

## LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W-18784  
 TOTAL DEPTH: 1220 FT.  
 119 SAMPLES FROM 0 TO 1220 FT.

COUNTY - POLK  
 LOCATION: T.32S R.32E S.28 DC  
 LAT = 27D 39M 30S  
 LON = 81D 07M 59S  
 ELEVATION: 50 FT

COMPLETION DATE: N/A  
 OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER:SFWMD/WELL NAME OSF-105

WORKED BY:DAVID WAGNER 2008  
 WELL ENTERED BY DAVID WAGNER  
 DUAL-ZONE PRODUCTION WELL FOR OSF-104 TEST  
 LOCATION JUST OFF EAST SHORE OF KISSIMMEE RIVER JUST WEST OF  
 THE COUNTY LINE IN POLK COUNTY NOT OSCEOLA. OFF A LOCAL RIVER  
 ACCESS ROAD SOUTH OF HIGHWAY 60 AND WEST OF CORN HORNET GUIDE RD.  
 ELEVATION TAKEN FROM GIS MAP DATUM WGS84, ELEVATION IS  
 APPROXIMATE AND MAY BE A COUPLE FEET HIGH.  
 STR TAKEN FROM GIS MAP DATUM NAD83.  
 THE PEACE RIVER/ARCADIA CONTACT IS GRADATIONAL THE TOP OF WHICH  
 IS CHOSEN FROM FIRST OCCURRENCE OF PHOSPHATIC (SALT & PEPPER)  
 DOLOSTONE WITHIN A PHOSPHATE GRAVEL LAG DEPOSIT AT 140'. ACTUAL  
 CONTACT IS CHOSEN WHERE THE CARBONATE FRAGMENTS BECOME  
 SIGNIFICANTLY MORE ABUNDANT THAT THE GRAVEL PHOSPHATE AND SAND  
 AT 170'.

0.	-	110.	121PCPC	PLIOCENE-PLEISTOCENE
110.	-	170.	122PCRV	PEACE RIVER FM.
170.	-	330.	122ARCA	ARCADIA FM.
330.	-	390.	124OCAL	OCALA GROUP
390.	-	.	124AVPK	AVON PARK FM.
0	-	10	SAND; GRAYISH BROWN POROSITY: INTERGRANULAR GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY UNCONSOLIDATED ACCESSORY MINERALS: SHELL-07%, ORGANICS-05% FOSSILS: MOLLUSKS, BRYOZOA, ECHINOID, PLANT REMAINS ECHINOID SPINES PRESENT ONLY NOT THE BODY. ORGANICS ARE SEEN MOSTLY IN CLUMPS BUT THEY ARE NOT VERY EXPANSIVE IN WATER. ORGANICS HAVE OTHER PLANT AND ROOT MATERIAL IN THEM.	
10	-	20	SAND; YELLOWISH GRAY TO VERY LIGHT GRAY POROSITY: INTERGRANULAR GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY UNCONSOLIDATED ACCESSORY MINERALS: SHELL-07%, PHOSPHATIC SAND-02% ORGANICS-01% FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS MODAL GRAIN SIZE OF THE SAND IS MORE TOWARDS THE LARGER END OF THE MEDIUM RANGE, LARGER THAN THE LAST SAMPLE.	
20	-	30	SAND; YELLOWISH GRAY POROSITY: INTERGRANULAR GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY UNCONSOLIDATED ACCESSORY MINERALS: SHELL-05%, ORGANICS-01% FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS TRACE AMOUNTS OF SAND SIZED PHOSPHATE IS PRESENT IN SAMPLE.	
30	-	40	SAND; YELLOWISH GRAY TO GRAYISH BROWN POROSITY: INTERGRANULAR GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE	

- ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY  
UNCONSOLIDATED  
ACCESSORY MINERALS: SHELL-15%, PHOSPHATIC SAND-01%  
FOSSILS: MOLLUSKS, ECHINOID  
TRACE AMOUNTS OF HEAVY MINERALS ARE PRESENT IN SAMPLE.  
ECHINOID FRAGMENTS ARE HIGHLY RECRYSTALLIZED.
- 40 - 50 SHELL BED; VERY LIGHT ORANGE TO MODERATE GRAY  
POROSITY: INTERGRANULAR; UNCONSOLIDATED  
ACCESSORY MINERALS: QUARTZ SAND-03%, PHOSPHATIC GRAVEL-02%  
PHOSPHATIC SAND-01%, CALCILUTITE-01%  
FOSSILS: MOLLUSKS, ECHINOID, FOSSIL MOLDS  
GRAVEL PHOSPHATE PRESENT AS PHOSPHATIZED SHELLS AND SHELL  
MOLDS ECHINOID FRAGMENTS HIGHLY RECYRSTALLIZED. TRACE  
AMOUNTS OF ORGANICS PRESENT IN SAMPLE. APPROXIMATELY ONE  
THIRD OF SAND IS CEMENTED BY MICRITE, SOMETIMES TO THE  
OUTSIDE SHELLS.
- 50 - 60 SHELL BED; VERY LIGHT ORANGE TO MODERATE DARK GRAY  
POROSITY: INTERGRANULAR; UNCONSOLIDATED  
ACCESSORY MINERALS: PHOSPHATIC GRAVEL-02%  
PHOSPHATIC SAND-01%, QUARTZ SAND-02%, LIMESTONE-05%  
FOSSILS: MOLLUSKS, BRYOZOA, ECHINOID, WORM TRACES  
ECHINOID FRAGMENTS AND ~5% OF SHELLS ARE HIGHLY  
RECRYSTALLIZED. MOST QUARTZ SAND IS HELD TOGETHER BY CLAY  
AND MICRITE. TRACE CLAY AND ORGANICS ARE ALSO PRESENT IN  
SMAPLE.
- 60 - 70 SHELL BED; VERY LIGHT ORANGE TO MODERATE DARK GRAY  
POROSITY: INTERGRANULAR; UNCONSOLIDATED  
ACCESSORY MINERALS: LIMESTONE-20%, PHOSPHATIC GRAVEL-03%  
PHOSPHATIC SAND-03%, QUARTZ SAND-03%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, BRYOZOA, ECHINOID, SHARKS TEETH  
TRACE AMOUNTS OF CLAY AND CALCITE PRESENT IN SAMPLE.  
LIMESTONE IS POORLY INDURATED, CHALKY, AND IS A MUDSTONE  
ALMOST COMPLETELY MICRITE.
- 70 - 80 SHELL BED; VERY LIGHT ORANGE TO DARK GRAY  
POROSITY: INTERGRANULAR; UNCONSOLIDATED  
ACCESSORY MINERALS: PHOSPHATIC SAND-05%  
PHOSPHATIC GRAVEL-03%, QUARTZ SAND-03%, LIMESTONE-10%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, BRYOZOA, SHARKS TEETH  
TRACE CALCITE PRESENT IN SAMPLE.
- 80 - 90 SHELL BED; VERY LIGHT ORANGE TO MODERATE DARK GRAY  
POROSITY: INTERGRANULAR; UNCONSOLIDATED  
ACCESSORY MINERALS: PHOSPHATIC SAND-02%  
PHOSPHATIC GRAVEL-03%, LIMESTONE-02%, QUARTZ SAND-02%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, BRYOZOA, ECHINOID, CORAL  
ONE PERCENT OF SAMPLE IS MADE UP OF CALCITE AS AN ACCESSORY  
MINERAL.
- 90 - 100 SHELL BED; VERY LIGHT ORANGE TO MODERATE DARK GRAY  
POROSITY: INTERGRANULAR; UNCONSOLIDATED  
ACCESSORY MINERALS: PHOSPHATIC SAND-03%  
PHOSPHATIC GRAVEL-05%, LIMESTONE-07%, QUARTZ SAND-02%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, BRYOZOA, ECHINOID  
TWO PERCENT OF SAMPLE IS MADE UP OF CLAY AS AN ACCESSORY  
MINERAL.
- 100 - 110 SHELL BED; VERY LIGHT ORANGE TO MODERATE DARK GRAY  
POROSITY: INTERGRANULAR; UNCONSOLIDATED  
ACCESSORY MINERALS: PHOSPHATIC SAND-02%

PHOSPHATIC GRAVEL-05%, LIMESTONE-20%, QUARTZ SAND-03%  
FOSSILS: MOLLUSKS, BRYOZOA, VERTEBRATE  
LIMESTONE PRESENT IS A LIGHT GREY MUDSTONE ALMOST ALL  
MICRITE. CLAY IS PRESENT IN SAMPLE AT ~2%.

- 110 - 120 SAND; LIGHT OLIVE GRAY  
POROSITY: INTERGRANULAR  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM  
ROUNDNESS: ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX  
ACCESSORY MINERALS: CLAY-20%, SHELL-05%, SILT-01%  
OTHER FEATURES: POOR SAMPLE, CALCAREOUS  
FOSSILS: MOLLUSKS, CORAL  
SAMPLE VOLUME IN BAG IS VERY SMALL. THE UNWASHED SAMPLE IS  
EVEN SMALLER.
- 120 - 130 SAND; LIGHT OLIVE GRAY TO MODERATE GRAY  
POROSITY: INTERGRANULAR  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE  
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX  
ACCESSORY MINERALS: PHOSPHATIC SAND-07%, CLAY-10%  
SHELL-03%, PHOSPHATIC GRAVEL-01%  
OTHER FEATURES: POOR SAMPLE  
FOSSILS: BRYOZOA, MOLLUSKS, ECHINOID  
SAMPLE VOLUME IN BAG IS VERY SMALL FOR BOTH WASHED AND  
UNWASHED SAMPLES. BARNACLES ARE THE MOST ABUNDANT FOSSIL  
TYPE MAKING UP ABOUT 20% OF THE SAMPLE.
- 130 - 140 SAND; BLACK TO VERY LIGHT ORANGE  
POROSITY: INTERGRANULAR  
GRAIN SIZE: COARSE; RANGE: FINE TO GRANULE  
ROUNDNESS: ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY  
UNCONSOLIDATED  
ACCESSORY MINERALS: PHOSPHATIC SAND-20%  
PHOSPHATIC GRAVEL-20%, SHELL-20%, CALCILUTITE-03%  
FOSSILS: MOLLUSKS, BRYOZOA, ECHINOID, SHARKS TEETH  
FOSSIL MOLDS  
PHSPHATE MAKES UP THE LARGEST PERCENTAGE OF THE SAMPLE BUT  
IT IS NOT HARD ROCK PHOSPHATE. SAMPLE ALSO CONTAINS TRACE  
AMOUNTS OF CLACITE.
- 140 - 150 DOLOSTONE; BLACK TO VERY LIGHT ORANGE  
POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 0-10% ALTERED  
ANHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
ACCESSORY MINERALS: PHOSPHATIC SAND-20%  
PHOSPHATIC GRAVEL-07%, SHELL-03%, LIMESTONE-05%  
FOSSILS: MOLLUSKS, BRYOZOA  
MUCH OF THE PHOSPHATE IS INCORPORATED INTO THE DOLOSTONES  
AND LIMESTONES. SOME OF THE DOLOMITIC LIMESTONES ARE  
SUCROSIC. THESE LIMESTONES MAKE UP ABOUT 5% OF THE SAMPLE.  
SAMPLE ALSO CONTAINS TRACE AMOUNTS OF CLAY.
- 150 - 160 DOLOSTONE; YELLOWISH GRAY TO MODERATE GRAY  
POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 0-10% ALTERED  
ANHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
ACCESSORY MINERALS: SHELL-15%, PHOSPHATIC SAND-15%  
PHOSPHATIC GRAVEL-02%, LIMESTONE-10%  
OTHER FEATURES: DOLOMITIC, SUCROSIC

FOSSILS: MOLLUSKS, BRYOZOA, FOSSIL MOLDS, SHARKS TEETH  
INDURATION RANGES FROM MODERATE TO GOOD. ONE PERCENT OF  
SAMPLE IS COMPOSED OF QUARTZ SAND.

- 160 - 170 DOLOSTONE; YELLOWISH GRAY TO DARK GRAY  
POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 0-10% ALTERED  
SUBHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
ACCESSORY MINERALS: PHOSPHATIC SAND-10%  
PHOSPHATIC GRAVEL-07%, SHELL-10%  
OTHER FEATURES: SUCROSIC  
FOSSILS: MOLLUSKS, BRYOZOA, ECHINOID, CRUSTACEA  
INDURATION RANGES FROM MODERATE TO GOOD. TRACE AMOUNTS OF  
CLAY ARE PRESENT IN SAMPLE.
- 170 - 180 MUDSTONE; YELLOWISH GRAY TO DARK GRAY  
POROSITY: INTERGRANULAR, INTERCRYSTALLINE  
GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS  
10% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: GRANULE; RANGE: COARSE TO GRAVEL  
GOOD INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT  
ACCESSORY MINERALS: PHOSPHATIC SAND-10%  
PHOSPHATIC GRAVEL-02%, SHELL-05%, QUARTZ SAND-01%  
OTHER FEATURES: DOLOMITIC, SUCROSIC  
FOSSILS: MOLLUSKS, CORAL, BRYOZOA, SHARKS TEETH, CRUSTACEA  
THERE ARE ALSO A FEW FOSSIL MOLDS AND ECHINOID FRAGMENTS  
PRESENT.
- 180 - 190 MUDSTONE; YELLOWISH GRAY TO DARK GRAY  
POROSITY: INTERGRANULAR, MOLDIC, INTERCRYSTALLINE  
GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS  
07% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: GRANULE; RANGE: COARSE TO GRAVEL  
GOOD INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT  
ACCESSORY MINERALS: PHOSPHATIC SAND-05%  
PHOSPHATIC GRAVEL-05%, SHELL-03%  
OTHER FEATURES: DOLOMITIC, SUCROSIC  
FOSSILS: MOLLUSKS, BRYOZOA, FOSSIL MOLDS, SHARKS TEETH  
ECHINOID
- 190 - 200 DOLOSTONE; YELLOWISH GRAY TO DARK GRAY  
POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC  
10-50% ALTERED; SUBHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE  
GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-15%  
PHOSPHATIC GRAVEL-03%, CHERT-02%  
OTHER FEATURES: SUCROSIC  
FOSSILS: MOLLUSKS, FOSSIL MOLDS, VERTEBRATE, SHARKS TEETH  
ONE TO TWO PERCENT OF SAMPLE IS MADE UP FROM SHELLS.
- 200 - 210 DOLOSTONE; YELLOWISH GRAY TO DARK GRAY  
POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC  
10-50% ALTERED; SUBHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
ACCESSORY MINERALS: PHOSPHATIC SAND-10%  
PHOSPHATIC GRAVEL-03%, LIMESTONE-07%, CHERT-02%  
OTHER FEATURES: SUCROSIC  
FOSSILS: FOSSIL MOLDS, BRYOZOA, MOLLUSKS

ALSO PRESENT ARE TRACE AMOUNTS OF SHELLS.

- 210 - 220 DOLOSTONE; YELLOWISH GRAY TO DARK GRAY  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC  
 50-90% ALTERED; SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
 ACCESSORY MINERALS: PHOSPHATIC SAND-07%  
 PHOSPHATIC GRAVEL-05%  
 OTHER FEATURES: SUCROSIC  
 FOSSILS: FOSSIL FRAGMENTS, VERTEBRATE, SHARKS TEETH  
 FOSSIL MOLDS, ECHINOID  
 ALSO PRESENT ARE TRACE AMOUNTS OF SHELLS.
- 220 - 230 DOLOSTONE; YELLOWISH GRAY TO DARK GRAY  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
 CLAY MATRIX  
 ACCESSORY MINERALS: PHOSPHATIC SAND-07%  
 PHOSPHATIC GRAVEL-03%, QUARTZ SAND-01%, SHELL-01%  
 OTHER FEATURES: SUCROSIC  
 FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, SHARKS TEETH  
 ALTERATION RANGES FROM MEDIUM TO COMPLETE. ALSO PRESENT ARE  
 TRACE AMOUNTS OF CLAY.
- 230 - 240 DOLOSTONE; WHITE TO DARK GRAY  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC  
 50-90% ALTERED; SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
 ACCESSORY MINERALS: PHOSPHATIC SAND-05%  
 PHOSPHATIC GRAVEL-03%, LIMESTONE-25%, SHELL-02%  
 OTHER FEATURES: SUCROSIC  
 FOSSILS: FOSSIL MOLDS, MOLLUSKS, BRYOZOA, SHARKS TEETH  
 ECHINOID  
 A THIRD MAJOR COLOR PRESENT IS YELLOWISH GREY (5Y 7/2  
 MUNSELL) DOLOMITE ALTERATION RANGES FROM MODERATE TO HIGH.  
 SALT AND PEPPER LOOKING LIMESTONE IS A WACKSTONE WITH SOME  
 MOLDIC PORES. PELLET FOSSILS AND ~1% OF QUARTZ SAND ALSO  
 PRESENT.
- 240 - 250 PACKSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY  
 POROSITY: INTERGRANULAR, INTERCRYSTALLINE  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: GRAVEL; RANGE: VERY COARSE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-30%, PHOSPHATIC SAND-03%  
 FOSSILS: BENTHIC FORAMINIFERA, BRYOZOA, CORAL  
 SHARKS TEETH  
 A THIRD MAJOR COLOR PRESENT IS GREYISH ORANGE.  
 LEPIDOCYCLINA FORAMS ARE PRESENT. DOLOMITE PRESENT IS  
 HIGHLY ALTERED, SUBHEDRAL WITH A GRAIN SIZE RANGE OF  
 MICROCRYSTALLINE TO FINE AND A MODAL GRAIN SIZE OF FINE.  
 INDURATION FOR THIS SAMPLE IS HARD TO DISCERN BECAUSE MOST  
 OF SAMPLE IS CONSISTS OF LOOSE FORAMS. FROM THE LITTLE  
 CEMENT PRESENT INDURATION APPEARS TO BE POOR TO MODERATE.
- 250 - 260 DOLOSTONE; YELLOWISH GRAY TO DARK GRAY  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 10-50% ALTERED  
 SUBHEDRAL

- GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE  
 MODERATE INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
 ACCESSORY MINERALS: PHOSPHATIC SAND-15%  
 PHOSPHATIC GRAVEL-03%, QUARTZ SAND-03%, LIMESTONE-20%  
 FOSSILS: MOLLUSKS, FOSSIL MOLDS, SHARKS TEETH, VERTEBRATE  
 ECHINOID  
 BARNACLES ALSO PRESENT IN SAMPLE. DOLOSTONES ARE VARIABLY  
 SUCROSIC. LIMESTONE PRESENT CONTAINS ABOUT 30% ALLOCHEMS  
 THAT ARE LARGER THAN SILT SIZE. GRAIN SIZE RANGE FOR THE  
 LIMESTONE IS VERY COARSE TO GRAVEL WITH A MODAL SIZE OF  
 GRANULE. LIMESTONE HAS THE TYPICAL SALT AND PEPPER  
 APPEARANCE ASSOCIATED WITH ARCADIA LIMESTONE. SAMPLE ALSO  
 CONSISTS OF ~2% SHELLS.
- 260 - 270 DOLOSTONE; LIGHT OLIVE GRAY TO WHITE  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX  
 ACCESSORY MINERALS: LIMESTONE-30%, PHOSPHATIC SAND-10%  
 QUARTZ SAND-05%, PHOSPHATIC GRAVEL-02%  
 FOSSILS: MOLLUSKS, FOSSIL MOLDS  
 INDURATION VARIES FROM MODERATE TO GOOD. LIMESTONE PRESENT  
 CONTAINS ABOUT 40% ALLOCHEMS THAT ARE LARGER THAN SILT  
 SIZE. GRAIN SIZE RANGE FOR THE LIMESTONE IS FINE TO GRAVEL  
 WITH A MODAL SIZE OF MEDIUM. GRAIN TYPE PRESENT IN  
 LIMESTONE IS MICRITE AND SKELETAL. DOLOMITE ALTERATION  
 RANGES FROM MEDIUM TO HIGH. SAMPLE IS VARIABLY SUCROSIC.
- 270 - 280 DOLOSTONE; LIGHT OLIVE GRAY TO BLACK  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC  
 50-90% ALTERED; SUBHEDRAL  
 GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE  
 GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 ACCESSORY MINERALS: PHOSPHATIC SAND-05%  
 PHOSPHATIC GRAVEL-03%, LIMESTONE-07%, QUARTZ SAND-01%  
 OTHER FEATURES: SUCROSIC  
 FOSSILS: MOLLUSKS, FOSSIL MOLDS, SHARKS TEETH, ECHINOID
- 280 - 320 NO SAMPLES
- 320 - 330 SAND; YELLOWISH GRAY  
 POROSITY: INTERGRANULAR  
 GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
 ROUNDNESS: ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY  
 UNCONSOLIDATED  
 ACCESSORY MINERALS: SHELL-03%, PHOSPHATIC SAND-03%  
 DOLOMITE-02%  
 OTHER FEATURES: CALCAREOUS  
 FOSSILS: BENTHIC FORAMINIFERA, CORAL, MOLLUSKS, VERTEBRATE  
 ECHINOID  
 LEPIDOCYCLINA AND GYPSINA GLOBULA PRESENT IN SAMPLE. TRACE  
 AMOUNTS OF MICA ALSO PRESENT IN SAMPLE.
- 330 - 335 AS ABOVE
- 335 - 340 PACKSTONE; YELLOWISH GRAY TO LIGHT GRAY  
 POROSITY: INTERGRANULAR  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: GRANULE; RANGE: FINE TO GRAVEL  
 POOR INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX  
 ACCESSORY MINERALS: DOLOMITE-02%, PHOSPHATIC SAND-01%

- QUARTZ SAND-03%  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, CORAL  
LEPIDOCYCLINA AND NUMMULITIES PRESENT IN SAMPLE TRACE  
AMOUNTS OF GRAVEL SIZE PHOSPHATE PRESENT IN SAMPLE.
- 340 - 350 PACKSTONE; VERY LIGHT ORANGE TO LIGHT GRAY  
POROSITY: INTERGRANULAR  
GRAIN TYPE: SKELETAL, CALCILUTITE  
80% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: GRANULE; RANGE: FINE TO GRAVEL  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: DOLOMITE-01%, PHOSPHATIC SAND-01%  
QUARTZ SAND-05%  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, CORAL  
LEPIDOCYCLINA AND NUMMULITIES PRESENT IN SAMPLE. CAVINGS  
POSSIBLE IN THIS AND LAST INTERVAL.
- 350 - 360 PACKSTONE; YELLOWISH GRAY  
POROSITY: INTERGRANULAR  
GRAIN TYPE: SKELETAL, CALCILUTITE  
80% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: GRAVEL; RANGE: VERY COARSE TO GRAVEL  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
OTHER FEATURES: HIGH RECRYSTALLIZATION  
FOSSILS: BENTHIC FORAMINIFERA, CORAL, MOLLUSKS, BRYOZOA  
SAMPLE IS MOSTLY A LOOSE LEPIDOCYCLINA BED. APPROXIMATELY  
20% MICRITE CEMENT IN THE ROCK ASSUMED FROM THE FEW  
CEMENTED PIECES THAT SURVIVED THE DRILLING PROCESS.
- 360 - 370 AS ABOVE
- 370 - 380 PACKSTONE; YELLOWISH GRAY  
POROSITY: INTERGRANULAR  
GRAIN TYPE: SKELETAL, CALCILUTITE  
80% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: GRAVEL; RANGE: VERY COARSE TO GRAVEL  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
OTHER FEATURES: HIGH RECRYSTALLIZATION  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, CORAL, BRYOZOA  
SAMPLE IS MOSTLY A LOOS LEPIDOCYCLINA BED. APPROXIMATELY  
20% MICRITE CEMENT IN ROCK IS ASSUMED FROM THE FEW  
CEMEMNTED PIECES THAT SURVIVED THE DRILLING PROCESS.
- 380 - 390 GRAINSTONE; VERY LIGHT ORANGE TO WHITE  
POROSITY: INTERGRANULAR, INTERCRYSTALLINE  
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE  
93% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: GRAVEL; RANGE: MEDIUM TO GRAVEL  
GOOD INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
ACCESSORY MINERALS: CALCITE-05%  
OTHER FEATURES: HIGH RECRYSTALLIZATION  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, FOSSIL MOLDS  
ALGAE  
NEOLAGANUM DALLI AND DICTYOCONUS FOSSILS PRESENT IN SAMPLE.  
TRACE AMOUNTS OF ORGANICS PRESENT.
- 390 - 400 GRAINSTONE; VERY LIGHT ORANGE TO WHITE  
POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC  
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE  
90% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: GRAVEL; RANGE: MEDIUM TO GRAVEL  
GOOD INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

- ACCESSORY MINERALS: CALCITE-05%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, CHALKY  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, FOSSIL MOLDS  
 INDURATION VARIES FROM MODERATE TO POOR. TRACE AMOUNTS OF  
 ORGANICS PRESENT IN SAMPLE.
- 400 - 410 AS ABOVE
- 410 - 420 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR  
 GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: GRAVEL; RANGE: FINE TO GRAVEL; GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: CALCITE-01%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, CHALKY  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 CHALKY JUST FROM MICRITE BUT ROCK IS NOT SOFT.
- 420 - 430 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR  
 GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: GRAVEL; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, CHALKY  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 ROCK VARIES FROM A PAKSTONE TO A GRAINSTONE INDURATION  
 VARIES FROM MODERATE TO GOOD.
- 430 - 440 PACKSTONE; WHITE TO VERY LIGHT ORANGE  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE  
 80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: GRAVEL; RANGE: FINE TO GRAVEL; POOR INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, CHALKY  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 INDURATION IS POOR TO MODERATE. DISPUTE THE SEVERAL  
 POROSITY TYPES LISTED THE PERMEABILITY OF THIS SAMPLE IS  
 NOT HIGH.
- 440 - 450 GRAINSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE  
 POROSITY: INTERGRANULAR, INTERCRYSTALLINE  
 GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: GRAVEL; RANGE: FINE TO GRAVEL; POOR INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 SAMPLE VARIES FROM POOR-MODERATE INDURATION.
- 450 - 460 GRAINSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY  
 POROSITY: INTERGRANULAR, INTERCRYSTALLINE  
 GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL; POOR INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, CHALKY  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS  
 THIS SAMPLE HAS MUCH LARGER ROCK FRAGMENTS THEN PREVIOUS  
 SAMPLE. AVERAGE SIZE IS ABOUT 16MM IN DIAMETER. TWO  
 LITHOLOGIES ARE PRESENT. SAMPLE IS ACTUALLY 50/50  
 GRAINSTONE AND A CALCILUTITE WHICH IS REPRESENTED BY  
 SEPARATE FRAGMENTS.

- 460 - 470 PACKSTONE; WHITE TO VERY LIGHT ORANGE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST  
 70% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX  
 OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 INDURATION RANGES FROM MODERATE TO WELL INDURATED. FOSSIL  
 CONTENT IS VARIABLE. ROCK FRAGMENTS VARY FROM WACKESTONE  
 TO PACKSTONE WITH TRACE AMOUNTS OF ORGANICS.
- 470 - 480 PACKSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST  
 80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX  
 OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 INDURATION VARIES FROM MODERATE TO WELL INDURATED. FOSSIL  
 CONTENT IS VARIABLE. ROCK FRAGMENTS VARY FROM WACKESTONE  
 TO PACKSTONE WITH TRACE AMOUNTS OF ORGANICS.
- 480 - 490 AS ABOVE
- 490 - 500 GRAINSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN  
 POROSITY: INTERGRANULAR, INTERCRYSTALLINE, MOLDIC  
 GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE  
 95% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: MEDIUM TO GRAVEL  
 GOOD INDURATION  
 CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX  
 DOLOMITE CEMENT  
 ACCESSORY MINERALS: CALCITE-03%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS  
 NEOLAGANUM DALLI IS PRESENT MAKING UP 3% OF THE SAMPLE.  
 CONES, LITUONELLA FLORIDANA AND SPIROLINA CORYENSIS ARE  
 ALSO PRESENT IN THIS SAMPLE.
- 500 - 510 GRAINSTONE; VERY LIGHT ORANGE  
 POROSITY: INTERGRANULAR, INTERCRYSTALLINE, MOLDIC  
 GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE  
 95% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: MEDIUM TO GRAVEL  
 GOOD INDURATION  
 CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX  
 DOLOMITE CEMENT  
 ACCESSORY MINERALS: CALCITE-05%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS  
 TRACE AMOUNTS OF ORGANICS ARE PRESENT.
- 510 - 520 GRAINSTONE; YELLOWISH GRAY  
 POROSITY: INTERGRANULAR, INTERCRYSTALLINE, MOLDIC  
 GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: CALCITE-01%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS  
 ABUNDANT ECHINOID FRAGMENTS MAKE UP ~20%-25% OF THE SAMPLE.

- 520 - 530 GRAINSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST  
 90% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS  
 INDURATION RANGES FROM MODERATE TO WELL. SAMPLE VARIES FROM  
 PACKSTONE TO GRAINSTONE. ABUNDANT ECHINOIOD FRAGMENTS MAKE  
 UP ABOUT 25%-30% OF SAMPLE.
- 530 - 540 GRAINSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST  
 90% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL; POOR INDURATION  
 CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 SAMPLE VARIES FROM PACKSTONE TO GRAINSTONE. ABUNDANT  
 ECHINOID FRAGMENTS MAKE UP ~25% OF SAMPLE.
- 540 - 550 PACKSTONE; WHITE TO YELLOWISH GRAY  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST  
 80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL; POOR INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: CALCITE-01%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS  
 INDURATION RANGES FROM POOR TO MODERATE. ECHINOIDS STILL  
 PRESENT BUT AT A MUCH LOWER PERCENTAGE.
- 550 - 560 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST  
 75% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL; POOR INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-01%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 INDURATION VARIES FROM POOR TO MODERATE.
- 560 - 570 AS ABOVE
- 570 - 580 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST  
 75% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL; POOR INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-01%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 INDURATION RANGES FROM POOR TO MODERATE. ONE FRAGMENT OF  
 DOLOSTONE PRESENT IN SAMPLE.
- 580 - 590 DOLOSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE  
 GOOD INDURATION

- CEMENT TYPE(S): DOLOMITE CEMENT  
 ACCESSORY MINERALS: LIMESTONE-20%  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 CRYSTALLINITY VARIES FROM SUBHEDRAL TO EUHEDRAL. LIMESTONE HAS A PERCENTAGE OF ALLOCHEMS GREATER THAN SILT SIZE OF 75%. THE GRAIN SIZE RANGES FROM FINE TO GRAVEL WITH A MODAL SIZE OF MEDIUM. GRAIN TYPES PRESENT ARE SKELETAL MICRITE AND SKELETAL CAST. THIS PACKSTONE IS ALSO ACCOMPANIED BY A CALCILUTITE TO MAKE UP THE FULL LIMESTONE PERCENTAGE. THE TWO LIMESTONES ARE PRESENT AT A 50/50 DISTRIBUTION AND ARE BOTH CHALKY.
- 590 - 600    PACKSTONE; YELLOWISH GRAY TO LIGHT GRAY  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 75% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-20%  
 OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 MULTIPLE LITHOLOGIES PRESENT. IN ADDITION TO THE LIMESTONE LISTED ABOVE THERE ARE SOME MUDSTONE TO WACKESTONE FRAGMENTS WHICH CONTAIN LIGHT BROWN LAMINATIONS MAKING UP ABOUT 10% OF THE SAMPLE. THERE ARE TWO DOLOSTONES PRESENT ONE WITH HIGH ALTERATION AND EUHEDRAL CRYSTALLINITY COLORED YELLOWISH GREY. THIS DOLOSTONE MAKES UP ABOUT 5% OF THE SAMPLE. THE SECOND HAS LOW ALTERATION AND ANHEDRAL CRYSTALLINITY AND IS A LIGHT GREY COLOR AND MAKES UP ABOUT 15% OF THE SAMPLE.
- 600 - 610    DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY  
 POROSITY: INTERCRYSTALLINE, MOLDIC, LOW PERMEABILITY  
 50-90% ALTERED; SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 ACCESSORY MINERALS: LIMESTONE-25%  
 FOSSILS: BENTHIC FORAMINIFERA  
 LIMESTONE FRAGMENTS VARY FROM A GRAINSTONE TO A CHALKY MUDSTONE WITH THIN LIGHT BROWN LAMINATIONS. MODAL GRAIN SIZE OF THE GRAINSTONE IS COARSE.
- 610 - 620    PACKSTONE; VERY LIGHT ORANGE TO WHITE  
 POROSITY: INTERGRANULAR, INTERCRYSTALLINE  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 70% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-20%  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 DOLOMITE PRESENT IS HIGHLY ALTERED, SUBHEDRAL AND HAS A GRAIN SIZE RANGE OF MICROCRYSTALLINE TO VERY FINE WITH A MODAL SIZE OF VERY FINE. THE DOLOMITE COLOR IS A MIXTURE OF PALE YELLOWISH BROWN AND GRAYISH ORANGE. THE LIMESTONE VARIES FROM A GRAINSTONE TO A CHALKY MUDSTONE.
- 620 - 630    PACKSTONE; WHITE TO GRAYISH BROWN  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS  
 LIMESTONE INDURATION RANGES FROM POOR TO MODERATE.  
 APPROXIMATELY 15% OF SAMPLE IS CALCILUTITE WHICH SOMETIMES  
 HAS LIGHT TO DARK BROWN LAMINATIONS PRESENT.

- 630 - 640 PACKSTONE; WHITE  
 POROSITY: INTERGRANULAR  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: CALCITE-01%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA  
 APPROXIMATELY 15% OF SAMPLES IS CALCILUTITE WITH LIGHT  
 BROWN TO DARK BROWN LAMINATIONS PRESENT.
- 640 - 650 GRAINSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 90% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, FOSSIL MOLDS  
 APPROXIMATELY 15% OF SAMPLE IS CALCILUTITE.
- 650 - 660 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, FOSSIL MOLDS  
 APPROXIMATELY 15% OF SAMPLE IS CALCILUTITE. THE CARBONATES  
 WHICH HAVE A MORE CRYSTALLINE GRAIN TYPE ARE DOLOMITIC
- 660 - 670 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 75% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
 GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC  
 FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS  
 APPROXIMATELY 20% OF SAMPLE IS CALCILUTITE.
- 670 - 680 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 APPROXIMATELY 20% OF SAMPLE IS CALCILUTITE.
- 680 - 690 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS

80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: VERY FINE TO VERY COARSE  
 GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC  
 FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS  
 SMALL BURROW TRACES ARE PRESENT IN SAMPLE. APPROXIMATELY  
 15% OF SAMPLE IS CALCILUTITE.

690 - 700 AS ABOVE

700 - 710 GRAINSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC  
 FOSSILS: BENTHIC FORAMINIFERA  
 APPROXIMATELY 5% OF SAMPLE IS SOLID CALCILUTITE.

710 - 720 GRAINSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 90% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA  
 APPROXIMATELY 5% OF SAMPLE IS SOLID CALCILUTITE.

720 - 730 AS ABOVE

730 - 740 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 90% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE  
 GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA  
 SMALL BURROW TRACES PRESENT. APPROXIMATELY 3% OF SAMPLE IS  
 SOLID CALCILUTITE. SOME DARK BROWN LAMINATIONS PRESENT ON  
 2% OF SAMPLE

740 - 750 PACKSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 75% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: FINE; RANGE: VERY FINE TO GRANULE  
 GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS  
 THREE PERCENT OF SAMPLE IS SOLID CALCILUTITE FRAGMENTS.

750 - 760 PACKSTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 90% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA  
 INDURATION RANGES FROM MODERATE TO GOOD. THE MOST HIGHLY  
 INDURATED FRAGMENTS ARE THOSE WITH THE LIGHT MEDIUM GREY  
 COLORATION. THESE DARKER FRAGMENTS ARE ALSO DOLOMITIC  
 MORE FINE GRAINED AND MAKE UP ~30% OF THE SAMPLE.

- 760 - 770 GRAINSTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE  
 GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA  
 PERCENTAGE OF THE MORE HIGHLY INDURATED MEDIUM GREY  
 FRAGMENTS HAS REDUCED TO 10%.
- 770 - 780 PACKSTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE  
 80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL; GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 PERCENTAGE OF THE MORE HIGHLY INDURATED MEDIUM GREY  
 FRAGMENTS DESCRIBED PREVIOUSLY IS NOW ~3%.
- 780 - 790 GRAINSTONE; YELLOWISH GRAY TO WHITE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: FINE; RANGE: VERY FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 GRAINSTONE IS THE MAIN ROCK TYPE PRESENT BUT THERE ALSO  
 APPEARS TO BE A GRADATION TO PACKSTONE AND VUGGY WACKESTONE  
 FRAGMENTS. THESE OTHER ROCK TYPES MAKE UP ~25% OF THE  
 SAMPLE. MODAL GRAIN SIZE INCREASES TO MEDIUM AND COARSE IN  
 THE PACKSTONE AND WACKESTONE FRAGMENTS RESPECTIVELY.
- 790 - 800 GRAINSTONE; YELLOWISH GRAY TO GRAYISH ORANGE  
 POROSITY: INTERGRANULAR, MOLDIC  
 POSSIBLY HIGH PERMEABILITY  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 SEDIMENTARY STRUCTURES: BEDDED  
 OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 LITHOLOGY IS HIGHLY VARIABLE AND CAVINGS ARE POSSIBLE.  
 SAMPLE FRAGMENTS ARE LARGE ENOUGH TO SEE THIN BEDS. MOST  
 OF SAMPLE IS A GRAINSTONE ROCK TYPE BUT BEDS OF WHITE  
 MUDSTONE AND THIN BROWN LAMINATIONS ARE PRESENT. MUDSTONE  
 AND WACKESTONE FRAGMENTS PRESENT HAVE ABUNDANT MOLDIC  
 PORES. ROCK TYPES OTHER THAN GRAINSTONE MAKE UP ABOUT 40% OF  
 SAMPLE.
- 800 - 810 PACKSTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL; GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA  
 LITHOLOGY HIGHLY VARIABLE. PACKSTONE MAY BE THE MOST  
 ABUNDANT ROCK TYPE BUT GRAINSTONES, WACKESTONES AND  
 MUDSTONES ARE ALL PRESENT. SAMPLE CONSISTS OF ~60%  
 PACKSTONE OF VARIABLE PERCENTAGE OF ALLOCHEMS LARGER THAN  
 SILT SIZE. TRACE AMOUNTS OF GYPSUM ALSO PRESENT IN SAMPLE.

- 810 - 820 AS ABOVE
- 820 - 830 AS ABOVE
- 830 - 840 GRAINSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN  
 POROSITY: INTERGRANULAR, MOLDIC  
 POSSIBLY HIGH PERMEABILITY  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 93% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, PLANKTONIC FORAMINIFERA  
 ECHINOID  
 TRACE AMOUNTS OF GYPSUM ALSO PRESENT IN SAMPLE. GRAINSTONE  
 IS THE DOMINANT LITHOLOGY MAKING UP ~75% OF THE SAMPLE.  
 MUDSTONE, PACKSTONE AND WACKESTONE FRAGMENTS ALSO PRESENT.  
 CAVINGS MAY BE PRESENT. GRAIN SIZE FO THE ALLOCHEMS IN  
 THE OTHER ROCK TYPES IS BASICALLY THE SAME WITH A FEW  
 GRAINS REACHING THE VERY LARGE GRAIN SIZE RANGE.
- 840 - 850 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN  
 POROSITY: INTERGRANULAR, MOLDIC  
 POSSIBLY HIGH PERMEABILITY  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE  
 GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 GRAINSTONE AND WACKESTONE FRAGMENTS ARE ALSO PRESENT MAKING  
 UP ABOUT 25% OF SAMPLE. POROSITY IS ALSO VARIABLE BUT AS A  
 WHOLE THE SAMPLE APPEARS HIGHLY PERMEABLE.
- 850 - 860 AS ABOVE
- 860 - 870 PACKSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 85% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL; GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, FOSSIL MOLDS  
 GRAINSTONE AND WACKESTONE FRAGMENTS ARE ALSO PRESENT MAKING  
 UP ABOUT 15% OF SAMPLE.
- 870 - 880 WACKESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS  
 30% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO GRAVEL  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID

PACKSTONE FRAGMENTS ALSO PRESENT AT ABOUT 10% OF SAMPLE.

- 880 - 890 PACKSTONE; YELLOWISH GRAY TO MODERATE YELLOWISH BROWN  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS  
 80% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE  
 MODERATE INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 WACKESTONE ROCK FRAGMENTS ALSO PRESENT IN SAMPLE AT ~10%.
- 890 - 900 WACKESTONE; YELLOWISH GRAY TO DARK YELLOWISH BROWN  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS  
 25% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-10%  
 OTHER FEATURES: HIGH RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA, ECHINOID  
 INDURATION RANGES FROM MODERATE TO GOOD. PACKSTONE  
 FRAGMENTS ARE PRESENT IN SAMPLE MAKING UP ~15% OF SAMPLE.  
 GRAIN SIZE IS THE SAME IN THE PACKSTONES AND ALLOCHEMS CAN  
 VARY FROM 70%-85% FROM ONE PACKSTONE FRAGMENT TO ANOTHER.  
 POROSITY IS VARIABLE RANGING FROM ALMOST NO PORE SPACE IN  
 THE DOLOSTONES UP TO ~15% IN SOME OF THE LIMESTONES. TRACE  
 AMOUNTS OF PYRITE SEEN ON LIMESTONE FRAGMENTS.
- 900 - 910 DOLOSTONE; DARK YELLOWISH BROWN TO YELLOWISH GRAY  
 POROSITY: INTERCRYSTALLINE, PIN POINT VUGS; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 ACCESSORY MINERALS: LIMESTONE-15%  
 FOSSILS: BENTHIC FORAMINIFERA  
 FOSSILS ARE FOUND ONLY IN THE LIMESTONE PRESENT WHICH MAY  
 BE CAVINGS. SOME DOLOMITE HAS HAD THE OPPORTUNITY TO GROW  
 IN VOID SPACES AND IS THEREFORE EUHEDRAL. LIMESTONE VARIES  
 BETWEEN PACKSTONE AND WACKESTONE WITH A MODAL GRAIN SIZE OF  
 MEDIUM.
- 910 - 920 WACKESTONE; YELLOWISH GRAY TO DARK YELLOWISH BROWN  
 POROSITY: INTERGRANULAR, MOLDIC  
 GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS  
 30% ALLOCHEMICAL CONSTITUENTS  
 GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION  
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
 ACCESSORY MINERALS: DOLOMITE-10%  
 OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
 FOSSILS: BENTHIC FORAMINIFERA  
 INDURATION RANGES FROM MODERATE TO GOOD. PACKSTONE AND  
 GRAINSTONE FRAGMENTS MAKE UP ~20% OF THE SAMPLE.
- 920 - 930 DOLOSTONE; DARK YELLOWISH BROWN TO YELLOWISH GRAY  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 ACCESSORY MINERALS: LIMESTONE-40%  
 FOSSILS: BENTHIC FORAMINIFERA  
 LIMESTONE PRESENT HAS A GRAIN SIZE RANGE OF FINE TO VERY  
 COARSE AND A MODAL SIZE OF MEDIUM. GRAIN TYPES PRESENT IN  
 THE LIMESTONE ARE SKELETAL, MICRITE AND CRYSTALLINE WITH

85% OF THE LIMESTONE BEING MADE UP OF ALLOCHEMS LARGER THAN SILT SIZE.

- 930 - 940 DOLOSTONE; DARK YELLOWISH BROWN TO DARK YELLOWISH ORANGE  
POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
SUBHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT  
FOSSILS: BENTHIC FORAMINIFERA  
APPROXIMATELY 5% OF SAMPLE IS A VERY FINE GRAIN DOLOMITIC  
YELLOWISH GREY LIMESTONE.
- 940 - 950 DOLOSTONE; YELLOWISH GRAY TO DARK YELLOWISH BROWN  
POROSITY: INTERCRYSTALLINE, MOLDIC, PIN POINT VUGS  
50-90% ALTERED; EUHEDRAL  
GRAIN SIZE: VERY FINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT  
OTHER FEATURES: SUCROSIC  
PERMEABILITY RANGES BUT IS POSSIBLY HIGH IN AT LEAST HALF  
OF THE SAMPLE.
- 950 - 960 DOLOSTONE; YELLOWISH GRAY TO MODERATE YELLOWISH BROWN  
POROSITY: INTERCRYSTALLINE, PIN POINT VUGS; 50-90% ALTERED  
EUHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT  
OTHER FEATURES: SUCROSIC
- 960 - 970 DOLOSTONE; YELLOWISH GRAY TO MODERATE YELLOWISH BROWN  
POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
SUBHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT  
OTHER FEATURES: SUCROSIC  
TRACE AMOUNTS OF PYRITE ARE PRESENT IN SAMPLE.
- 970 - 980 AS ABOVE
- 980 - 990 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN  
POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
EUHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT  
OTHER FEATURES: SUCROSIC  
TRACE AMOUNTS OF PYRITE ALSO PRESENT IN SAMPLE.
- 990 - 1000 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN  
POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
EUHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT  
OTHER FEATURES: SUCROSIC  
TRACE AMOUNTS ORGANICS ALSO PRESENT IN SAMPLE.
- 1000 - 1010 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN  
POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
EUHEDRAL  
GRAIN SIZE: MICROCRYSTALLINE  
RANGE: MICROCRYSTALLINE TO COARSE; GOOD INDURATION  
CEMENT TYPE(S): DOLOMITE CEMENT  
OTHER FEATURES: SUCROSIC

POROSITY IS VARIABLE. ABOUT HALF THE SAMPLE SHOWS HIGH POROSITY THROUGH PINPOINT VUGS AND FOSSIL MOLDS AND THE OTHER HALF APPEARS TO HAVE ALMOST NO PORE SPACE.

- 1010 - 1020 AS ABOVE
- 1020 - 1030 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 TRACE AMOUNTS OF ORGANICS PRESENT. PERMEABILITY IS POSSIBLY LOW.
- 1030 - 1040 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE  
 POROSITY: INTERCRYSTALLINE, MOLDIC, LOW PERMEABILITY  
 50-90% ALTERED; SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 TRACE AMOUNTS OF ORGANICS ARE PRESENT.
- 1040 - 1050 AS ABOVE
- 1050 - 1060 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 POROSITY VARIES BEING VERY LOW TO ALMOST NOTHING IN THE DARKER DOLOSTONES AND ~20% IN THE LIGHTER COLOR DOLOSTONES WHICH ARE MORE SUCROSIC. SAMPLE IS FINELY SUCROSIC. TRACE AMOUNTS OF ORGANICS AND ORGANIC LAMINATIONS PRESENT.
- 1060 - 1070 AS ABOVE
- 1070 - 1080 AS ABOVE
- 1080 - 1090 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 90-100% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 POROSITY IS VARIABLE BEING LOW TO ALMOST NO PORE SPACE IN THE DARKER DOLOSTONES AND ~20% IN THE LIGHTER COLOR DOLOSTONES ARE SUCROSIC.
- 1090 - 1100 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 90-100% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S): DOLOMITE CEMENT  
 POROSITY IS VARIABLE BEING LOW TO ALMOST NO PORE SPACE IN THE DARKER DOLOSTONES AND ~20% IN THE LIGHTER ONES WHICH ARE SUCROSIC. TRACE AMOUNTS OF ORGANICS ARE FOUND IN THE MODERATE YELLOWISH BROWN (10YR 5/4) DOLOSILTS WHICH MAKE UP ~2% OF THE SAMPLE.
- 1100 - 1110 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION

CEMENT TYPE(S) : DOLOMITE CEMENT

1110 - 1120 AS ABOVE

1120 - 1130 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN  
 POROSITY: INTERCRYSTALLINE, MOLDIC, LOW PERMEABILITY  
 90-100% ALTERED; SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S) : DOLOMITE CEMENT

1130 - 1140 AS ABOVE

1140 - 1150 AS ABOVE

1150 - 1160 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S) : DOLOMITE CEMENT  
 POROSITY IS VARIABLE BEING LOW TO ALMOST NO PORE SPACE IN  
 THE DARKER DOLOSTONES AND ~20% IN THE LIGHTER COLORED  
 DOLOSTONES WHICH ARE ALSO SUCROSIC.

1160 - 1170 AS ABOVE

1170 - 1180 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S) : DOLOMITE CEMENT

1180 - 1190 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 EUHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S) : DOLOMITE CEMENT  
 OTHER FEATURES: SUCROSIC  
 CRYSTALLINITY RANGES FROM EUHEDRAL TO SUBHEDRAL

1190 - 1200 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN  
 POROSITY: INTERCRYSTALLINE, MOLDIC; 50-90% ALTERED  
 SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S) : DOLOMITE CEMENT

1200 - 1210 AS ABOVE

1210 - 1220 DOLOSTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN  
 POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY  
 90-100% ALTERED; SUBHEDRAL  
 GRAIN SIZE: MICROCRYSTALLINE  
 RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION  
 CEMENT TYPE(S) : DOLOMITE CEMENT

1220 TOTAL DEPTH