

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W-16940  
TOTAL DEPTH: 1140 FT.  
211 SAMPLES FROM 0 TO 1140 FT.

COUNTY - BROWARD  
LOCATION: T.49S R.35E S.22 AD  
LAT = 26D 10M 16S  
LON = 80D 49M 26S

COMPLETION DATE: 11/15/80  
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION: 15 FT

OWNER/DRILLER:SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WORKED BY:SUSANNE BRODERICK 4/2000.  
ENTERED BY D. PAUL 7/12/2000.  
SAMPLES ARE CUTTINGS IN 10 FT. INTERVALS.  
USGS G-2296 (BOF-1) ALLIGATOR ALLEY (I-75).  
SFWMD #011000003 LINQUIST GEOPHY #BW00003  
FL PLANAR #557761 STATE COORD #667893

0.0 - 50.0 090UDSS UNDIFFERENTIATED SAND, CLAY, AND SHELLS  
50.0 - 170.0 121PCPC PLIOCENE-PLEISTOCENE  
170.0 - 970.0 122HTRN HAWTHORN GROUP  
970.0 - . 1240CAL OCALA GROUP

0 - 10 SAND; YELLOWISH GRAY TO VERY LIGHT ORANGE  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE  
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY  
UNCONSOLIDATED  
ACCESSORY MINERALS: SHELL-05%  
OTHER FEATURES: CALCAREOUS  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS  
SHELL ACCESSORY IS WEATHERED.

10 - 20 SAND; YELLOWISH GRAY  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE  
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY  
UNCONSOLIDATED  
ACCESSORY MINERALS: SHELL-04%  
OTHER FEATURES: CALCAREOUS  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS

20 - 30 SAND; WHITE  
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE  
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY  
UNCONSOLIDATED  
ACCESSORY MINERALS: SHELL-15%  
OTHER FEATURES: CALCAREOUS  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS  
SHELL ACCESSORY IS WEATHERED TO A PALE ORANGE.

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

- 30 - 40 SAND; WHITE  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY  
UNCONSOLIDATED  
ACCESSORY MINERALS: SHELL-10%, HEAVY MINERALS-02%  
PHOSPHATIC SAND-01%  
OTHER FEATURES: CALCAREOUS  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS
- 40 - 50 AS ABOVE
- 50 - 60 LIMESTONE; YELLOWISH GRAY TO LIGHT BLUISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
55% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-01%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS
- 60 - 70 LIMESTONE; YELLOWISH GRAY TO LIGHT BLUISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, QUARTZ SAND-10%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS, FOSSIL FRAGMENTS
- 70 - 80 LIMESTONE; YELLOWISH GRAY TO LIGHT BLUISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE  
MODERATE INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%  
HEAVY MINERALS-02%, QUARTZ SAND-01%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS
- 80 - 90 AS ABOVE
- 90 - 100 NO SAMPLES

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

- 100 - 110 LIMESTONE; YELLOWISH GRAY TO LIGHT BLUISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-02%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
- 110 - 120 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL  
70% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
ACCESSORY MINERALS: QUARTZ SAND-10%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS
- 120 - 130 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL  
70% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS
- 130 - 140 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-20%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS
- 140 - 150 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL  
60% ALLOCHEMICAL CONSTITUENTS

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

ACCESSORY MINERALS: QUARTZ SAND-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: CORAL, MOLLUSKS, FOSSIL MOLDS, FOSSIL FRAGMENTS

- 150 - 160 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO VERY COARSE  
MODERATE INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
ACCESSORY MINERALS: QUARTZ SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY  
FOSSILS: MOLLUSKS, BRYOZOA
- 160 - 170 AS ABOVE
- 170 - 180 PACKSTONE; YELLOWISH GRAY TO LIGHT BLUISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
POSSIBLY HIGH PERMEABILITY  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
45% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC SAND-08%  
PHOSPHATIC GRAVEL-03%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS  
SHELLS ARE RECRYSTALLIZED AND ARE PALE ORANGE IN COLOUR.
- 180 - 200 NO SAMPLES
- 200 - 210 WACKESTONE; LIGHT OLIVE GRAY TO GREENISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL  
50% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: COARSE; RANGE: COARSE TO GRANULE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT  
ACCESSORY MINERALS: QUARTZ SAND-10%  
OTHER FEATURES: LOW RECRYSTALLIZATION, CHALKY  
FOSSILS: BRYOZOA, MOLLUSKS
- 210 - 220 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO VERY COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS

- 220 - 230 MUDSTONE; LIGHT OLIVE GRAY TO LIGHT GRAYISH GREEN  
05% POROSITY: LOW PERMEABILITY, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, SKELETAL  
05% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-05%, CLAY-02%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: CORAL, BRYOZOA
- 230 - 240 AS ABOVE
- 240 - 250 WACKESTONE; LIGHT OLIVE GRAY TO LIGHT GRAYISH GREEN  
05% POROSITY: LOW PERMEABILITY, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, SKELETAL  
20% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-05%, CLAY-02%  
PHOSPHATIC SAND-05%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: CORAL, BRYOZOA
- 250 - 260 WACKESTONE; YELLOWISH GRAY TO OLIVE GRAY  
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR  
GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS  
30% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-15%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS
- 260 - 280 AS ABOVE
- 280 - 290 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY  
10% POROSITY: INTERGRANULAR, VUGULAR

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

GRAIN TYPE: SKELETAL, CALCILUTITE  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-05%, PHOSPHATIC SAND-05%  
QUARTZ SAND-10%  
FOSSILS: MOLLUSKS, CORAL, BRYOZOA

290 - 310 AS ABOVE

310 - 320 PACKSTONE; OLIVE GRAY TO LIGHT OLIVE GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
55% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX  
ACCESSORY MINERALS: CLAY-05%, PHOSPHATIC SAND-05%  
QUARTZ SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CRYSTALLINE  
FOSSILS: MOLLUSKS, CORAL, BRYOZOA

320 - 330 PACKSTONE; OLIVE GRAY TO LIGHT OLIVE GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-10%  
PHOSPHATIC SAND-10%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS, CORAL

330 - 340 WACKESTONE; OLIVE GRAY TO LIGHT OLIVE GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-10%  
PHOSPHATIC SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS, FOSSIL FRAGMENTS

340 - 350 WACKESTONE; LIGHT OLIVE GRAY TO OLIVE GRAY  
05% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
25% ALLOCHEMICAL CONSTITUENTS

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-10%  
PHOSPHATIC SAND-05%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS

- 350 - 360 WACKESTONE; LIGHT OLIVE GRAY TO OLIVE GRAY  
05% POROSITY: INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
20% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-10%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BRYOZOA
- 360 - 370 AS ABOVE
- 370 - 380 WACKESTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE; 25% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-10%  
PHOSPHATIC SAND-10%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BRYOZOA, CORAL
- 380 - 390 AS ABOVE
- 390 - 400 AS ABOVE
- 400 - 410 WACKESTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE; 40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, SILT-02%  
PHOSPHATIC SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, BRYOZOA, CORAL, FOSSIL FRAGMENTS
- 410 - 440 AS ABOVE
- 440 - 450 WACKESTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE; 45% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-05%  
PHOSPHATIC SAND-10%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, CORAL, MOLLUSKS, FOSSIL FRAGMENTS

- 450 - 460 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY  
10% POROSITY: INTERGRANULAR  
GRAIN TYPE: CALCILUTITE; 20% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-05%, QUARTZ SAND-05%  
PHOSPHATIC SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS
- 460 - 480 AS ABOVE
- 480 - 490 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE  
10% POROSITY: INTERGRANULAR  
GRAIN TYPE: CALCILUTITE; 20% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS
- 490 - 500 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
15% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS
- 500 - 510 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX



ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-05%  
PHOSPHATIC SAND-05%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, BRYOZOA

- 510 - 520 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
25% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, SILT-SIZE DOLOMITE-10%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: CORAL, ECHINOID, MOLLUSKS, BRYOZOA
- 520 - 550 AS ABOVE
- 550 - 560 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-10%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: CORAL, MOLLUSKS, BRYOZOA, ECHINOID
- 560 - 570 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
45% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-05%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: ECHINOID, MOLLUSKS
- 570 - 580 AS ABOVE
- 580 - 590 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
50% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-10%

PHOSPHATIC SAND-05%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: MOLLUSKS, ECHINOID

- 590 - 600 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, QUARTZ SAND-10%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, ECHINOID, FOSSIL FRAGMENTS
- 600 - 610 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL  
50% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE  
POOR INDURATION  
FOSSILS: BRYOZOA, ECHINOID, MOLLUSKS
- 610 - 630 AS ABOVE
- 630 - 640 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
50% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-10%, QUARTZ SAND-05%  
PHOSPHATIC SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, ECHINOID, MOLLUSKS, FOSSIL FRAGMENTS  
SAMPLE INCLUDES GASTROPODS. PHOSPHATE SAND IS VERY FINE  
GRAINED.
- 640 - 650 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
50% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-05%, QUARTZ SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt  
FOSSILS: FOSSIL FRAGMENTS, BRYOZOA, MOLLUSKS

- 650 - 660 AS ABOVE
- 660 - 670 WACKESTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX  
ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-10%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, BRYOZOA
- 670 - 680 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTERGRANULAR, INTRAGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX  
ACCESSORY MINERALS: CLAY-05%, QUARTZ SAND-10%  
PHOSPHATIC SAND-10%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, BRYOZOA, MOLLUSKS
- 680 - 730 AS ABOVE
- 730 - 740 WACKESTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
INTERCRYSTALLINE  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE  
45% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, PHOSPHATIC SAND-15%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS, CORAL, FOSSIL FRAGMENTS
- 740 - 750 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
INTERCRYSTALLINE  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE  
40% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

ACCESSORY MINERALS: CLAY-03%, PHOSPHATIC SAND-05%  
QUARTZ SAND-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: BRYOZOA, MOLLUSKS, CORAL, FOSSIL FRAGMENTS

750 - 760 AS ABOVE

760 - 770 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR  
INTERCRYSTALLINE  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
30% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, PHOSPHATIC SAND-05%  
QUARTZ SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS

770 - 780 PACKSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
INTERCRYSTALLINE  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
55% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-03%, PHOSPHATIC SAND-15%  
QUARTZ SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS

780 - 820 AS ABOVE

820 - 830 PACKSTONE; WHITE TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: CLAY-02%, PHOSPHATIC SAND-05%  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: BRYOZOA, ECHINOID, MOLLUSKS

830 - 840 PACKSTONE; WHITE TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
65% ALLOCHEMICAL CONSTITUENTS

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: BRYOZOA, ECHINOID, MOLLUSKS

840 - 880 AS ABOVE

880 - 890 PACKSTONE; WHITE TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-15%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS, FOSSIL FRAGMENTS

890 - 900 PACKSTONE; WHITE TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-15%, PHOSPHATIC SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS, FOSSIL FRAGMENTS

900 - 910 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
55% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC SAND-05%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS

910 - 920 PACKSTONE; YELLOWISH GRAY TO GREENISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
55% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

ACCESSORY MINERALS: QUARTZ SAND-15%, PHOSPHATIC SAND-10%  
CLAY-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS

- 920 - 930 PACKSTONE; YELLOWISH GRAY TO LIGHT GREENISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC SAND-10%  
CLAY-02%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BRYOZOA, ECHINOID
- 930 - 940 PACKSTONE; YELLOWISH GRAY TO LIGHT GREENISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-15%  
CLAY-02%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BRYOZOA  
PHOSPHATE GRAINS ARE MEDIUM TO FINE.
- 940 - 970 AS ABOVE
- 970 - 980 WACKESTONE; YELLOWISH GRAY TO GREENISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE  
55% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX  
ACCESSORY MINERALS: QUARTZ SAND-02%  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: BRYOZOA, MOLLUSKS, FOSSIL FRAGMENTS  
BENTHIC FORAMINIFERA  
FORAMS INCLUDE LEPIDOCYCLINA SP.
- 980 - 990 AS ABOVE
- 990 - 1000 WACKESTONE; YELLOWISH GRAY TO WHITE  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: BIOGENIC, CALCILUTITE

ALLY-TW\_W-16940\_ALLWELL\_lithology.txt

60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BENTHIC FORAMINIFERA  
FORAMS INCLUDE LEPIDOCYCLINA SP. PHOSPHATE AND QUARTZ SAND  
CONSTITUENTS MAYBE CAVINGS?

- 1000 - 1010 WACKESTONE; MODERATE LIGHT GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE  
POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, BRYOZOA, MOLLUSKS  
BENTHIC FORAMINIFERA  
FORAMS INCLUDE LEPIDOCYCLINA SP. PHOSPHATE AND QUARTZ SAND  
CONSTITUENTS MAYBE CAVINGS?
- 1010 - 1040 AS ABOVE
- 1040 - 1050 WACKESTONE; LIGHT GREENISH YELLOW TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, BRYOZOA, MOLLUSKS  
BENTHIC FORAMINIFERA  
FORAMS INCLUDE LEPIDOCYCLINA SP.
- 1050 - 1060 NO SAMPLES
- 1060 - 1070 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
15% POROSITY: INTRAGRANULAR, INTERGRANULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
65% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, BRYOZOA, MOLLUSKS  
BENTHIC FORAMINIFERA  
FORAMS INCLUDE LEPIDOCYCLINA SP.

1070 - 1100 AS ABOVE

1100 - 1110 NO SAMPLES

1110 - 1120 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY  
10% POROSITY: INTRAGRANULAR, INTERGRANULAR, VUGULAR  
GRAIN TYPE: CALCILUTITE, BIOGENIC  
60% ALLOCHEMICAL CONSTITUENTS  
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION  
CEMENT TYPE(S): CALCILUTITE MATRIX  
OTHER FEATURES: LOW RECRYSTALLIZATION  
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BENTHIC FORAMINIFERA  
FORAMS INCLUDE LEPIDOCYCLINA SP.

1120 - 1140 AS ABOVE

1140 TOTAL DEPTH