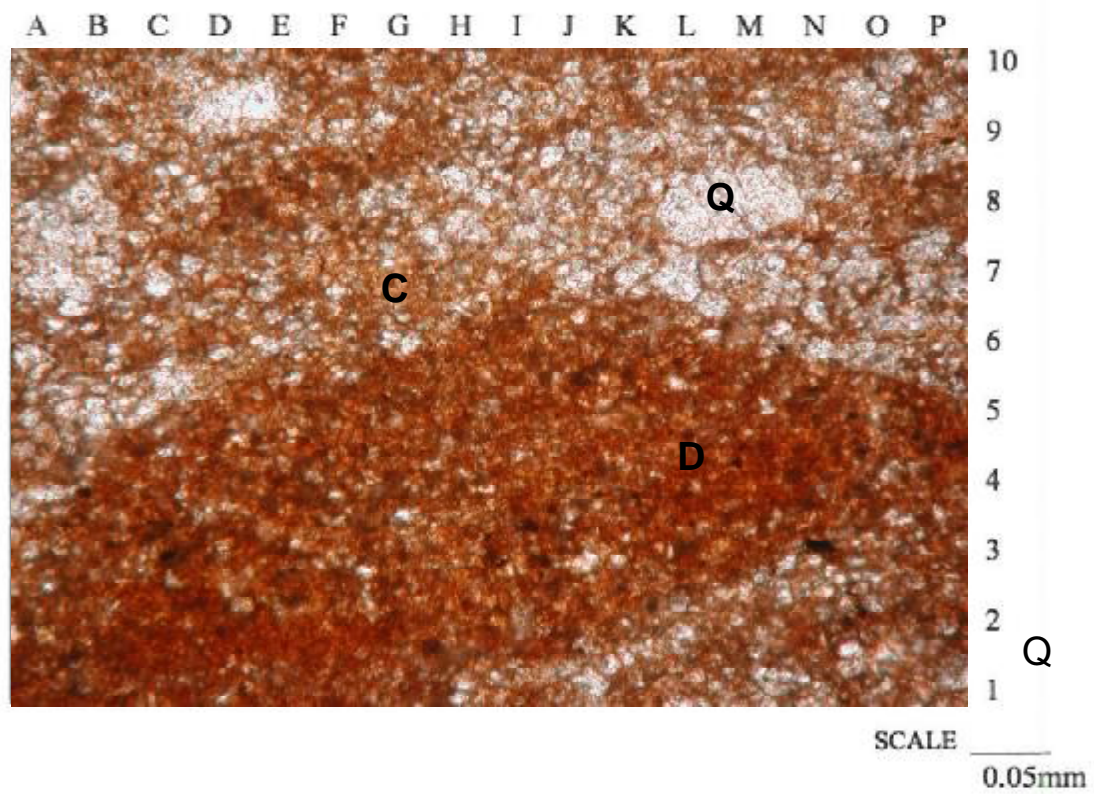
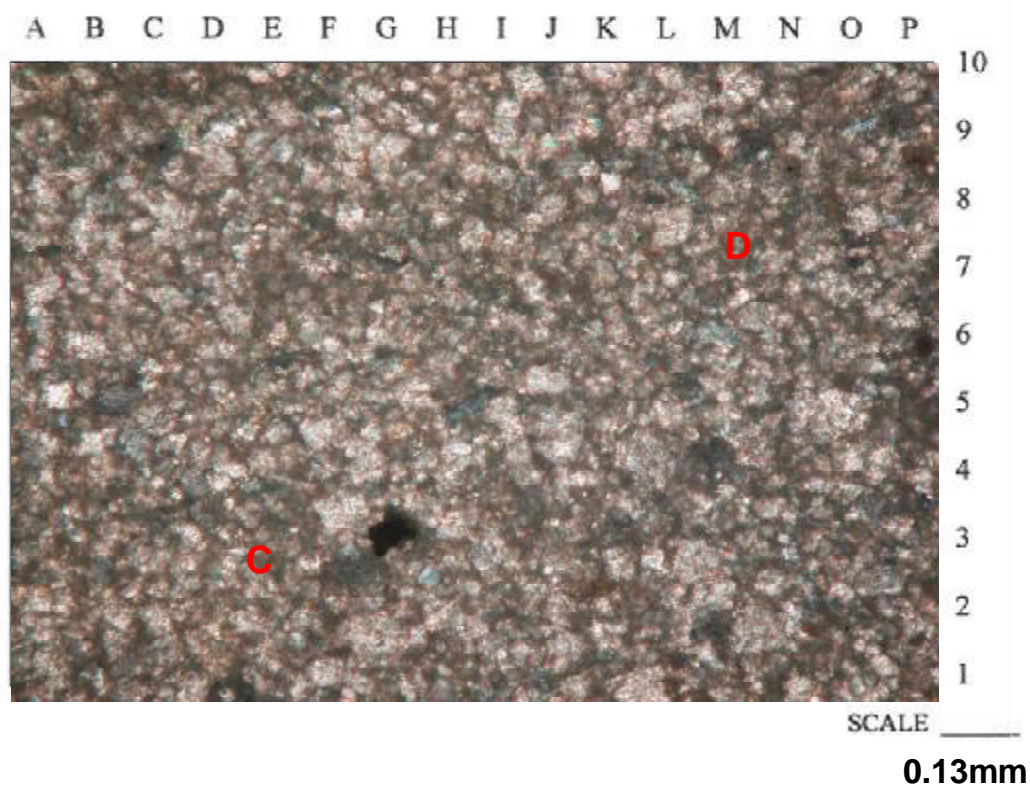


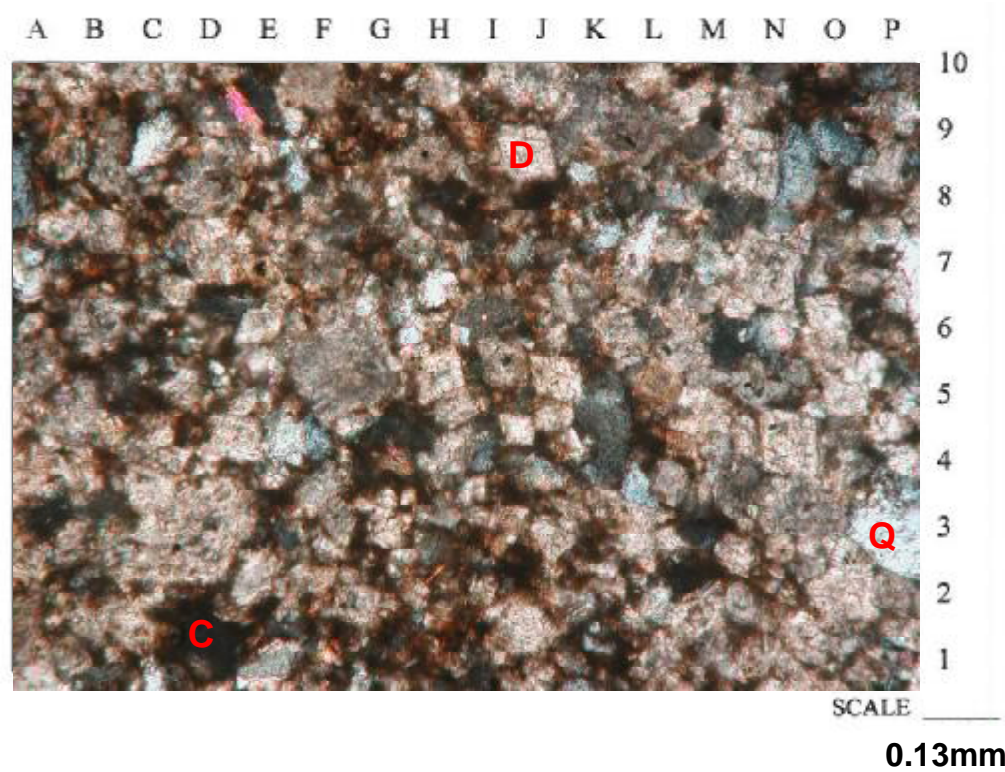
APPENDIX D: THIN-SECTION FACIES PHOTOMICROGRAPHS



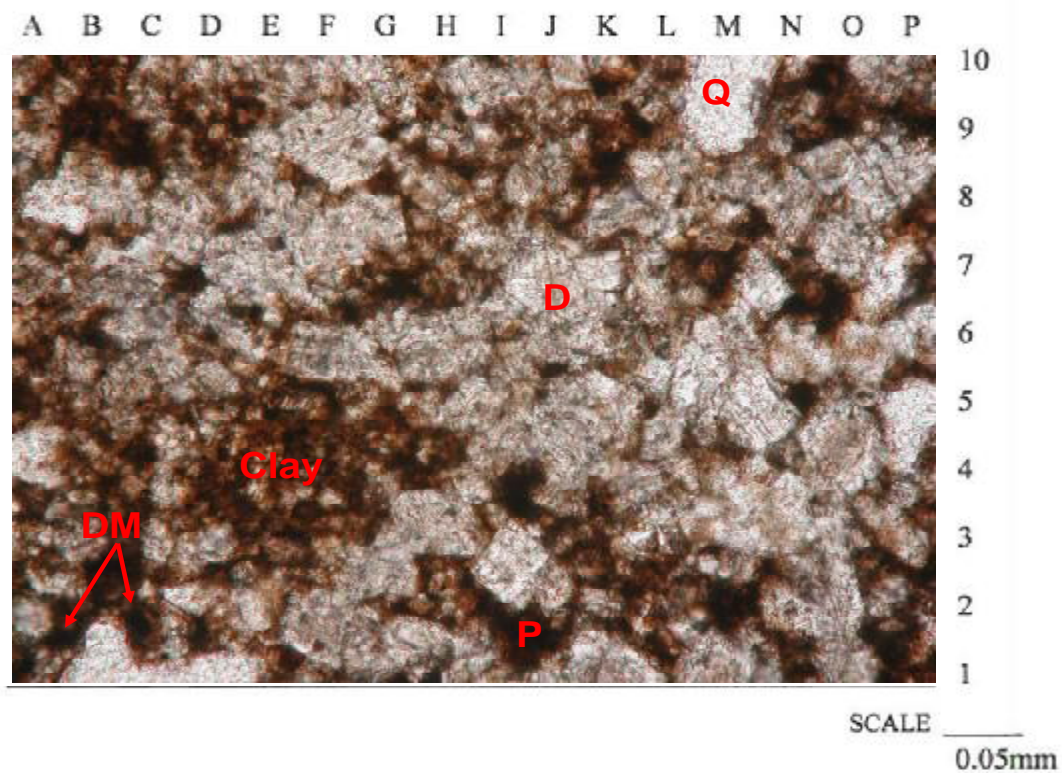
Appendix D.1. Facies A. Core #2, 10,719.6'. 160X, Plane Light. Mud to silt-sized authigenic dolomite (D) and detrital quartz (Q) within a clay (illite) matrix.



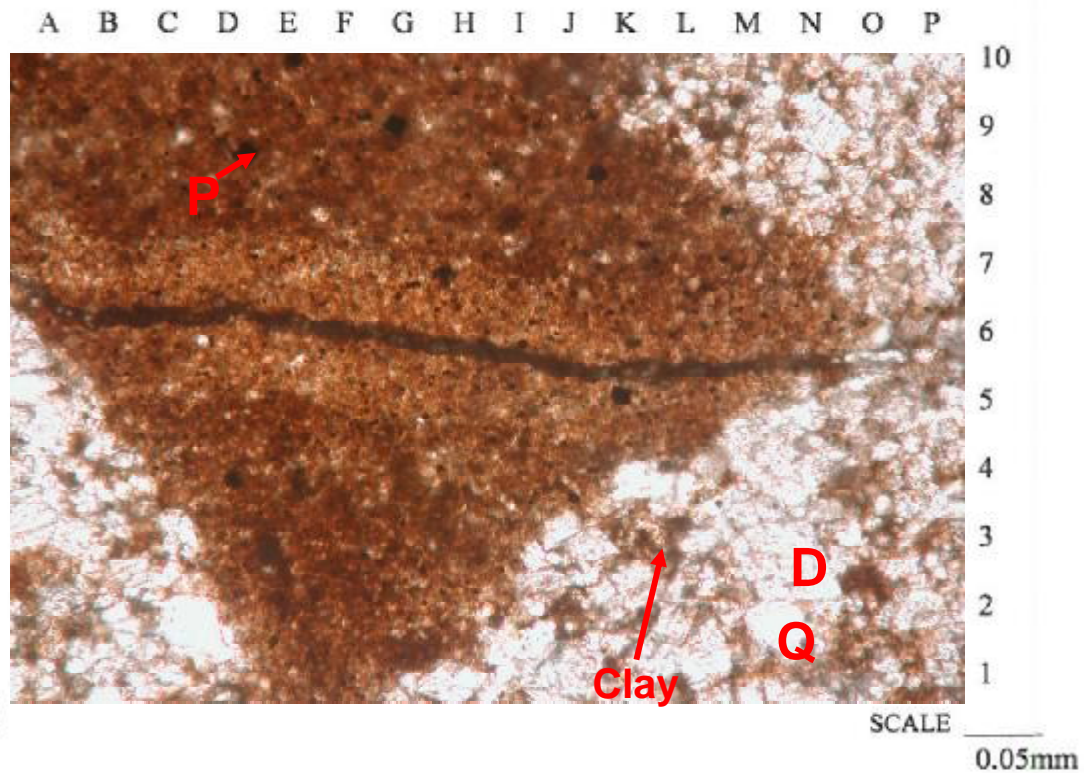
Appendix D.2. Facies B. Core #10, 10,801'. 160X, Polarized. Mud to silt-sized authigenic dolomite (D) and detrital quartz (Q) within a clay (illite) matrix.



Appendix D.3. Facies C. Core #10, 10,799'. 63X, Polarized. Authigenic dolomite (D) and detrital quartz (Q) within a clay (illite) matrix.



Appendix D.4. Facies D. Core #8, 10,968'. 160X, Plane Light. No visible porosity. Matrix is dominated by clay (illite) while the grains are authigenic dolomite (D) and detrital quartz (Q). Neomorphism and replacement has occurred by the pyrite replacing the dolomite grains (P) as well as dolomolds (DM).

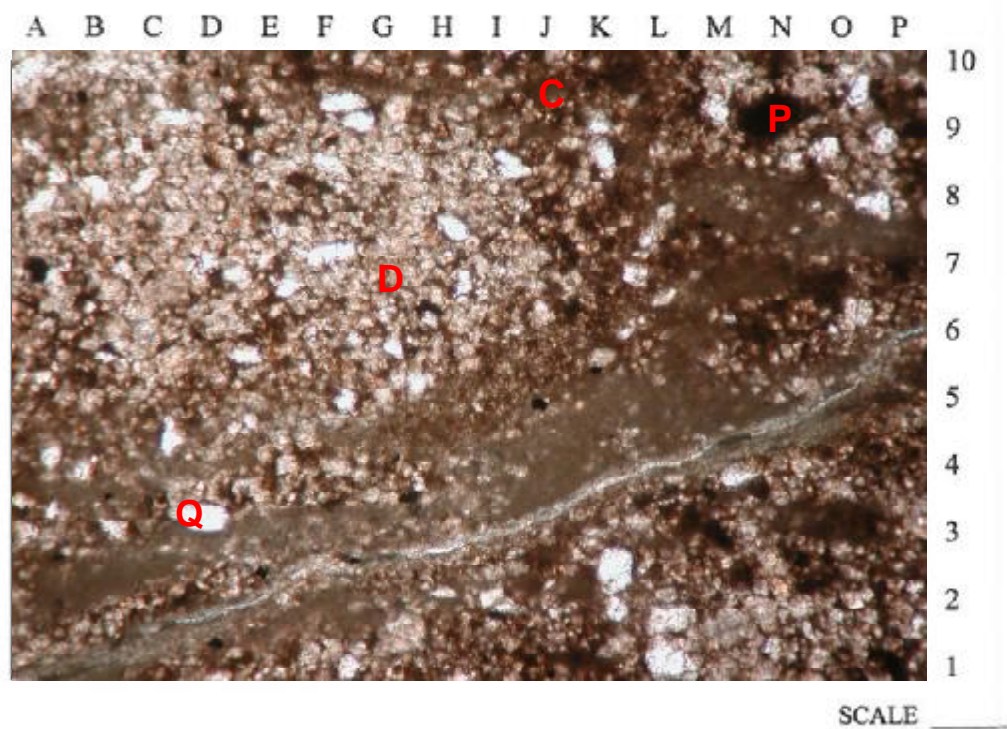


Appendix D.5. Facies D. Core #8. 10,968'. 160X, Plane Light. Open microfracture through a microcrystalline dolomite grain. Pyrite (P) replacement within the dolomite grain. Different stages of diagenetic flow along the microfracture are shown by the different coloring and size of dolomite decreasing away from the microfracture. Clay (illite) within a authigenic dolomite and detrital quartz matrix.



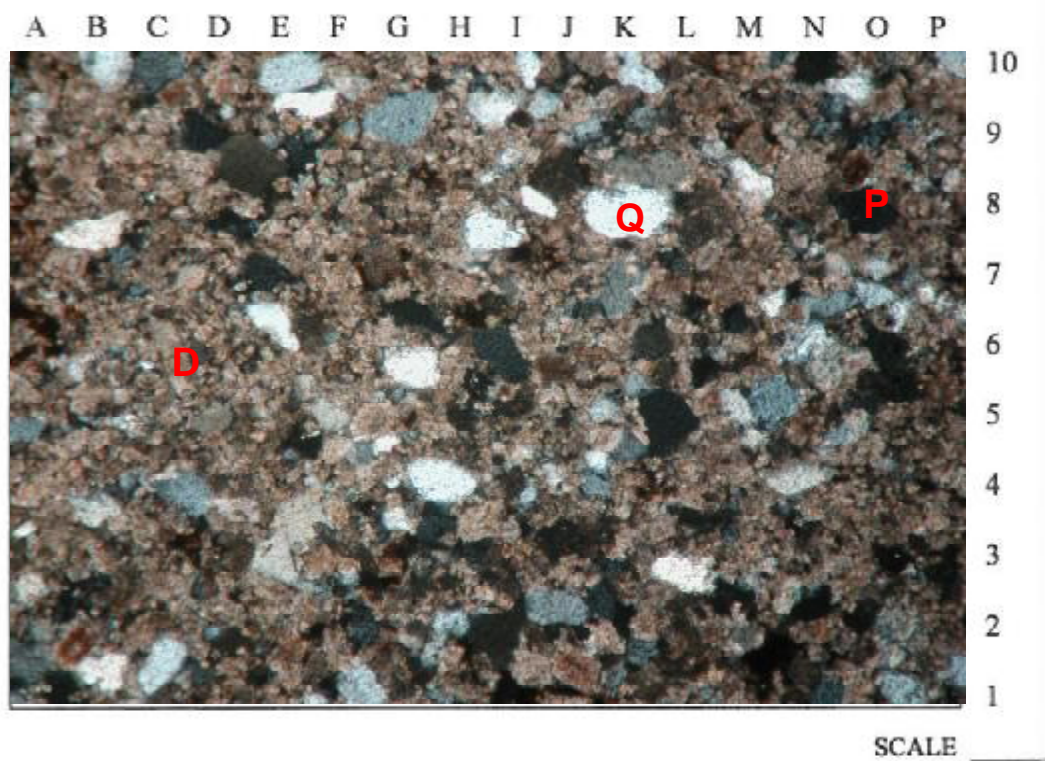
0.13mm

Appendix D.6. Facies D. Core #8, 10,965'. 63X, Plane Light. Close up view of a breccia (rip-up) crystalline dolomite clast. Laminations occur across the clast. Microfractures are open and closed (pyrite filled).



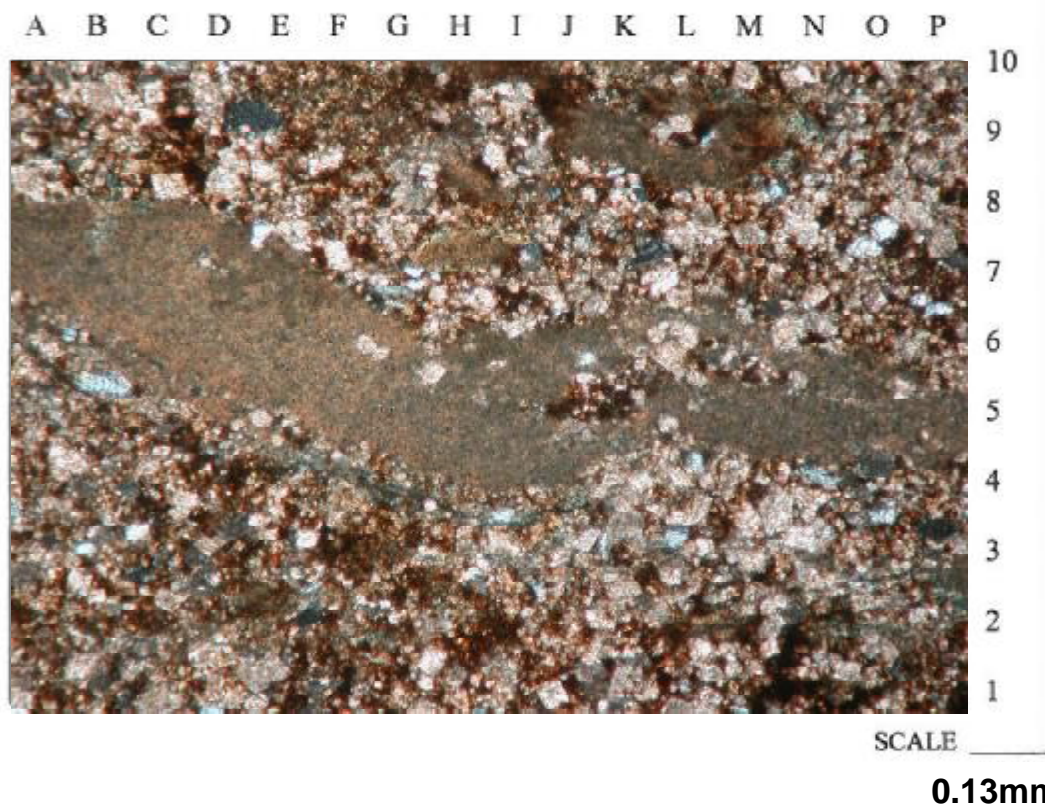
0.13mm

Appendix D.7. Facies D. Core #8, 11,004'. 63X, Plane Light. Authigenic dolomite (D) and detrital quartz (Q) grains within a clay (illite) matrix with microfracturing. Pyrite replacing dolomite grains (P).



0.13mm

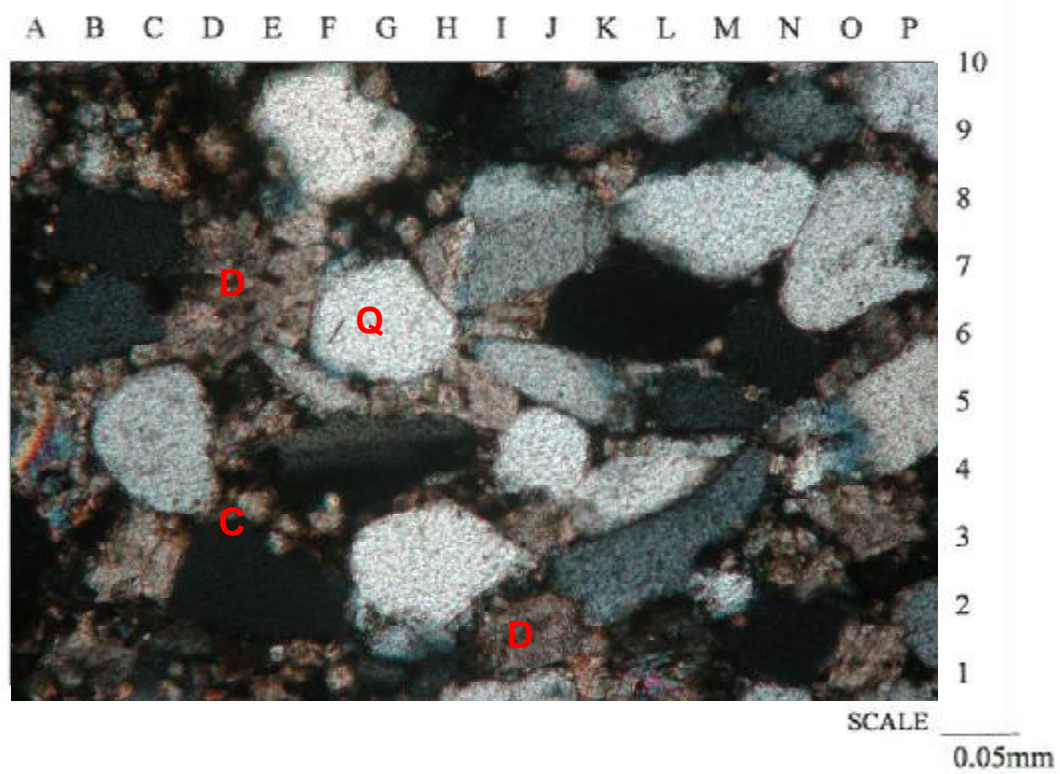
Appendix D.8. Facies D. Core #10, 10,791'. 63X, Polarized. Dolomite and quartz grains within a clay (illite/dolomite) matrix. Different sizes of dolomite crystals show different stages of recrystallization and mineralization. Pyrite replacement of dolomite grains.



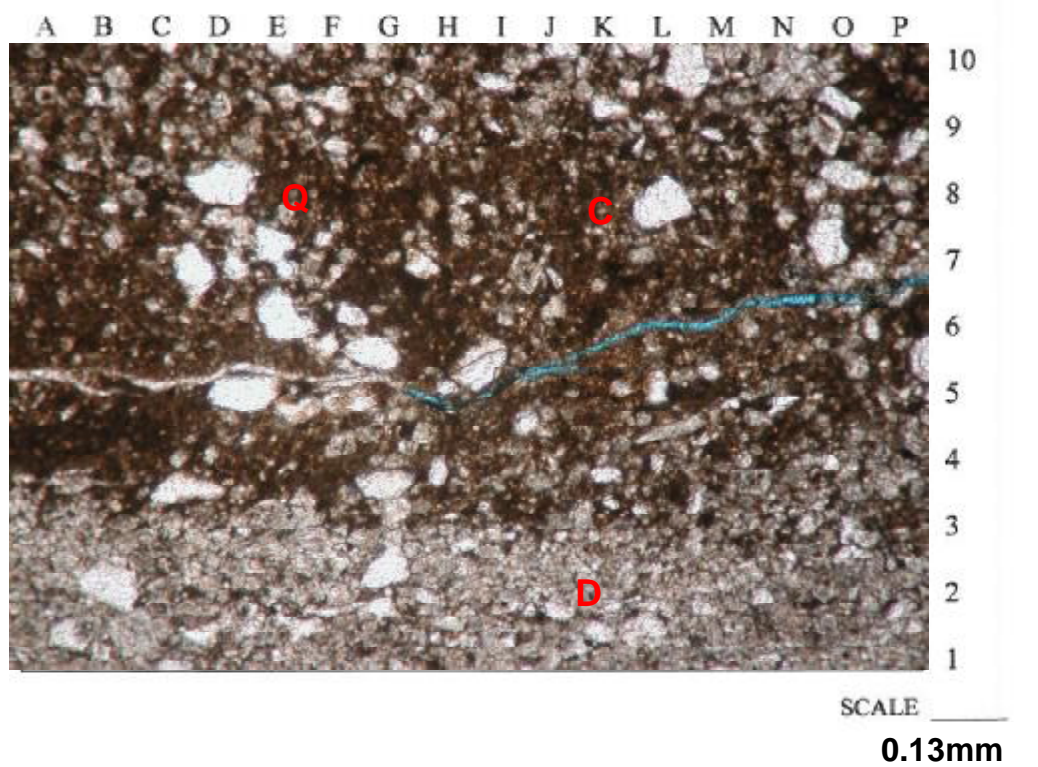
Appendix D.9. Facies D. Core #12, 10,971'. 63X, Polarized. Authigenic dolomite and detrital quartz grains in a clay (illite) matrix. Center of picture is a recrystallized dolomite clast.



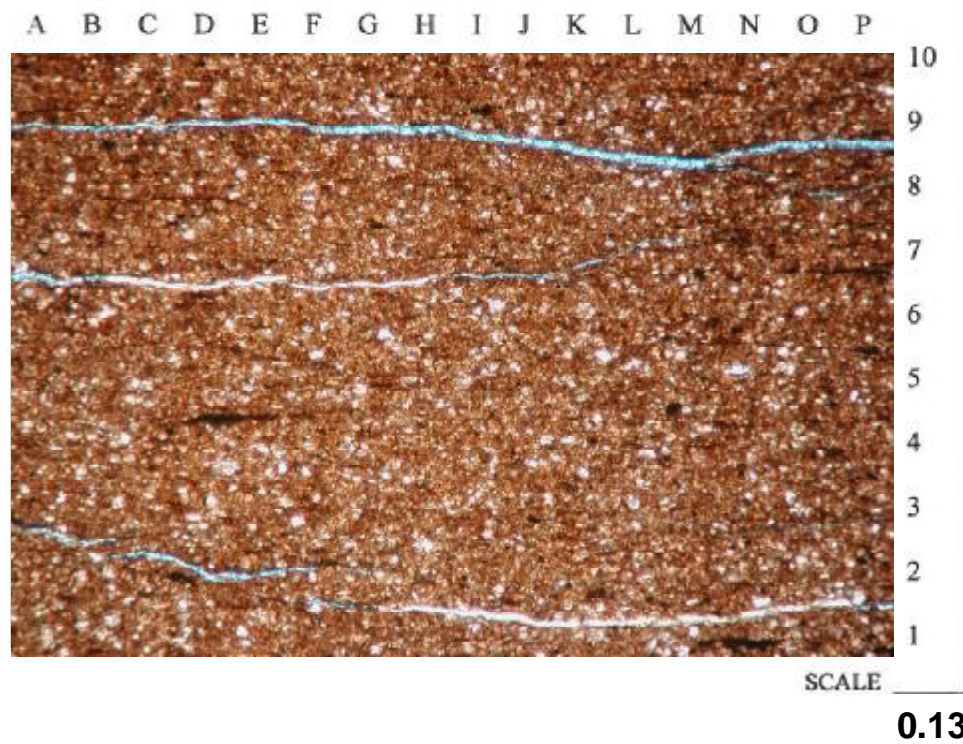
Appendix D.10. Facies D. Core #8, 10,971'. 63X, Plane Light. Dolomite matrix with large recrystallized dolomite clast (D). Pyrite replacement is found within the dolomite clasts (P). Note microfracture through the clast (M).



Appendix D.11. Facies D. Core #6, 10,745'. 160X, Polarized. Silt-sized detrital quartz (Q) within clay (illite) and very fine-grained to silt-sized authigenic dolomite (D) matrix.



Appendix D.12. Facies LBS. Core #6, 10743'. 63X, Plane Light. Dolomite filled microfracture in clay (illite/pyrite) matrix. Silt-sized authigenic dolomite and detrital quartz grains in clay matrix.



Appendix D.13. Facies LBS. Core #6, 10,743'. 63X, Plane Light. Authigenic dolomite, detrital quartz and clay (Illite) matrix with open and filled (pyrite and calcite) microfractures.