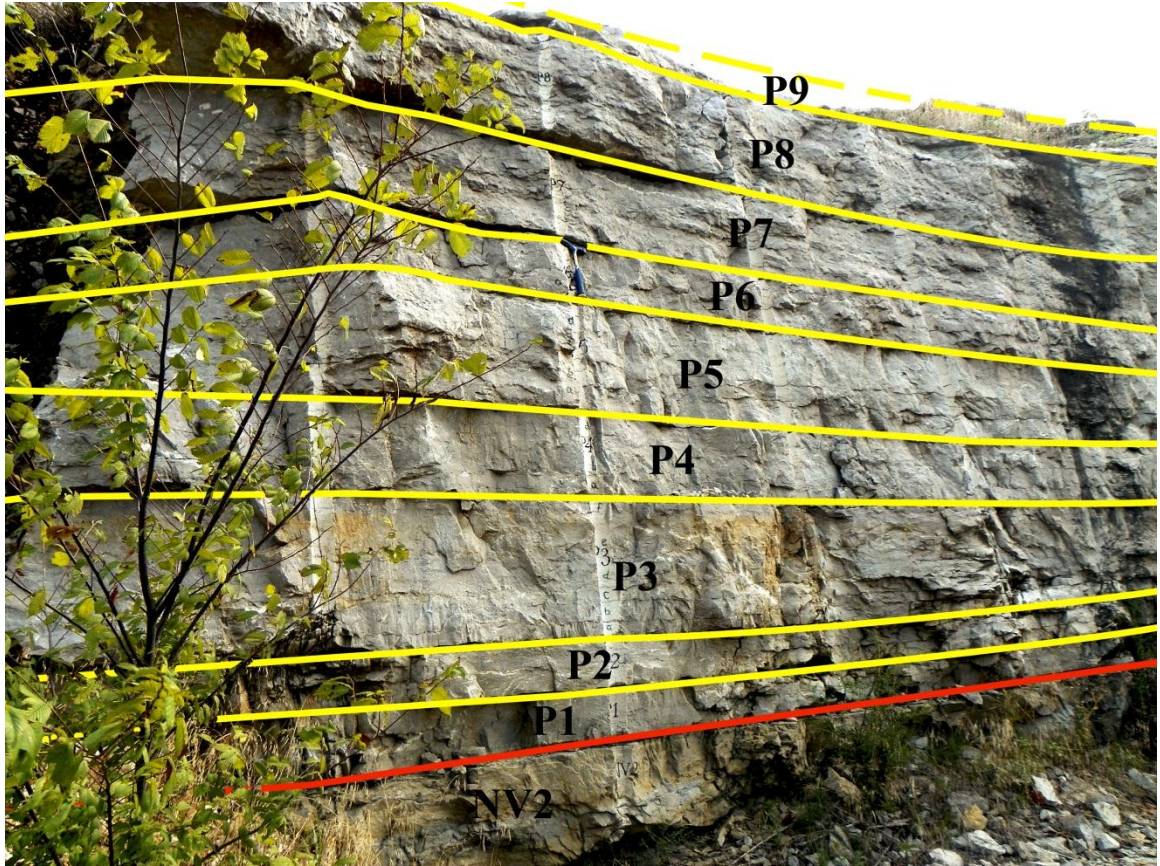


Figure 4.20a, lower lithographic section of the Pierson Limestone with the first 9 bed sets, which are divided by the yellow lines. The contact between the Pierson Limestone and the underlying Northview Formation is marked by the red line.

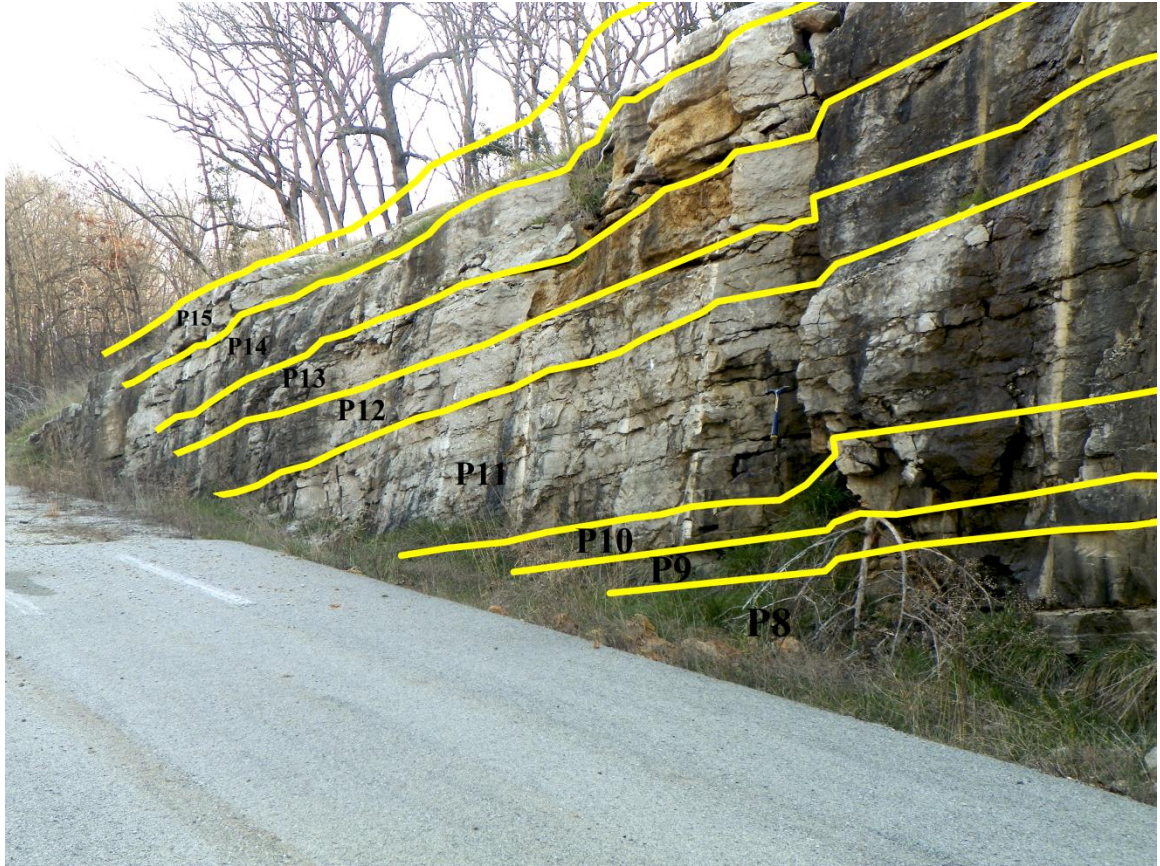


Figure 4.20b, the middle lithographic section of the Pierson Limestone which includes bed sets P8 through P15. Note hammer is for scale.

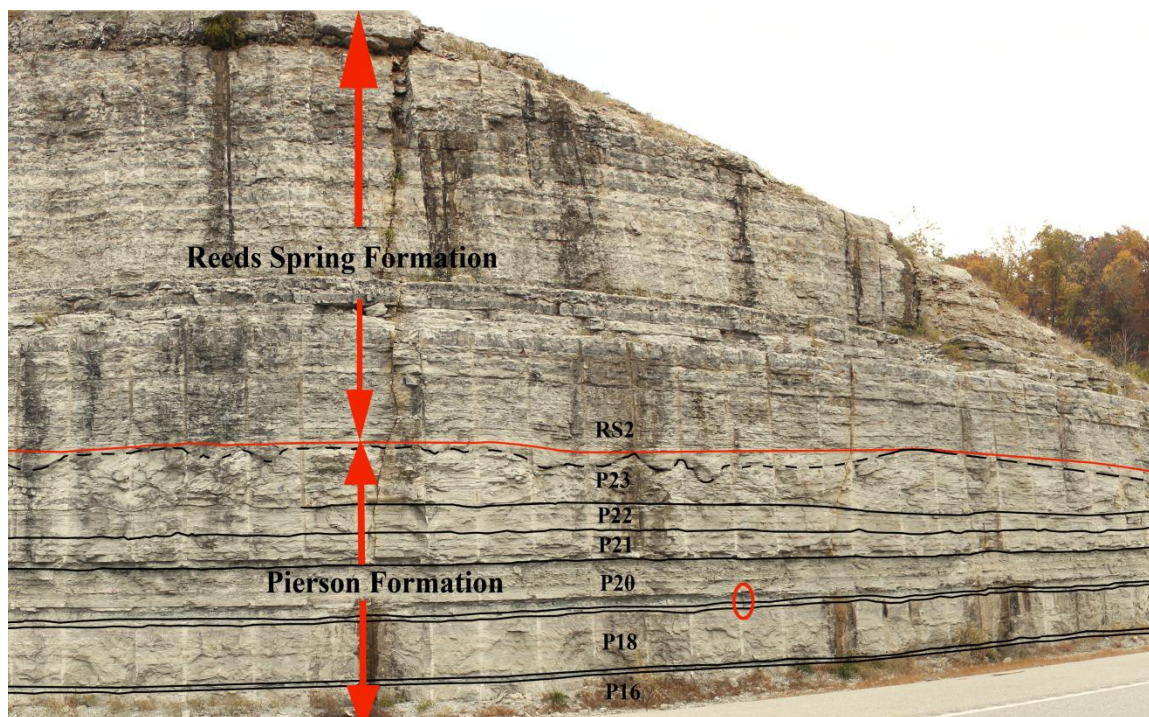


Figure 4.20c, upper lithographic section of the Pierson Limestone and the overlying Reeds Spring Formation. The red line marks the contact, which is on top of channels horizon within the Pierson Limestone (dashed line) and the division of the Pierson Limestone (solid black lines). Note rock hammer (circled) is for scale

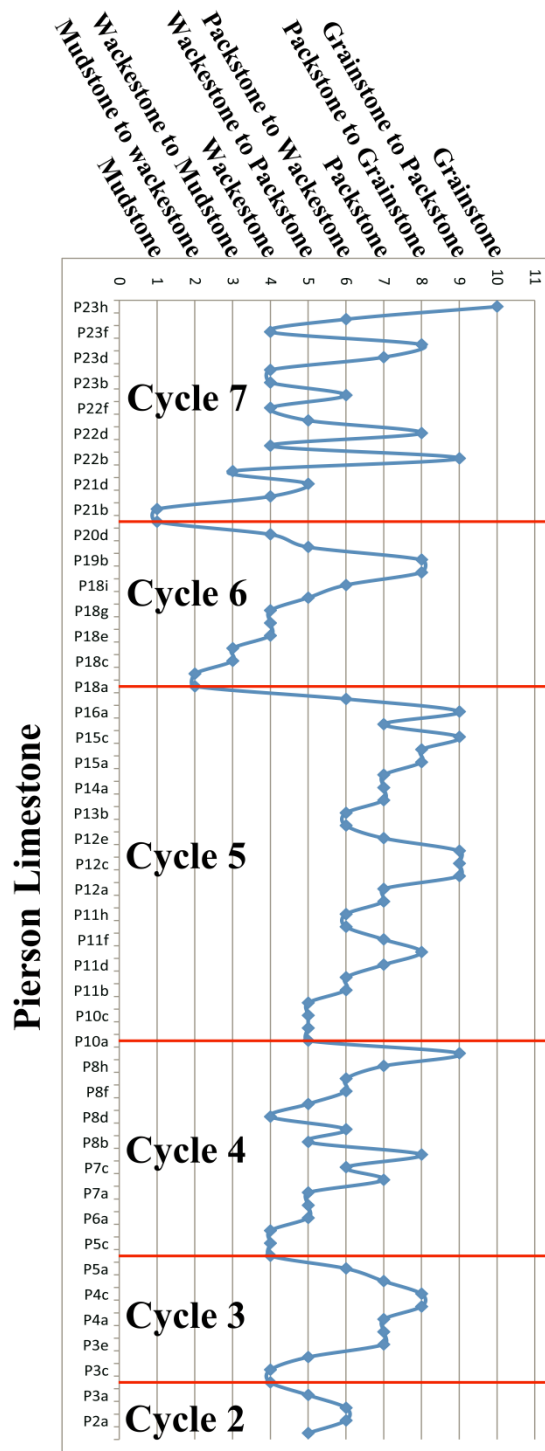


Figure 4.21, the fluctuation of the texture in the Pierson Limestone. On the chart the minimum texture content is mudstone (1) and the maximum texture content is grainstone (10). Samples that are marked with the red markers are shale partings

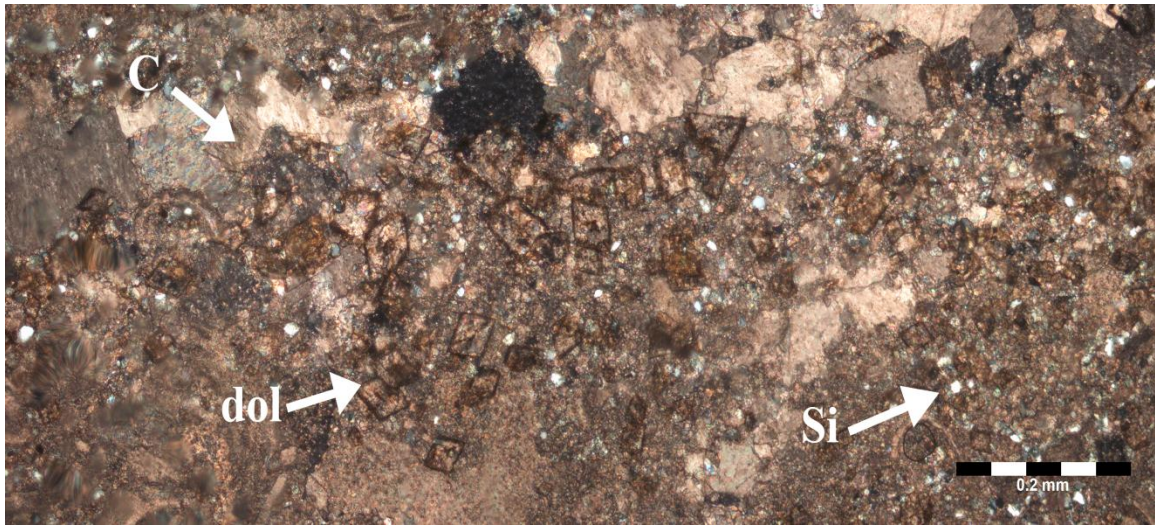


Figure 4.22, Sample P1, CPL, wackestone to packstone. The sample is stained and it can be clearly seen that the silt grains (Si) are unaffected by the staining process, whereas the dolomite rhombs (dol) are partially affected. Blocky calcite cement is filling a fracture (C).

Along with the structural appearance similarity of the first 7 bed sets of evenly thin bedded limestone, the faunal diversity content is almost the same. In the samples where the texture is from packstone to packstone grainstone, the matrix is washed away and the left over pore spaces are filled with blocky calcite cement. This can be best seen as in the case of sample P7b (Figure 4.23).

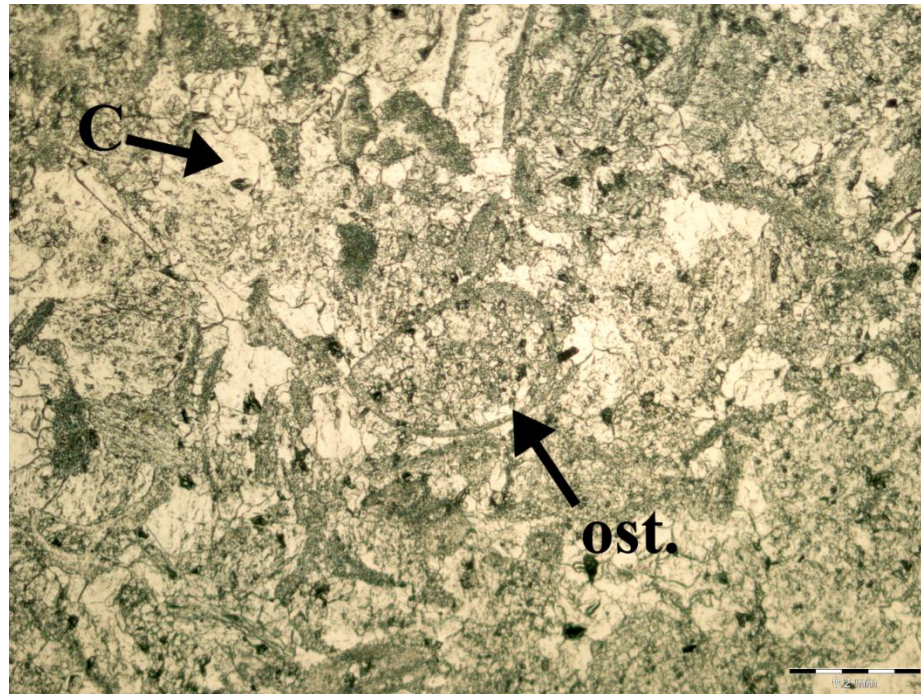


Figure 4.23, Sample P7b, Packstone to wackestone. The grains are hard to define. The ostracod fossil (ost.) is filled with geopetal structure calcite cement. The matrix is washed away and the pore spaces filled with blocky calcite.

Compared with the underlying bed sets, the bed set P8 is relatively thick, and the beds within it are entangled and the bedding planes are wavy. Within the beds there are several sutured fractures that are either open or filled with silt size siliciclastics this can be best seen in sample P8a (Figure 4.24). Moreover, in bed P8g there is an evidence of primary marine cement (Figure 4.25).

In the bed set P9, the texture is grainstone to packstone, and the grains are abraded with poorly sorted matrix (Figure 4.26). This feature suggested that the bed set P9 was deposited under higher energy conditions than the underlying bed set P8 and the overlying bed set P10 where the change in texture is decreased to wackestone to packstone.

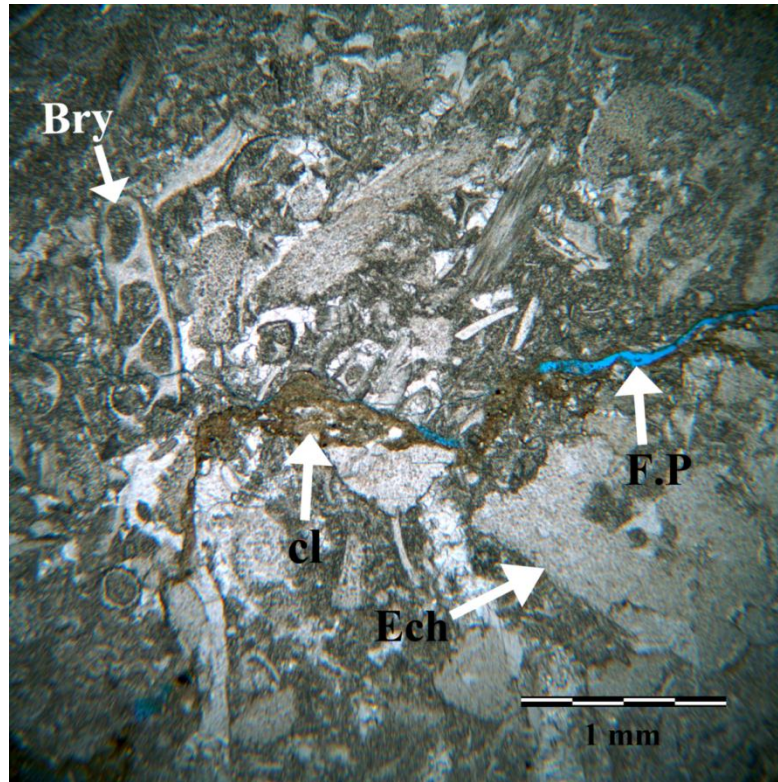


Figure 4.24, Sample P8a, PPL, packstone to grainstone. Echinoderms (Ech), bryozoans (Bry.), fracture porosity (F.P), and clay fill porosity (cl)

Another peak of high energy deposits is recorded at bed P11e where the texture is grainstone to packstone, and the grain components are generally echinoderms and bryozoans, and the grain size is in the coarse sand size (Figure 4.27).

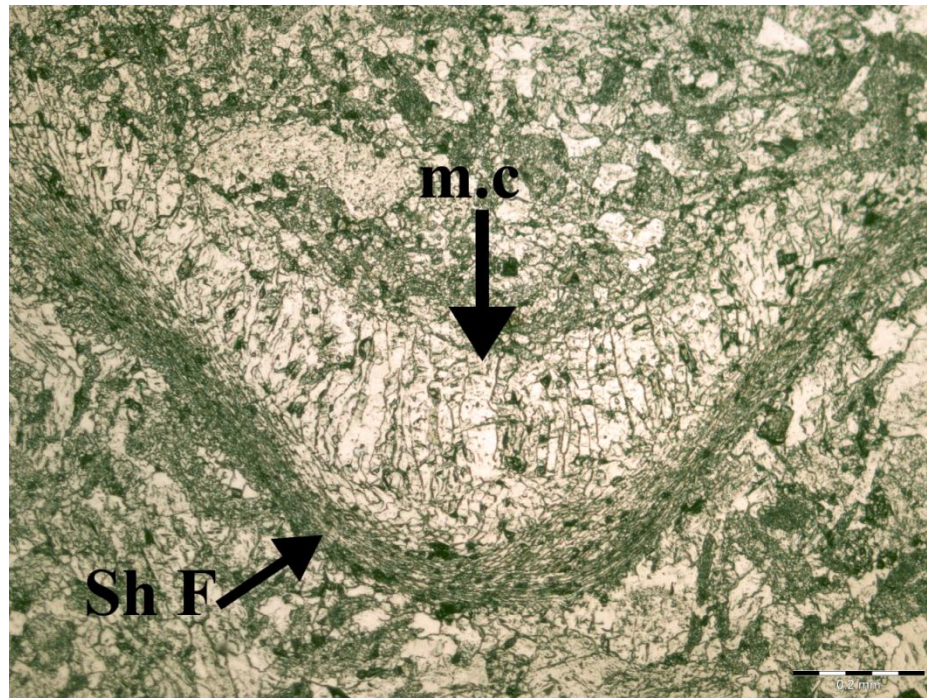


Figure 4.25, Sample P8g, packstone to wackestone. Marine cement (m.c) is forming on a shell fragment.

Sample P12c is in the middle of other high energy deposits where the texture is grainstone to packstone (Figure 4.28). And the grain components are mainly echinoderms. The grain size is in the very coarse sand size which is the largest grain size among the first 20 bed sets within the Pierson Limestone. From sample P12d to sample P13a, the texture retreats to become packstone to wackestone. From there, the energy of deposition increased gradually until the texture reaches another high energy peak at sample P16a ((Figure 4.29), before it retreats suddenly to the lowest energy of deposition for the first time at sample P17. Sample P17 is a marker bed that is about 14 centimeters thick of greenish grey shale, and it can be easily tracked laterally along the Pierson Limestone. Even though there were no possible way of making neither thin section nor acetate peel from the P17, the sample were collected for the conodonts processing and clearly it can be texturally defined as wackestone to mudstone.

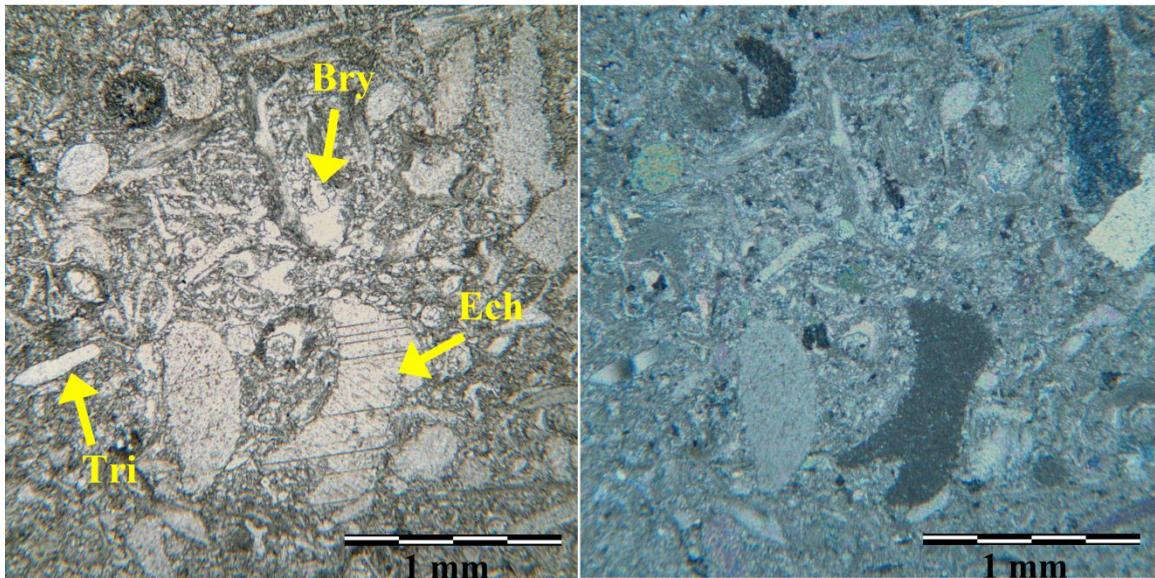


Figure 4.26, Sample P9, PPL (left) CPL (right), grainstone to packstone. The grains are abraded and poorly sorted, echinoderms (Ech), bryozoans (Bry), trilobites (Tri).

Sample P18a is a representation of the bed that is right above the marker bed set P17. In the bed P18a, the energy of deposition has declined dramatically from grainstone to packstone down to wackestone to mudstone. Because of the low depositional energy in this bed, the grains are well preserved (Figure 4.30). Sample P18a is among eight other samples within the bed set P18. The texture within this bed set from bottom to top is gradually becoming grainier and the matrix content decrease in the same direction. Sample P18i is at the top of the bed set P18, and it has a texture of packstone to wackestone, the matrix here is almost absent and the left over pore spaces are filled with blocky calcite cement (Figure 4.31). From there, the texture continued to become grainier until it reaches another peak at the bed set P19, where it becomes packstone to grainstone with almost no matrix support (Figure 4.32).

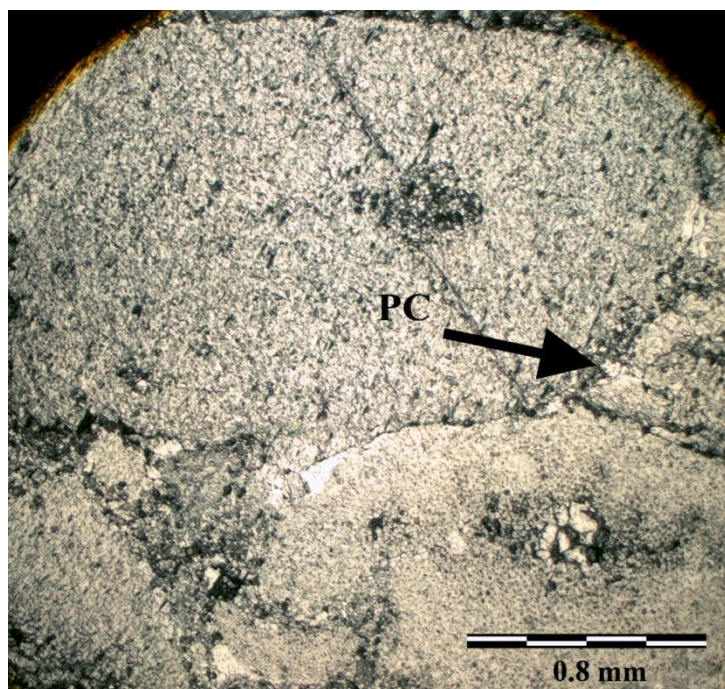


Figure 4.27, Sample P11e., PPL, Packstone to grainstone, compacted crinoid grains (PC).

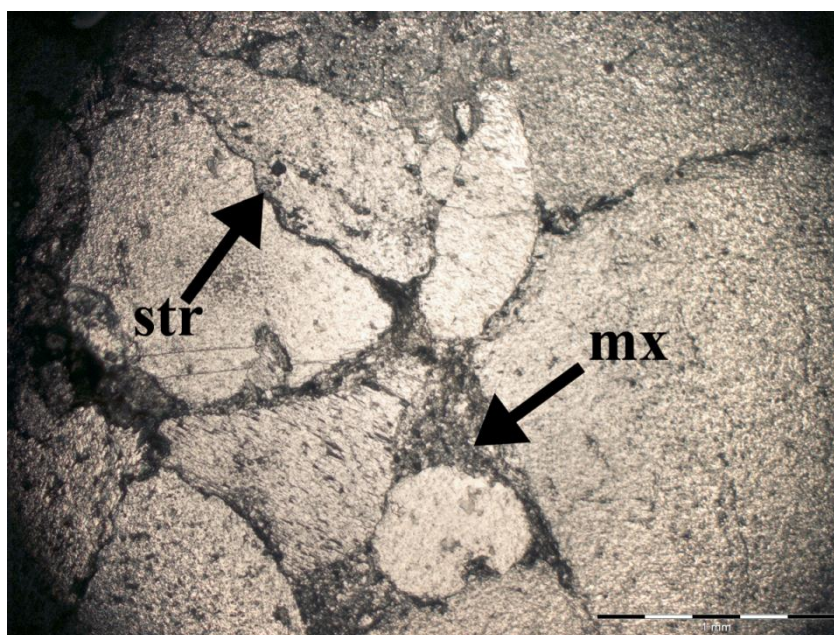


Figure 4.28, Sample P12c, PPL, grainstone to packstone. Sutured grain edges because of the compaction, minor amount of matrix filling the primary porosity (mx).

A sudden change in the texture occurs between sample P19b and P20a from packstone to grainstone down to mudstone. However, sample P20a is a loose shale parting and it was not judged for being a mudstone because of the petrographic examination, but because of its structural appearance. P20b instead was examined, and the texture was wackestone to packstone (Figure 4.33).

Bed set P20 is interbedded with several shale partings and the alternation between the beds and the shale partings is constant. This bed set is subdivided into seven beds; four of these beds are the shale partings. Even though the shale partings within the bed set were not examined for the petrographic examination, they were collected for the purpose of conodonts processing, and they were plotted on the petrographic texture chart as mudstone texture and marked with red markers (see Figure 4.21).

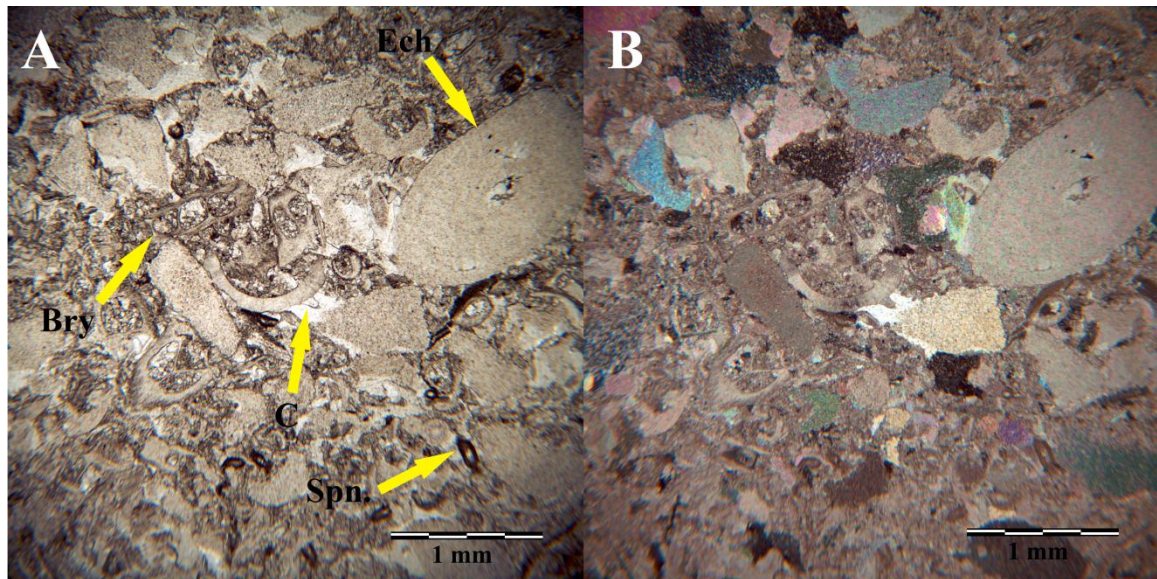


Figure 4.29, Sample P16a, PPL (A), and CPL (B), grainstone to packstone. Common grains are echinoderms (Ech), bryozoans (Bry), spines (Spn.) and blocky calcite cement (C).

Samples P21a and P21b are the last samples in the Pierson Limestone that in which the texture is mudstone (Figure 4.34). After the sample P21b within the bed set P21, the texture

becomes grainier, and the grain size in the matrix increased dramatically from very fine to very coarse sand size to pebble size. Bed P21d for instance has wackestone to packstone texture but the grains are relatively larger than the underlying beds (Figure 4.35).

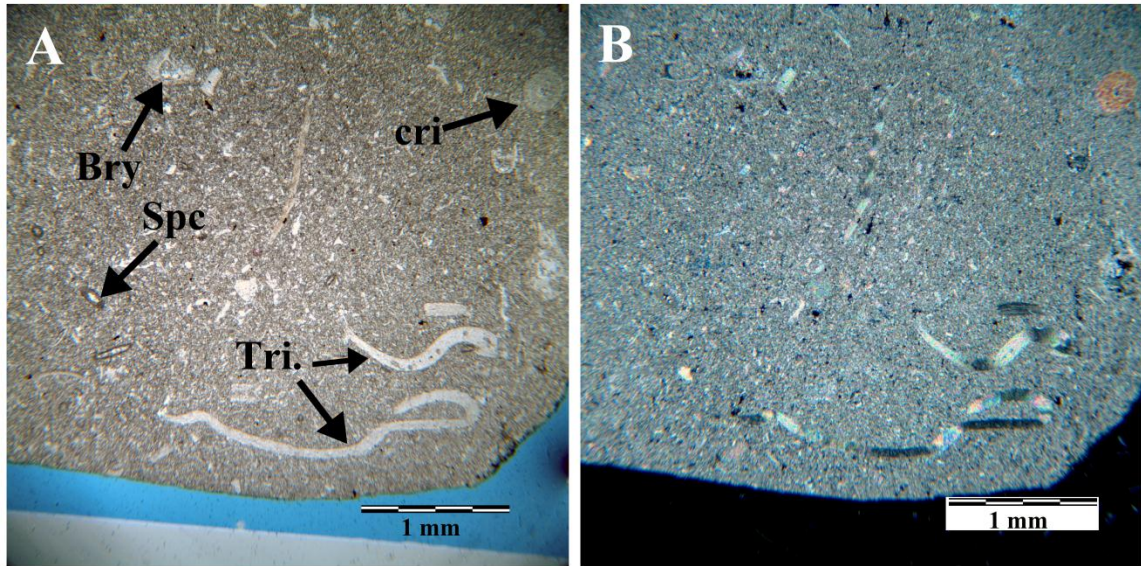


Figure 4.30, Sample P18a, PPL (A), CPL (B), mudstone to wackestone. The grains floating in the matrix are mainly bryozoan fragments (Bry), crinoids (cri), trilobites (Tri.), and spicules (Spc).

Sample P22a is about 4 centimeters thick of cherty spicule rich limestone bed. This bed marked the first appearance of the chert within the Pierson Limestone. The texture of sample P22a is wackestone to mudstone. The grains content in this sample are mainly sponge spicules, small mollusks, and glauconite (Figure 4.36).

In the bed sets P22 and P23 the texture start to fluctuate strongly from one bed to the other ranging from more grain supported bed to more mud supported in an alternative way. In the bed set P22, sample P22b for instance has grainstone to packstone texture (Figure 4.37), followed by sample P22c which has a wackestone texture (Figure 4.38), and the same alternation goes for the following samples in this bed set.

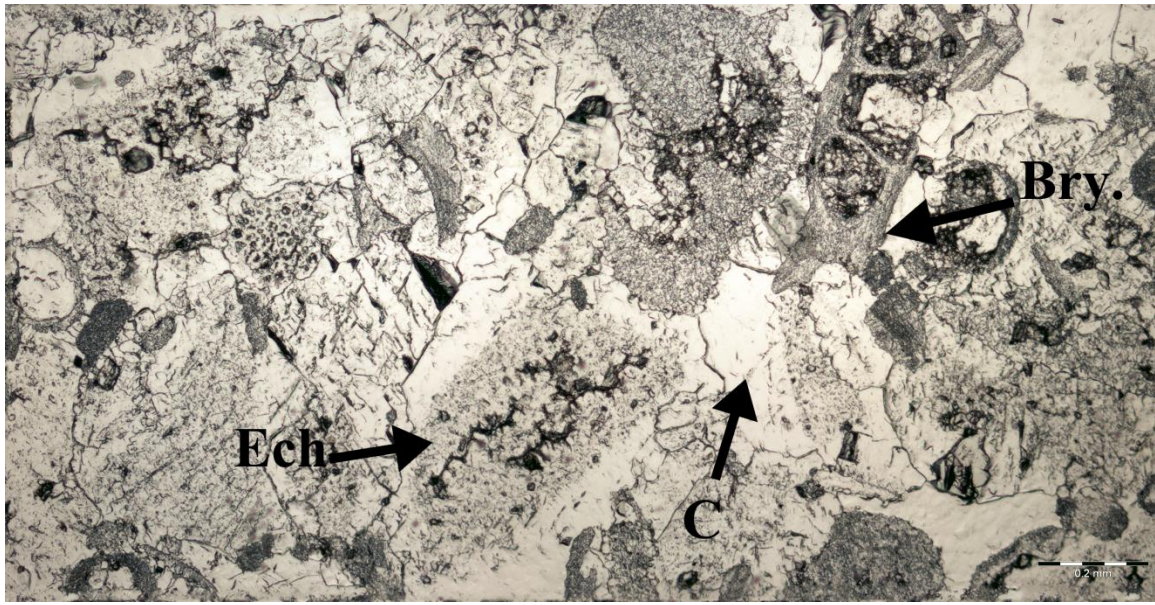


Figure 4.31, Sample P18i, PPL, packstone to wackestone. Blocky calcite cement is growing around bryozoans (Bry) and echinoderms (Ech) with the absence of the matrix.

Except for the noticeable hiatus that separate bed set P22 and bed set P23, the texture and the grain contents is very relevant. Taking an example of moving from more mud supported rock to more grain supported; the texture in sample P23c is wackestone (Figure 4.39), whereas, in the following bed P23d, the texture changed dramatically to become packstone (Figure 4.40).

The top of the Pierson Limestone is considered to be the bed P23h which has crinoidal grainstone texture (Figure 4.41). This bed is a channel that truncates the underlying beds P23f and P23g; and it designates the transitional contact between the Pierson Limestone and the overlying Reeds Spring Formation. According to the petrographic analyses, this bed includes only marine deposits.

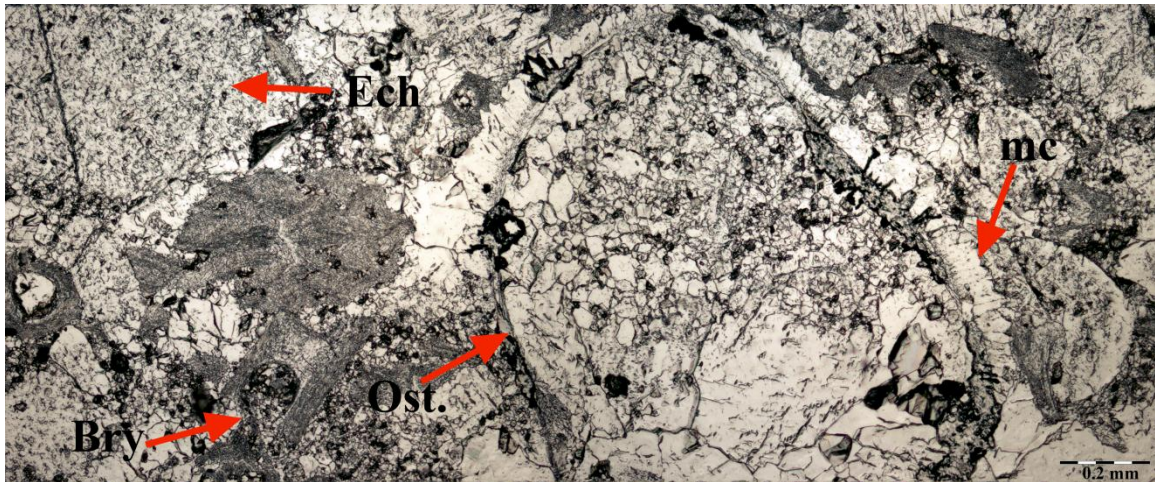


Figure 4.32, Sample P19a, PPL, packstone to grainstone. The grain contents are echinoderms (Ech), bryozoans (Bry), and ostracode (Ost.) that filled with geopetal structure blocky calcite cement and it is surrounded by fibrous marine cement (mc).

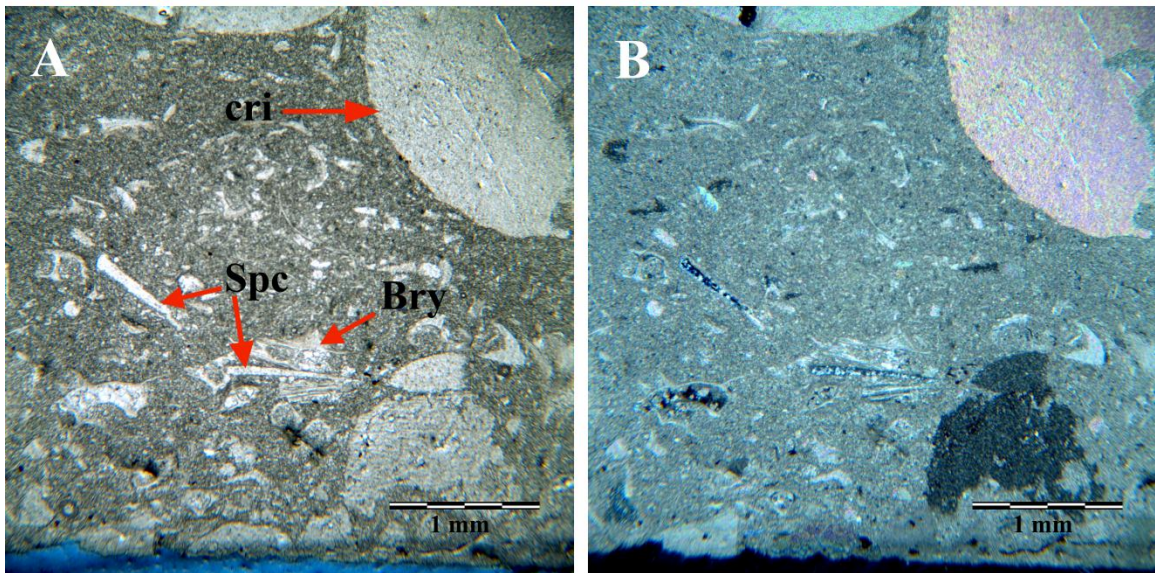


Figure 4.33, Sample P20b, PPL (A), CPL (B), wackestone to packstone. The grains are crinoids (cri), bryozoans, (Bry), and spicules (Spc).

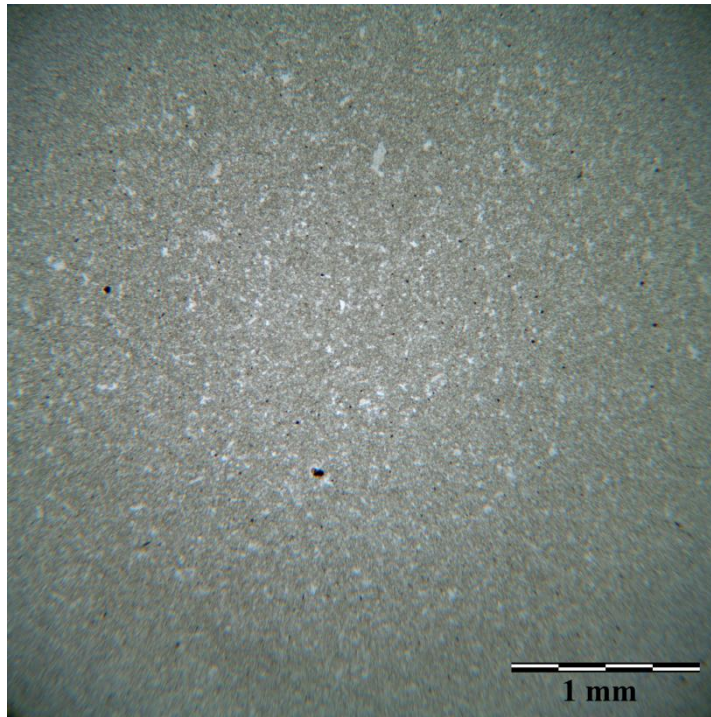


Figure 4.34, Sample P21a, PPL, mudstone. The rock is mud supported and no grains can be defined.

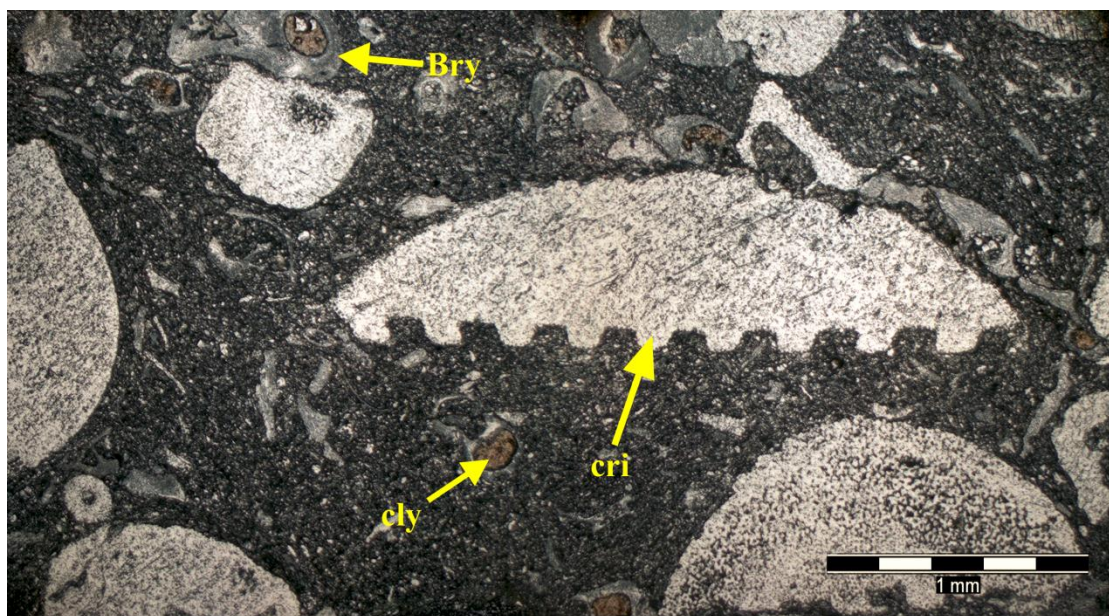


Figure 4.35, Sample P21d, PPL, wackestone to packstone; the grains within the carbonate mud matrix are mostly crinoids (cri), and bryozoans (Bry). Clay is filling the bryozoans' cavities.

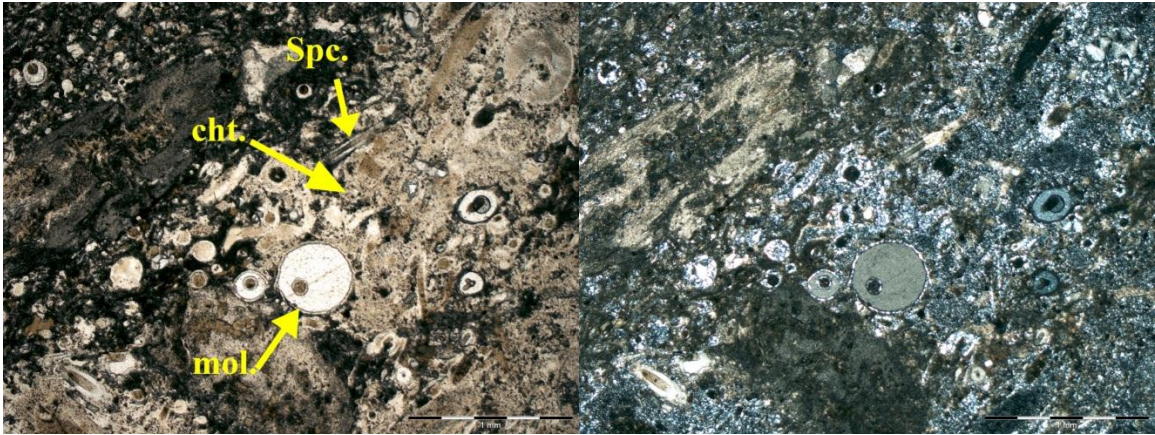


Figure 4.36, Sample P22a, PPL (left), CPL (right) wackestone to mudstone. The grains are siliceous spicules (Spc) in chertified matrix (Cht), and small mollusk.

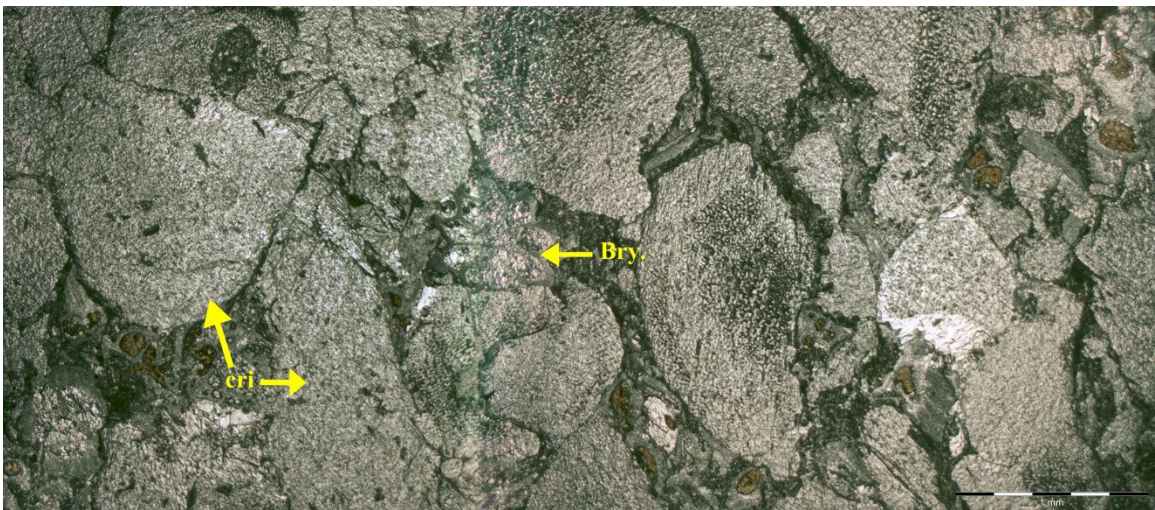


Figure 4.37, Sample P22b, PPL. grainstone to packstone. The grains are mainly echinoderms (cri) and bryozoans (Bry).

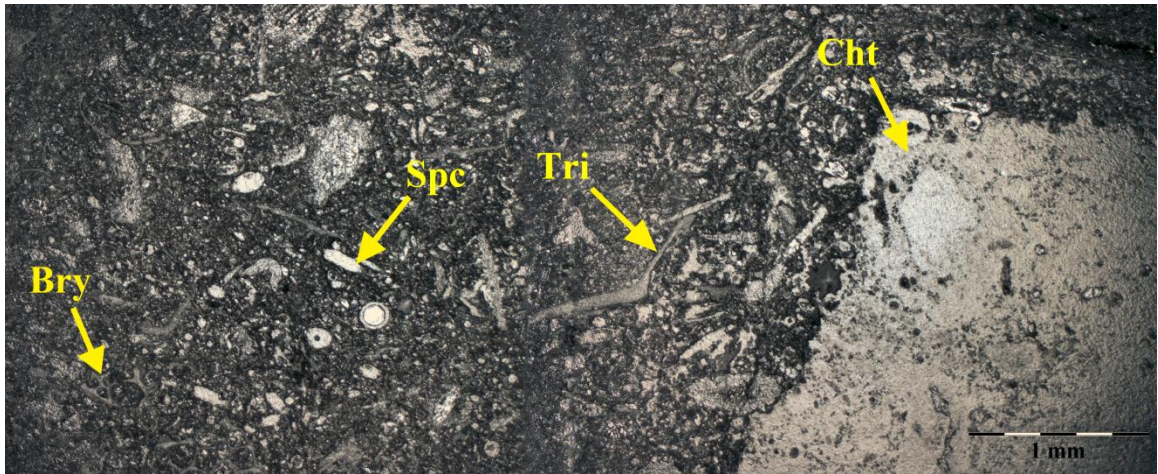


Figure 4.38, Sample P22c, PPL, wackestone to packstone. The grain content is mainly spicules (Spc), bryozoans (Bry), and trilobites (Tri). The lower right side of the sample is metamorphosed by chert (cht).

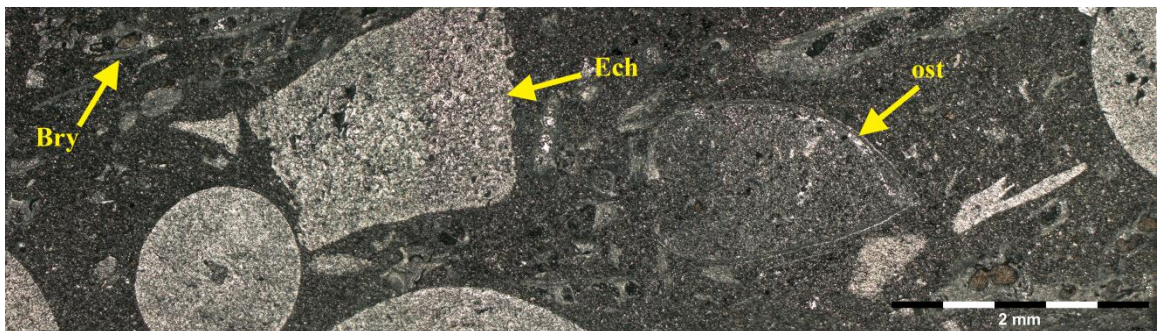


Figure 4.39, Sample P23c, PPL, wackestone. The grain content is echinoderms (Ech.), Bryozoans (Bry.), and ostracods (ost), all floating in mud matrix.

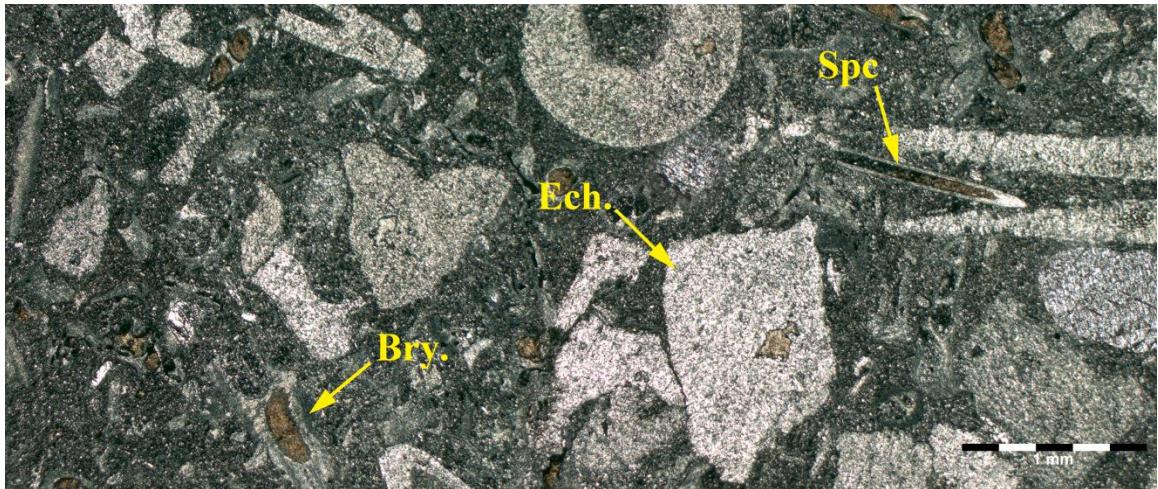


Figure 4.40, Sample P23d, PPL, Packstone. The grains in this sample are, mainly crinoids (Ech.), bryozoans (Bry), and spicules (Spc).

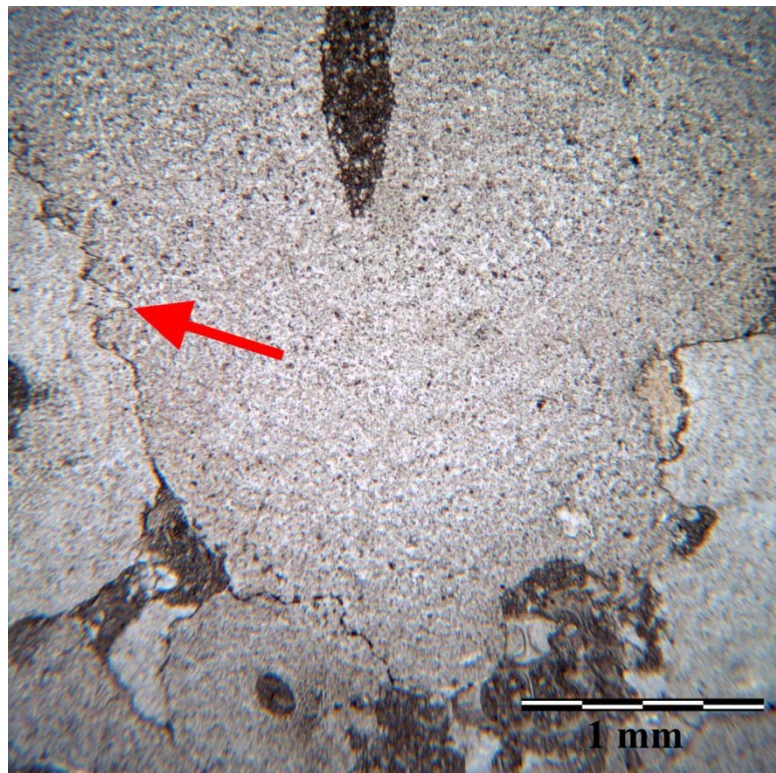


Figure 4.41, Sample P23h, PPL, grainstone, the crinoid grains are compacted and the contact between them is sutured (red arrow).

Reeds Spring Formation

The Reeds Spring Formation is the fifth and the last formation included within the study area. It is about 9 meters thick (29.5 ft.) of cherty light bluish grey limestone (see Figure 4.17c). The first 0.5 meters is included within this study for the purpose of designating the contact between the Pierson Limestone and the Reeds Spring Formation.

Petrographic Analysis

Four beds from the Reeds Spring Formation were sampled and examined petrographically. The texture at the base of the formation ranges from mudstone to wackestone to packstone (Figure 4.42). The contact between the Reeds Spring Formation and the underlying Pierson Limestone seems controversial. In the section under study, the deposition of the Reeds Spring on top of channels from the Pierson Limestone, which are in turn truncating the underlying beds, suggests a possibility of minor disconformity between the two formations. However, the conodont zonation shows that there is no significant break in time (Mazzullo et.al. 2010). Above the base of the Reeds Spring Formation carbonates are dominantly mudstone to sparse wackestone.

Bed set RS1 is about 14 centimeters thick (5.5 inches) of light bluish grey cherty limestone. The texture of the sample RS1 is crinoidal and bryozoan wackestone to packstone (Figure 4.34). Bed set RS2 started at mudstone to wackestone texture, and become mudstone in texture at the beds RS2b and RS2c, and the main grains content is sponge spicules (Figure 4.35).

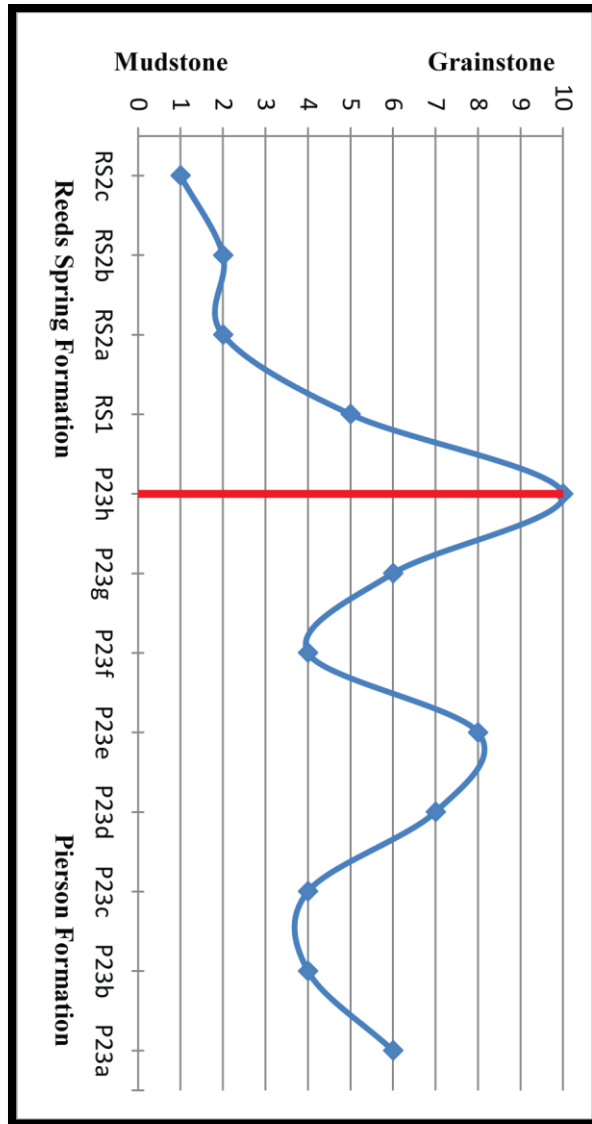


Figure 4.42, the texture fluctuation at the contact between the Pierson Limestone and the Reeds Spring Formation (marked with the red line). Apparently, the texture is shifting towards the muddy side right after the grainstone bed P23h.

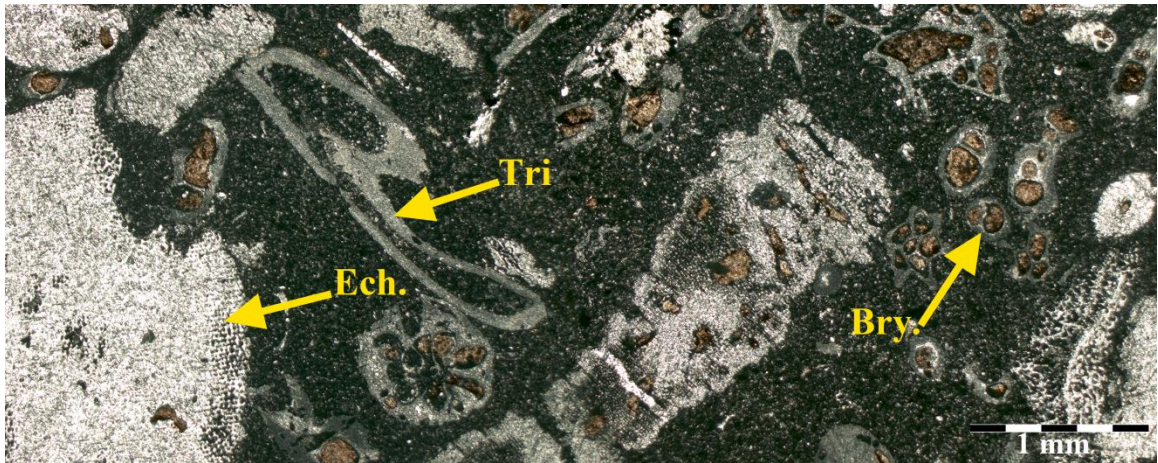


Figure 4.43, Sample RS1, PPL, wackestone to packstone. The grains are echinoderms (Ech.), bryozoans (Bry), and trilobites (Tri). Note the bryozoan cavities and the abraded crinoid grains are filled with clay.

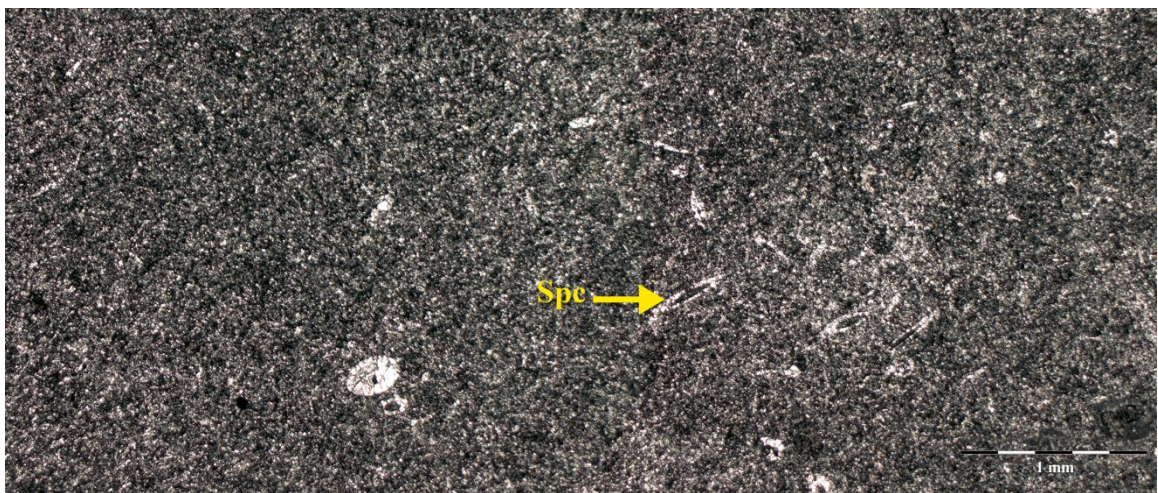


Figure 4.44, Sample RS2c, PPL, mudstone. The grains are sponge spicules (Spc) within the matrix.

DISCUSSION

There are seven major depositional cycles starting from the base of the Compton Limestone to the top of the Pierson Limestone.

The first depositional cycle is a progradational parasequence cycle which extend from a transgressive lag at the Bachelor Formation and base of the bed C1a up to C7a. The richness of the broken conodonts pieces in the lower lamina set of the Bachelor Shale Member (Bch1a) is interpreted as transgressive lag. Near the top of the first major cycle, the bed C6a includes abraded reworked contents that suggest a high energy of deposition near the top of the cycle.

The first progradational parasequence cycle is followed by an aggradational parasequence cycle which includes the top of the Compton Limestone (i.e. bed set C7), the Northview Formation and the first two bed sets of the Pierson Limestone. This cycle is characterized by a transitional contact at the base and the top. In other words, the contact between the Compton Limestone and the overlying Northview Formation is transitional, and the same case for contact between the Northview Formation and the overlying Pierson Limestone. The top of this second cycle is characterized by the presence of dolomite rhombs. The siliciclastics flux starts at the top of the Compton Limestone and runs throughout the Northview Formation and trails into the lower two bed sets of the Pierson Limestone. The petrographic analysis of the Northview Formation shows that the formation combines a major amount of marine grains and a minor amount of terrestrial siliciclastic grains. The silt size clastic component is probably due to a distal minor delta that existed prior to the deposition of the Northview Formation, and that does not necessarily mean that the Northview clastic wedge was deposited during the lowering of the sea level. Instead, the Compton Limestone and the Northview Formation were probably deposited in a high stand systems tract. The local Northview wedge truncations are only due to the underlying Compton Limestone mounds.

The third major cycle is progradational to retrogradational parasequence cycle that includes beds from P3b up to P5b. The main characteristic of this cycle is that the matrix content is relatively lower than the second cycle and higher than the fourth cycle.

The fourth cycle is another progradational parasequence cycle that includes the beds between P5b and P9, which followed by a flooding surface at P10a. The main characteristic feature within this cycle is the minimum amount of the matrix content comparing to the underlying cycles. Bed P9 includes abraded reworked carbonate grains. This grains in this bed suggested that the deposition in this cycle had ended at its highest energy before the following cycle began to take place.

The fifth major cycle is a thick progradational parasequence cycle that initiates from bed P10a up to bed P16a, which followed by the maximum flooding surface at bed set P17. Three minor cycles can be designated within this major cycle. The first minor cycle starts from bed P10a up to bed P11e, followed by the second minor cycle which starts at bed P11g up to bed P12d, followed by the third minor cycle which initially stars at bed P13a up to P16a. Bed P16a is very coarse sand size grainstone to packstone limestone bed that includes abraded and compacted crinoid grains. This bed suggests a maximum depositional energy within the entire fifth major cycle before the sixth cycle take place

The sixth major cycle is progradational parasequence cycle that stars from bed P18a, which is a mudstone bed up to bed P19b which is a packstone to grainstone bed. The main characteristic feature in this cycle is the preservation of the grains and the abundance of the matrix content and the minimum amount of the calcite cement.

The seventh and the last major cycle within the section under study is progradational parasequence cycle which characterized by the intense fluctuation of the energy of deposition. This major cycle initiates at bed P20a, which is a mudstone shale parting, and it ends at bed P23h,

which is a grainstone channel bed at the top of the Pierson Limestone before the following sea level rise at the beginning of the Reeds Spring Formation.

CHAPTER V

CONCLUSIONS

Based on the petrographic textural analyses, the section under study has a complete sedimentary succession spreading across considerable span of time without apparent unconformities. The continuous sedimentation in this section makes it a prime candidate for North American principle reference section for the lower Mississippian subsystem. The detailed textural analysis in this study reveals that this section can be clearly divided into a hierarchy major and minor parasequence cycles ranging in the third and the fourth order (Figure 5.1).

The Northview Formation is viewed as an unconformable lithographic unit that reflects a eustatic lowering of the sea level (Kammer *et al* 2008). Whereas, the data shows that it is conformable and completely gradational between the underlying Compton Limestone as well as the overlying Pierson Limestone. The clastic wedge in the Northview Formation is a localized highstand wedge. This is a continuous shelf margin marine succession.

The overall pattern of the parasequence sets is retrogradational. This pattern can be clearly seen in the structural appearance as the shale partings appear in the middle and near the top of the section, as well as the texture changes as the percentage carbonate mud matrix increases towards the top of the section.

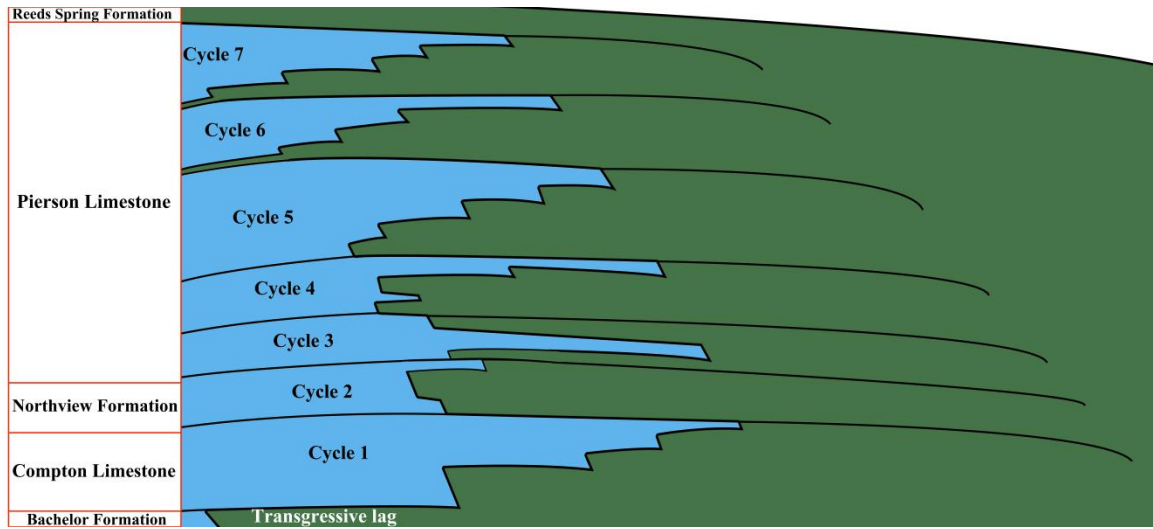


Figure 5.1 the parasequence sets show a retrogradational pattern. The light blue color represents normal carbonate deposition. The dark green color represents the deep marine shale. Note the diagram is not to scale.

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APPENDICES

APENDIX A

This appendix includes description tables of all the samples examined in the study area.

There are few symbols used for better description of the samples content. These symbols can be explained as follows.

The most common grains in the samples are referred with the symbol (*) and that means that the marked grains are representing 60 % or more of the total sample population. The symbol (■) means that the referred grains are occupying no more than 40% of the sample. The symbol (□) refers to the grains that are less than 20 % among the entire sample population. Finally, the symbol (●) is a pointer to the desired word or phrase without percentage.

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C1
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C1
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
□	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C1
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
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<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
□	Spicules				
	Spines		Echinoids	Brachiopods	
□	Calcispheres				
	Other				

Diagenesis			
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<input type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Filled	

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Formation	Compton Limestone
Member	
Bed Stet Number	C2
Bed Number	a

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<input checked="" type="checkbox"/>	Wackestone to Packstone
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<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
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<input checked="" type="checkbox"/>	Physical Compaction	Stylolites	
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C2
Bed Number	b

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis				
●	Cementation	●	Blocky Calcite cement	<div></div> Fibrous calcite cement
	Physical Compaction			
	Chemical Compaction			
●	Fracturing	Filled with clay		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C2
Bed Number	c

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

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	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
□	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
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<input type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Filled with Blocky calcite	

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C3
Bed Number	a

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents			
	Phosphatic Grains					
	Iron Minerals					
	Other					
*	Bryozoans		Biotic Constituents			
	Echinoderms	Echinoids				
*		Crinoids				
■	Arthropods	Ostracods				
■		Trilobites				
	Mollusks	Gastropods				
		Bivalves				
		Cephalopods				
	Brachiopods					
	Sponges					
	Spicules					
□	Spines		□	Echinoids	□	Brachiopods
□	Calcispheres					
	Other					

Diagenesis			
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<input checked="" type="checkbox"/>	Physical Compaction	Stylolite	
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C3
Bed Number	b

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

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	Iron Minerals				
	Other				
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*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines	Echinoids	Brachiopods		
	Calcispheres				
	Other				

Diagenesis				
●	Cementation	●	Blocky Calcite cement	<div></div> Fibrous calcite cement
●	Physical Compaction	Sutured grains rims.		
●	Chemical Compaction	Stylolite		
●	Fracturing	Opened and filled with blocky calcite.		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C3
Bed Number	c

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
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	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
□	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
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<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C3
Bed Number	d

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Wackestone to Mudstone
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<input type="checkbox"/>	Wackestone to Packstone
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<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C3
Bed Number	e

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis				
●	Cementation	●	Blocky Calcite cement	<div></div> Fibrous calcite cement
	Physical Compaction			
●	Chemical Compaction	Stylolite		
●	Fracturing	Opened and filled		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C3
Bed Number	f

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C3
Bed Number	g

Textural Classification (Dunham 1962)	
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<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement	●	Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	Stylolite			
●	Fracturing	Filled with cement			

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C4
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
<input type="checkbox"/>	Other	Dolomite		
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
<input type="checkbox"/>	Other	conodonts		

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C4
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolites	
<input checked="" type="checkbox"/>	Fracturing	Filled with cement.	

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C4
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input checked="" type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
□	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C5
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input checked="" type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C5
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input checked="" type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input checked="" type="checkbox"/>	Physical Compaction	Suture grain rims.	
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C5
Bed Number	c

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
●	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
	Cementation		Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	Stylolite			
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C5
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines		<div>Echinoids</div> <div>□</div> <div>Brachiopods</div>		
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
	Physical Compaction		Fibrous calcite cement
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C6
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input checked="" type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Abraded grains	
	Echinoderms	Echinoids		
*		Crinoids	Abraded grains	
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
□	Spines		□	Echinoids
□	Calcispheres		□	Brachiopods
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input checked="" type="checkbox"/>	Physical Compaction	Sutured rims	
<input type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Filled with cement	

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C6
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
<input type="checkbox"/>	Echinoderms	Echinoids		
*		Crinoids		
<input checked="" type="checkbox"/>	Arthropods	Ostracods		
<input checked="" type="checkbox"/>		Trilobites		
	Mollusks	Gastropods		
<input type="checkbox"/>		Bivalves		
		Cephalopods		
<input type="checkbox"/>	Brachiopods			
	Sponges			
	Spicules			
<input type="checkbox"/>	Spines	<input type="checkbox"/> Echinoids	<input type="checkbox"/> Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C7
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents		
<input type="checkbox"/>	Phosphatic Grains				
<input type="checkbox"/>	Iron Minerals				
<input type="checkbox"/>	Other				
*	Bryozoans		Biotic Constituents		
<input type="checkbox"/>	Echinoderms	Echinoids			
*		Crinoids			
<input checked="" type="checkbox"/>	Arthropods	Ostracods			
<input checked="" type="checkbox"/>		Trilobites			
<input type="checkbox"/>	Mollusks	Gastropods			
<input type="checkbox"/>		Bivalves			
<input type="checkbox"/>		Cephalopods			
<input type="checkbox"/>	Brachiopods				
<input type="checkbox"/>	Sponges				
<input type="checkbox"/>	Spicules				
<input type="checkbox"/>	Spines		<input type="checkbox"/> Echinoids	<input type="checkbox"/> Brachiopods	
<input type="checkbox"/>	Calcispheres				
<input type="checkbox"/>	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Mostly opened.	

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C7
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents			
	Phosphatic Grains					
	Iron Minerals					
	Other					
*	Bryozoans		Biotic Constituents			
	Echinoderms	Echinoids				
*		Crinoids				
■	Arthropods	Ostracods				
■		Trilobites				
	Mollusks	Gastropods				
<input type="checkbox"/>		Bivalves				
		Cephalopods				
	Brachiopods					
	Sponges					
	Spicules					
<input type="checkbox"/>	Spines				<input type="checkbox"/> Echinoids	<input type="checkbox"/> Brachiopods
<input type="checkbox"/>	Calcispheres					
	Other					

Diagenesis			
●	Cementation	<input type="checkbox"/> Blocky Calcite cement	● <input type="checkbox"/> Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C7
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents
	Phosphatic Grains		
	Iron Minerals		
	Other		
*	Bryozoans		Biotic Constituents
	Echinoderms	Echinoids	
*		Crinoids	
■	Arthropods	Ostracods	
■		Trilobites	
	Mollusks	Gastropods	
		Bivalves	
		Cephalopods	
<input type="checkbox"/>	Brachiopods		
	Sponges		
	Spicules		
<input type="checkbox"/>	Spines	<input type="checkbox"/> Echinoids	
	Calcispheres	<input type="checkbox"/> Brachiopods	
	Other		

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Compton Limestone
Member	
Bed Stet Number	C7
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents
	Phosphatic Grains		
	Iron Minerals		
	Other		
*	Bryozoans		Biotic Constituents
	Echinoderms	Echinoids	
*		Crinoids	
■	Arthropods	Ostracods	
■		Trilobites	
	Mollusks	Gastropods	
		Bivalves	
		Cephalopods	
<input type="checkbox"/>	Brachiopods		
	Sponges		
	Spicules		
	Spines	<input type="checkbox"/> Echinoids	
		<input type="checkbox"/> Brachiopods	
	Calcispheres		
	Other		

Diagenesis			
●	Cementation	●	Blocky Calcite cement
	Physical Compaction	●	Fibrous calcite cement
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV1
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
<input type="checkbox"/>		Bivalves			
		Cephalopods			
<input type="checkbox"/>	Brachiopods				
	Sponges				
	Spicules				
	Spines		<input type="checkbox"/> Echinoids	<input type="checkbox"/> Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	<input type="checkbox"/>	Blocky Calcite cement	<input type="checkbox"/>	Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	Stylolite			
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV1
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents
	Phosphatic Grains		
	Iron Minerals		
	Other		
*	Bryozoans		Biotic Constituents
	Echinoderms	Echinoids	
*		Crinoids	
<input checked="" type="checkbox"/>	Arthropods	Ostracods	
<input checked="" type="checkbox"/>		Trilobites	
	Mollusks	Gastropods	
		Bivalves	
		Cephalopods	
<input type="checkbox"/>	Brachiopods		
	Sponges		
	Spicules		
	Spines	<input type="checkbox"/> Echinoids	
		<input type="checkbox"/> Brachiopods	
<input type="checkbox"/>	Calcispheres		
	Other		

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
		<input type="checkbox"/>	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV1
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
<input type="checkbox"/>		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines	Echinoids	Brachiopods		
	Calcispheres				
	Other				

Diagenesis			
	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Mostly opened	

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV1
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
●	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV1
Bed Number	e

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
□	Other	forams		

Diagenesis					
<input type="checkbox"/>	Cementation	<input type="checkbox"/>	Blocky Calcite cement	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction				
●	Chemical Compaction	Stylolite			
<input type="checkbox"/>	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV1
Bed Number	f

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
□	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV1
Bed Number	g

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
<input type="checkbox"/>		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
<input type="checkbox"/>	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV2
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
<input type="checkbox"/>	Other	dolomite		
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
<input type="checkbox"/>	Spicules			
	Spines	Echinoids	<input type="checkbox"/>	Brachiopods
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Northview Formation
Member	
Bed Stet Number	NV2
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents
	Phosphatic Grains		
	Iron Minerals		
	Other		
*	Bryozoans		Biotic Constituents
	Echinoderms	Echinoids	
*		Crinoids	
■	Arthropods	Ostracods	
■		Trilobites	
	Mollusks	Gastropods	
		Bivalves	
		Cephalopods	
	Brachiopods		
	Sponges		
	Spicules		
	Spines	<input type="checkbox"/> Echinoids	
		<input type="checkbox"/> Brachiopods	
<input type="checkbox"/>	Calcispheres		
	Other		

Diagenesis			
●	Cementation	●	Blocky Calcite cement
	Physical Compaction		Fibrous calcite cement
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P1
Bed Number	1

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents				
	Phosphatic Grains						
	Iron Minerals						
<input type="checkbox"/>	Other	dolomite					
*	Bryozoans		Biotic Constituents				
	Echinoderms	Echinoids					
*		Crinoids					
■	Arthropods	Ostracods					
■		Trilobites					
	Mollusks	Gastropods					
<input type="checkbox"/>		Bivalves					
		Cephalopods					
	Brachiopods						
	Sponges						
<input type="checkbox"/>	Spicules						
<input type="checkbox"/>	Spines	<input type="checkbox"/>			Echinoids	<input type="checkbox"/>	Brachiopods
	Calcispheres						
	Other						

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P2
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents
	Phosphatic Grains		
	Iron Minerals		
	Other		
*	Bryozoans		Biotic Constituents
	Echinoderms	Echinoids	
*		Crinoids	
<input checked="" type="checkbox"/>	Arthropods	Ostracods	
<input checked="" type="checkbox"/>		Trilobites	
	Mollusks	Gastropods	
<input type="checkbox"/>		Bivalves	
<input type="checkbox"/>		Cephalopods	
	Brachiopods		
	Sponges		
	Spicules		
<input type="checkbox"/>	Spines	<input type="checkbox"/> Echinoids	
	Calcispheres	<input type="checkbox"/> Brachiopods	
	Other		

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P2
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines				<div>Echinoids</div> <div>□</div> <div>Brachiopods</div>
□	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P3
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Filled with clay	

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P3
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
□	Spicules				
	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P3
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents				
	Phosphatic Grains						
	Iron Minerals						
	Other						
*	Bryozoans		Biotic Constituents				
	Echinoderms	Echinoids					
*		Crinoids					
■	Arthropods	Ostracods					
■		Trilobites					
	Mollusks	Gastropods					
		Bivalves					
		Cephalopods					
□	Brachiopods						
	Sponges						
	Spicules						
	Spines				Echinoids	□	Brachiopods
□	Calcispheres						
	Other						

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Filled with cement	

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P3
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
□	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P3
Bed Number	e

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
□		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis				
●	Cementation	●	Blocky Calcite cement	<div></div> Fibrous calcite cement
	Physical Compaction			
●	Chemical Compaction	Stylolite		
	Fracturing			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P3
Bed Number	f

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P4
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
<input type="checkbox"/>	Echinoderms	Echinoids		
*		Crinoids		
<input checked="" type="checkbox"/>	Arthropods	Ostracods		
<input checked="" type="checkbox"/>		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
	Spicules			
<input type="checkbox"/>	Spines	<input type="checkbox"/> Echinoids	<input type="checkbox"/> Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P4
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Stylolite		
<input type="checkbox"/>	Fracturing		
<input type="checkbox"/>	Filled with blocky calcite		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P4
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input checked="" type="checkbox"/>	Fracturing	Cemented completely with calcite	

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P4
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P5
Bed Number	a

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
●	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis				
●	Cementation	●	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction			
●	Chemical Compaction	Stylolite		
	Fracturing			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P5
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids		
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input checked="" type="checkbox"/>	Physical Compaction	<input checked="" type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Usually opened	

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P5
Bed Number	c

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
●	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement	●	Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	Stylolite			
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P5
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Filled with cement	

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P6
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis				
●	Cementation	●	Blocky Calcite cement	<div></div> Fibrous calcite cement
	Physical Compaction			
	Chemical Compaction			
●	Fracturing			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P6
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing	Filled	

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P7
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
□	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis				
●	Cementation	●	Blocky Calcite cement	<div></div> Fibrous calcite cement
	Physical Compaction			
●	Chemical Compaction	Stylolites		
	Fracturing			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P7
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis					
●	Cementation	●	Blocky Calcite cement	●	Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P7
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	Stylolites			
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
□	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing	Open and filled with cement and clay.			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction	Stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	e

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
●	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement	●	Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	stylolite			
●	Fracturing	Opened and mostly filled			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	f

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
●	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	Drussy suture stylolite			
●	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	g

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines		<div>Echinoids</div> <div>□</div> <div>Brachiopods</div>		
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction	stylolite	
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P8
Bed Number	h

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
□	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P9
Bed Number	

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input checked="" type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Abraded grains		Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids	Abraded grains		
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input checked="" type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P10
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P10
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
<input type="checkbox"/>	Other	dolomite			
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
<input type="checkbox"/>	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction	Stylolite includes dolomite			
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P10
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input checked="" type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
	Physical Compaction				
●	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input checked="" type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input checked="" type="checkbox"/>	Physical Compaction	Suture grain contact.	
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	e

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input checked="" type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	f

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	g

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	h

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P11
Bed Number	i

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
□	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P12
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
□	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P12
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input checked="" type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P12
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input checked="" type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P12
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input checked="" type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents				
	Phosphatic Grains						
	Iron Minerals						
	Other						
*	Bryozoans		Biotic Constituents				
	Echinoderms	Echinoids					
*		Crinoids					
■	Arthropods	Ostracods					
■		Trilobites					
	Mollusks	Gastropods					
		Bivalves					
		Cephalopods					
	Brachiopods						
	Sponges						
	Spicules						
□	Spines		Echinoids	□	Brachiopods		
	Calcispheres						
	Other						

Diagenesis				
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction			
<input type="checkbox"/>	Chemical Compaction			
<input type="checkbox"/>	Fracturing			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P12
Bed Number	e

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P13
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P13
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P13
Bed Number	c

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
●	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
■	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P14
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P14
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
	Spicules			
□	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P15
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
V	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
□	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P15
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P15
Bed Number	c

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
●	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P15
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
□	Sponges				
□	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P16
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input checked="" type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines				<div>Echinoids</div> <div>□</div> <div>Brachiopods</div>
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P16
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

<input type="checkbox"/>	Siliciclastic Grains		Non-biotic Constituents		
<input type="checkbox"/>	Phosphatic Grains				
<input type="checkbox"/>	Iron Minerals				
<input type="checkbox"/>	Other				
*	Bryozoans		Biotic Constituents		
<input type="checkbox"/>	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
<input type="checkbox"/>	Mollusks	Gastropods			
<input type="checkbox"/>		Bivalves			
<input type="checkbox"/>		Cephalopods			
<input type="checkbox"/>	Brachiopods				
<input type="checkbox"/>	Sponges				
<input type="checkbox"/>	Spicules				
<input type="checkbox"/>	Spines		<input type="checkbox"/> Echinoids	<input type="checkbox"/> Brachiopods	
<input type="checkbox"/>	Calcispheres				
<input type="checkbox"/>	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P17
Bed Number	

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input checked="" type="radio"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents			
	Phosphatic Grains					
	Iron Minerals					
	Other					
*	Bryozoans		Biotic Constituents			
	Echinoderms	Echinoids				
*		Crinoids				
■	Arthropods	Ostracods				
■		Trilobites				
	Mollusks	Gastropods				
		Bivalves				
		Cephalopods				
□	Brachiopods					
	Sponges					
	Spicules					
	Spines		Echinoids	□ Brachiopods		
	Calcispheres					
	Other					

Diagenesis			
<input checked="" type="radio"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input checked="" type="radio"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="radio"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input checked="" type="radio"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="radio"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input checked="" type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents			
	Phosphatic Grains					
	Iron Minerals					
	Other					
*	Bryozoans		Biotic Constituents			
	Echinoderms	Echinoids				
*		Crinoids				
■	Arthropods	Ostracods				
■		Trilobites				
	Mollusks	Gastropods				
		Bivalves				
		Cephalopods				
	Brachiopods					
	Sponges					
	Spicules					
□	Spines		□	Echinoids	□	Brachiopods
□	Calcispheres					
	Other					

Diagenesis				
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction			
<input type="checkbox"/>	Chemical Compaction			
<input type="checkbox"/>	Fracturing			

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input checked="" type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	e

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
●	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	f

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	g

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines		<div>Echinoids</div> <div>□</div> <div>Brachiopods</div>		
□	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	h

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
□	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P18
Bed Number	i

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P19
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents			
	Phosphatic Grains					
	Iron Minerals					
	Other					
*	Bryozoans		Biotic Constituents			
	Echinoderms	Echinoids				
*		Crinoids				
■	Arthropods	Ostracods				
■		Trilobites				
	Mollusks	Gastropods				
		Bivalves				
		Cephalopods				
□	Brachiopods					
	Sponges					
	Spicules					
□	Spines		Echinoids	□ Brachiopods		
	Calcispheres					
	Other					

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P19
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P20
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P20
Bed Number	d

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
●	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
■	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
■		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P21
Bed Number	a

Textural Classification (Dunham 1962)	
●	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P21
Bed Number	b

Textural Classification (Dunham 1962)	
●	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P21
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
□	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P21
Bed Number	d

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
●	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P22
Bed Number	a

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
●	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
*	Other	chert			
	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
		Crinoids			
	Arthropods	Ostracods			
		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
*	Sponges				
*	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P22
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input checked="" type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
■	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
■		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
	Spicules			
□	Spines	Echinoids	Brachiopods	
	Calcispheres			
*	Other	Matrix		

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P22
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
■	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
■		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
□	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
*	Other	Matrix		

Diagenesis			
<input type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P22
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P22
Bed Number	e

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P22
Bed Number	f

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
□	Spines		□ Echinoids	□ Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P23
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input checked="" type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
□	Brachiopods				
	Sponges				
	Spicules				
	Spines				Echinoids
	Calcispheres				
	Other				

Diagenesis			
<input type="checkbox"/>	Cementation	<input type="checkbox"/> Blocky Calcite cement	<input type="checkbox"/> Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P23
Bed Number	b

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
●	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P23
Bed Number	c

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
□	Brachiopods			
	Sponges			
	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis					
●	Cementation	●	Blocky Calcite cement		Fibrous calcite cement
●	Physical Compaction	Suture contact			
	Chemical Compaction				
	Fracturing				

Locality	Jane, McDonald County, S.W Missouri
Formation	Pierson Limestone
Member	
Bed Stet Number	P23
Bed Number	d

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input checked="" type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
□		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
□	Spines		Echinoids	□	Brachiopods
	Calcispheres				
	Other				

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	<input checked="" type="checkbox"/>	Blocky Calcite cement
<input type="checkbox"/>	Physical Compaction	<input type="checkbox"/>	Fibrous calcite cement
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	P23
Bed Number	e

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input checked="" type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
*	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
*		Crinoids		
■	Arthropods	Ostracods		
■		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
□	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
	Other			

Diagenesis			
<input type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	P23
Bed Number	f

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input checked="" type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
□	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
<input type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	P23
Bed Number	g

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
●	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
■	Arthropods	Ostracods			
■		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	P23
Bed Number	h

Textural Classification (Dunham 1962)	
	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
●	Grainstone

	Siliciclastic Grains				Non-biotic Constituents
	Phosphatic Grains				
	Iron Minerals				
	Other				
*	Bryozoans				Biotic Constituents
	Echinoderms	Echinoids			
*		Crinoids			
	Arthropods	Ostracods			
		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcispheres				
	Other				

Diagenesis			
●	Cementation	Blocky Calcite cement	Fibrous calcite cement
●	Physical Compaction	Suture contact.	
	Chemical Compaction		
	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	RS1
Bed Number	1

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input type="checkbox"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input checked="" type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
■	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
■		Crinoids		
	Arthropods	Ostracods		
□		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
□	Spicules			
□	Spines	Echinoids	Brachiopods	
	Calcispheres			
*	Other	matrix		

Diagenesis			
<input checked="" type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	RS2
Bed Number	a

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input checked="" type="radio"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
		Crinoids		
	Arthropods	Ostracods		
☐		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
■	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
*	Other	matrix		

Diagenesis			
<input type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	RS2
Bed Number	b

Textural Classification (Dunham 1962)	
<input type="checkbox"/>	Mudstone
<input checked="" type="radio"/>	Mudstone to Wackestone
<input type="checkbox"/>	Wackestone to Mudstone
<input type="checkbox"/>	Wackestone
<input type="checkbox"/>	Wackestone to Packstone
<input type="checkbox"/>	Packstone to Wackestone
<input type="checkbox"/>	Packstone
<input type="checkbox"/>	Packstone to Grainstone
<input type="checkbox"/>	Grainstone to Packstone
<input type="checkbox"/>	Grainstone

	Siliciclastic Grains		Non-biotic Constituents	
	Phosphatic Grains			
	Iron Minerals			
	Other			
	Bryozoans		Biotic Constituents	
	Echinoderms	Echinoids		
		Crinoids		
	Arthropods	Ostracods		
□		Trilobites		
	Mollusks	Gastropods		
		Bivalves		
		Cephalopods		
	Brachiopods			
	Sponges			
■	Spicules			
	Spines	Echinoids	Brachiopods	
	Calcispheres			
*	Other	matrix		

Diagenesis			
<input type="checkbox"/>	Cementation	Blocky Calcite cement	Fibrous calcite cement
<input type="checkbox"/>	Physical Compaction		
<input type="checkbox"/>	Chemical Compaction		
<input type="checkbox"/>	Fracturing		

Locality	Jane, McDonald County, S.W Missouri
Formation	
Member	
Bed Stet Number	RS2
Bed Number	c

Textural Classification (Dunham 1962)	
●	Mudstone
	Mudstone to Wackestone
	Wackestone to Mudstone
	Wackestone
	Wackestone to Packstone
	Packstone to Wackestone
	Packstone
	Packstone to Grainstone
	Grainstone to Packstone
	Grainstone

	Siliciclastic Grains		Non-biotic Constituents		
	Phosphatic Grains				
	Iron Minerals				
	Other				
	Bryozoans		Biotic Constituents		
	Echinoderms	Echinoids			
		Crinoids			
	Arthropods	Ostracods			
*		Trilobites			
	Mollusks	Gastropods			
		Bivalves			
		Cephalopods			
	Brachiopods				
	Sponges				
■	Spicules				
	Spines		Echinoids	Brachiopods	
	Calcspheres				
*	Other	matrix			

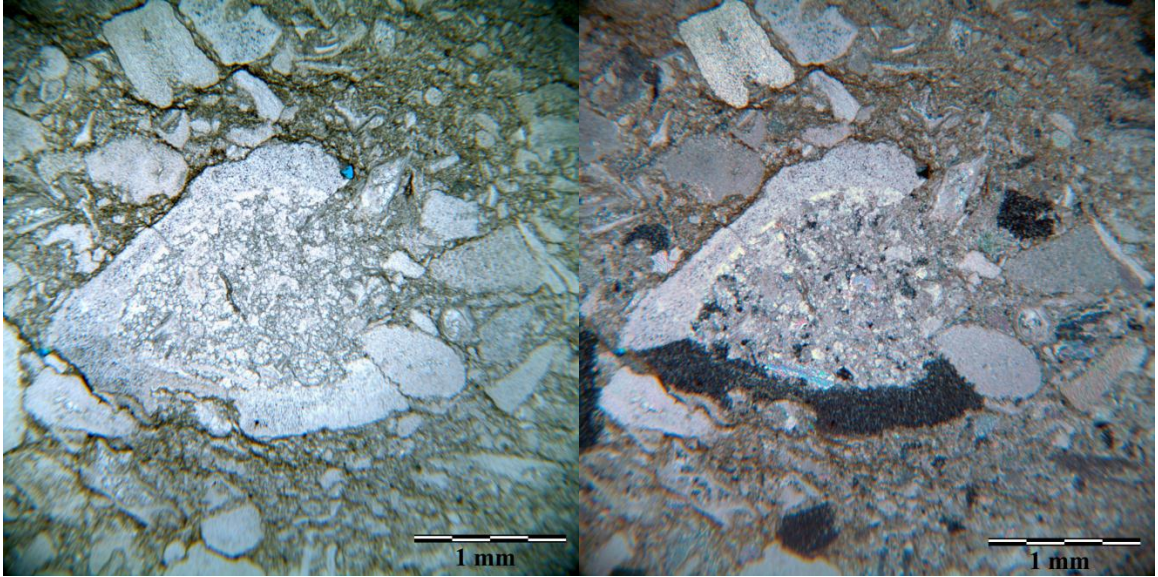
Diagenesis			
	Cementation	Blocky Calcite cement	Fibrous calcite cement
	Physical Compaction		
	Chemical Compaction		
	Fracturing		

APENDIX B

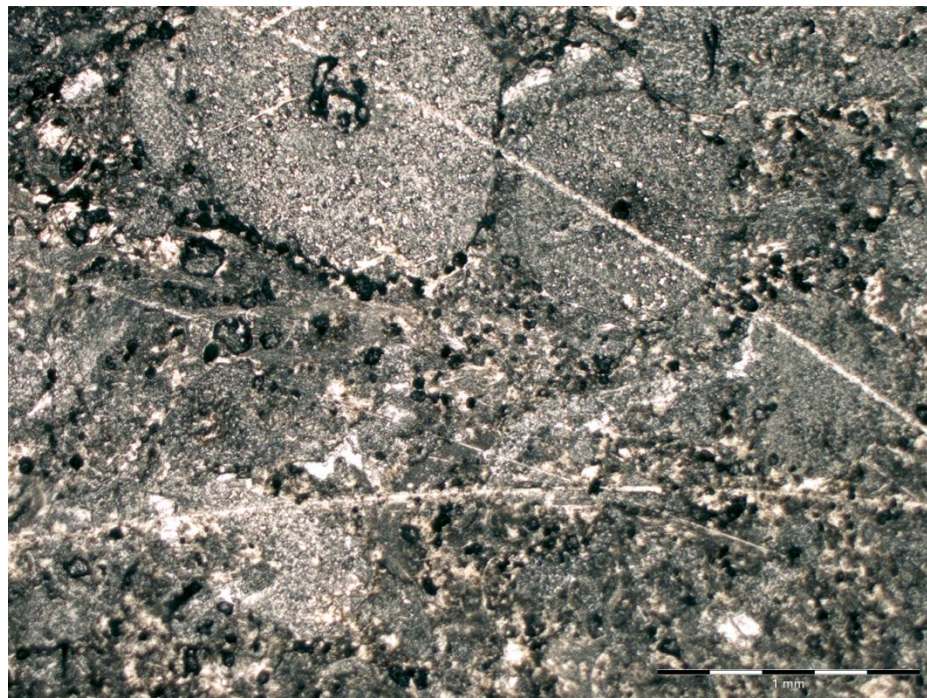
This appendix includes petrographic, the figures that include two plates, PPL (Plane Polarized Light) and CPL (Cross Polarized light) are taken from thin sections. Whereas, the figures that include only PPL view are taken from acetate peels.

The sample's names are abbreviated, and theses abbreviations can be explained as follows:

The letter (C) refers to the Compton Limestone. The abbreviation (NV) refers to the Northview Formation. The letter (P) refers to Pierson Limestone. The abbreviation RS refer to the Reeds Spring Formation. The combination of letters and numbers refer to the beds, the bed sets and the formations. For example the abbreviation (C1a) means the sample is from bed number (a) in bed set number 1 within the Compton Limestone.



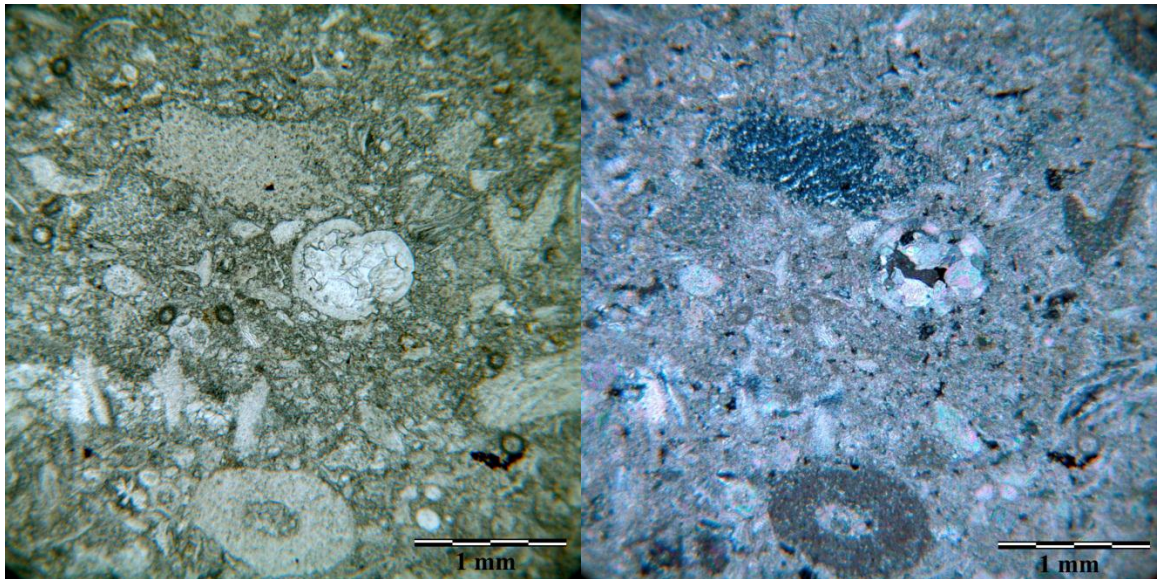
Sample C1a, PPL (LEFT) CPL (RIGHT), Wackestone to Packstone.



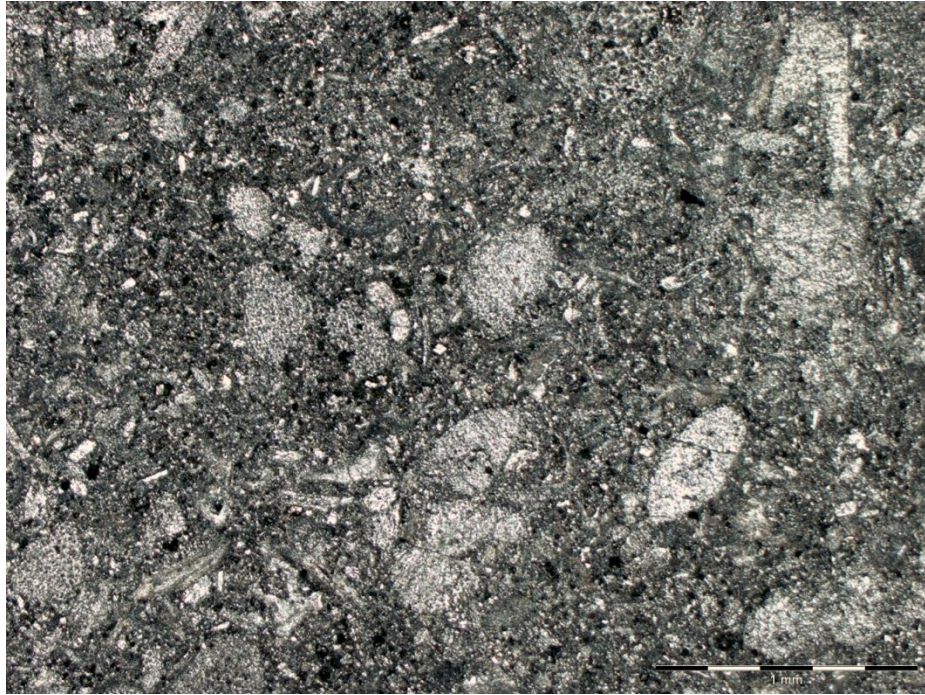
Sample C1b, PPL, packstone.



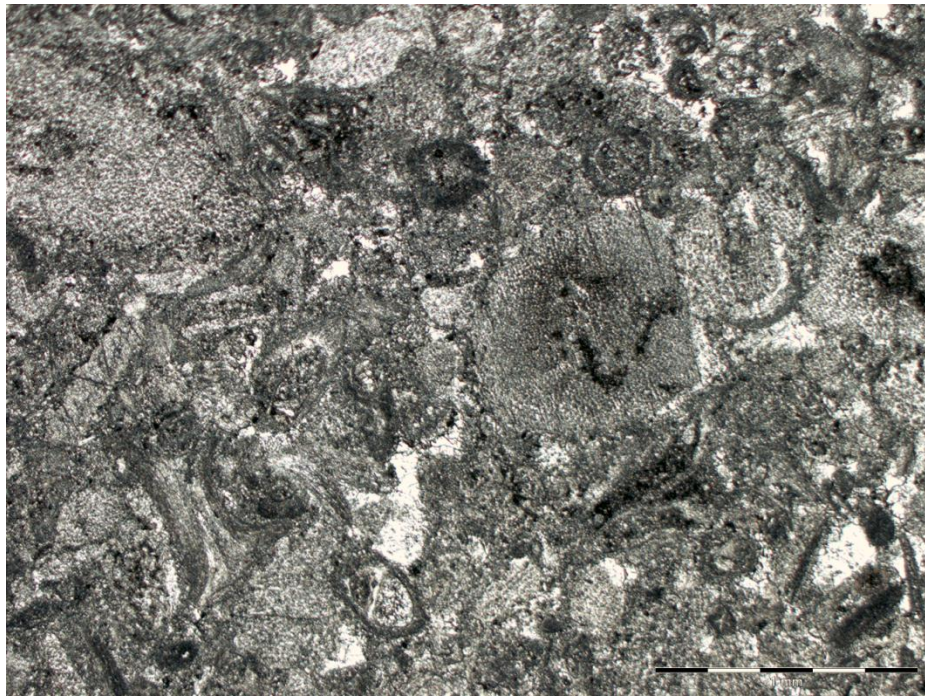
Sample C1c, PPL, packstone to wackestone.



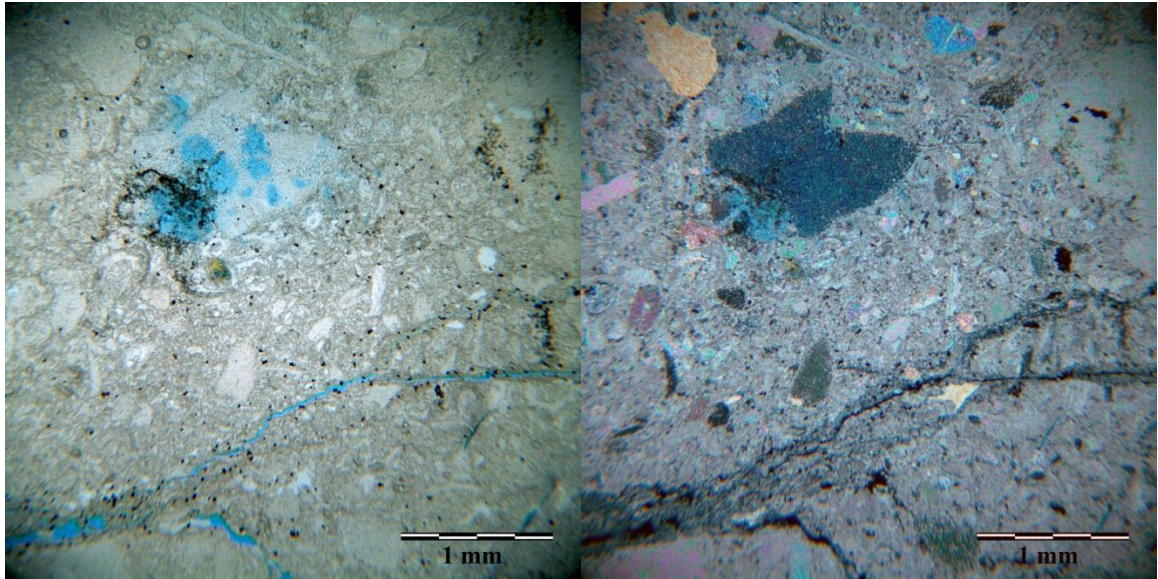
Sample C2a, PPL(LEFT) CPL(RIGHT),



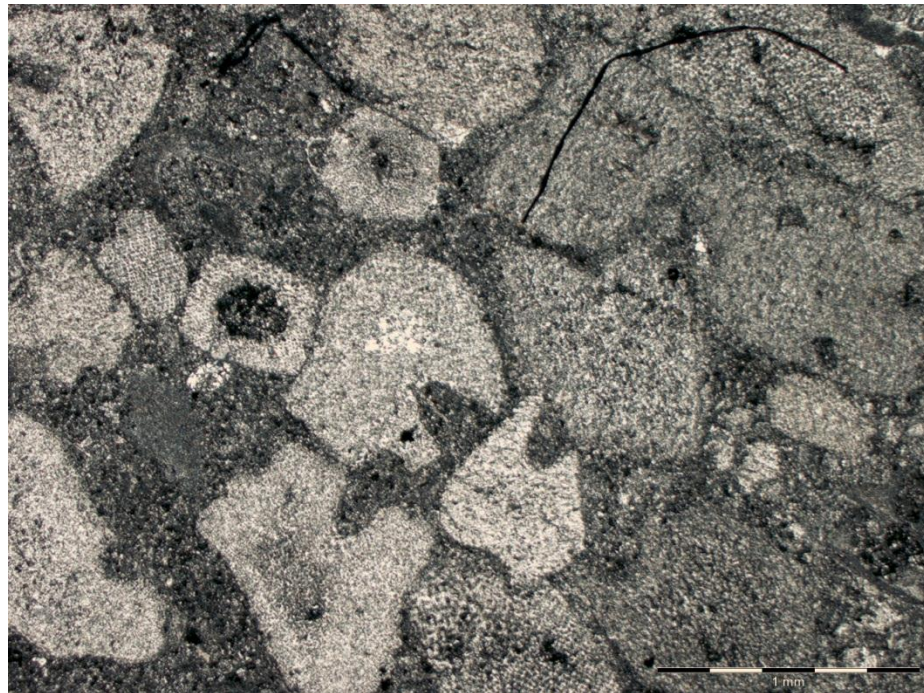
Sample C2b, PPL, wackestone to packstone.



Sample C2c, PPL, packstone to wackestone.



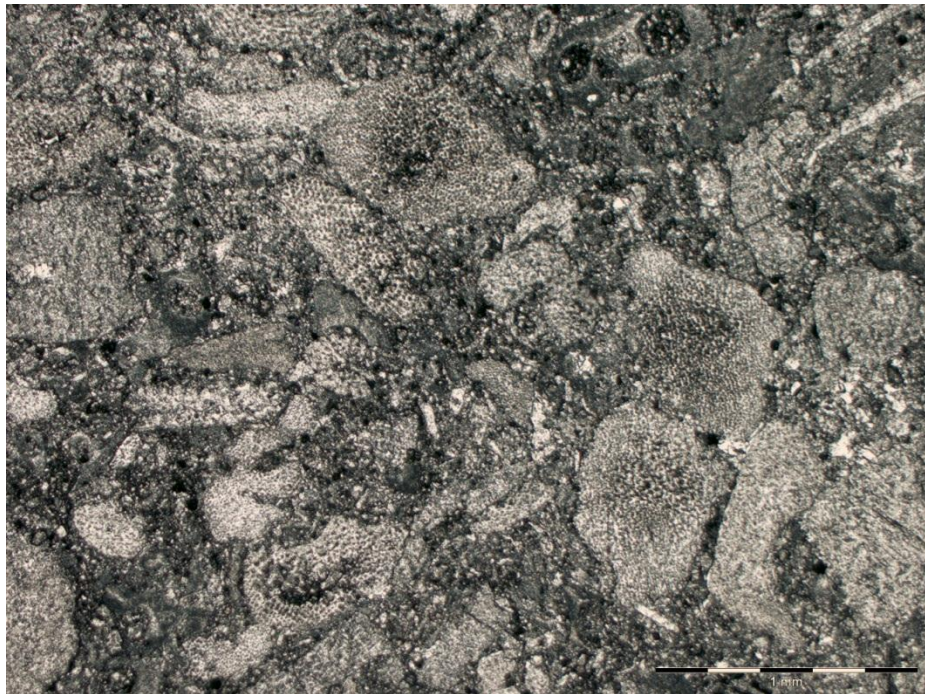
Sample C3a, PPL (LEFT) CPL (RIGHT), packstone.



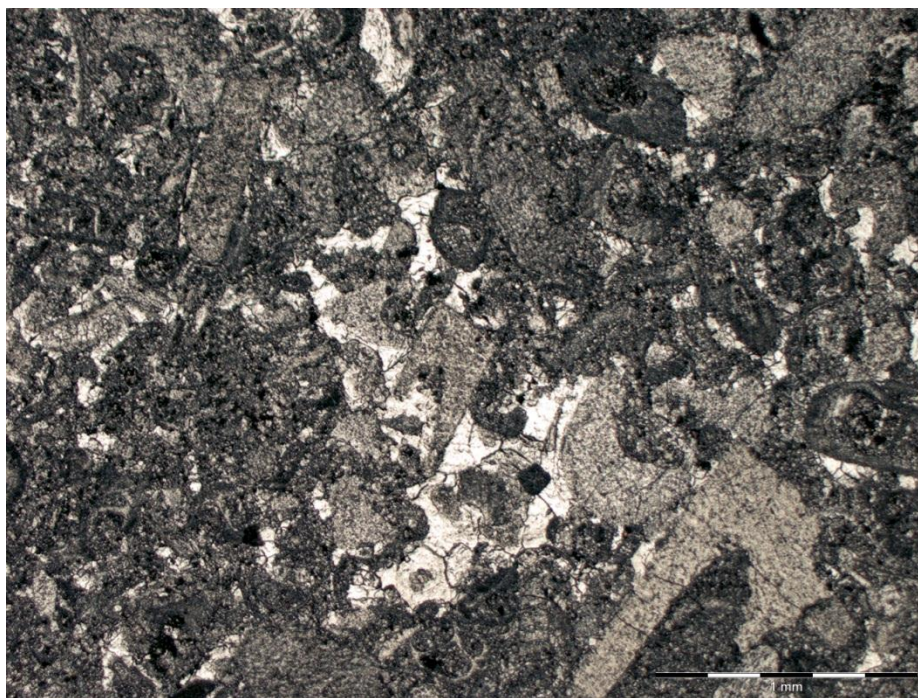
Sample C3b, PPL, packstone.



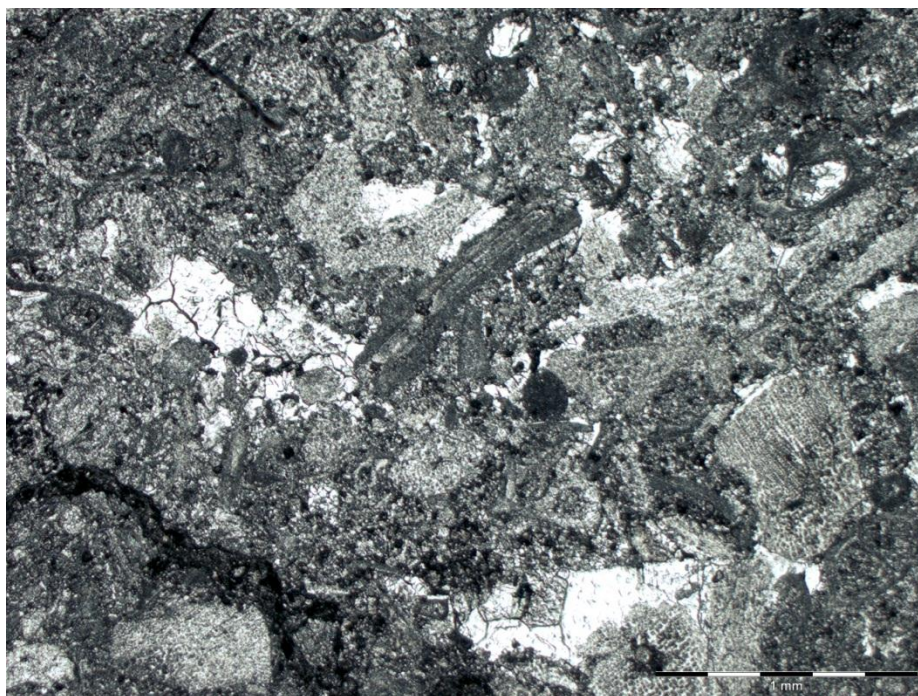
Sample C3c, PPL, packstone.



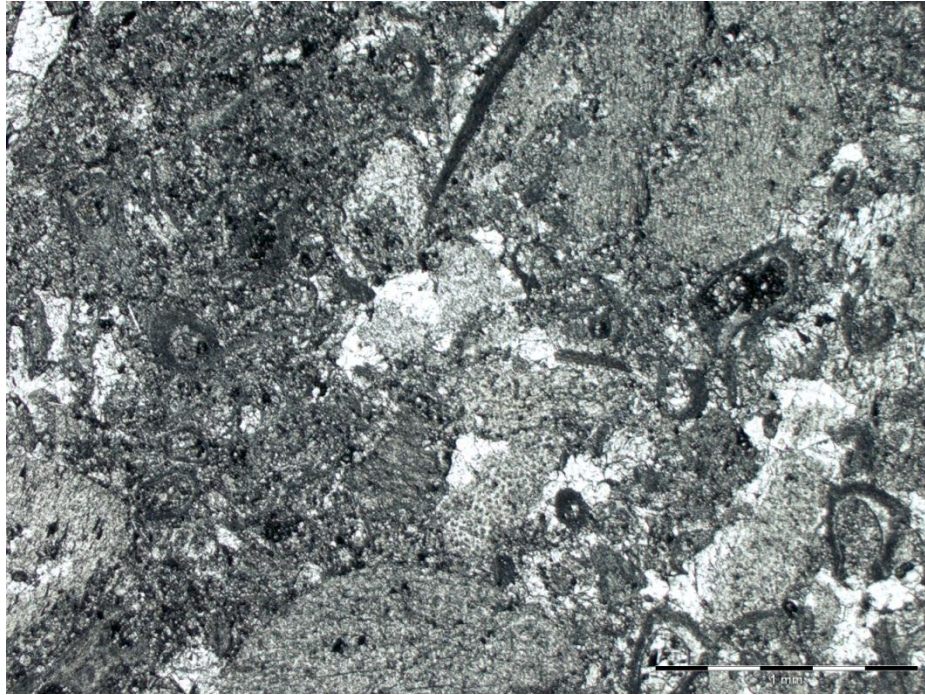
Sample C3d, PPL, packstone.



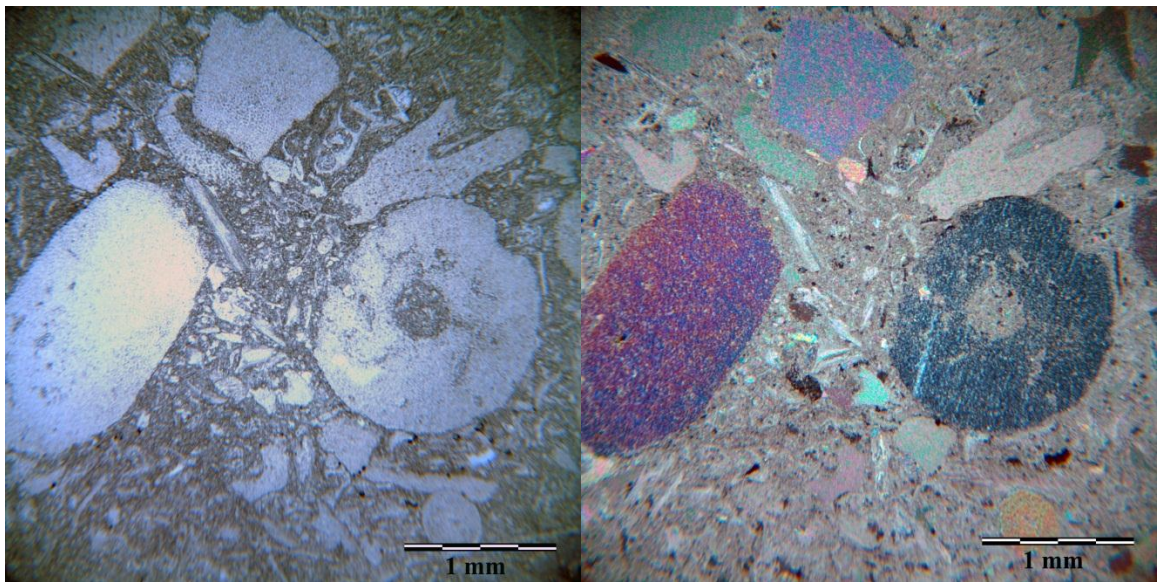
Sample C3e, PPL, packstone.



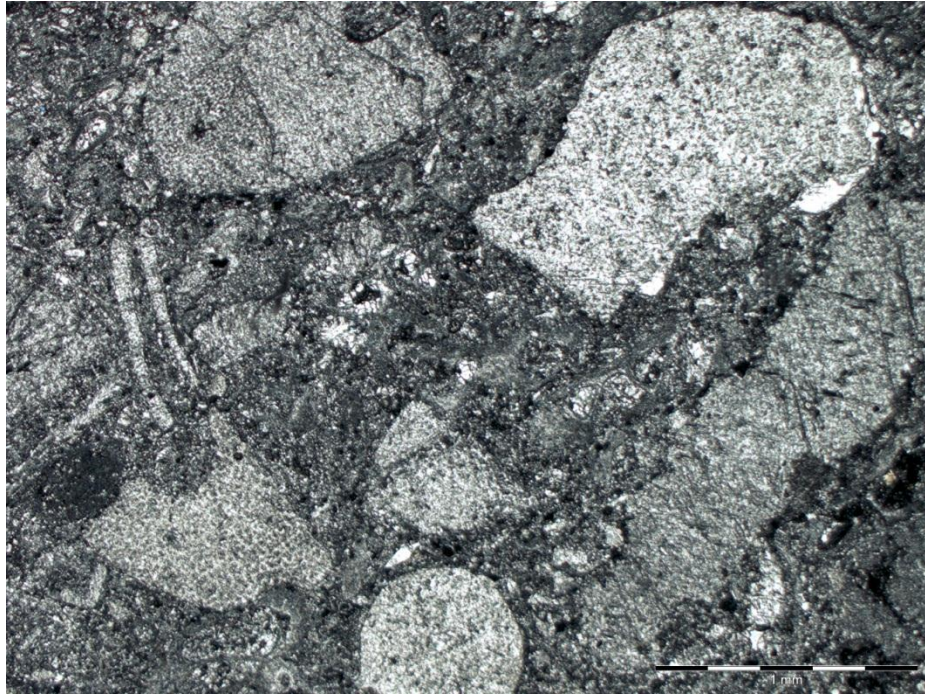
Sample C3f, PPL, packstone to wackestone.



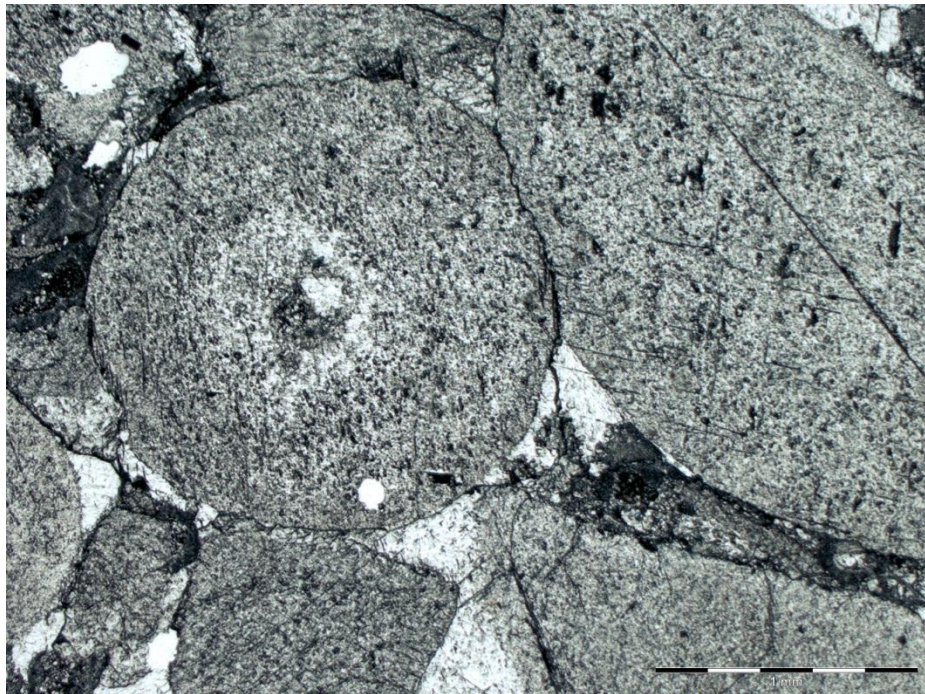
Sample C3g, PPL, packstone to wackestone.



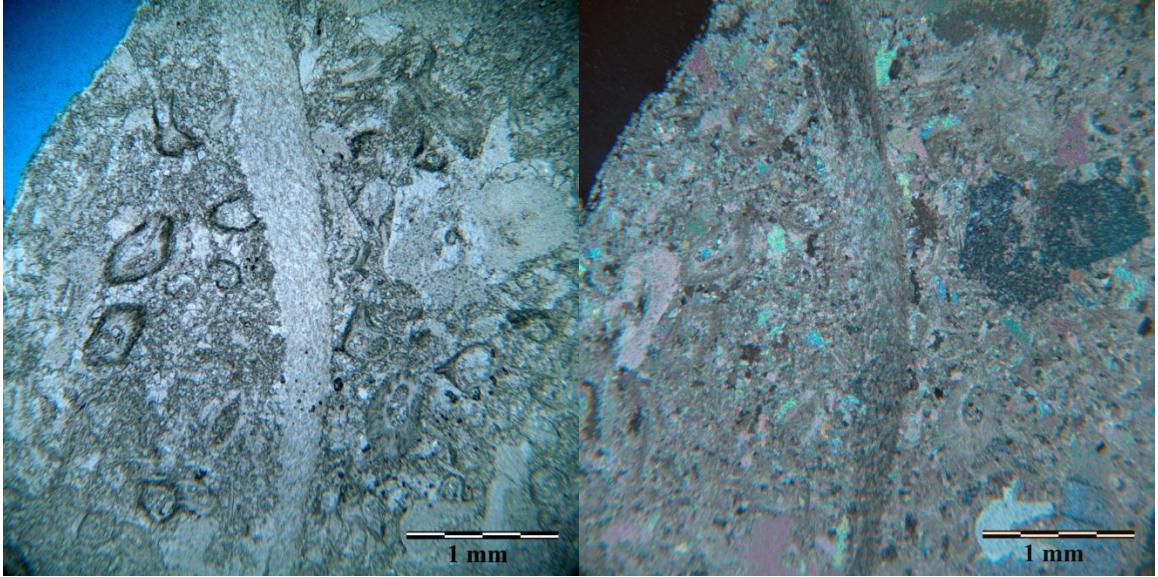
Sample C4a, PPL (LEFT) CPL (RIGHT), packstone.



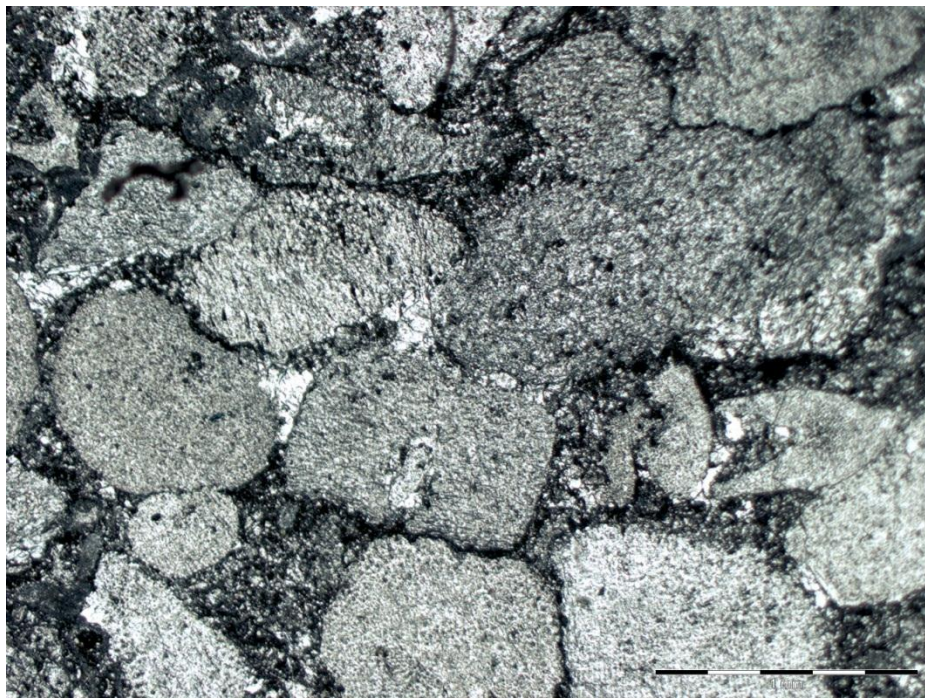
Sample C4b, PPL, packstone.



Sample C4c, PPL, grainstone.



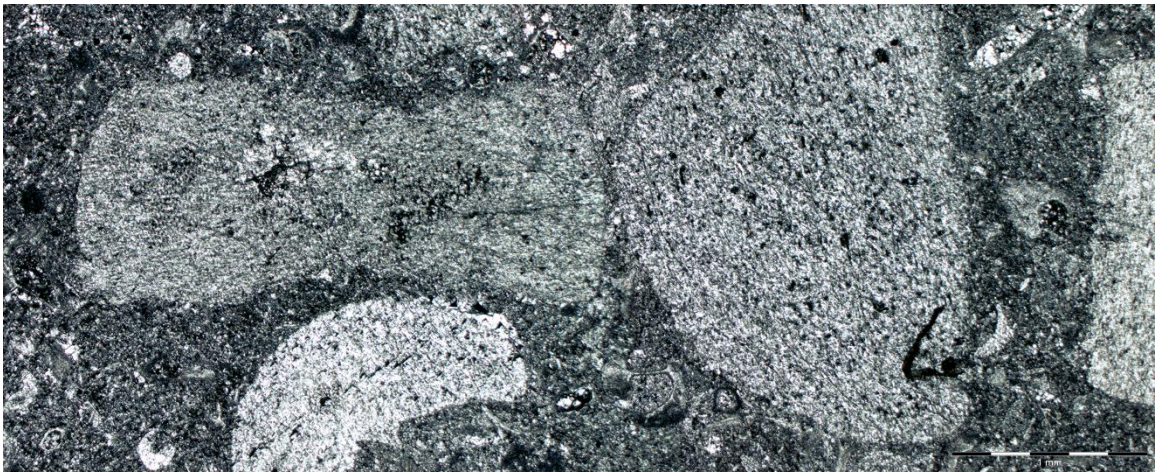
Sample C5a, PPL (LEFT) CPL (RIGHT), grainstone.



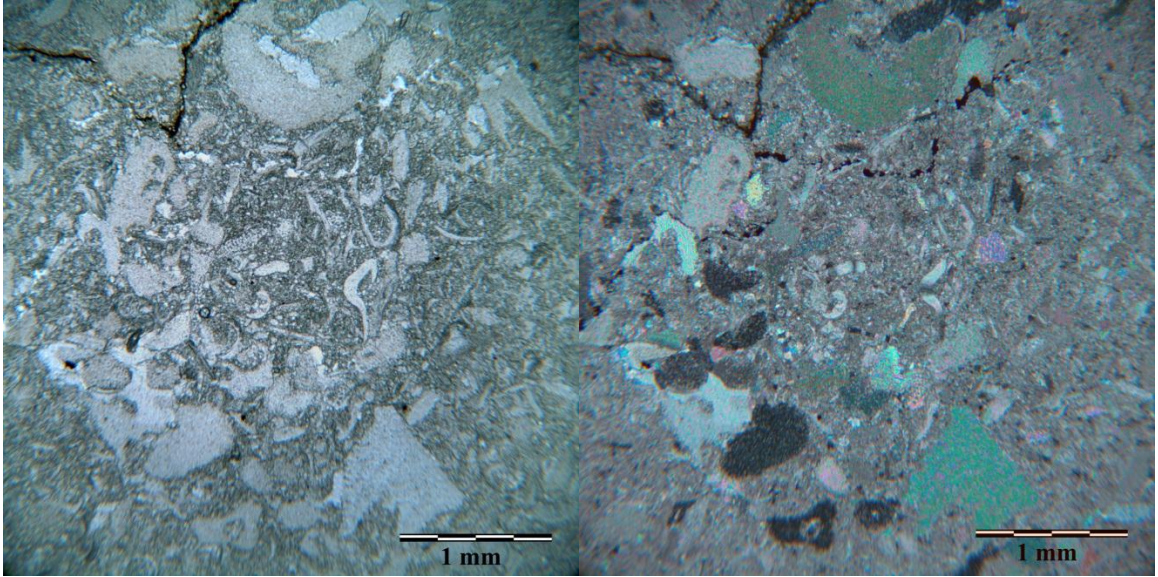
Sample C5b, PPL, grainstone to packstone.



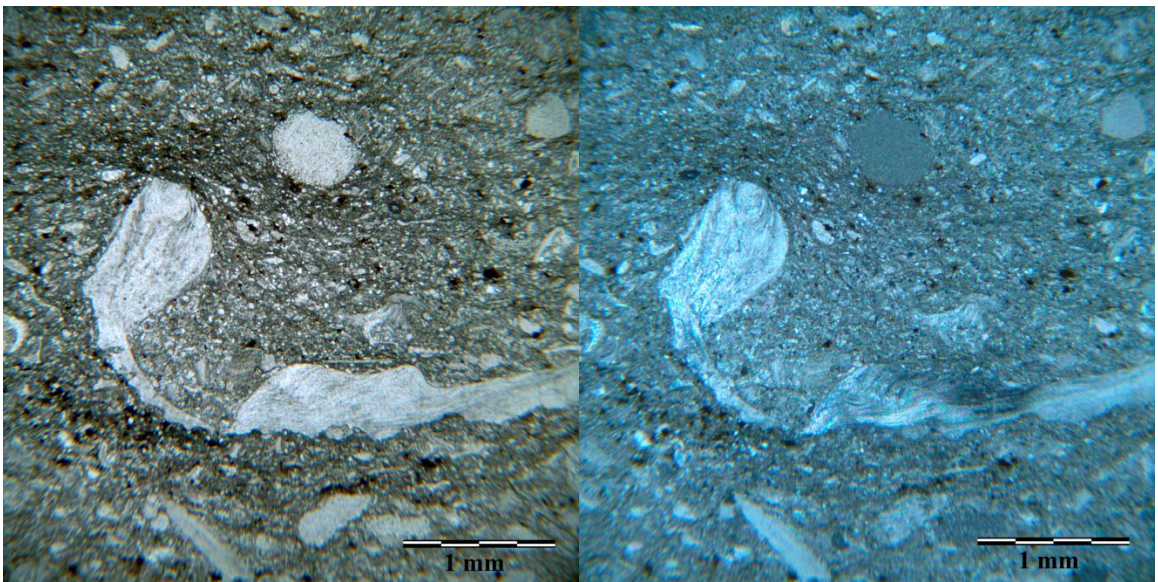
Sample C5c, PPL, packstone.



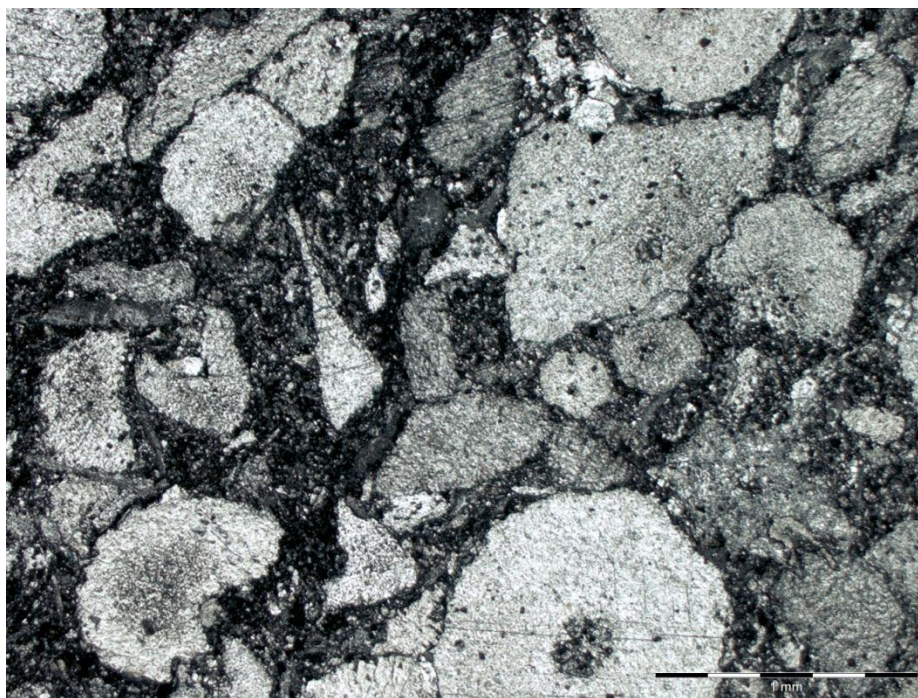
Sample C5d, PPL, packstone to grainstone.



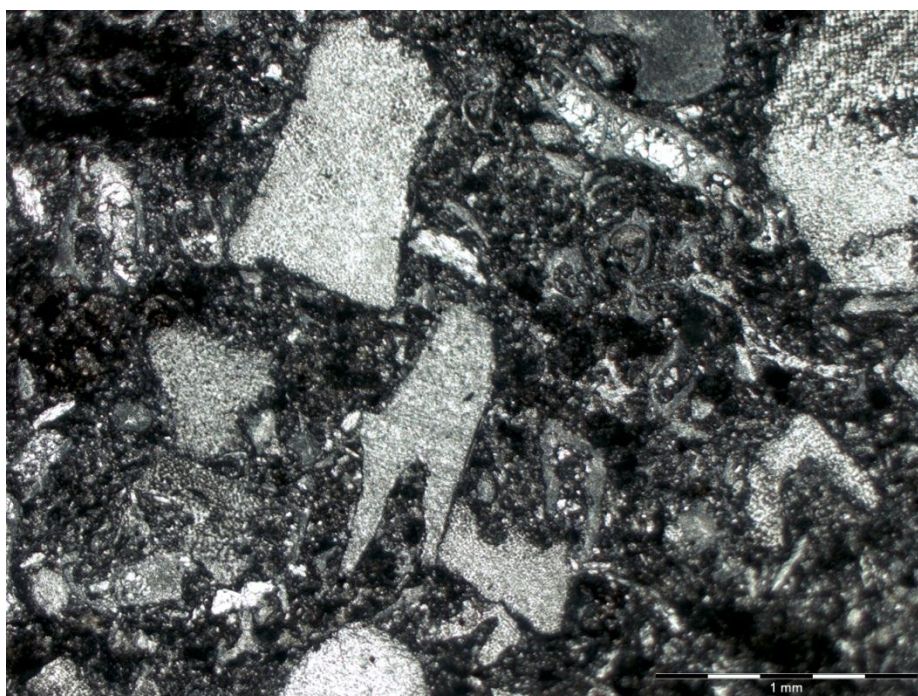
Sample C6a, PPL (LEFT) CPL (RIGHT), grainstone.



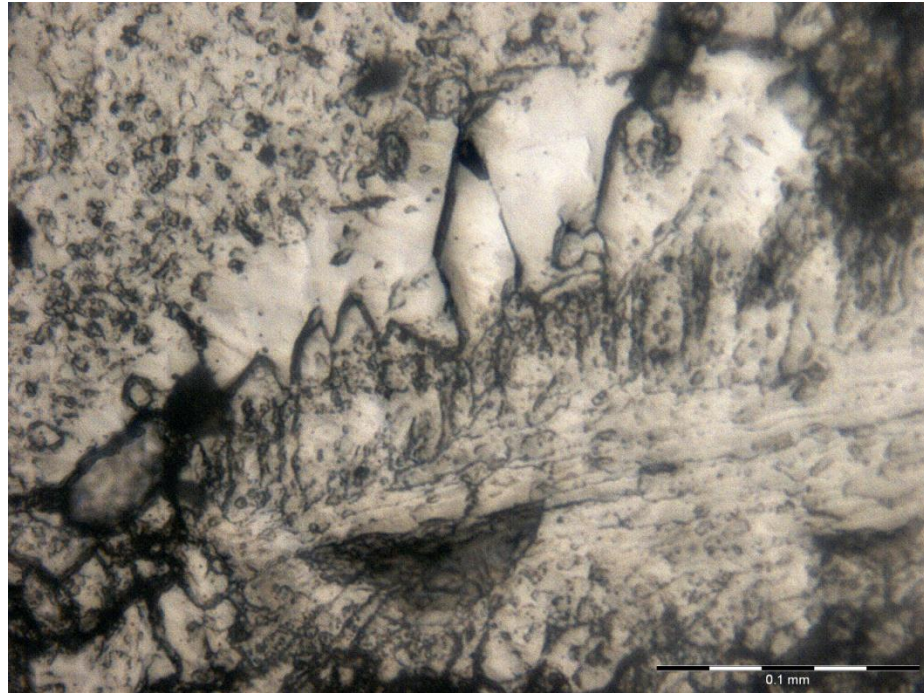
Sample C7a, PPL (LEFT) CPL (RIGHT), wackestone.



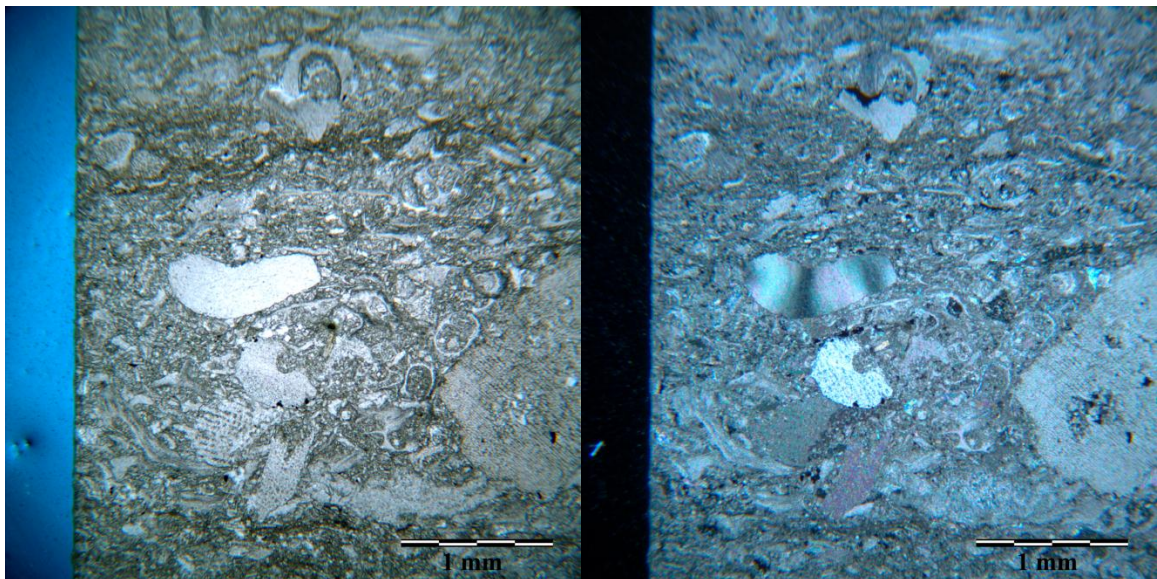
Sample, C7b, PPL, packstone to wackestone.



Sample C7c, PPL, packstone to wackestone.



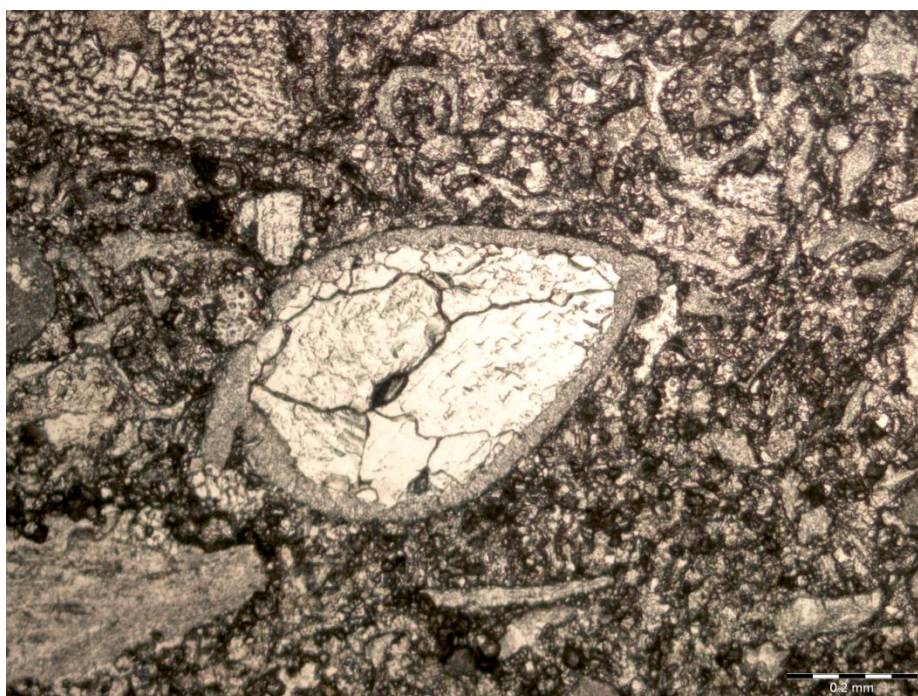
Sample C7d, PPL, wackestone to packstone, bladed calcite cement.



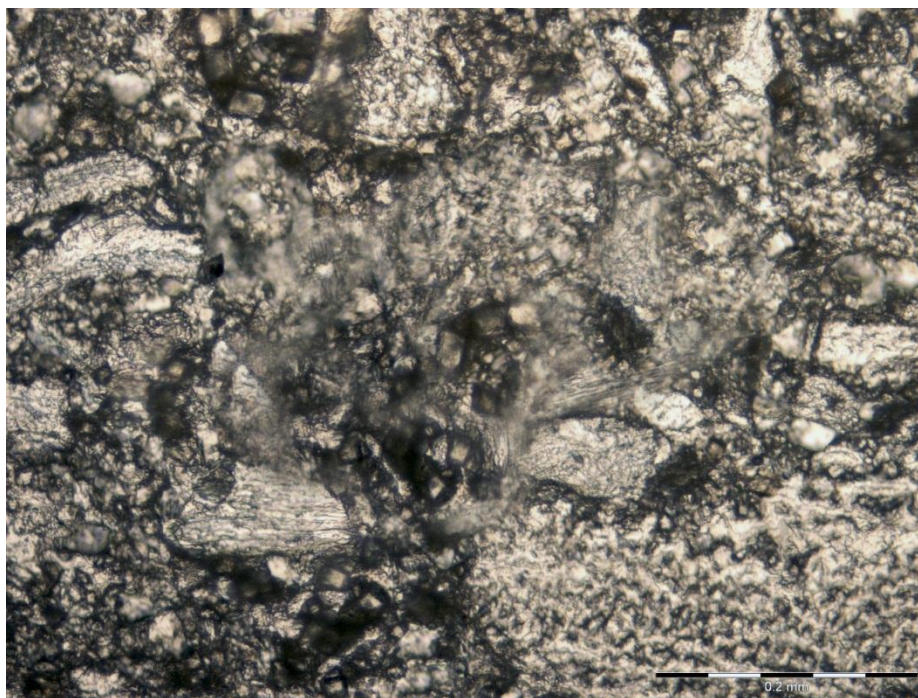
Sample NV1a, PPL (LEFT) CPL (RIGHT), wackestone to packstone.



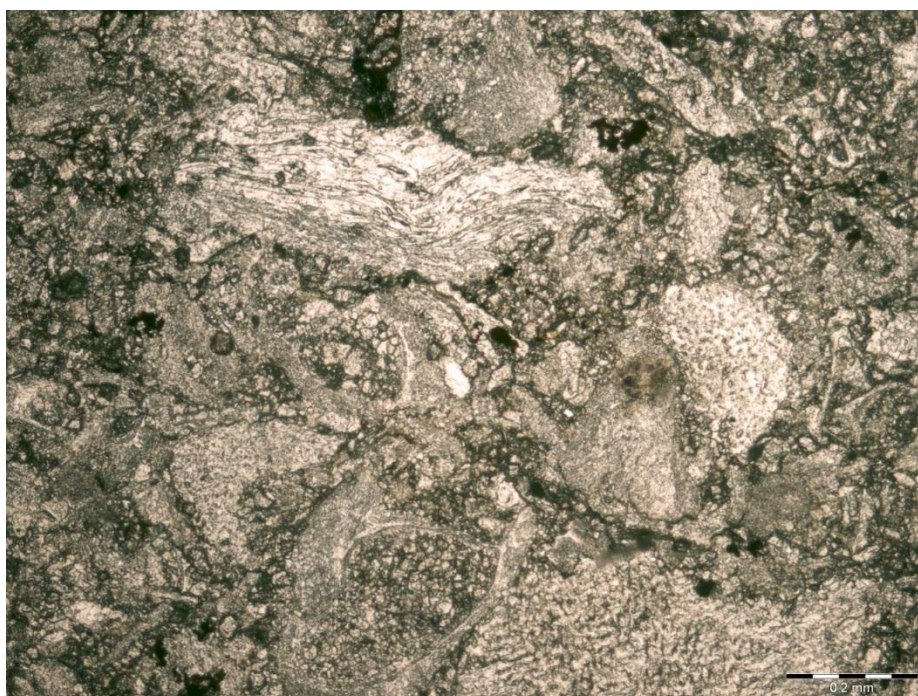
Sample NV1b, PPL, wackestone to packstone, dolomite rhombs.



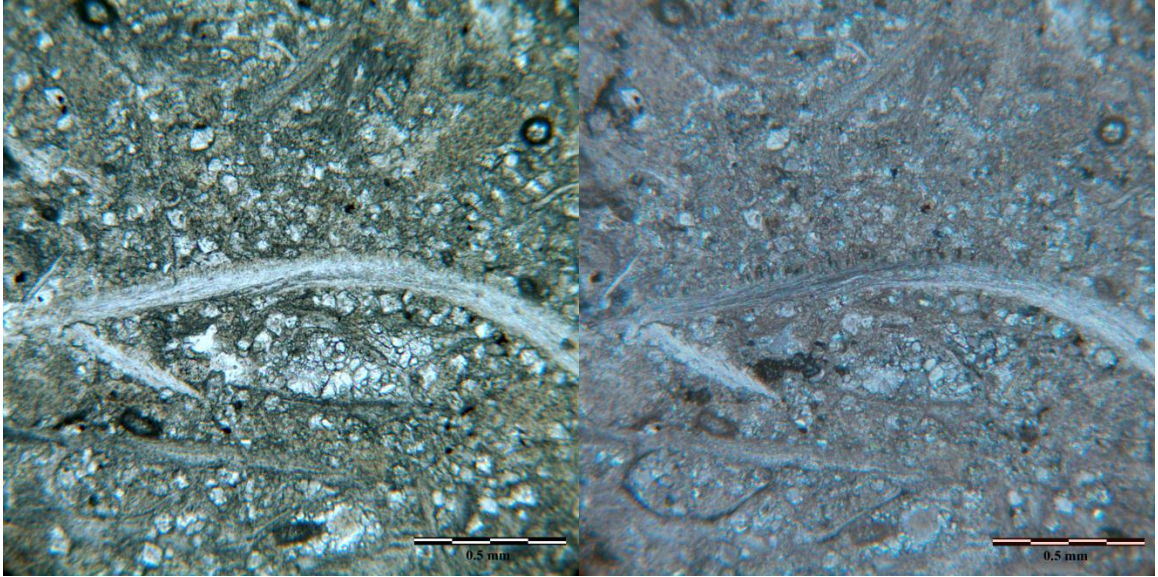
Sample NV1c, PPL, wackestone to packstone. Ostracod



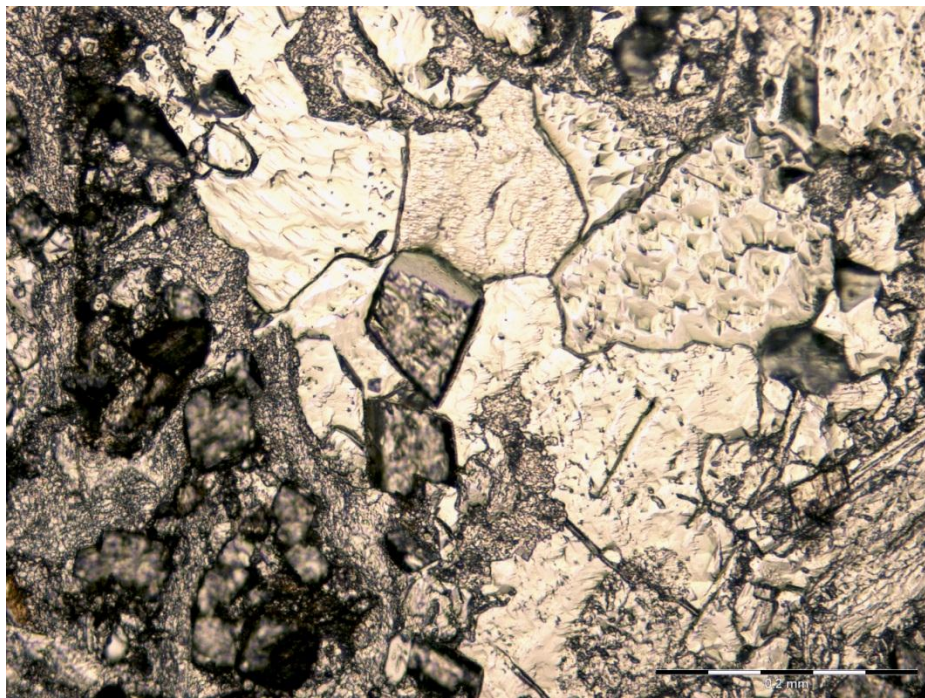
Sample NV1d, PPL, packstone to wackestone



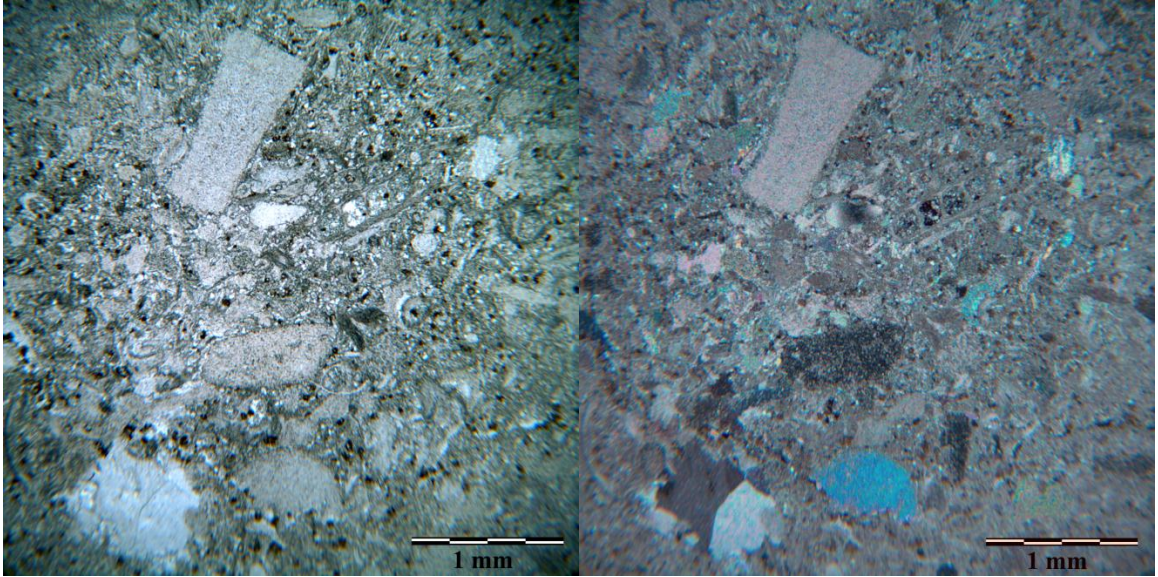
Sample NV1g, PPL, wackestone to packstone.



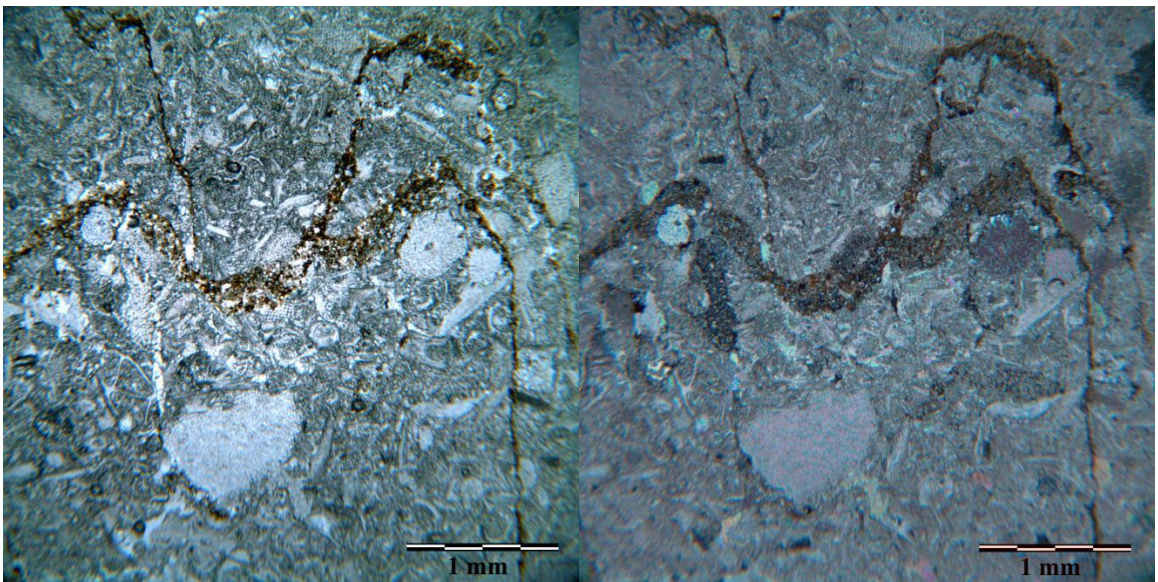
Sample NV2a, PPL (LEFT) CPL (RIGHT), wackestone.



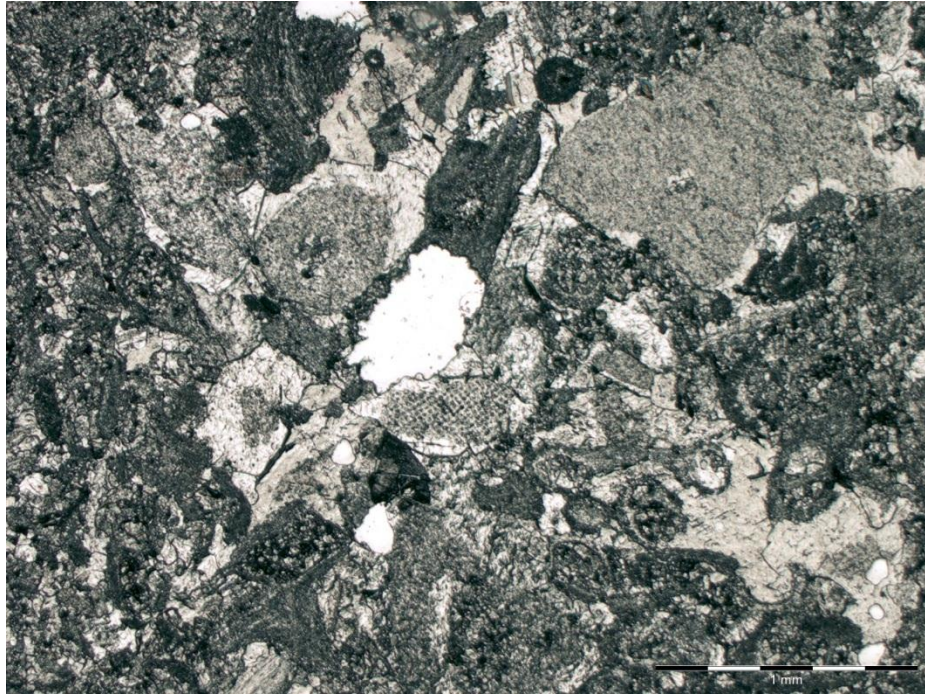
Sample NV2b, PPL, wackestone.



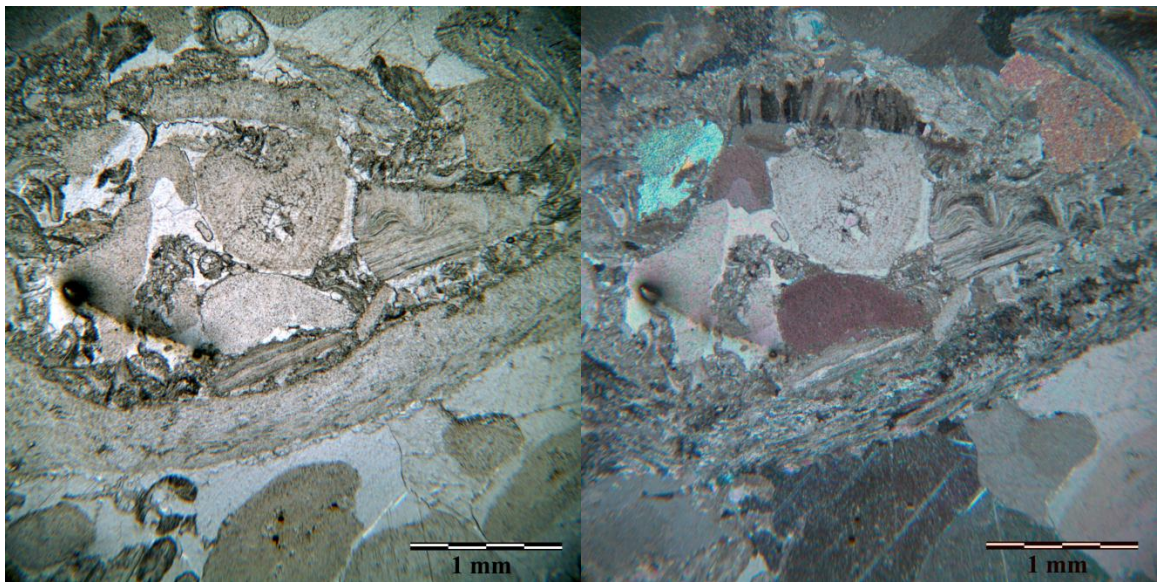
Sample P1, PPL (LEFT) CPL (RIGHT), wackestone to packstone.



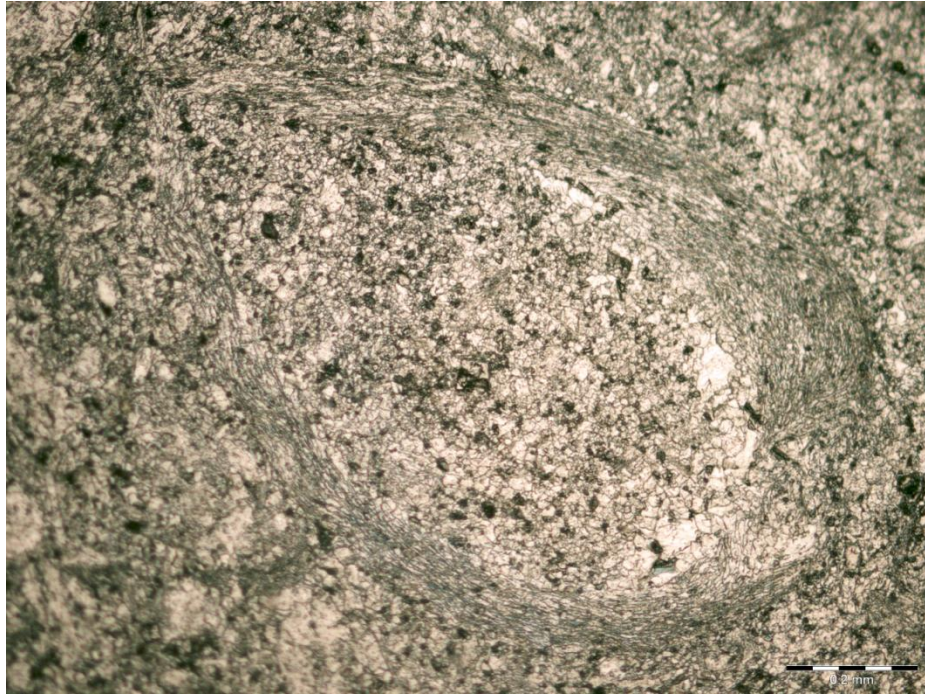
Sample P2a, PPL (LEFT), CPL (RIGHT), packstone to wackestone.



Sample P2b, PPL, packstone to wackestone.



Sample P3a, PPL (LEFT) CPL (RIGHT), packstone to wackestone.



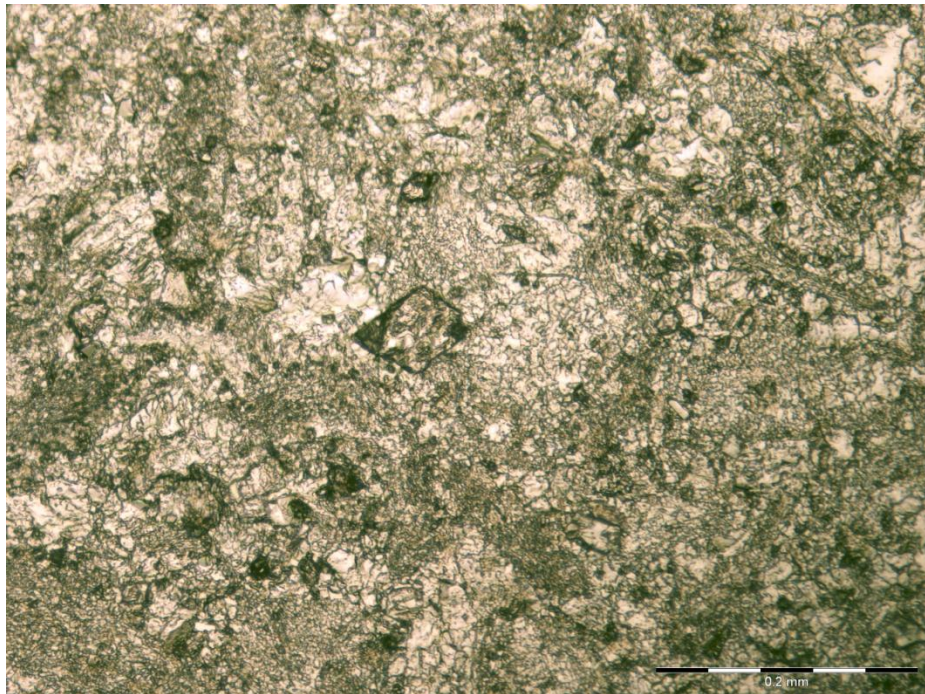
Sample P3b, PPL, packstone to wackestone.



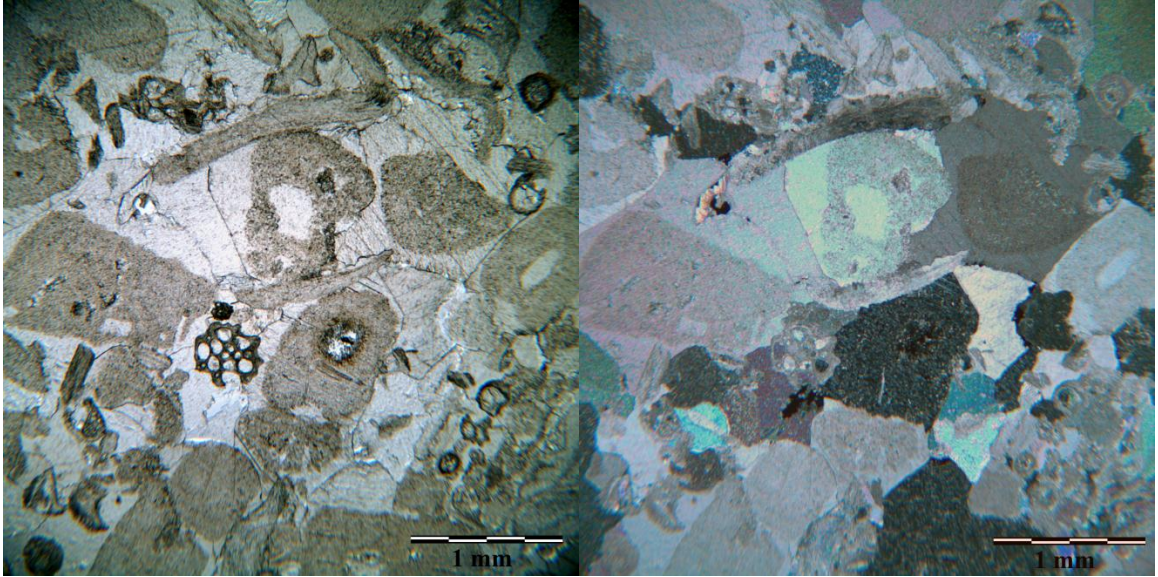
P3d, PPL, wackestone to packstone.



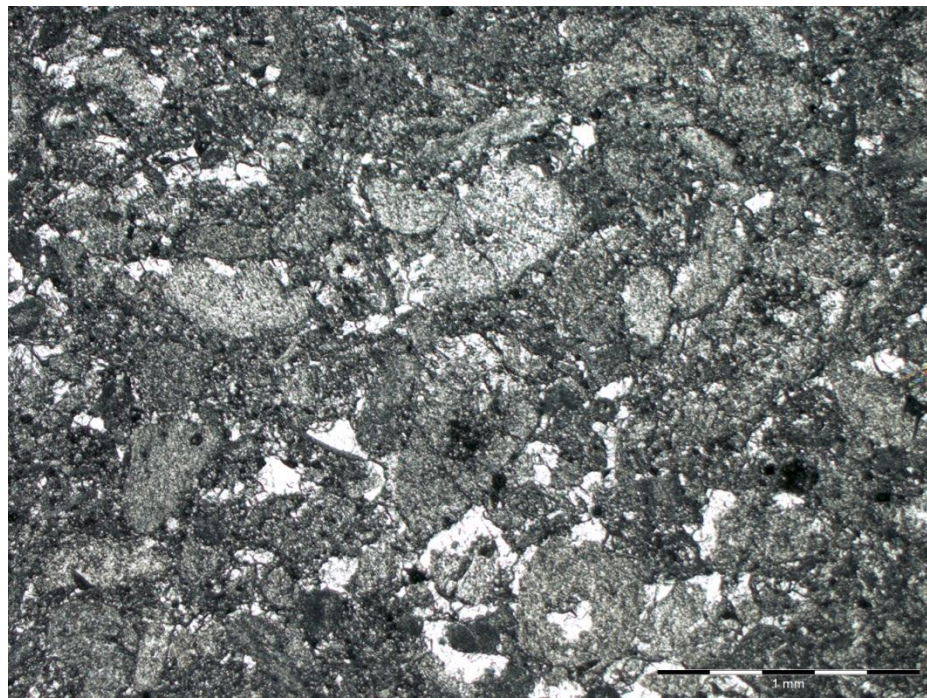
Sample P3e, PPL, packstone.



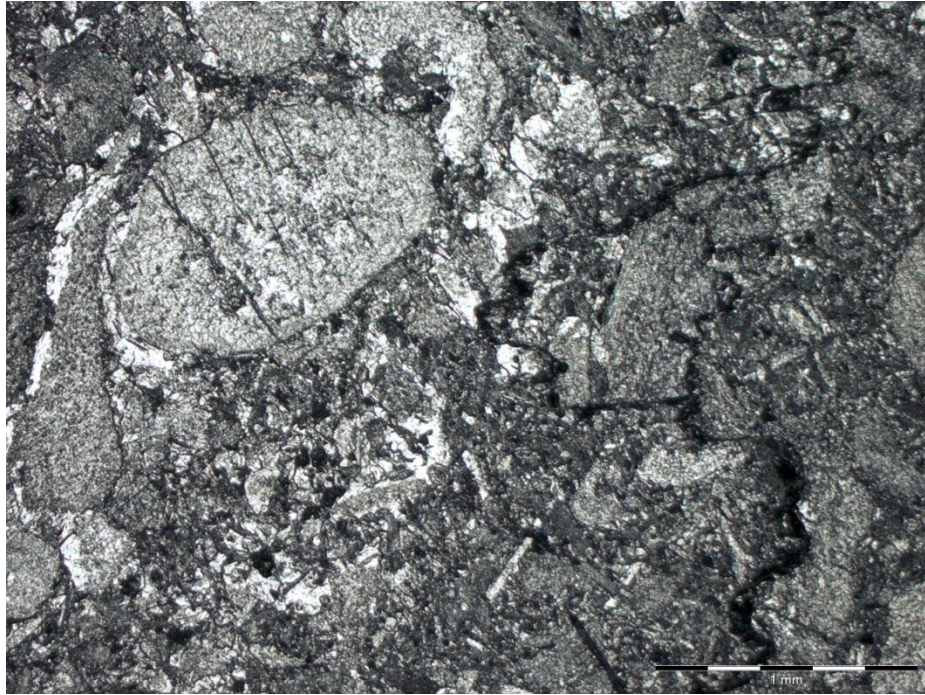
Sample P3f, PPL, packstone to wackestone.



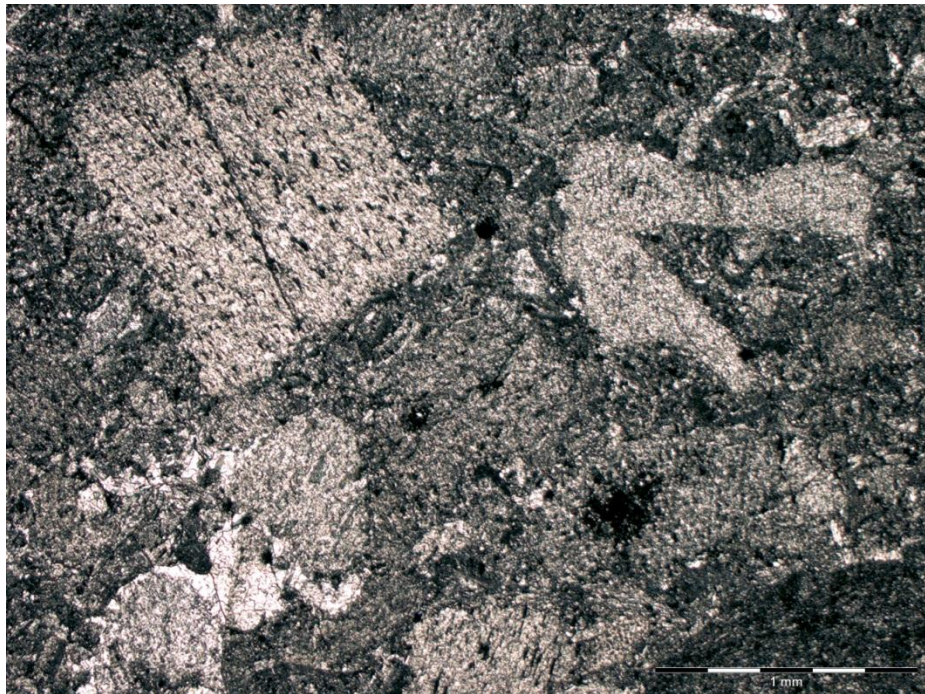
Sample P4a, PPL(LEFT) CPL(RIGHT), packstone



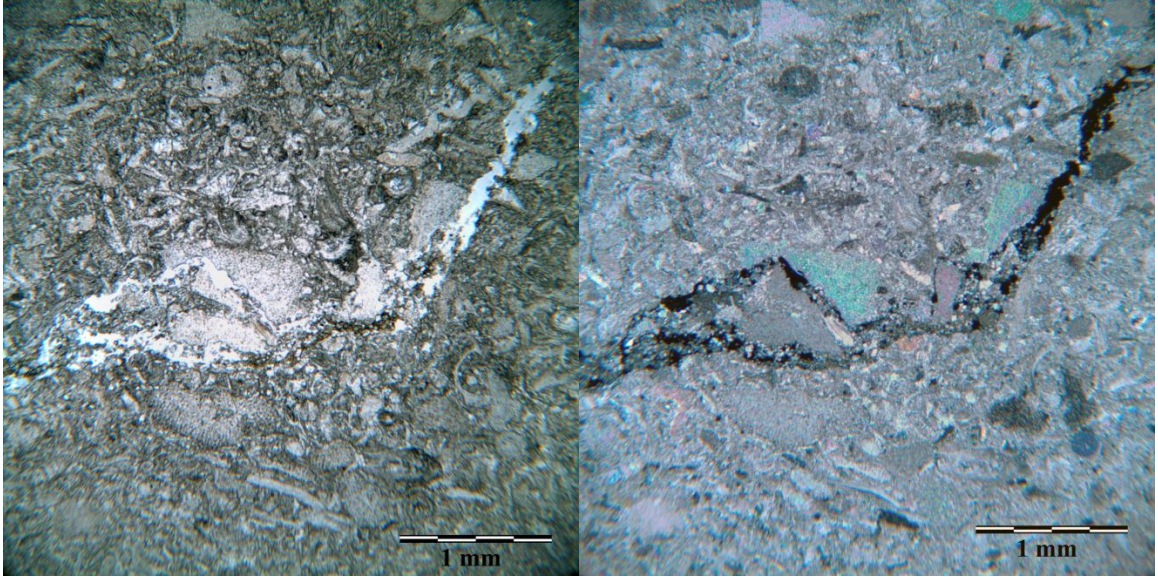
Sample, P4b, PPL, packstone to grainstone.



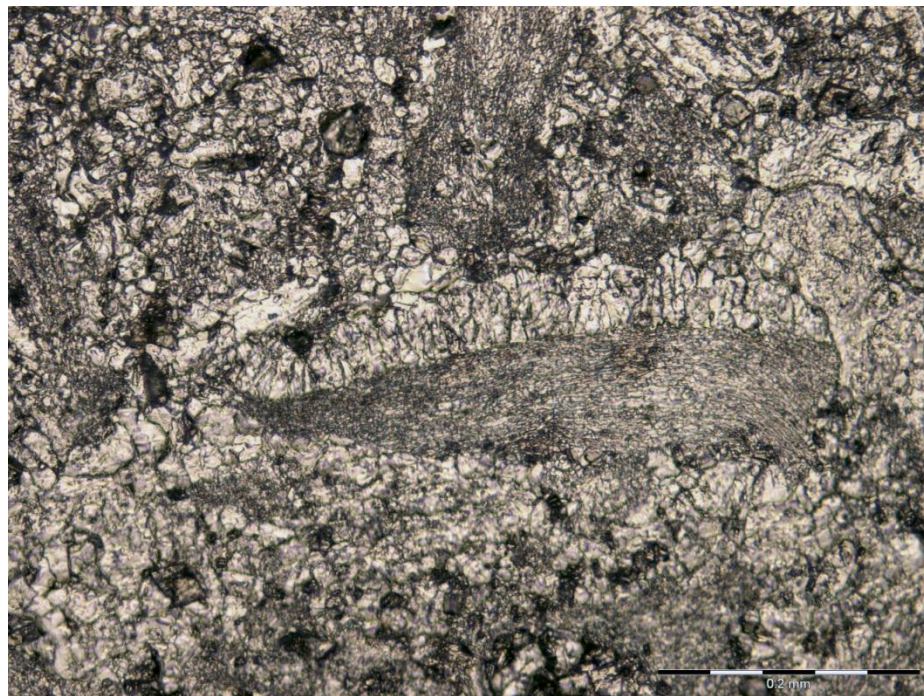
Sample P4c, PPL, packstone to grainstone.



Sample P4d, PPL, packstone.



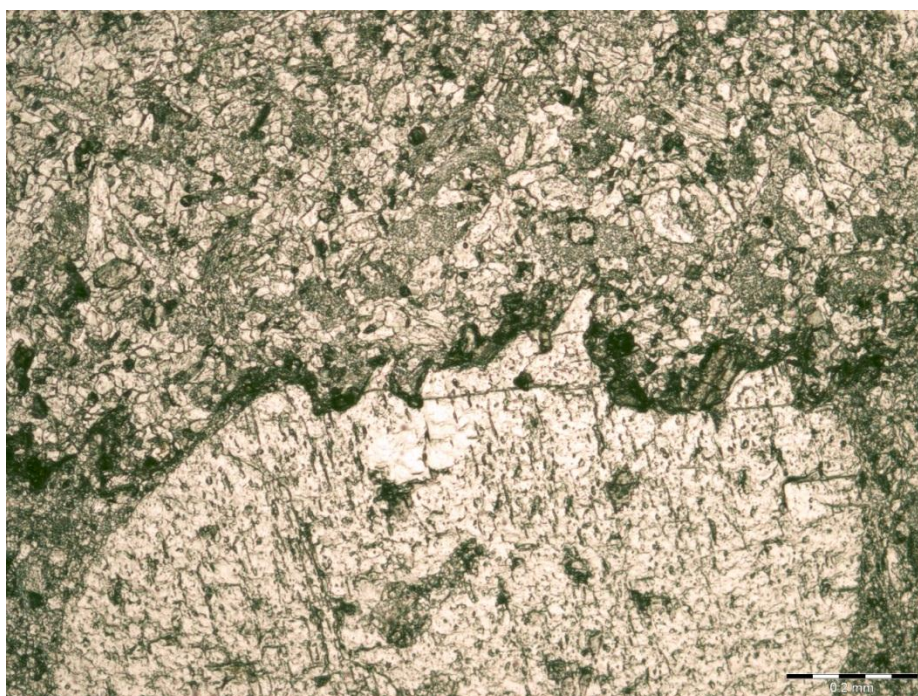
Sample P5a, PPL (LEFT) CPL (RIGHT), packstone to wackestone.



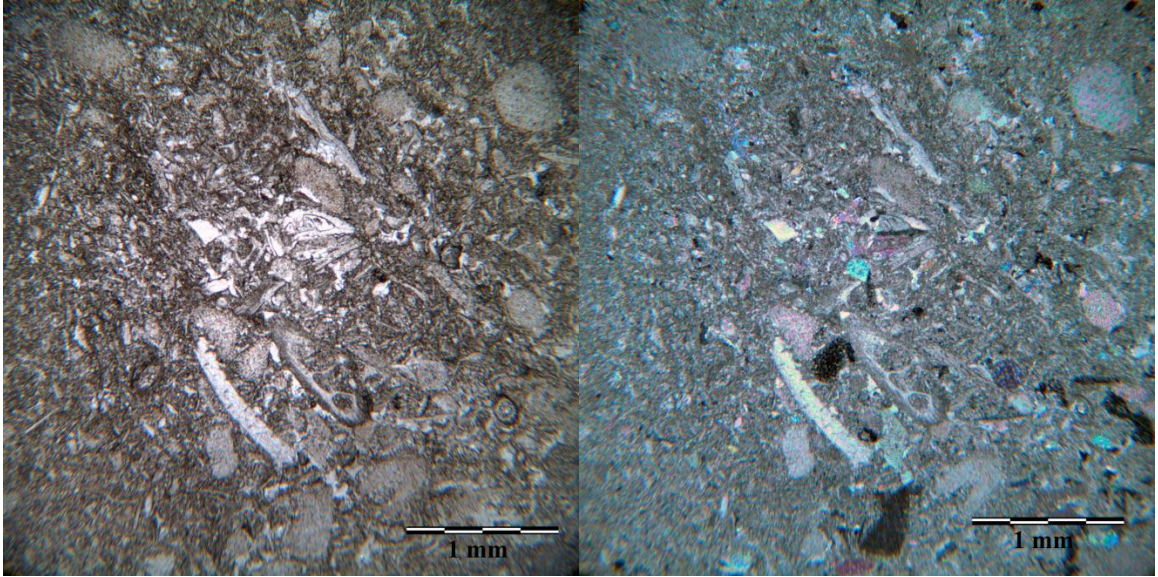
Sample P5b, PPL, wackestone.



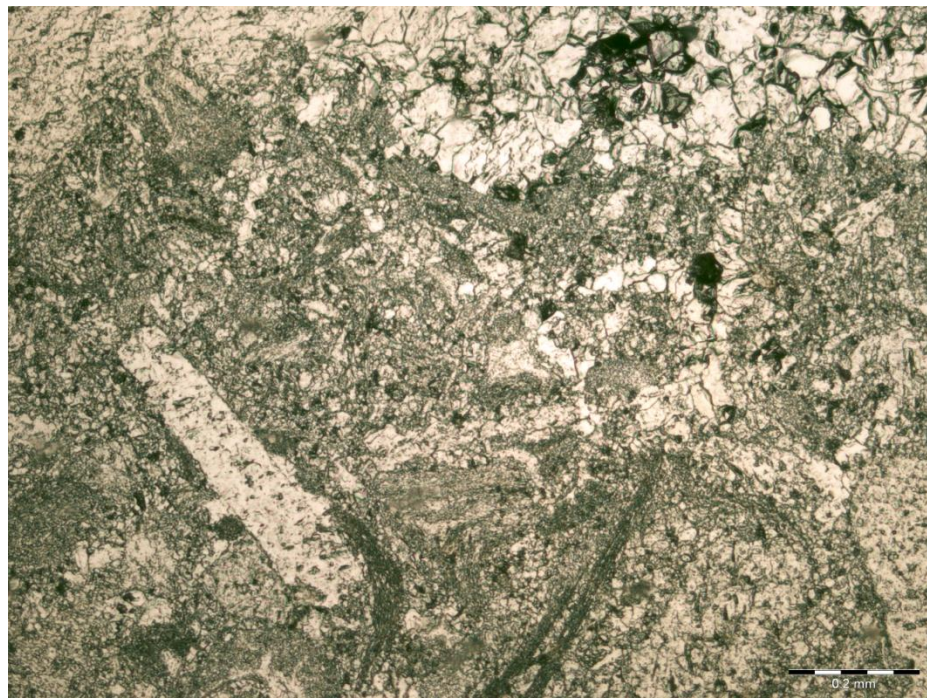
Sample P5c, PPL, wackestone.



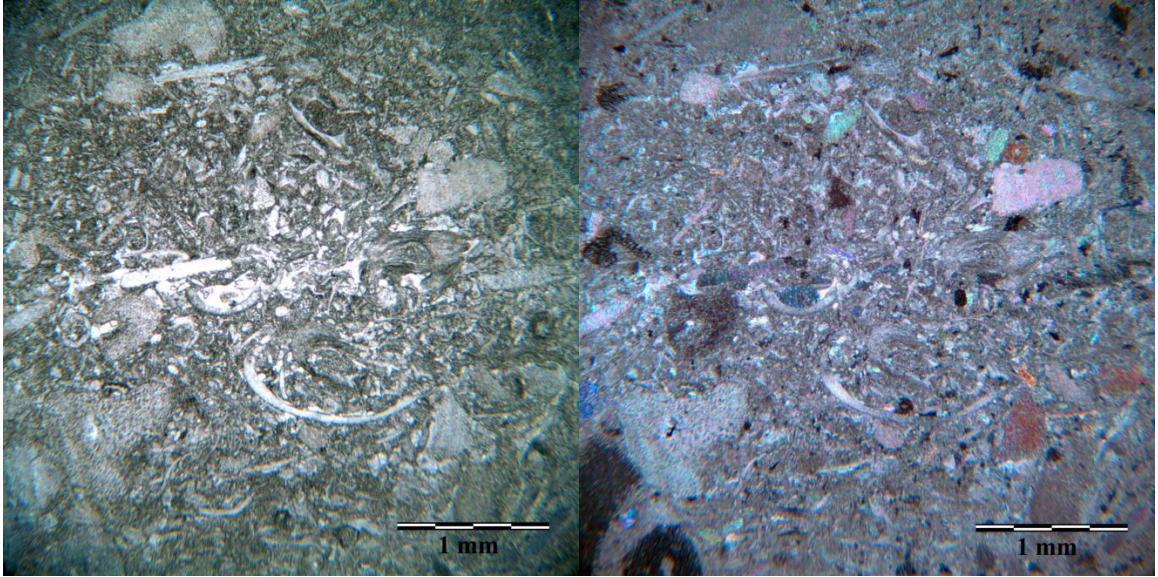
Sample P5d, PPL, wackestone.



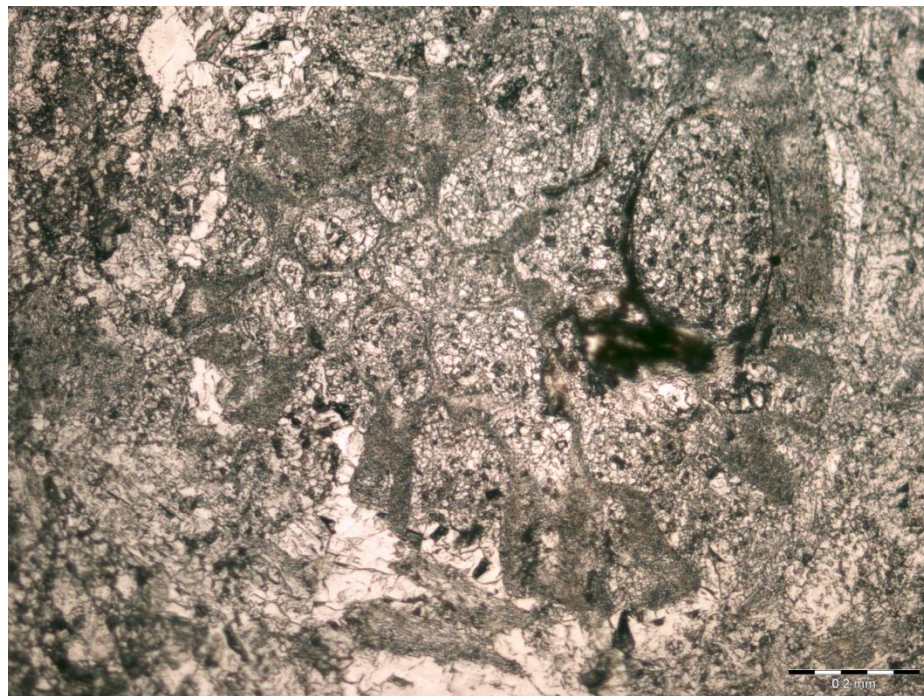
Sample P6a, PPL (LEFT) CPL (RIGHT), wackestone to packstone.



Sample P6b, PPL, wackestone to packstone.



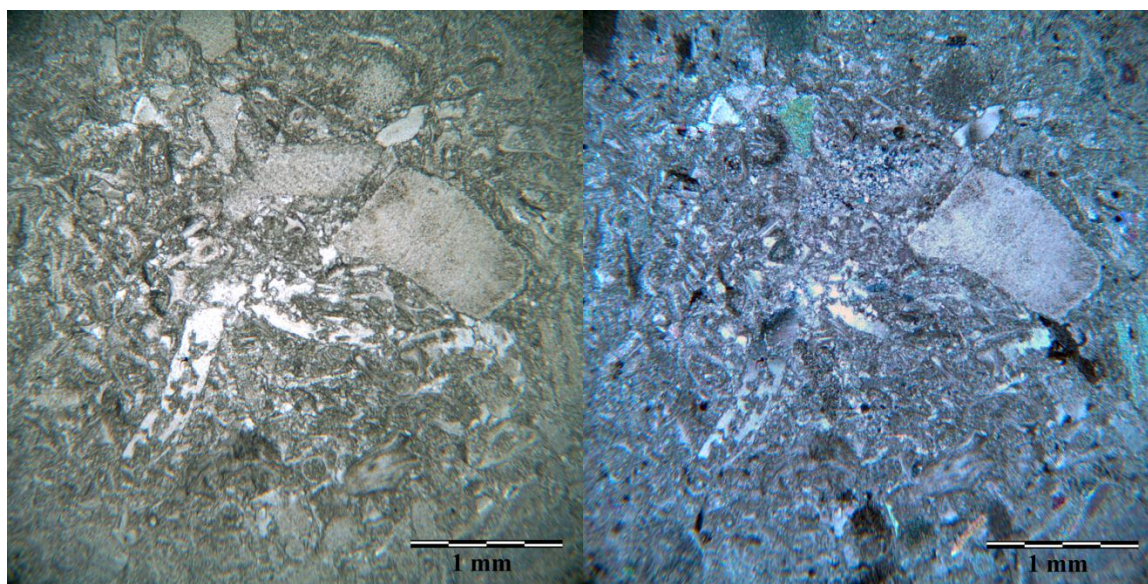
Sample P7a, PPL(LEFT) CPL(RIGHT), wackestone to packstone.



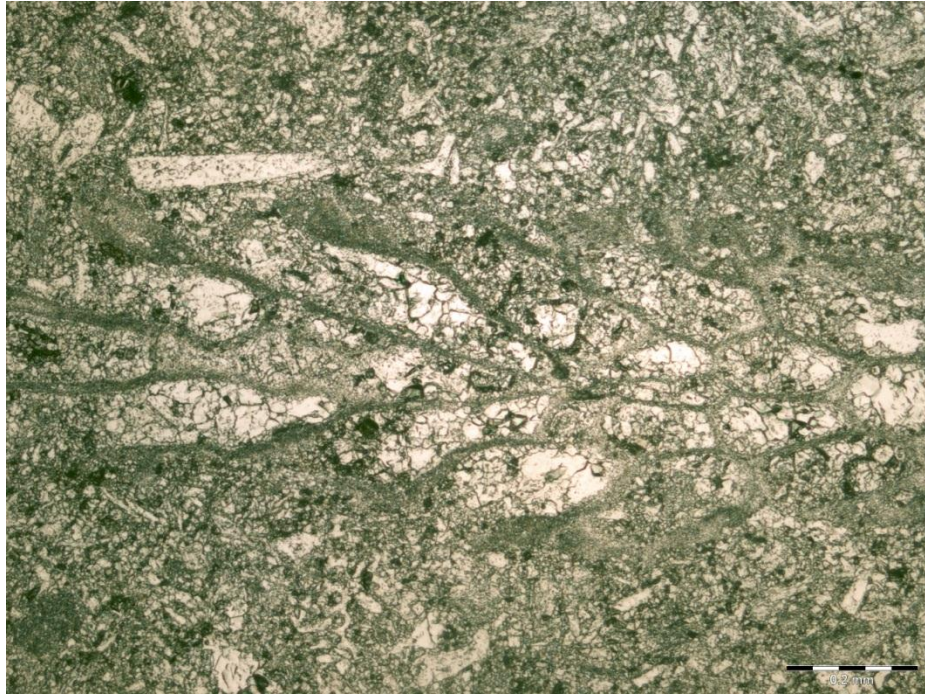
Sample P7b, PPL, packstone.



Sample P7c, PPL, packstone to wackestone.



Sample P8a, PPL (LEFT) CPL (RIGHT), packstone to grainstone.



Sample P8b, PPL, packstone to wackestone.



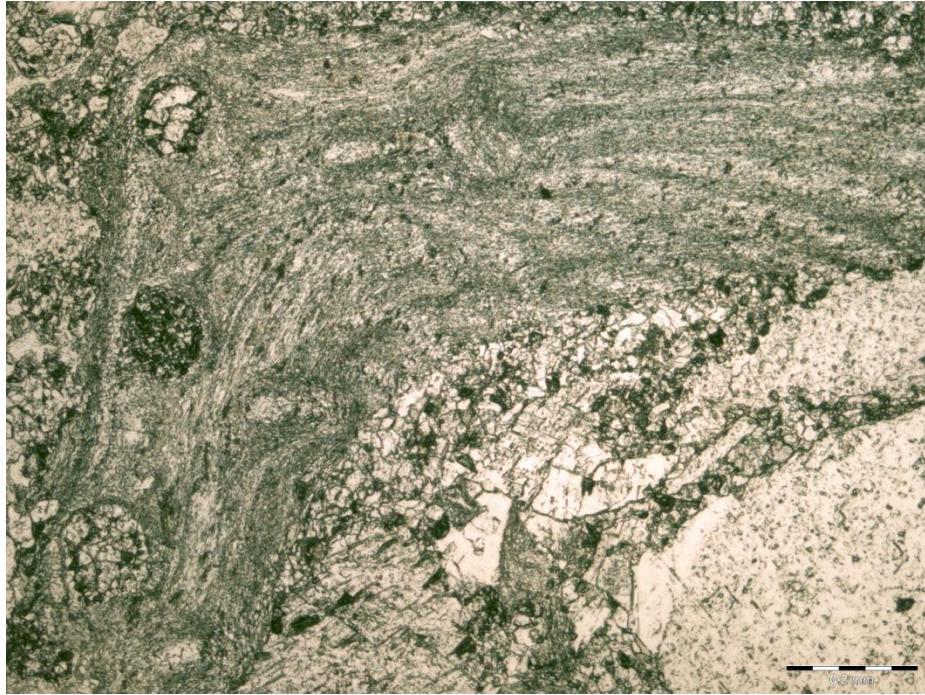
Sample P8c, PPL, packstone to wackestone.



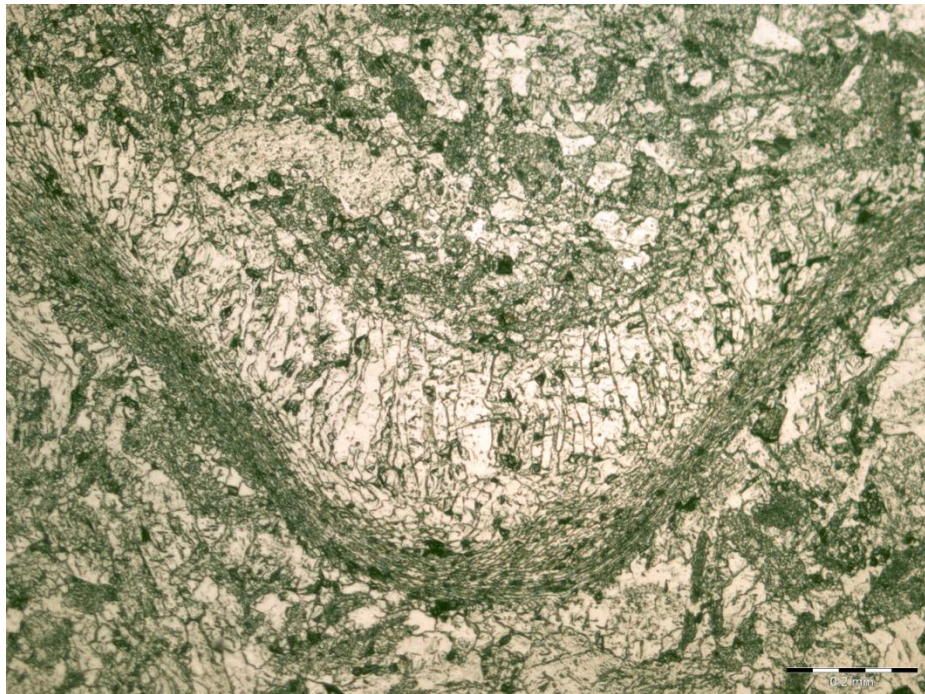
Sample P8d, PPL, wackestone.



Sample P8e, PPL, wackestone to packstone.



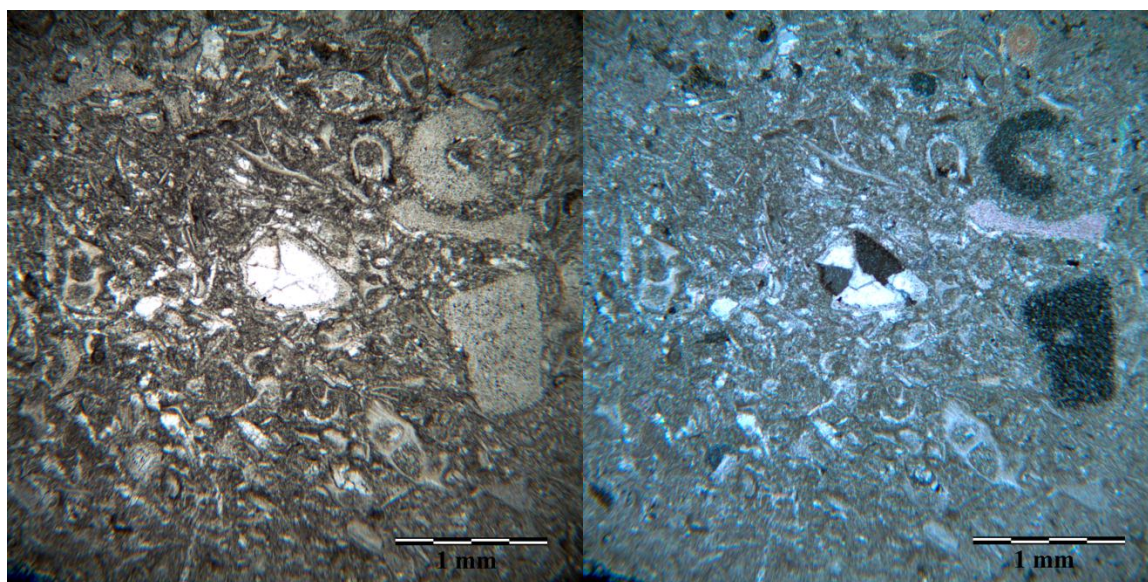
Sample P8f, PPL, packstone to wackestone.



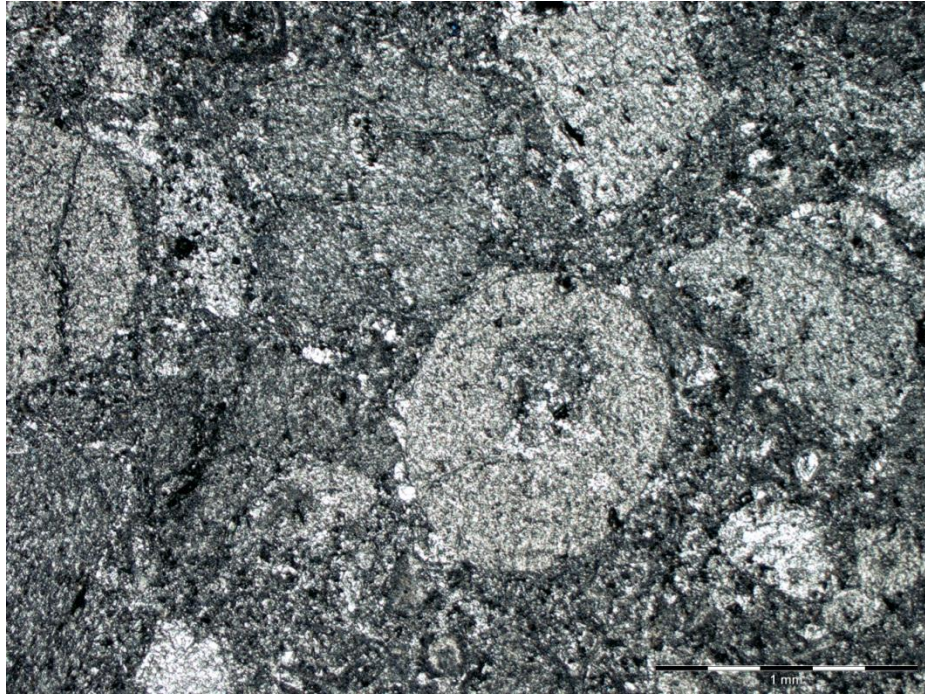
Sample P8g, PPL, packstone to wackestone.



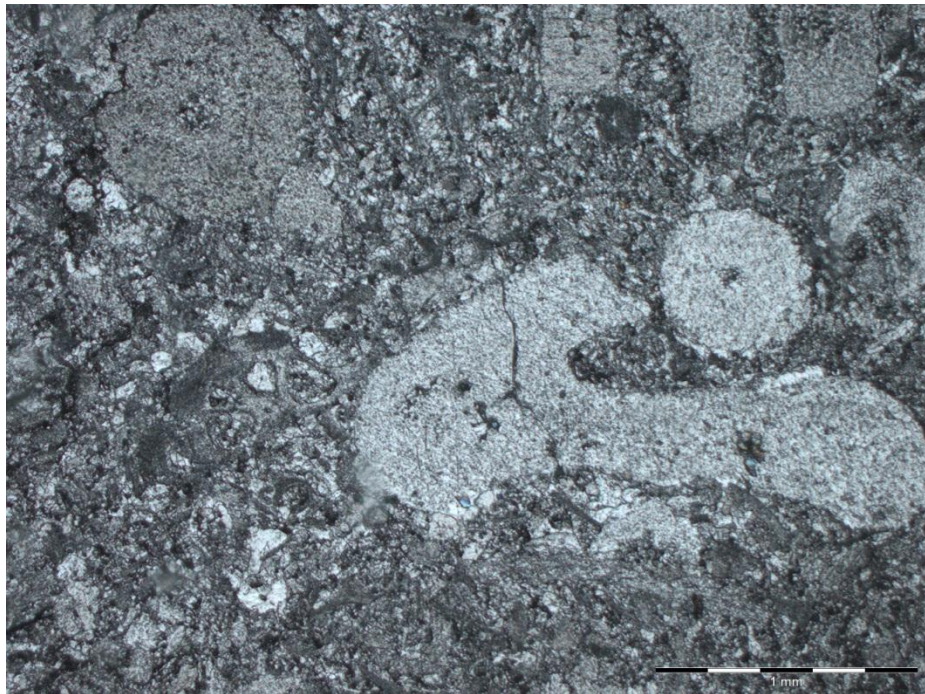
Sample P8h, PPL, packstone.



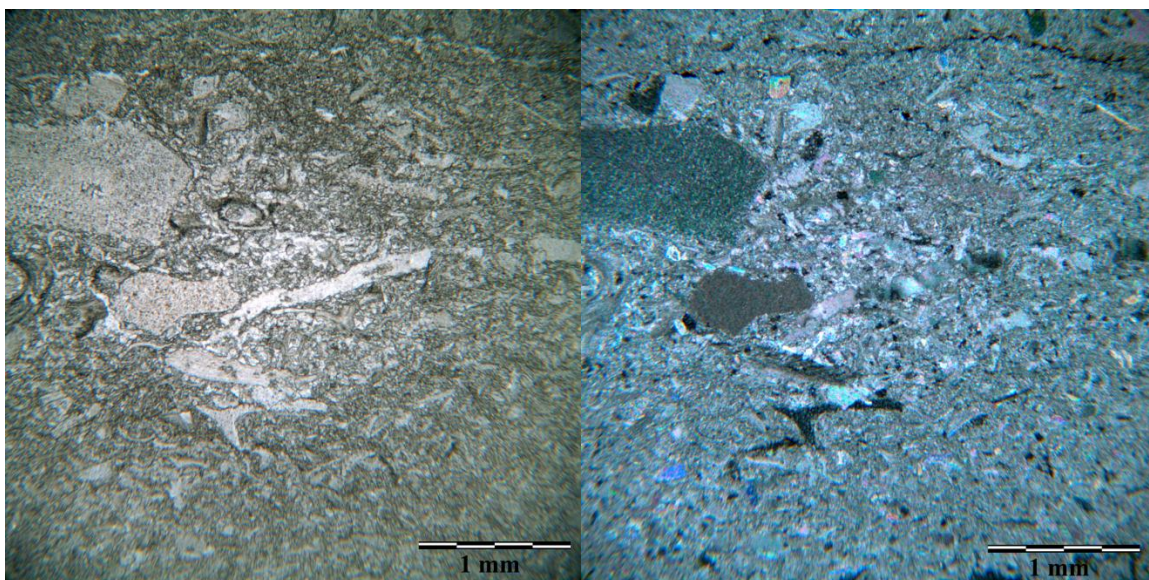
Sample P10a, PPL (LEFT) CPL (RIGHT), wackestone to packstone.



Sample P10b, PPL, wackestone to packstone.



Sample P10c, PPL, wackestone to packstone.



Sample P11a, PPL (LEFT) CPL (RIGHT), wackestone to packstone.



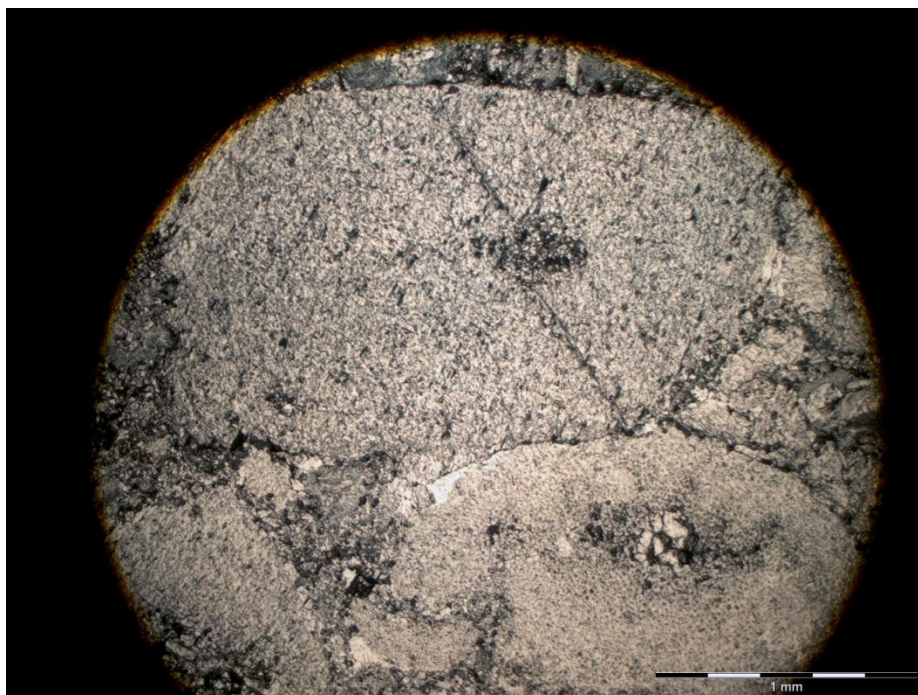
Sample P11b, PPL, packstone to wackestone



Sample P11c, PPL, packstone to wackestone



Sample P11d, PPL, packstone



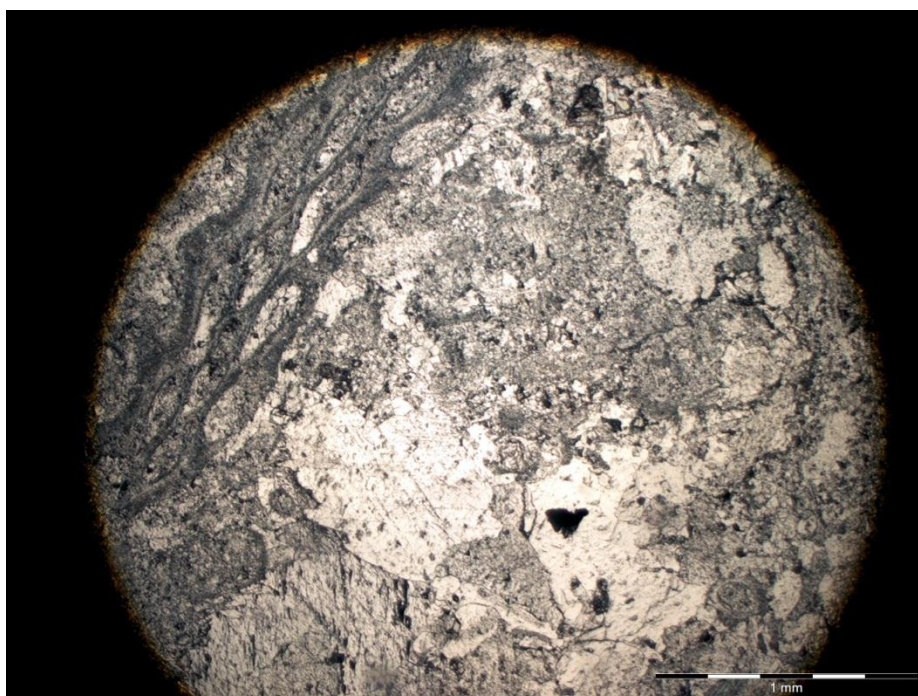
Sample P11e, PPL, packstone to grainstone



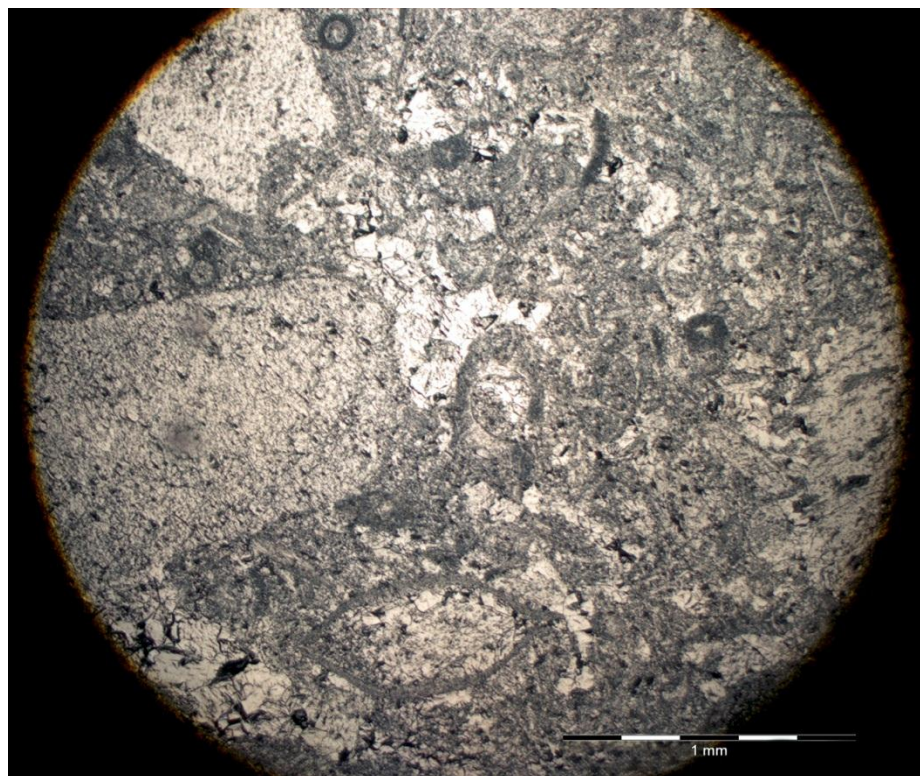
Sample P11f, PPL, packstone



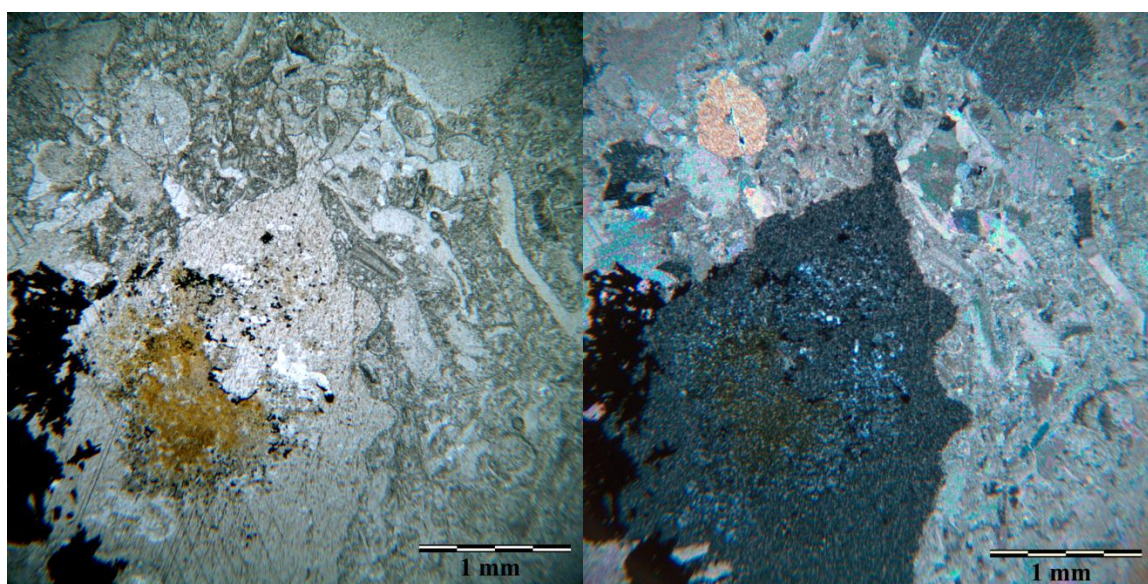
Sample P11g, PPL, packstone.



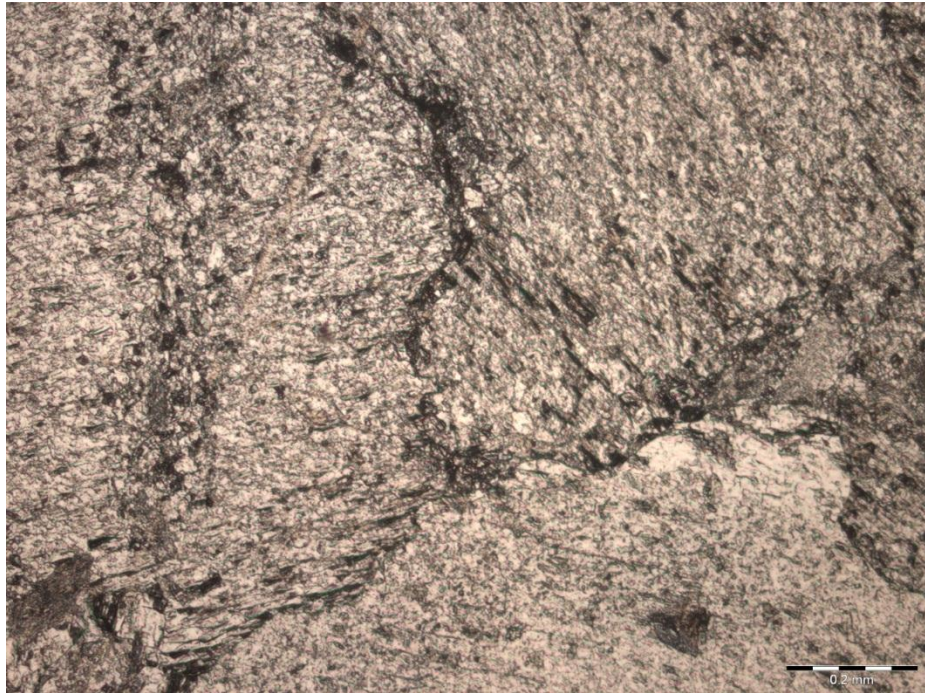
Sample P11h, PPL, packstone to wackestone



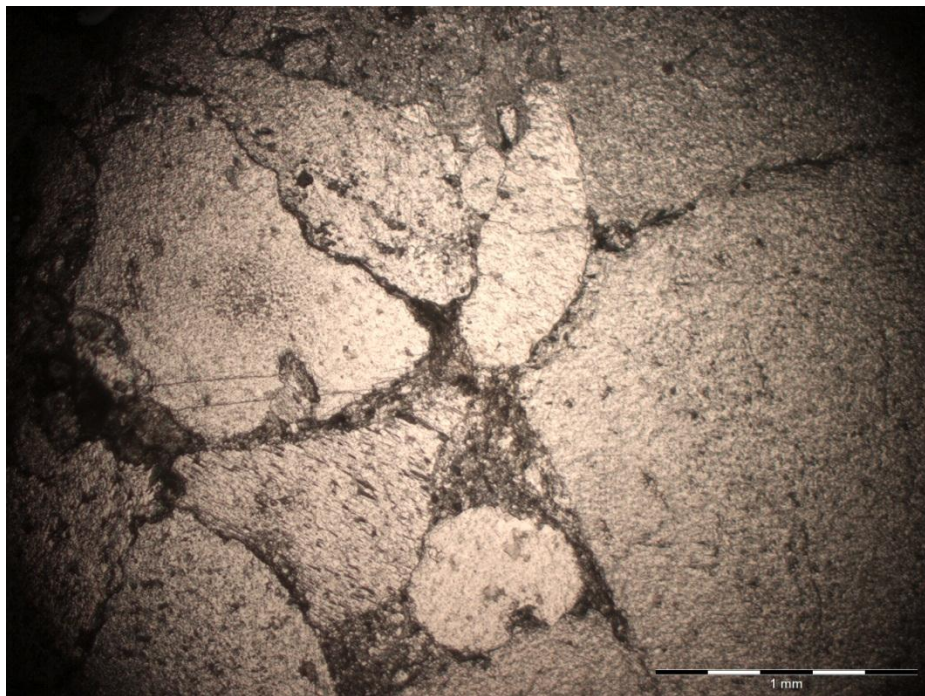
Sample P11i, PPL, packstone to wackestone



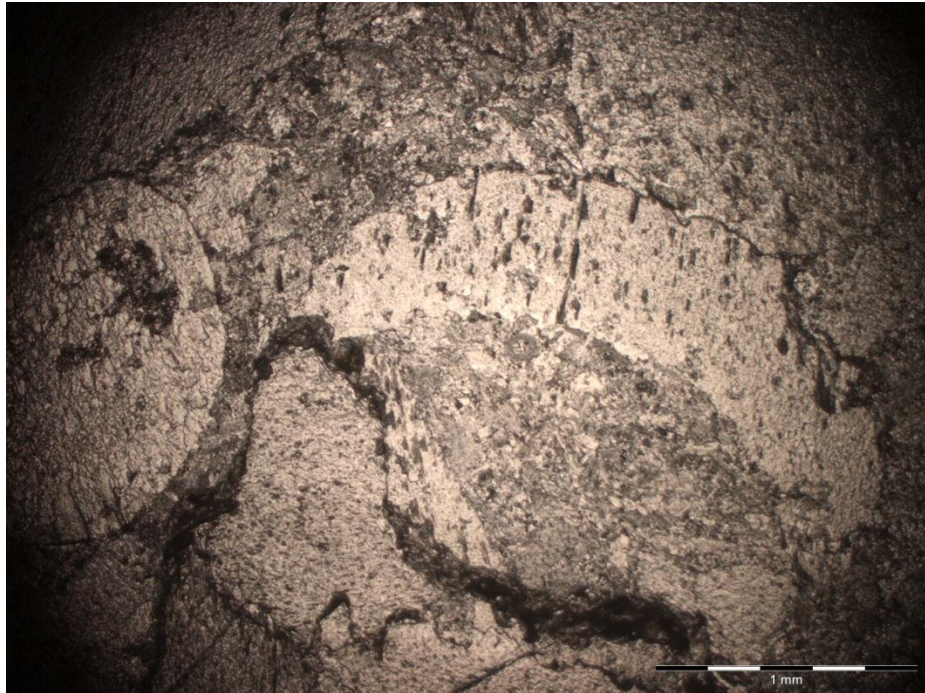
Sample P12a, PPL (LEFT) CPL (RIGHT), packstone



Sample P12b, PPL, grainstone to packstone.



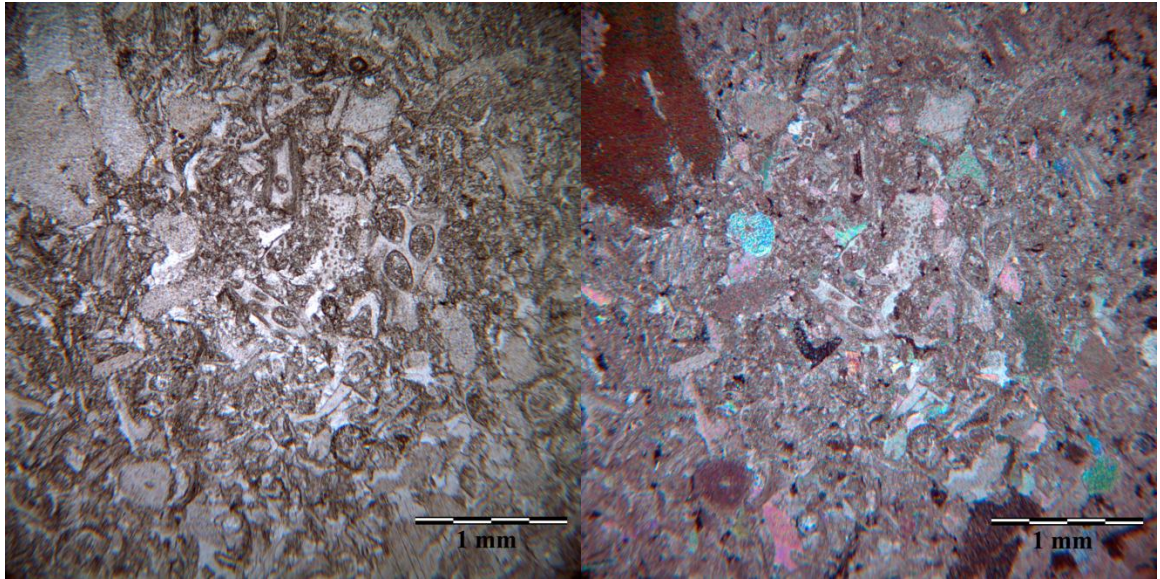
Sample P12c, PPL, grainstone to packstone.



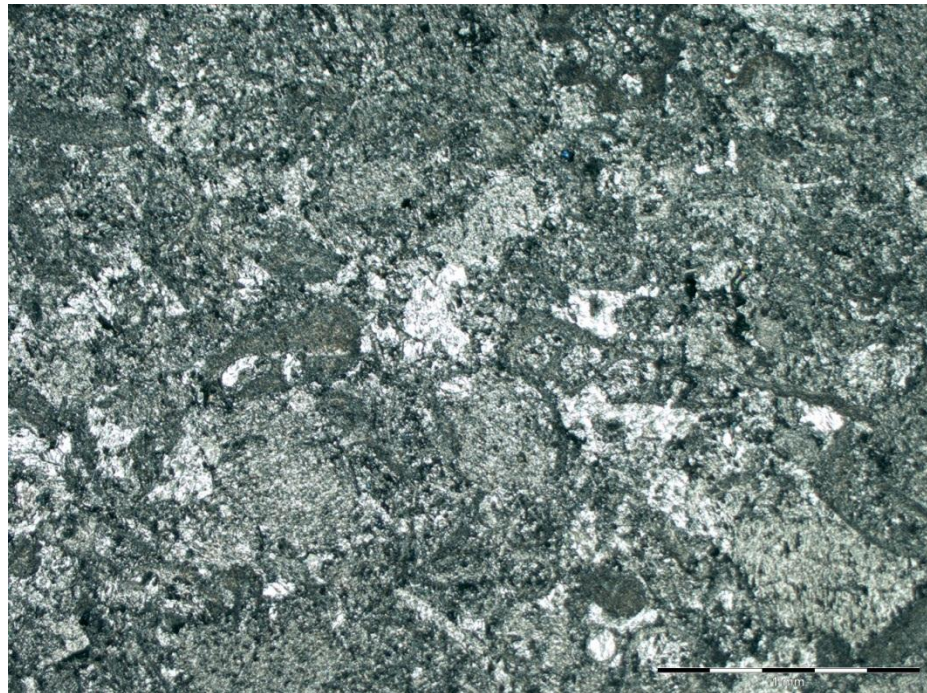
Sample P12d, PPL, grainstone to packstone



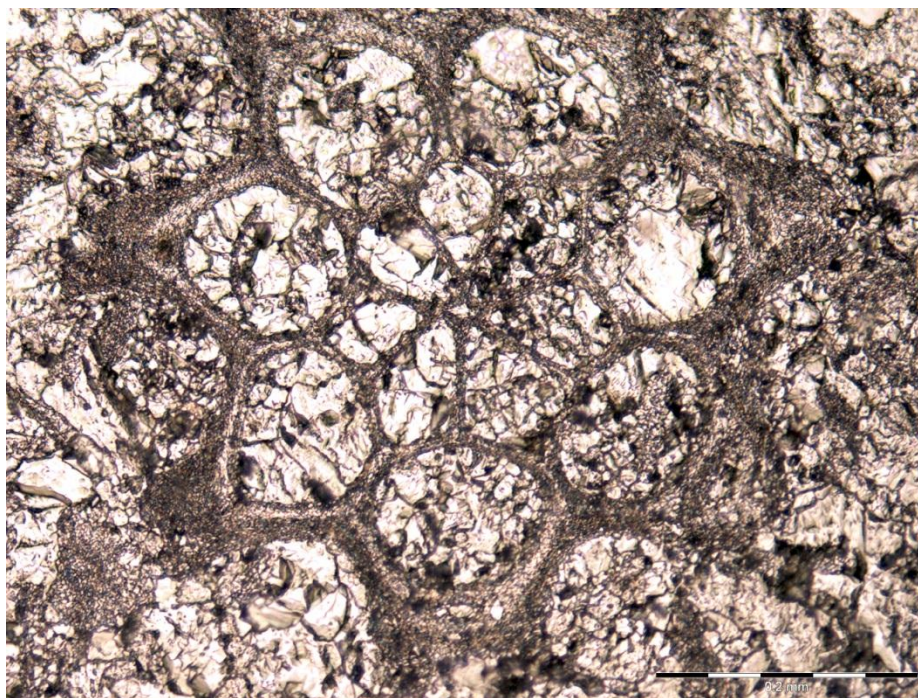
Sample P12e, PPL, packstone.



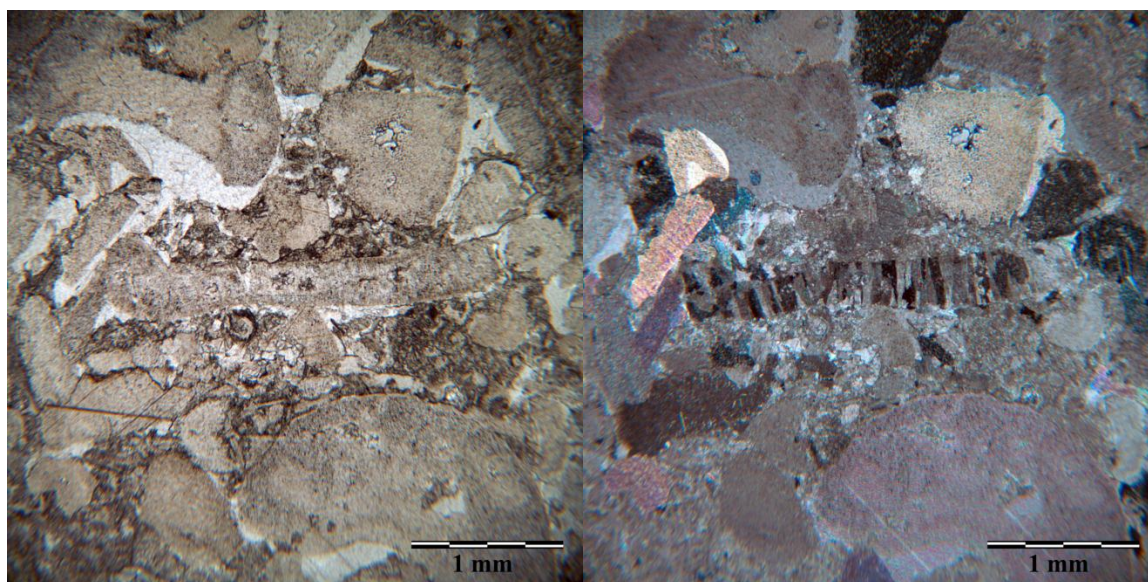
Sample P13a, PPL (LEFT) CPL (RIGHT), packstone to wackestone.



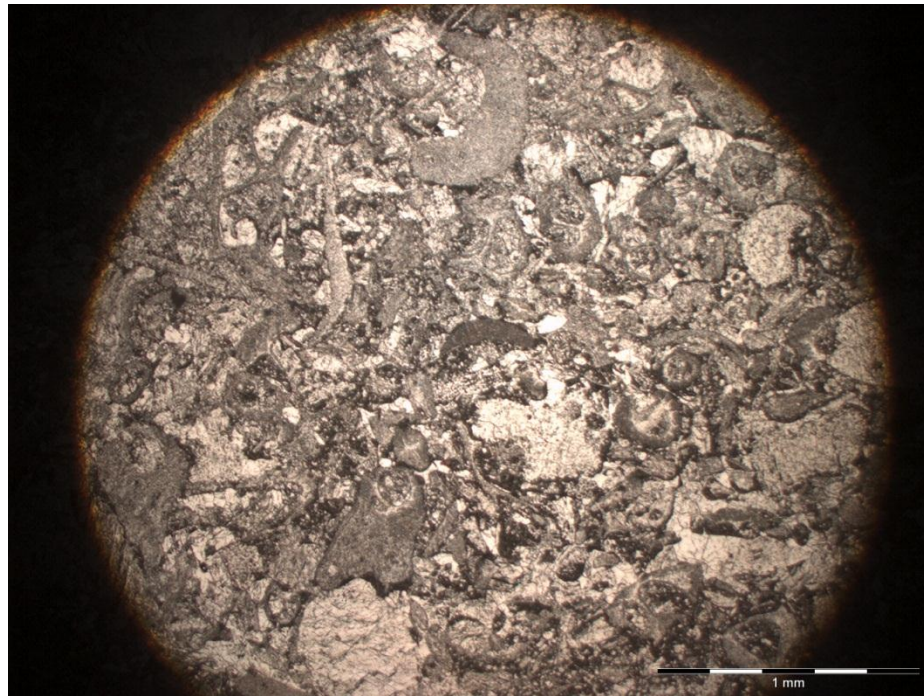
Sample P13b, PPL, packstone to wackestone.



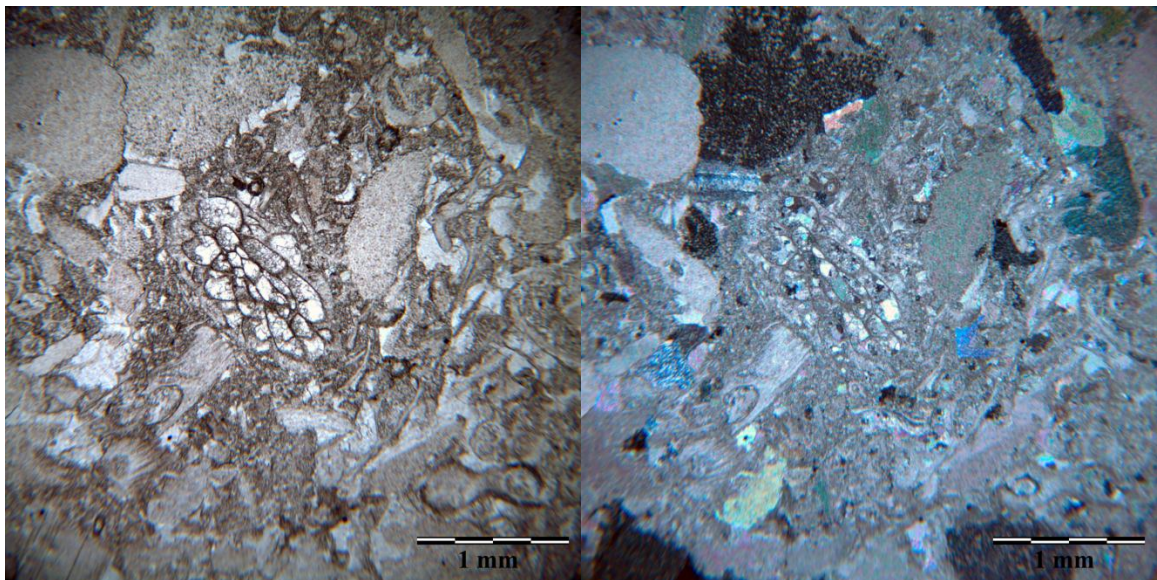
Sample P13c, PPL, packstone.



Sample P14a, PPL (LEFT) CPL (RIGHT), packstone.



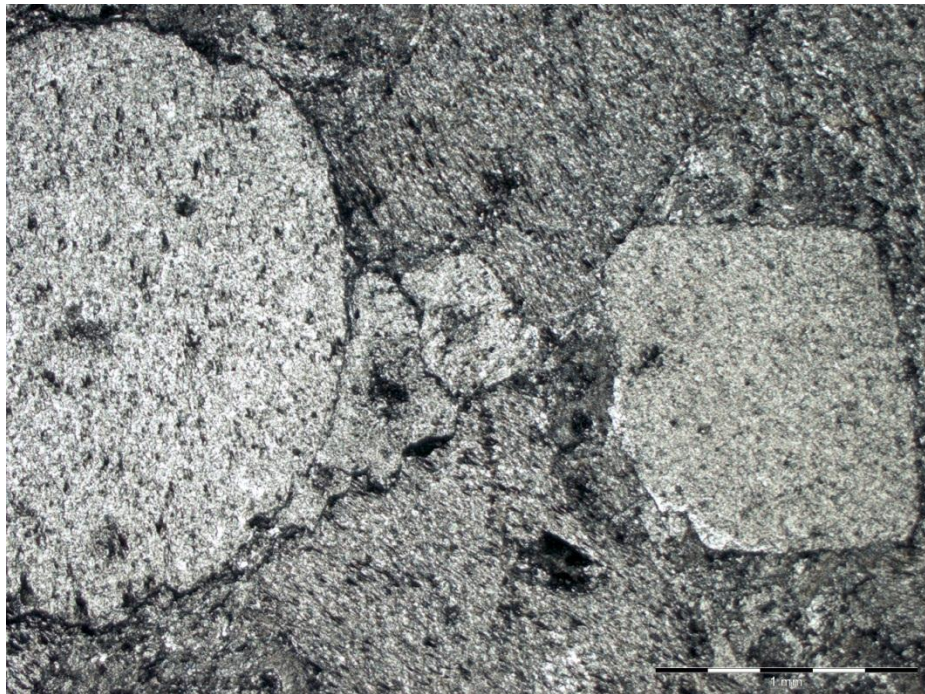
Sample P14b, PPL, packstone.



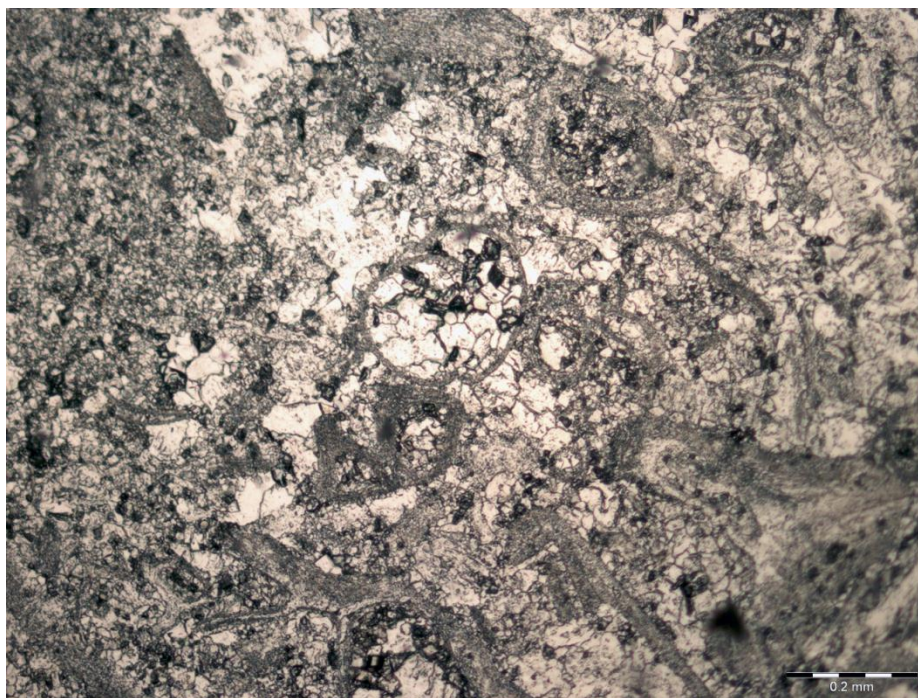
Sample P15a, PPL (LEFT) CPL (RIGHT), packstone to grainstone



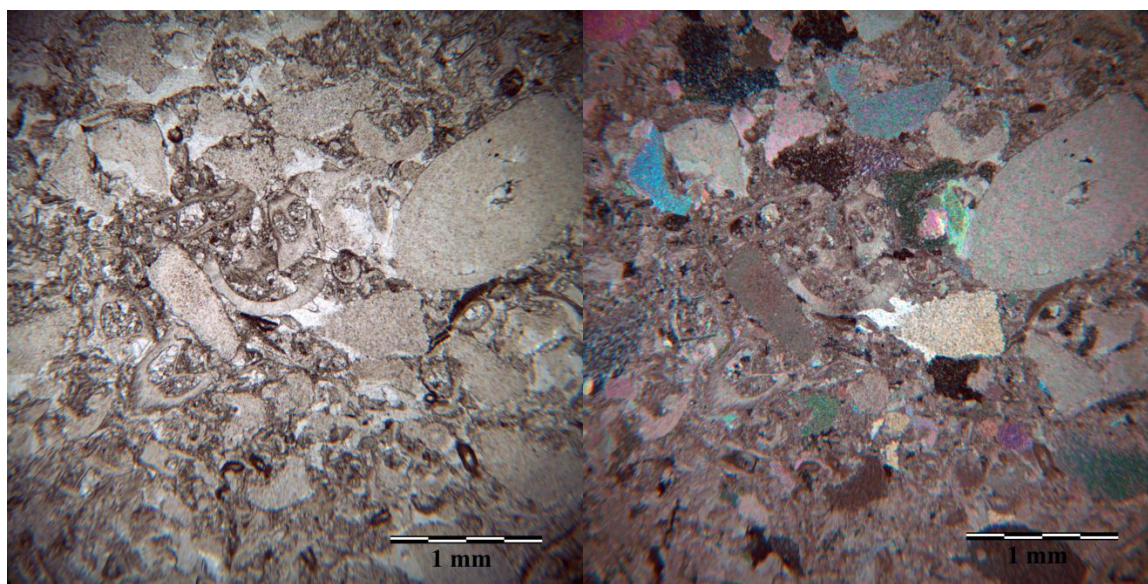
Sample P15b, PPL, packstone to grainstone.



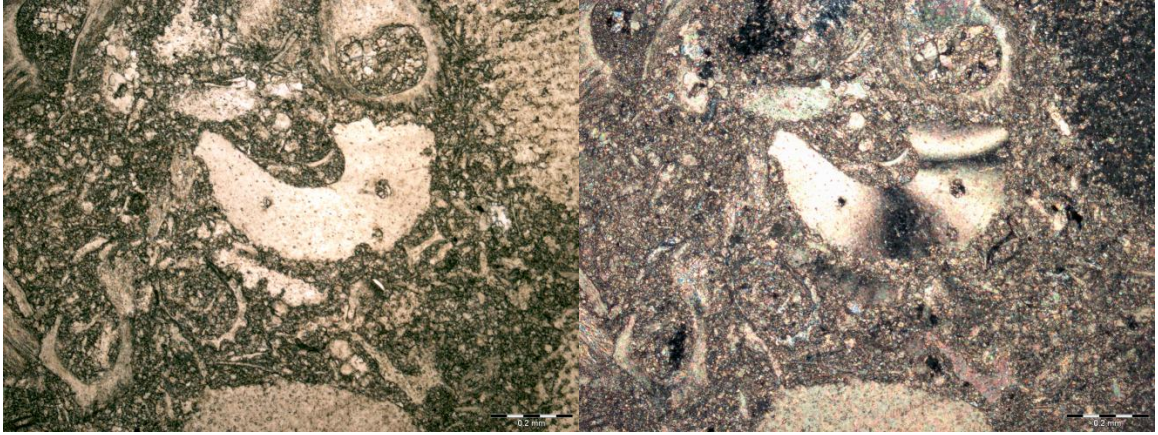
Sample P15c, PPL, grainstone to packstone.



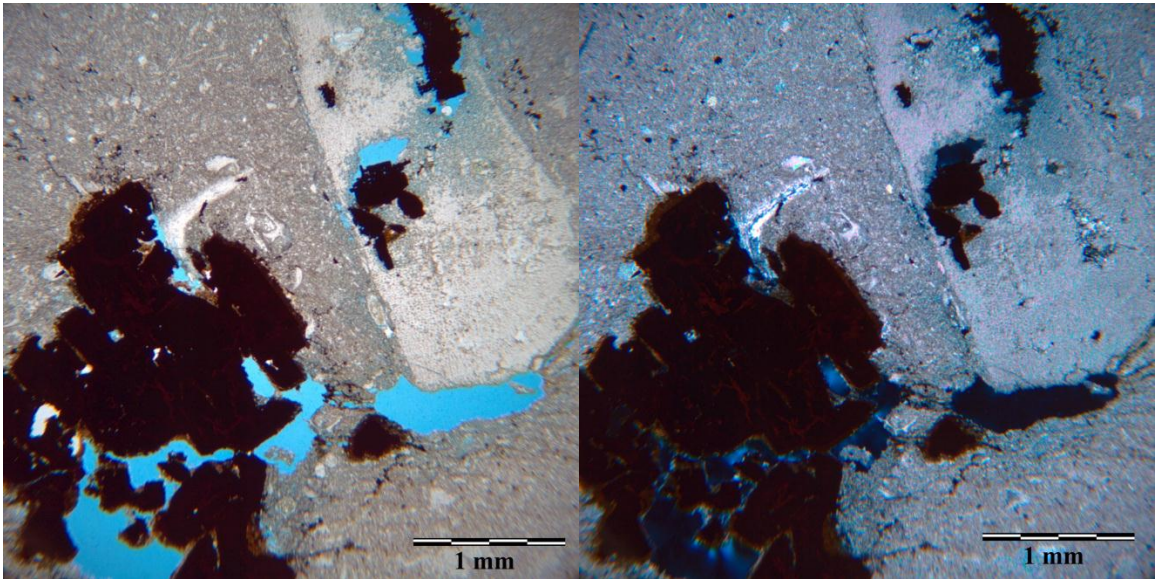
Sample P15d, PPL., packstone.



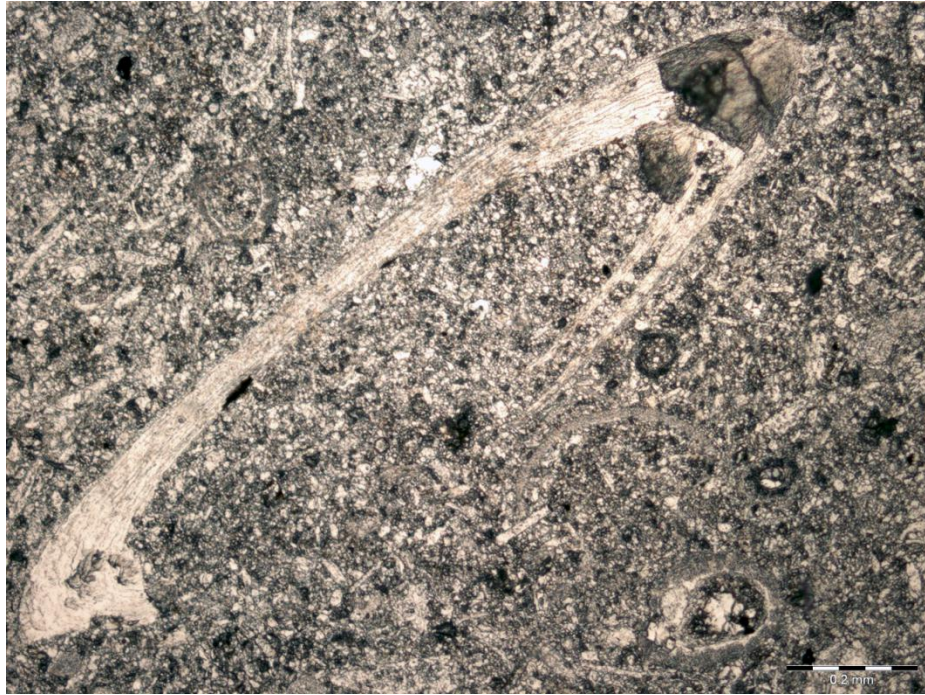
Sample P16a, PPL (LEFT) CPL (RIGHT), grainstone to packstone.



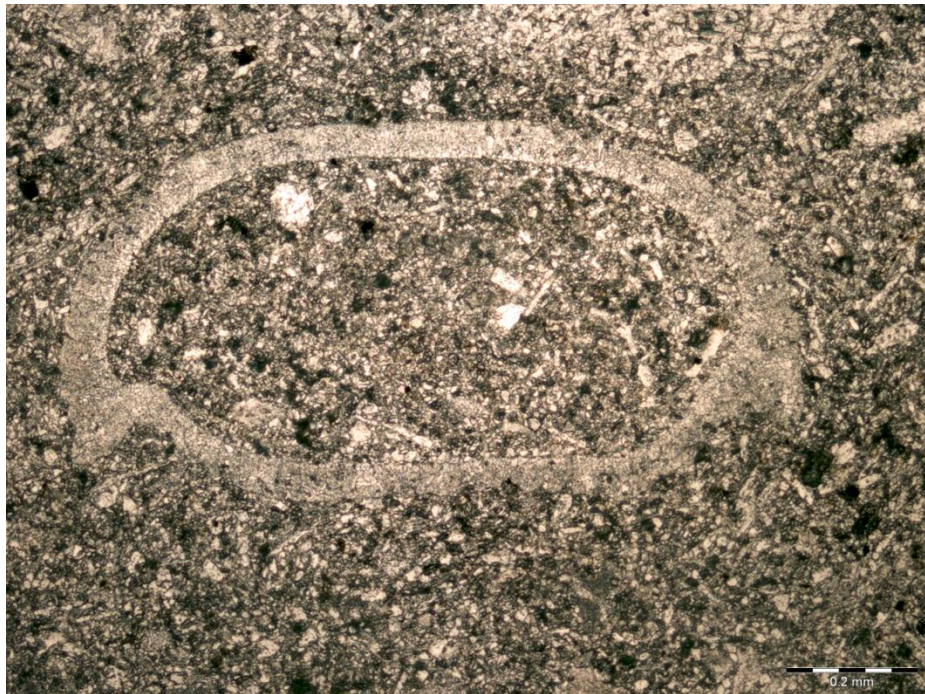
Sample P16b, PPL (LEFT) CPL (RIGHT), packstone to wackestone.



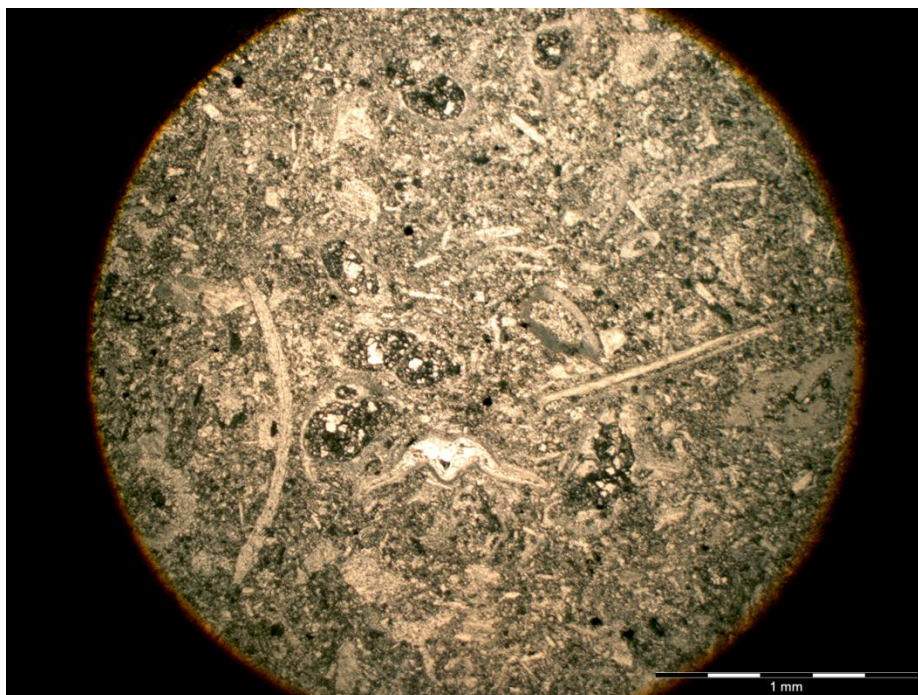
Sample P18a, PPL (LEFT) CPL (RIGHT), mudstone to wackestone.



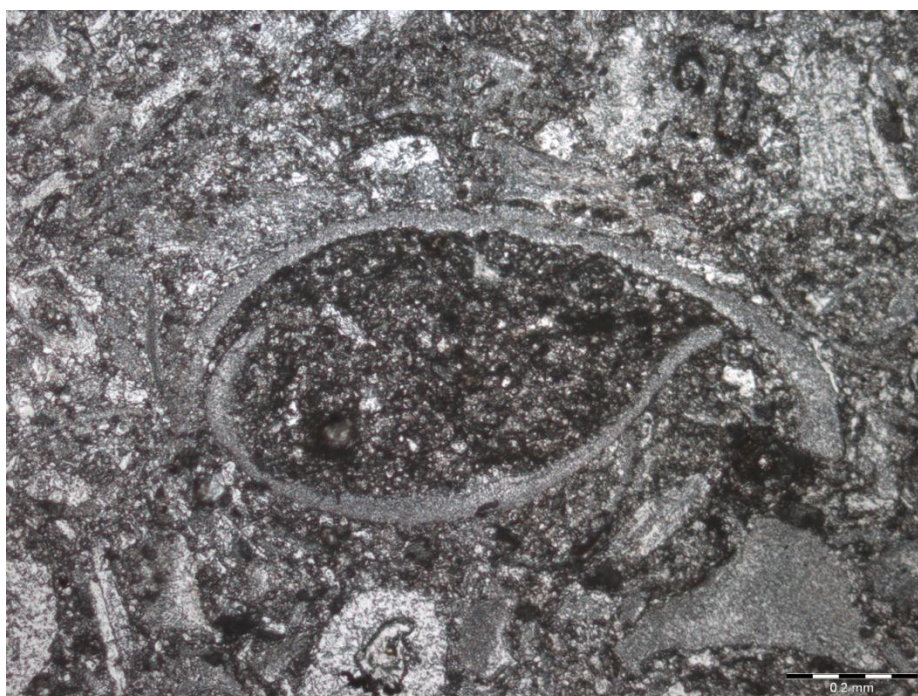
Sample P18b, PPL., mudstone to wackestone



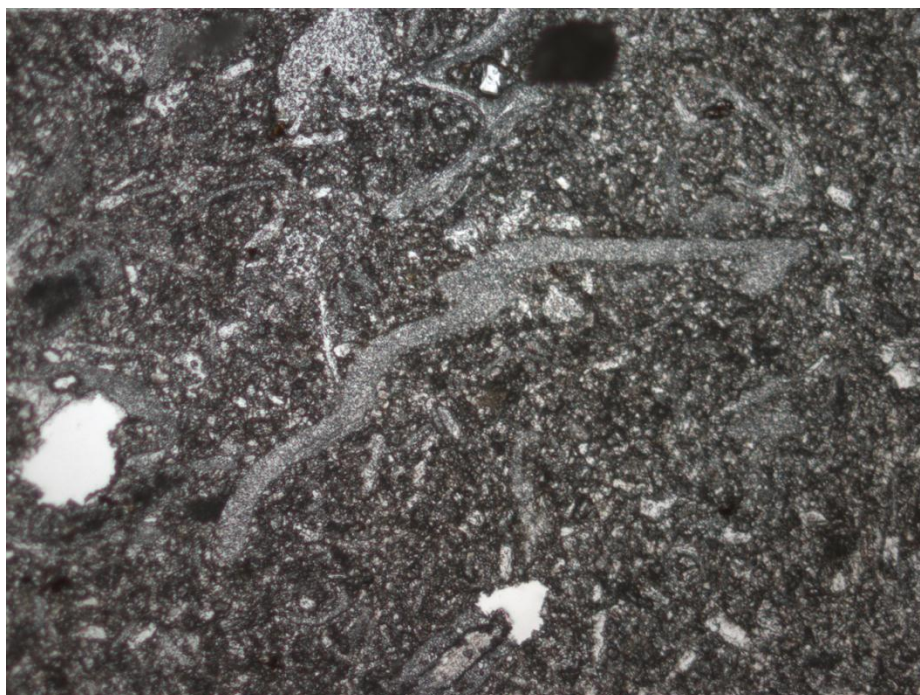
Sample P18c, PPL., wackestone to mudstone



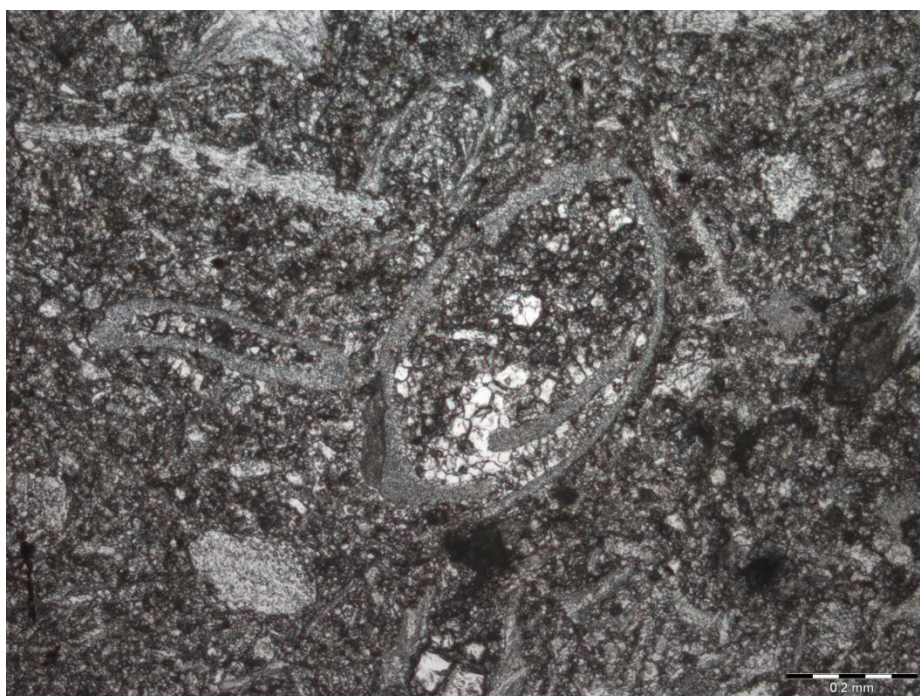
Sample P18d, PPL, wackestone to mudstone



Sample P18e, PPL, wackestone.



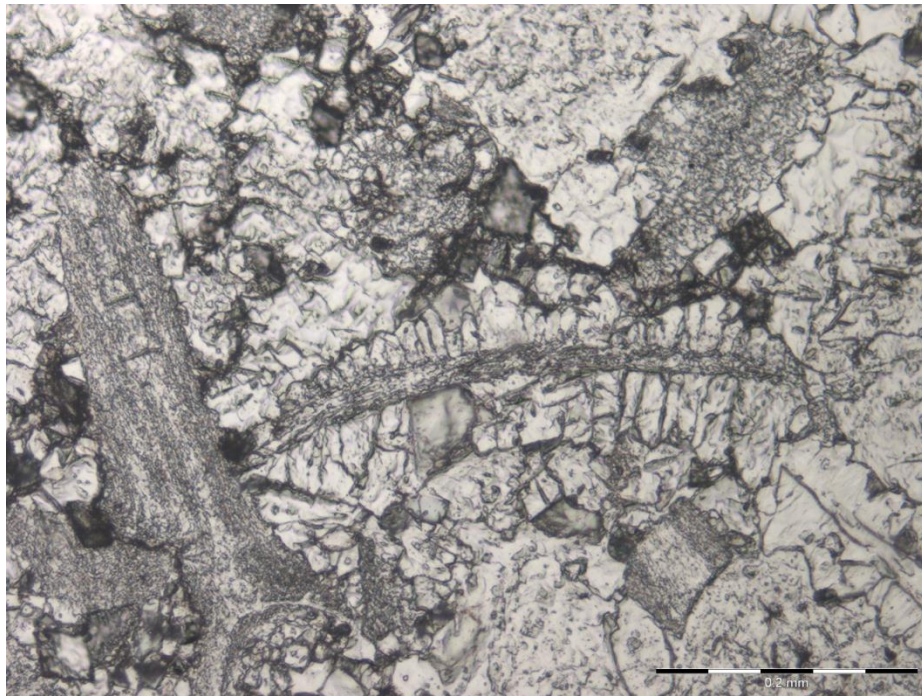
Sample P18f, PPL, wackestone.



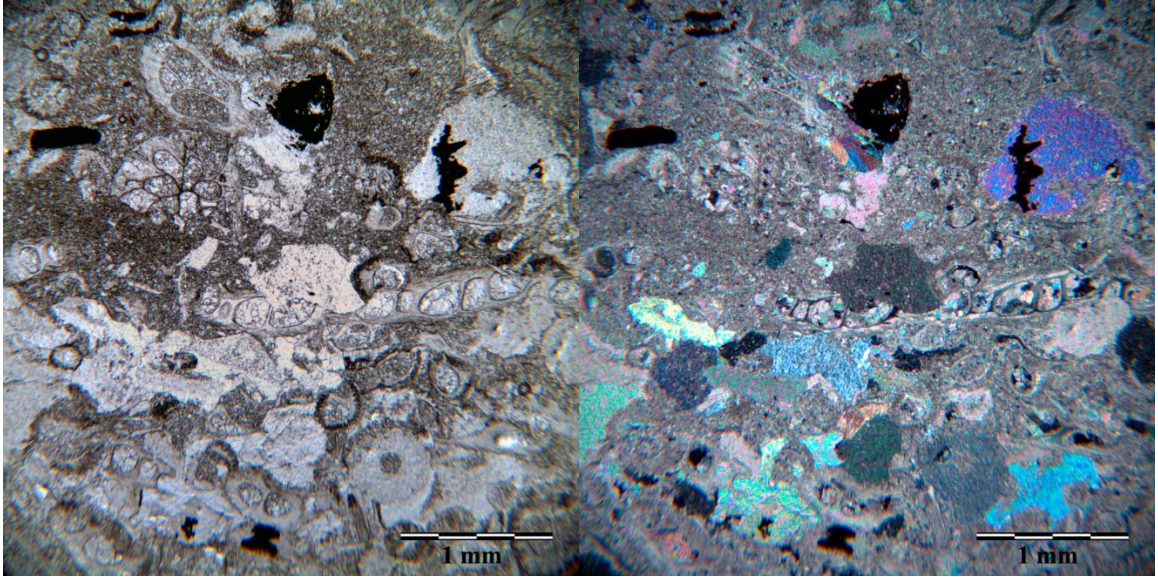
Sample P18g, PPL, wackestone.



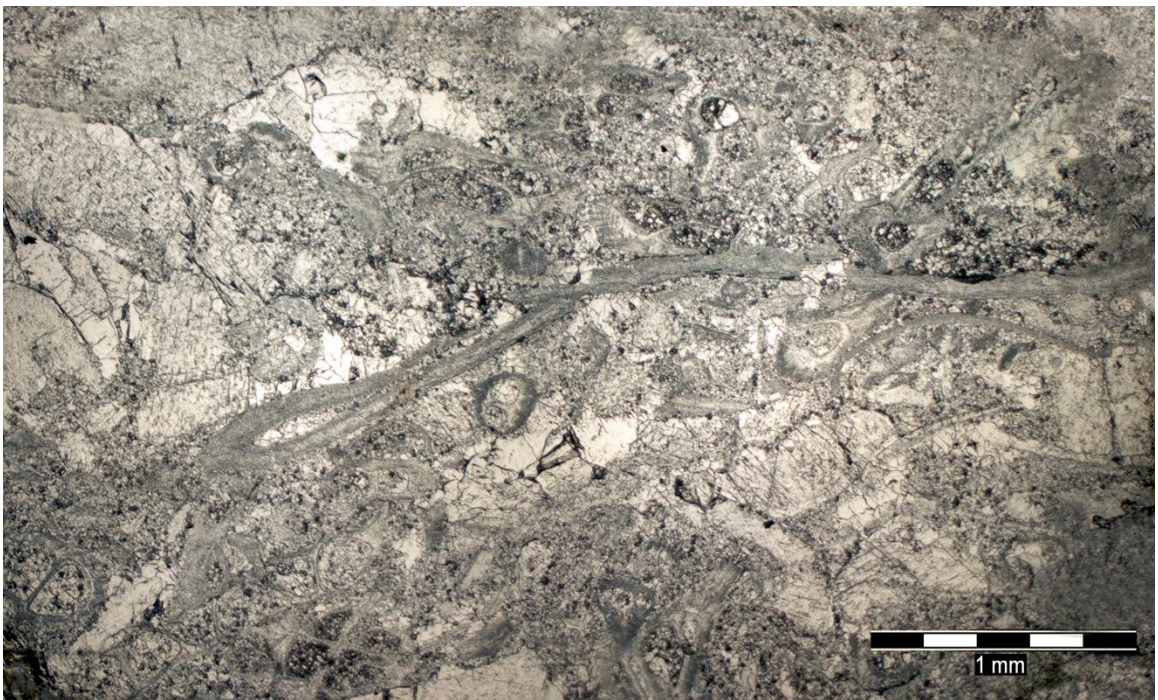
Sample P18h, PPL, wackestone to packstone.



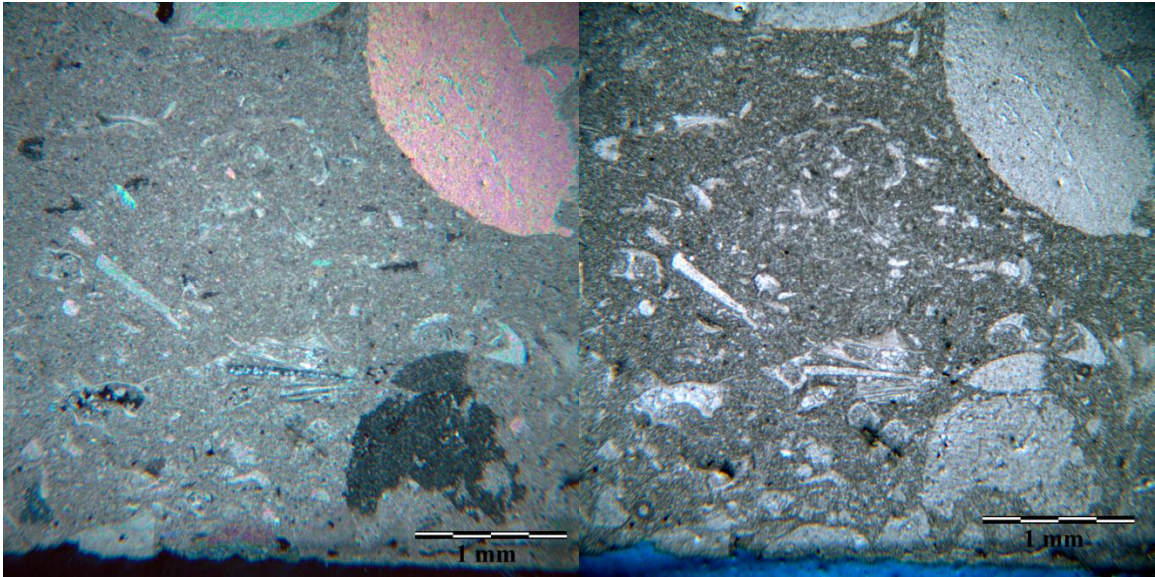
Sample P18i, PPL, packstone to wackestone.



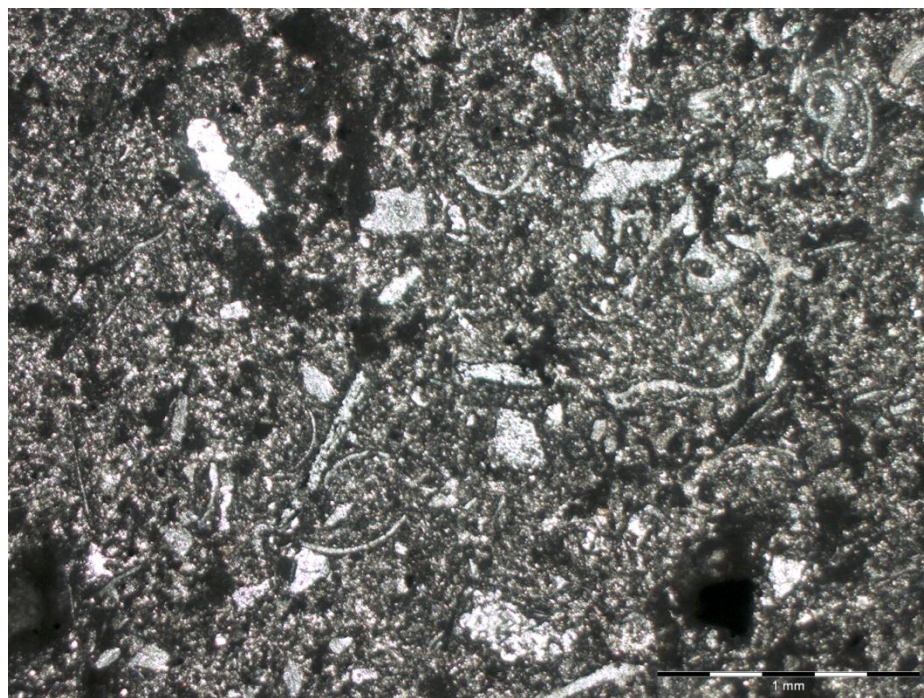
Sample P19a, PPL (LEFT) CPL (RIGHT), packstone to grainstone.



Sample P19b, PPL, packstone to grainstone.



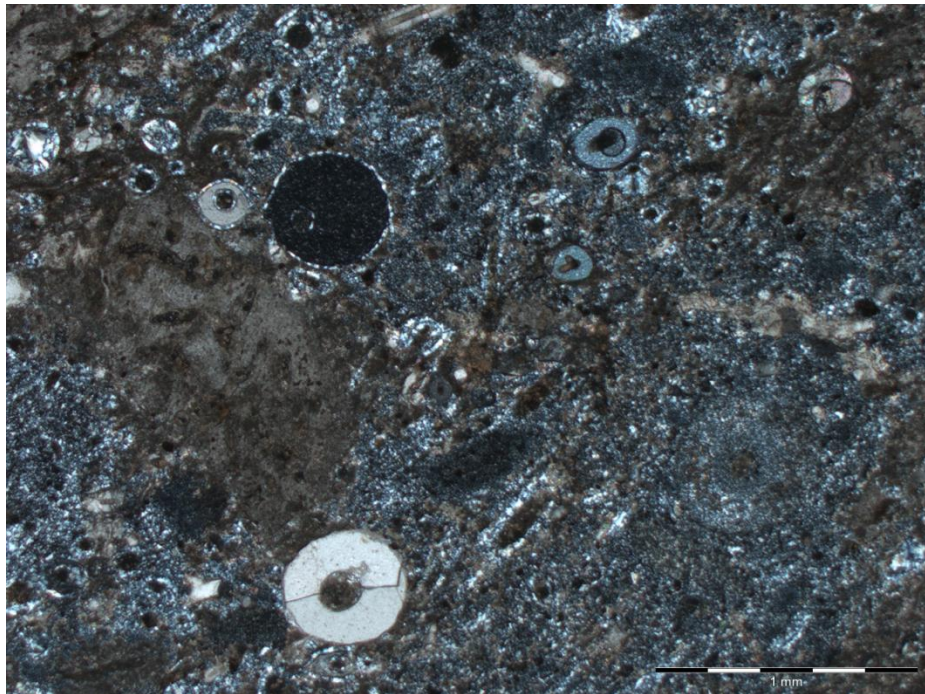
Sample P20b, PPL (LEFT) CPL (RIGHT), wackestone to packstone.



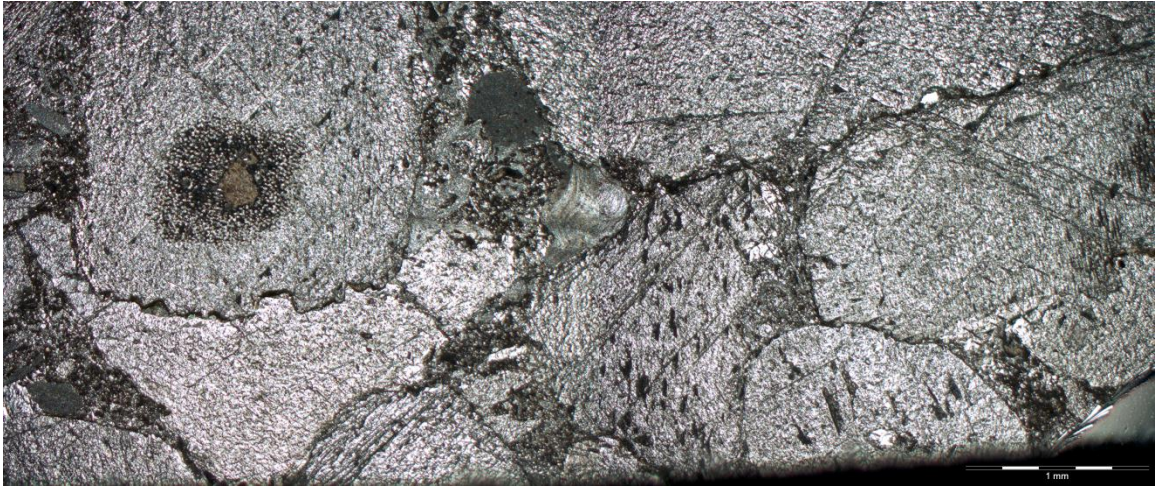
Sample P20d, PPL, wackestone.



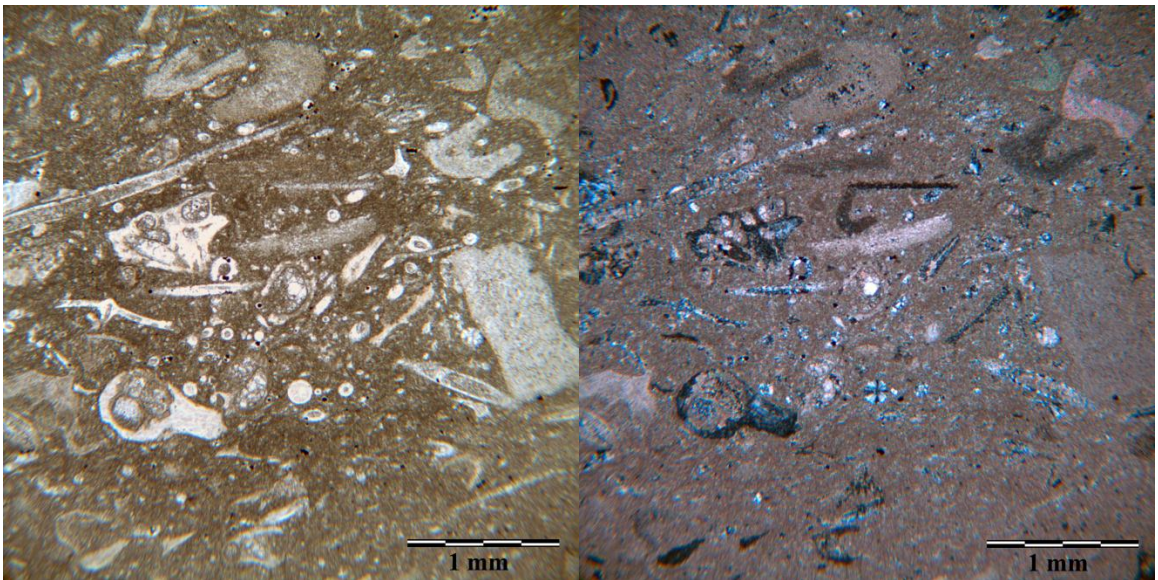
Sample P21b, PPL, Wackestone to Packstone, with wackestone to packstone turbidites.



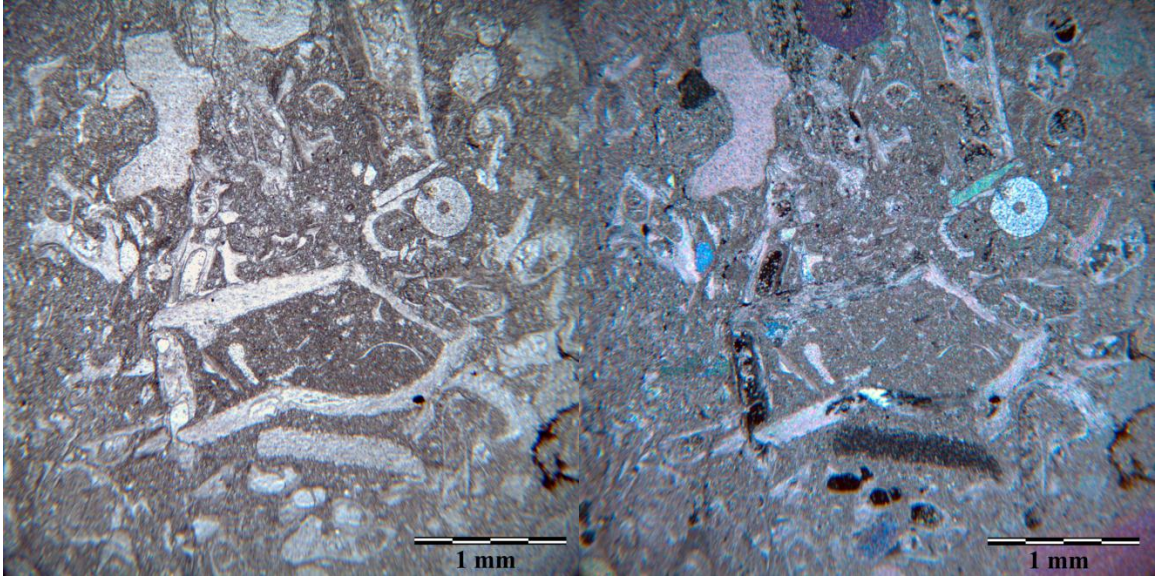
Sample P22a, PPL, wackestone to mudstone.



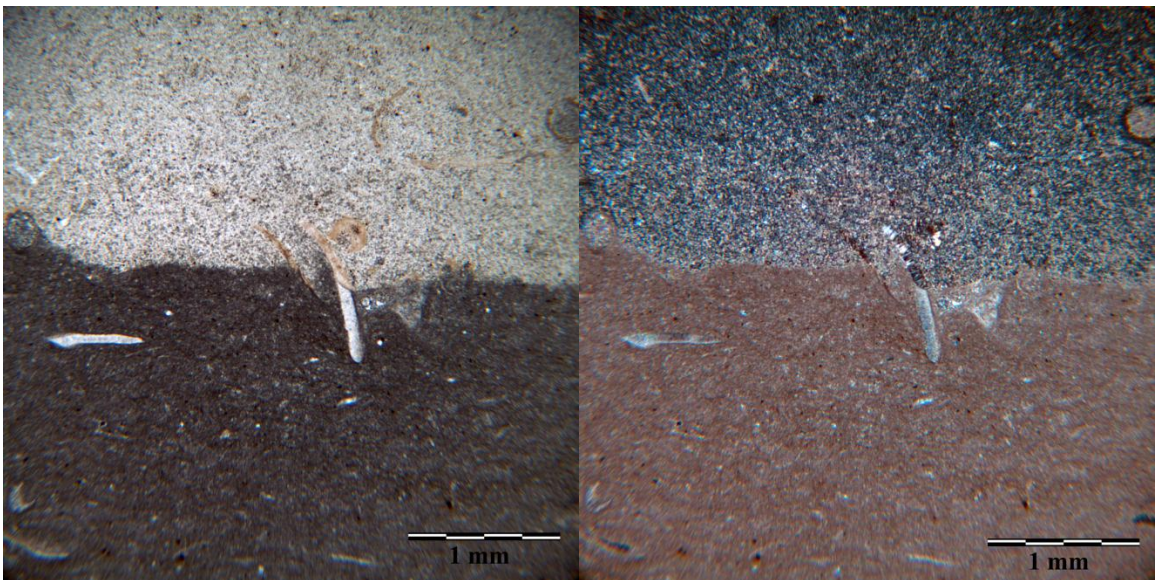
Sample P22d, PPL, grainstone to packstone.



Sample P22e, PPL (LEFT) CPL (RIGHT), wackestone to packstone.



Sample P23a, PPL (LEFT) CPL (RIGHT), packstone to wackestone.



Sample RS2b, PPL (LEFT) CPL (RIGHT), mudstone to wackestone.

VITA

Osama Khalifa Shoeia

Candidate for the Degree of

Master of Science

Thesis: HIGH RESOLUTION STRATIGRAPHY OF LOWER MISSISSIPPIAN
STRATA NEAR JANE, MISSOURI

Major Field: Geology

Biographical:

Born and raised in a small town Sabratah, Libya in September the 15th
1977, the son of Khalifa Shoeia, and Maimuna Shoeia.

Education:

Completed the requirements for the Master of Science in Geology at Oklahoma
State University, Stillwater, Oklahoma in July, 2012.

Completed the requirements for the Bachelor of Science in Geology at the
Seventh of April University, Zawiya, Libya in 2000.

Professional Memberships: GSA, AAPG, EAGE.

Name: Osama Khalifa Shoeia

Date of Degree: July, 2012

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: HIGH RESOLUTION STRATIGRAPHY OF LOWER MISSISSIPPIAN
STRATA NEAR JANE, MISSOURI

Pages in Study: 254

Candidate for the Degree of Master of Science

Major Field: Geology

Scope and Method of Study: The primary scope of this study is to examine the Lower Mississippian rocks near Jane, McDonald County, Missouri, for the purpose of better understanding the Lower Mississippian Subsystem. The wider scope of this study is to mark the section under study as a type locality section for the Lower Mississippian Strata in North America. Detailed field and lab studies were used in order to achieve this goal. About 136 samples were collected from the section under study. And all the samples went through several ways of examination, starting from thin section making, through acetate peels preparation, through conodonts recovery processing, ending with the microphotography examination.

Findings and Conclusions: One of the most important findings in this study is that the detailed petrographic study and the conodonts recovery shows that the section under investigation has a continuous succession of deposition. In other words, no major unconformities have been found throughout the entire section, which makes it a prime candidate for North American principle reference section for the lower Mississippian subsystem. The stratigraphic succession suggested that the section includes seven major parasequence cycles starting from the transgressive lag Bachelor formation, and ending with the rising of the sea level at the beginning of the Reeds Spring Formation. The major cycles were extracted based on the change of the energy of deposition, which in turn, was extracted from the subtle changes of the petrographic texture of each bed under study. The overall succession of the major parasequence cycles appears to be having a retrogradational parasequence sets pattern.

ADVISER'S APPROVAL: Darwin Boardman II
