January, 1984

J. L. Decker

EXECUTIVE SUMMARY
ROMP #105 "Horse Lake"
Section 21, Township 22 South, Range 19 East
Project #15-6500 - R20/R30/R40 - XXX - P00210-FY-84

I. GENERAL DESCRIPTION

The ROMP #105 wellsite is located in the City of Brooksville, Hernando County. The well site is adjacent to, and on the south side of West Fort Dade Avenue. ROMP #105 lies in the SW 1/4 of SE 1/4 of NE 1/4 of Section 21, Township 22 South, Range 19 East at latitude 28°33'21", longitude 82°24'16".

II.

The ROMP #105 wellsite includes a perpetual and a temporary construction easement for the purpose of drilling, maintaining and modifying the well for test purposes (hydrological data measurements and observation of water levels). The perpetual permanent easement of 20' x 20', granted by the City of Brooksville, is included as part of a temporary construction easement of 100' x 100'.

III. REASONS FOR MONITOR WELLS

The ROMP #105 monitor wells were constructed for the purpose of collecting data on fluctuations of ground water due to seasonal and long-term changes in water levels of sinkhole lakes in the area surrounding Brooksville. Other reasons for the monitors include: the determination of potentiometric surface levels, acquire water quality and specific capacity data, identify the confining beds within the Floridan Aquifer and describe lithology and geological formation boundaries.

IV. GEOLOGY

ROMP #105 is located near the edge of Sunderland Terrace at an elevation of approximately 102' above MSL. It is on the western flank in the southern part of a northwest trending physiographic land feature called the Brooksville Ridge. The Brooksville Ridge is within the Tertiary Highlands, consisting of limestone and clay hills formed by the Alachua, Suwannee and Ocala Group. The regional dips of the Tertiary beds are southwest in direction. The site appears to be on the southwest flank of the Ocala uplift and is located on the downside of northeast-southwest trending graben fault boundary. During drilling operations fracture zones and cavities were encountered.

The following geologic data were obtained from the examination of core samples and correlated with geophysical logs.

Borehole Depth (ft. below LSD)	
LSD - 3'	Undifferentiated Surficial Quartz Sand = white, intergranular porosity, (40%), unconsolidated; clay-dark gray, intergranular porosity (50%), low permeability.
3' - 18'	Alachua Formation = Clay, moderate brown to moderate yellowish brown, intergranular porosity (45%), iron stained, low permeability; limestone - white, biogenic, intergranular porosity (30%), calcilutite matrix, sparry calcite cement, iron stained, moderately indurated.
18' - 109'	Suwannee Formation = limestone, white, light yellowish orange, dark yellowish orange, intergranular porosity (30%-45%), biogenic, calcilutitic, poor to moderately induration, sparry calcite cement, interbedded; some clay - white, dark yellowish gray, low permeability; fossils - echinoids, bryozoa, millioloids, benthonic foraminifera (Dictyoconus cookei), mollusks.
109' - 249.5'	Ocala Group = limestone, white, very light orange, intergranular porosity (30% - 40%), biogenic, calcilutitic, poor to moderately indurated, some coquina sparry calcite cement, interbedded, low-moderately recrystallized, some iron staining near the bottom of Inglis Formation, fossils - echinoids, bryozoa, millioloids, benthonic foraminifera (Lepidocyclina, Nummulites), mollusks.
249.5' - 684.5'	Avon Park Formation = limestone, light-dark yellowish orange, yellowish gray, intergranular porosity (10%-45%), biogenic, highly calcilutitic in some zones, poor to moderately indurated, sparry calcite, dolomitic cement, interbedded with clay and dolomite, peat, speckled, moderately recrystallized; clay - grayish orange, gray, low permeability; dolomite - moderate yellowish brown, light orange - grayish orange, grayish brown, vuggy, moderate-good induration, low - highly recrystallized, often sucrosic; fossils-echinoids (Peronella dalli?), bryozoan, coral, worm traces, millioloids, benthonic foraminifera (Dictyoconus cookei), organics, mollusks, numerous fossil molds.
684.5' - 714.5' TD	Lake City Formation = dolomite - light olive gray, dark grayish yellow, light - moderate brown, dark brown to black, intergranular porosity (1% - 35%), poor - good induration, sparry calcite, and dolomitic cement, interbedded with limestone, clay and organics, often massive and laminated; sucrosic, low - high recrystallization, clay - light to moderate olive brown; low - high permeability; fossils - millioloids, worm traces, coral, mollusks and molds. *Detailed lithologic descriptions are contained in the file for ROMP 105.

V. HYDROGEOLOGY

One monitor well was completed at the ROMP 105 wellsite. The well was constructed to monitor the lower Floridan Aquifer.

Water quality at this wellsite indicates that the Floridan Aquifer consists of two separate and distinct zones in the Brooksville area. The upper zone consists of the Suwannee Formation, the Ocala Group, and the upper section of the Avon Park limestone. The upper zone has very good water quality; specific conductivities ranging from 420 to 600 Umhos, chlorides (10 - 22 parts per million). The upper Floridan semi-confiner consists of clays and chalky limestones of the Alachua Formation. The upper Floridan's lower confiner consists of dolomite extending from approximately 426' to 489' below LSD. Water levels in the upper zone ranged 57.9' to 58.4' below LSD. The lower zone consists of the Avon Park Formation and the Lake City Formation. Poor water quality was encountered below the dolomite confiner. Specific conductivity ranged from approximately 610 Umhos to 2400 Umhos. Chlorides remained fairly constant (ranging from 9 - 18 parts per million). Sulfates contributed to poor water quality (ranging from 100 to 1563 parts per million). The caliper, electric logs and lithologic descriptions indicated zones of low - high permeability, low to high porosity in the 426' - 489' below LSD confiner. Porosity appeared to be mainly fractured. Until further testing is completed, it cannot be determined how impermeable this confiner actually is.

Following the reaming of the corehole, poorer water appeared to be moving upward under hydrostatic pressure. The fresh and poorer water with high sulfates appeared to have stratified as to density in some sort of equilibrium. Specific conductivity at 445' was 210 Umhos and then increased to 2200 Umhos at the 500' level. The confiner at the bottom of the Floridan Aquifer was not penetrated during drilling operations.

Although water quality was altered after breaching the dolomite confiner (426' - 489') in the Avon Park Formations, water levels did not vary appreciably.

VI. MONITOR RECOMMENDATIONS

At the ROMP #105 wellsite, one monitor well was constructed to monitor potentiometric surface levels and ground water quality. A deep (dual zone artesian monitor) was drilled to a depth of 705.5' below LSD to monitor the lower unit (non-potable waters) of the Floridan Aquifer.

It is recommended that a shallower (upper unit) monitor well be drilled into the upper Floridan Aquifer to a depth of 320'. The well should be cased to a depth of 100'.

VII. WELL CONSTRUCTION

The wellsite was first cored to 714' below LSD to obtain the necessary lithologic, water level, water quality and geophysical data before constructing the deep dual zone monitor well. Well construction on the lower Floridan monitor well at ROMP 105 was completed in December, 1983. The monitor well was drilled to a depth of 705.5' and cased to a depth of 436' below LSD.

The ROMP #105 well was constructed in the following steps:

DEEP MONITOR

A. A 22 inch nominal borehole was drilled to 60 feet, using mud rotary drilling techniques. Sixty feet (60') of 14 inch steel surface casing was then seated and cement grouted from bottom to top. A 12 1/4 inch bit was used to drill out of the 14 inch steel casing to a depth of 436 feet, utilizing mud rotary drilling techniques. After setting and grouting 436 feet of 8 inch PVC casing into place, the driller reverted to reverse air drilling techniques and proceeded to drill with a 7 5/8 inch bit to a depth of 705.5 feet.

Following the developing and disinfecting of the well with HTH (5% chlorine), 685 feet of 3-inch PVC casing coupled onto 15 feet of 3" PVC well screen (no. 0.030") was set in the well. The borehole and the screened interval (685' - 700') were sand-packed with 6-20 silica sand from 705.5 feet to 675 feet. The well's borehole from 675 feet to 515 feet was backfilled with cement grout. Four hundred seventy (470') feet of 2" PVC casing was coupled onto 20 feet of 2-inch well screen (470' - 490') and set in the borehole. The well was then sand packed from 515 feet to 2 feet above LSD using 6-20 silica sand.

GEOPHYSICAL LOGS

Suites of geophysical logs were completed with geophysical logging equipment from the District and Northwest Florida Water Management District.

U.S.G.S. NOTIFICATION

The Technical Support Section was notified in January 1984 that ROMP 105 is complete and ready for monitoring by the U. S. Geological Survey.

Definition of Formation Boundaries—SPECIAL Note

The specific definition of formations penetrated at this well site was done partially on the basis of biostratigraphic evidence and partially on the basis of lithologic evidence. Additional correlating evidence (geophysical well logs and/or hydrologic data) was also utilized in the delineation of these formation boundaries. Therefore, the chosen formational boundaries are tentative at best, according to standard stratigraphic methods.

Executive Summary
ROMP 105 "Horse Lake"

SIMPLIFIED LITHOLOGY

Borehole Depth (Ft. below LSD)	Name of Rock Unit
LSD - 3'	Undifferentiated Surficial Quartz Sand
3' - 18'	Alachua Formation
18' - 109'	Suwannee Formation
109' - 249.5'	Ocala Group
249.5' - 684.5'	Avon Park Formation
684.5' - 714.5' T.D.	Lake City Formation

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15681
TOTAL DEPTH: 00714 FT.
42 SAMPLES FROM 0 TO 714 FT.

COUNTY - HERNANDO
LOCATION: T.22S R.19E S.21DB
LAT = N 28D 33M 21
LON = W 82D 24M 16

COMPLETION DATE - 04/21/83
ELEVATION - 102 FT
OTHER TYPES OF LOGS AVAILABLE - ELECTRIC, FLUID COND, GAMMA, TEMP

OWNER/DRILLER: OWNER - SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
OWNER/DRILLER: DRILLERS - LLOYD JOHNSON AND SAM MOORE

WORKED BY: ROMP 105 WELL AT HORSE LAKE, GEOLOGIC LOG BY TONY GILBOY AND
GREG HENDERSON, GOOD QUALITY SAMPLES

0. -	3.	UNDIFFERENTIATED SAND AND CLAY
3. -	18.	ALACHUA FM.
18. -	109.	SUWANNEE LIMESTONE
109. -	250.	OCALA GROUP
250. -	685.	AVON PARK FM.
685. -	.	LAKE CITY LIMESTONE

3 Avon Park Fm

0 - 3 SAND; WHITE; 40% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
CEMENT TYPE(S): CLAY MATRIX, ORGANIC MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CLAY-20%;
OTHER FEATURES: MUDDY;
DARK GRAY CLAY ALSO PRESENT

3 - 18 CLAY; MODERATE GRAY TO DARK YELLOWISH BROWN; 45% POROSITY, INTERGRANULAR, LOW PERMEABILITY;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX, ORGANIC MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CLAY-20%, IRON STAIN- %;
OTHER FEATURES: MUDDY;
INTERBEDDED WHITE LIMESTONE IN CLAY

18 - 21 LIMESTONE; WHITE; 30% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-01%;
OTHER FEATURES: GRANULAR, LOW RECRYSTALLIZATION;
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, MILIOLIDS;
SANDY YELLOW BROWN CLAY INTERBEDDED WITH LIMESTONE SOME DICTYOCONUS FOUND

21 - 31 LIMESTONE; WHITE; 30% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-01%;
OTHER FEATURES: GRANULAR, LOW RECRYSTALLIZATION;
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, MILIOLIDS;
DICTYOCONUS PRESENT

31 - 34.5 LIMESTONE; WHITE TO LIGHT YELLOWISH ORANGE; 30% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC;
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED, INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-10%, QUARTZ SAND-03%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

34.5- 44.5 LIMESTONE; WHITE TO LIGHT YELLOWISH ORANGE; 30% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: FINE TO MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-05%, CALCILUTITE-10%;
OTHER FEATURES: LOW RECRYSTALLIZATION;
FOSSILS: BENTHIC FORAMINIFERA;

44.5- 49.5 LIMESTONE; WHITE TO LIGHT YELLOWISH ORANGE; 40% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, SKELETAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: MANGANESE OXIDE-02%, CALCILUTITE-05%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS;

49.5- 59.5 LIMESTONE; WHITE; 40% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, SKELETAL, INTRACLASTS;
GRAIN SIZE: FINE; RANGE: FINE TO MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-05%, CALCILUTITE-02%, MANGANESE OXIDE-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS, ECHINOID;

59.5- 64.5 LIMESTONE; WHITE; 40% POROSITY, INTERGRANULAR, MOLDIC, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, SKELETAL, INTRACLASTS;
GRAIN SIZE: FINE; RANGE: FINE TO MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-03%, CALCILUTITE-03%, MANGANESE OXIDE-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS, ECHINOID;

64.5- 69.5 CLAY; DARK YELLOWISH ORANGE; 45% POROSITY, INTERGRANULAR, LOW PERMEABILITY;
POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: GRADED BEDDING, INTERBEDDED,
ACCESSORY MINERALS: LIMESTONE-05%, MANGANESE OXIDE-05%, SPAR-03%;
FOSSILS: MILIOLIDS, ECHINOID;

69.5- 74.5 CLAY; DARK YELLOWISH ORANGE TO WHITE; 40% POROSITY, INTERGRANULAR, PIN POINT VUGS;
POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: LIMESTONE-05%, MANGANESE OXIDE-05%, QUARTZ SAND-03%;
FOSSILS: MILIOLIDS, FOSSIL MOLDS, ECHINOID;

74.5- 84.5 LIMESTONE; WHITE TO LIGHT ORANGE; 30% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, INTRACLASTS;
GRAIN SIZE: FINE; RANGE: FINE TO MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, ECHINOID;

84.5- 89.5 LIMESTONE; WHITE TO LIGHT ORANGE; 30% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, INTRACLASTS;
GRAIN SIZE: FINE; RANGE: FINE TO MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: MANGANESE OXIDE-03%, CALCILUTITE-02%, SPAR-03%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, ECHINOID;

89.5- 96.5 LIMESTONE; WHITE TO LIGHT YELLOWISH ORANGE; INTERGRANULAR, PIN POINT VUGS, MOLDIC;
GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE;
GRAIN SIZE: FINE; RANGE: FINE TO MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: MANGANESE OXIDE-01%, CALCILUTITE-05%, SPAR-05%;
OTHER FEATURES: LOW RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS, ECHINOID, BRYOZOA, MOLLUSKS;

96.5- 99.5 LIMESTONE; WHITE; 40% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC;
GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE;
GRAIN SIZE: FINE; RANGE: FINE TO MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
OTHER FEATURES: LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, BENTHIC FORAMINIFERA;

99.5- 109.5 LIMESTONE; WHITE; 45% POROSITY, INTERGRANULAR, MOLDIC, VUGULAR;
GRAIN TYPE: BIOGENIC, CRYSTALS, SKELETAL;
MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-01%, SPAR-05%;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS;
ABUNDANT FORAMS: LEPIDOCYCLINA AND NUMMULITES MOSTLY

109.5- 119.5 LIMESTONE; WHITE; 40% POROSITY, MOLDIC, VUGULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL;
MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-06%;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA;

119.5- 124.5 AS ABOVE

124.5- 129.5 LIMESTONE; WHITE; 40% POROSITY, MOLDIC, VUGULAR;
GRAIN TYPE: BIOGENIC, SKELETAL, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-07%;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, ECHINOID, BENTHIC FORAMINIFERA;

129.5- 134 LIMESTONE; WHITE; 40% POROSITY, MOLDIC, VUGULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-07%, CALCILUTITE-03%;
OTHER FEATURES: COQUINA, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, ECHINOID, BENTHIC FORAMINIFERA, BRYOZOA;

134 - 139 LIMESTONE; WHITE; 40% POROSITY, MOLDIC, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
POOR INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-07%, CALCILUTITE-03%;
OTHER FEATURES: COQUINA, MEDIUM RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA, ECHINOID;

139 - 149.5 LIMESTONE; WHITE TO LIGHT ORANGE; 40% POROSITY, MOLDIC, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-07%, CALCILUTITE-03%;
OTHER FEATURES: COQUINA, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, ECHINOID, BENTHIC FORAMINIFERA, BRYOZOA;
SOME FRIABLE MILLIOLOIDAL ZONES AND POOR CORE RECOVERY FROM 147-149.5

149.5- 159.5 LIMESTONE; WHITE TO LIGHT ORANGE; 35% POROSITY, MOLDIC, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
POOR INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-08%, CALCILUTITE-06%;
OTHER FEATURES: COQUINA, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS, ECHINOID, BENTHIC FORAMINIFERA, MILIOLIDS;

159.5- 164.5 LIMESTONE; WHITE TO LIGHT ORANGE; 35% POROSITY, MOLDIC, PIN POINT VUGS, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
POOR INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-05%, CALCILUTITE-07%;
OTHER FEATURES: COQUINA, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, ECHINOID, BENTHIC FORAMINIFERA, MILIOLIDS;

164.5- 169.5 LIMESTONE; WHITE TO LIGHT ORANGE; 35% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-03%, CALCILUTITE-12%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS;

169.5- 179.5 LIMESTONE; WHITE TO LIGHT ORANGE; 35% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-02%, CALCILUTITE-12%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS;

179.5- 189.5 LIMESTONE; WHITE TO LIGHT ORANGE; 45% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-03%, CALCILUTITE-10%, IRON STAIN-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS;

189.5- 194.5 LIMESTONE; WHITE TO LIGHT ORANGE; 35% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-02%, CALCILUTITE-10%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS;

194.5- 199.5 LIMESTONE; WHITE TO LIGHT ORANGE; 45% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-02%, CALCILUTITE-12%, IRON STAIN-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS;

199.5- 204.5 LIMESTONE; WHITE; 45% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, INTRACLASTS, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-01%, CALCILUTITE-10%, IRON STAIN-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS;

204.5- 209.5 LIMESTONE; WHITE; 30% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-05%, CALCILUTITE-08%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, ECHINOID, BRYOZOA;

209.5- 214.5 LIMESTONE; WHITE; 35% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-02%, CALCILUTITE-06%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, ECHINOID;

214.5- 217 LIMESTONE; WHITE TO LIGHT YELLOWISH ORANGE; INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-07%, CALCILUTITE-08%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, ECHINOID;

217 - 223 LIMESTONE; WHITE; 40% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-02%, CALCILUTITE-08%;
OTHER FEATURES: LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS;

223 - 224.5 LIMESTONE; WHITE; 35% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-07%, CALCILUTITE-08%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, ECHINOID;

224.5- 229.5 AS ABOVE

229.5- 234.5 LIMESTONE; WHITE TO LIGHT ORANGE; 40% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-05%, CALCILUTITE-08%, IRON STAIN-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, ECHINOID, BRYOZOA;

234.5- 244.5 LIMESTONE; WHITE TO LIGHT ORANGE; 30% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-08%, CALCILUTITE-08%, IRON STAIN-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, ECHINOID;

244.5- 249.5 LIMESTONE; LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 40% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-02%, CALCILUTITE-10%, IRON STAIN-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS;

249.5- 254.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO YELLOWISH GRAY; 30% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-02%, CALCILUTITE-08%, PEAT-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, ECHINOID;

254.5- 260.5 LIMESTONE; LIGHT ORANGE; 30% POROSITY, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-06%, CALCILUTITE-10%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY;
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS;

260.5- 264.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO YELLOWISH GRAY; 45% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-15%, CALCILUTITE-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, ECHINOID;

VARIABLE POROSITY ZONES IN THIS SECTION, RANGING FROM 30-45%

264.5- 274.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO YELLOWISH GRAY; 40% POROSITY, INTERGRANULAR, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-01%, SPAR-10%, CALCILUTITE-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, ECHINOID, PLANT REMAINS;

274.5- 279.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO YELLOWISH GRAY; 40% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, INTRACLASTS, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-02%, SPAR-10%, CALCILUTITE-02%, PEAT-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, PLANT REMAINS;

279.5- 284.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN; 42% POROSITY, INTERGRANULAR,
MOLDIC, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, INTRACLASTS, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-03%, SPAR-12%, CALCILUTITE-02%, PEAT-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC, SPECKLED;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, CONES;
DICTYOCONUS COOKEI IDENTIFIED

284.5- 285.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN; 42% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, INTRACLASTS, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-03%, SPAR-12%, CALCILUTITE-02%, PEAT-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC, SPECKLED;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, CONES;

285.5- 289.5 CALCILUTITE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; 18% POROSITY, INTERGRANULAR, MOLDIC, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: SPAR-08%, CALCILUTITE-10%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY, MUDDY;
FOSSILS: MILIOLIDS;

289.5- 294.5 CALCILUTITE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; 18% POROSITY, INTERGRANULAR, MOLDIC, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: SPAR-07%, CALCILUTITE-10%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY, MUDDY;
FOSSILS: MILIOLIDS, MOLLUSKS;

294.5- 297.5 LIMESTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; 18% POROSITY, INTERGRANULAR, PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CLAY-08%, CALCILUTITE-05%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY;
FOSSILS: MOLLUSKS, MILIOLIDS, WORM TRACES;

297.5- 299.5 CLAY; GRAYISH ORANGE; 08% POROSITY, INTERGRANULAR, LOW PERMEABILITY; GOOD INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CLAY-09%, LIMESTONE-01%, PEAT-01%;
OTHER FEATURES: PLASTIC, CHALKY, LOW RECRYSTALLIZATION;
FOSSILS: ORGANICS;

299.5- 301.5 NO SAMPLES

301.5- 309.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO LIGHT ORANGE; 13% POROSITY, INTERGRANULAR,
PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-09%, CLAY-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY;
FOSSILS: MOLLUSKS, MILIOLIDS, WORM TRACES;

309.5- 312.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO LIGHT ORANGE; 15% POROSITY, INTERGRANULAR,
PIN POINT VUGS, VUGULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-09%, CLAY-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY;
FOSSILS: MOLLUSKS, MILIOLIDS, WORM TRACES;

312.5- 314.5 LIMESTONE; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE; 40% POROSITY, INTERGRANULAR,
VUGULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-08%, CALCILUTITE-05%, DOLOMITE-01%, PEAT-01%;
OTHER FEATURES: SUCROSIC, SPECKLED, HIGH RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, CORAL, ALGAE, ORGANICS;

314.5- 317 LIMESTONE; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE; 30% POROSITY, INTERGRANULAR,
VUGULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: SPAR-06%, CALCILUTITE-02%, DOLOMITE-01%, PEAT-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, SPECKLED, GRANULAR;
FOSSILS: MOLLUSKS, MILIOLIDS, CORAL, BENTHIC FORAMINIFERA, ORGANICS;

317 - 319.5 LIMESTONE; LIGHT YELLOWISH ORANGE; 22% POROSITY, INTERGRANULAR, PIN POINT VUGS,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-05%, CALCILUTITE-08%, DOLOMITE-01%, PEAT-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, SPECKLED, CHALKY;
FOSSILS: MOLLUSKS, MILIOLIDS, CORAL, BENTHIC FORAMINIFERA, ORGANICS;

319.5- 320 DOLOSTONE; DARK YELLOWISH ORANGE; 10% POROSITY, PIN POINT VUGS, VUGULAR, LOW PERMEABILITY;
50-90% ALTERED;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: LAMINATED, BRECCIATED,
ACCESSORY MINERALS: DOLOMITE-06%, CLAY-01%;
OTHER FEATURES: VARIEGATED;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, WORM TRACES;

320 - 326.5 CALCILUTITE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE; 12% POROSITY, INTERGRANULAR,
PIN POINT VUGS, VUGULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, BIOTURBATED, MOTTLED,
ACCESSORY MINERALS: CALCILUTITE-05%, DOLOMITE-02%, SPAR-01%;
OTHER FEATURES: DOLOMITIC, CHALKY;
FOSSILS: MOLLUSKS, WORM TRACES, CORAL;
SOME THIN ORGANIC-CLAY-RICH MICRITE SEAMS BETWEEN 320-324.5

326.5- 329.5 LIMESTONE; LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 12% POROSITY, INTERGRANULAR,
PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX;
ACCESSORY MINERALS: CALCILUTITE-05%, SPAR-02%, CLAY-02%, PEAT-01%;
OTHER FEATURES: CHALKY, SPECKLED;
FOSSILS: MOLLUSKS, MILIOLIDS, ORGANICS;

329.5- 336 AS ABOVE

336 - 339.5 DOLOSTONE; DARK GRAYISH YELLOW TO LIGHT ORANGE; 10% POROSITY, PIN POINT VUGS,
INTERCRYSTALLINE, LOW PERMEABILITY; 90-100% ALTERED;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, LAMINATED,
ACCESSORY MINERALS: CALCILUTITE-02%;
OTHER FEATURES: HIGH RECRYSTALLIZATION;
FOSSILS: MOLLUSKS;
SOME DOLO-SILTSTONE SEAMS LAMINATING THE SECTION

339.5- 344.5 CALCILUTITE; LIGHT ORANGE TO MODERATE ORANGE PINK; 20% POROSITY, INTERGRANULAR,
PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-09%, SPAR-05%, CLAY-02%, PEAT-01%;
OTHER FEATURES: CHALKY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, PLANT REMAINS;

344.5- 345.5 CALCILUTITE; LIGHT ORANGE TO MODERATE ORANGE PINK; 20% POROSITY, INTERGRANULAR,
PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-09%, SPAR-05%, CLAY-02%, PEAT-02%;
OTHER FEATURES: CHALKY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, PLANT REMAINS;

345.5- 354.5 LIMESTONE; MODERATE ORANGE PINK TO LIGHT ORANGE; 30% POROSITY, INTERGRANULAR,
PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE, PELLET CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-08%, SPAR-08%, CLAY-01%, IRON STAIN-01%;
OTHER FEATURES: CHALKY, SPECKLED;
FOSSILS: MOLLUSKS, MILIOLIDS, WORM TRACES, ECHINOID;

354.5- 359.5 LIMESTONE; MODERATE ORANGE PINK TO LIGHT ORANGE; 40% POROSITY, INTERGRANULAR,
PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE, PELLET CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, LAMINATED,
ACCESSORY MINERALS: CALCILUTITE-08%, SPAR-08%, CLAY-01%, IRON STAIN-01%;
OTHER FEATURES: CHALKY, SPECKLED, MEDIUM RECRYSTALLIZATION, VARVED, DOLOMITIC;
FOSSILS: MOLLUSKS, MILIOLIDS, WORM TRACES, ECHINOID;
SILTY LIMESTONE MIXED WITH LIMESTONE IN BOTTOM FOOT OF SECTION

359.5- 361.5 CALCILUTITE; LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, LAMINATED,
ACCESSORY MINERALS: CALCILUTITE-07%, DOLOMITE-02%, SPAR-01%;
OTHER FEATURES: DOLOMITIC, CHALKY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, ECHINOID;
CLAY AND DOLOMITE AT BOTTOM OF SECTION

361.5- 369 LIMESTONE; YELLOWISH GRAY TO LIGHT ORANGE; 30% POROSITY, INTERGRANULAR, PIN POINT VUGS, VUGULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-10%, SPAR-05%, CLAY-02%;
OTHER FEATURES: GRANULAR, CHALKY, STROMATAL, CHALKY;
FOSSILS: MOLLUSKS, MILIOLIDS, ECHINOID;
TRACE OF ORGANIC CLAY LAMINATIONS AT 367

369 - 374.5 LIMESTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; 40% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-06%, CALCILUTITE-05%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, CHALKY, COQUINA;
FOSSILS: MOLLUSKS, MILIOLIDS, BENTHIC FORAMINIFERA, ECHINOID, CORAL;
FORAMS COMMON, DICTYOCONUS COOKEI IDENTIFIED

374.5- 389.5 CALCARENITE; LIGHT ORANGE TO GRAYISH ORANGE; 20% POROSITY, INTERGRANULAR, PIN POINT VUGS;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-10%, SPAR-05%;
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, ECHINOID;

389.5- 403.5 CALCARENITE; GRAYISH ORANGE; 25% POROSITY, INTERGRANULAR, PIN POINT VUGS;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-10%, SPAR-08%;
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, MILIOLIDS, ECHINOID;
FORAMS PRESENT, DICTYOCONUS COOKEI IDENTIFIED

403.5- 404.4 DOLOSTONE; LIGHT ORANGE TO GRAYISH ORANGE; 35% POROSITY, INTERGRANULAR, PIN POINT VUGS, POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; FIBROUS;
GRAIN SIZE: MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: DOLOMITE-07%, SPAR-04%;
OTHER FEATURES: GRANULAR, SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, BENTHIC FORAMINIFERA;

404.4- 409.5 CALCARENITE; LIGHT ORANGE; 25% POROSITY, INTERGRANULAR, PIN POINT VUGS, MOLDIC;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-07%, SPAR-02%, DOLOMITE-01%;
OTHER FEATURES: DOLOMITIC, SPECKLED;
FOSSILS: MOLLUSKS, MILIOLIDS, BENTHIC FORAMINIFERA, CORAL, ECHINOID;
TRACE ORGANICS

409.5- 419.5 AS ABOVE

419.5- 424.5 CALCARENITE; LIGHT ORANGE; 30% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-06%, SPAR-05%;
OTHER FEATURES: CHALKY;
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, ECHINOID;
CALCILUTITE LAYER AT 424-424.5

424.5- 426 CALCILUTITE; LIGHT ORANGE TO GRAYISH ORANGE; 20% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CALCILUTITE-05%, SPAR-03%;
OTHER FEATURES: CHALKY;
FOSSILS: MOLLUSKS, MILIOLIDS, BENTHIC FORAMINIFERA, ECHINOID;
YELLOW BROWN DOLOMITE INTERBEDDED WITH LIMESTONE

426 - 429.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; 40% POROSITY, INTERGRANULAR, PIN POINT VUGS, POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; FIBROUS;
GRAIN SIZE: MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
OTHER FEATURES: GRANULAR, SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, BENTHIC FORAMINIFERA, FOSSIL MOLDS;
SOFT DOLOMITE INTERBEDDED WITH MORE INDURATED DOLOMITE

429.5- 436 DOLOSTONE; DARK YELLOWISH BROWN TO YELLOWISH GRAY; 03% POROSITY, PIN POINT VUGS, NOT OBSERVED; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
OTHER FEATURES: HIGH RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS, BENTHIC FORAMINIFERA;
ZONE OF HIGH POROSITY (45%) AT 434-434.5

436 - 444 DOLOSTONE; LIGHT ORANGE TO LIGHT OLIVE BROWN; 06% POROSITY, MOLDIC, LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, BANDED,
ACCESSORY MINERALS: IRON STAIN-01%, PEAT-01%;
OTHER FEATURES: HIGH RECRYSTALLIZATION, VARIEGATED;
FOSSILS: MOLLUSKS, MILIOLIDS, CORAL, ORGANICS, FOSSIL MOLDS;

444 - 449.5 AS ABOVE
ZONE OF HIGH POROSITY (45%) AT 444-444.5

449.5- 451 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; 30% POROSITY, INTERGRANULAR, PIN POINT VUGS, POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; FIBROUS;
GRAIN SIZE: MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
OTHER FEATURES: GRANULAR, SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

451 - 456 DOLOSTONE; GRAYISH ORANGE TO LIGHT ORANGE; 13% POROSITY, INTERGRANULAR, FRACTURE, MOLDIC; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: IRON STAIN-01%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

456 - 459.5 DOLOSTONE; LIGHT ORANGE TO GRAYISH ORANGE; 02% POROSITY, PIN POINT VUGS, NOT OBSERVED; 90-100% ALTERED; ANHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-01%;
OTHER FEATURES: CHALKY, HIGH RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

459.5- 462 DOLOSTONE; LIGHT ORANGE; 02% POROSITY, PIN POINT VUGS, NOT OBSERVED;
90-100% ALTERED; ANHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-01%;
OTHER FEATURES: CHALKY, HIGH RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

462 - 463 CAVITY

463 - 463.3 DOLOSTONE; LIGHT ORANGE; 02% POROSITY, PIN POINT VUGS, NOT OBSERVED;
90-100% ALTERED; ANHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-01%;
OTHER FEATURES: CHALKY, HIGH RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

463.3- 464.3 CAVITY

464.3- 469.5 DOLOSTONE; LIGHT ORANGE; 02% POROSITY, PIN POINT VUGS, NOT OBSERVED;
90-100% ALTERED; ANHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: SPAR-01%;
OTHER FEATURES: CHALKY, HIGH RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

469.5- 471.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; 09% POROSITY, INTERGRANULAR,
PIN POINT VUGS; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

471.5- 472 CAVITY

472 - 472.5 SAME DOLOMITE AS ABOVE

472.5- 473 CAVITY

473 - 479.5 DOLOSTONE; LIGHT ORANGE TO GRAYISH BROWN; 08% POROSITY, PIN POINT VUGS, FRACTURE,
LOW PERMEABILITY; 90-100% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, LAMINATED,
ACCESSORY MINERALS: SPAR-01%;
OTHER FEATURES: SPLINTERY, HIGH RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;
FRACTURES LINED OR INFILLED BY SECONDARY CALCITE

479.5- 489.5 DOLOSTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; 10% POROSITY, PIN POINT VUGS,
FRACTURE, LOW PERMEABILITY; 90-100% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, LAMINATED,
ACCESSORY MINERALS: SPAR-01%, PEAT-01%;
OTHER FEATURES: VARIEGATED, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;
SOME DOLOMITE BRECCIA OR INCLUSIONS AT TOP OF SECTION

489.5- 489.5 LIMESTONE; LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 12% POROSITY, PIN POINT VUGS, FRACTURE;
GRAIN TYPE: BIOGENIC, CRYSTALS, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: DOLOMITE-10%, SPAR-05%;
OTHER FEATURES: DOLOMITIC, SPLINTERY, LOW RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, MOLLUSKS, FOSSIL MOLDS;

489.5- 491.5 DOLOSTONE; LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 10% POROSITY, PIN POINT VUGS, FRACTURE,
LOW PERMEABILITY; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: DOLOMITE-15%, SPAR-01%, IRON STAIN-01%;
OTHER FEATURES: VARIEGATED, MEDIUM RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

491.5- 497 LIMESTONE; LIGHT ORANGE TO GRAYISH ORANGE; 17% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CRYSTALS, SKELETAL CAST;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, LAMINATED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-10%, SPAR-06%;
OTHER FEATURES: DOLOMITIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, MOLLUSKS, FOSSIL MOLDS;
BOTTOM OF SECTION LAMINATED BY THIN VARVES OF CLAY

497 - 499.5 LIMESTONE; YELLOWISH GRAY TO DARK GRAYISH YELLOW; 20% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-07%, CLAY-04%, DOLOMITE-02%, PEAT-01%;
OTHER FEATURES: DOLOMITIC, COQUINA, GRANULAR, MUDDY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;

499.5- 504.5 LIMESTONE; DARK GRAYISH YELLOW TO YELLOWISH GRAY; 30% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-06%, CLAY-03%, DOLOMITE-03%;
OTHER FEATURES: DOLOMITIC, COQUINA, GRANULAR, MUDDY, LOW RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, MOLLUSKS, FOSSIL MOLDS;

504.5- 505.4 AS ABOVE

505.4- 509.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; 35% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-03%, PYRITE-01%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS, MOLLUSKS;

509.5- 514.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; 35% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-03%, PEAT-01%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;
INTERBEDDED HIGH AND MODERATRE POROSITY DOLOMITE, TRACE OF PHOSPHATIZED FOSSIL FRAGMENT, SOME ORGANICS LAMINATING BOTTOM OF SECTION

514.5- 516.2 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY; 12% POROSITY, MOLDIC,
LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
OTHER FEATURES: SPLINTERY, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

516.2- 521 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN; 20% POROSITY, INTERGRANULAR, MOLDIC;
10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-02%, CLAY-01%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;

521 - 524.5 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE; 30% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY; 0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-05%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
LOW POROSITY RECRYSTALLIZED DOLOMITE FROM 522.5-524.5

524.5- 525.3 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN; 20% POROSITY, INTERGRANULAR, MOLDIC;
10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-02%, CLAY-01%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;

525.3- 529.5 DOLOSTONE; GRAYISH ORANGE TO GRAYISH YELLOW; 30% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY; 0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-05%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
LOW POROSITY (5%) ZONE AT 527.3-529.3 EXTREMELY LOW (1%) POROSITY ZONE AT 529.3 - 529.5

529.5- 536.5 DOLOSTONE; LIGHT ORANGE TO GRAYISH ORANGE; 08% POROSITY, PIN POINT VUGS, LOW PERMEABILITY;
10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED,
OTHER FEATURES: VARIEGATED, HIGH RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

536.5- 545 DOLOSTONE; YELLOWISH GRAY; 08% POROSITY, PIN POINT VUGS, LOW PERMEABILITY;
10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CLAY-02%;
OTHER FEATURES: HIGH RECRYSTALLIZATION, LOW RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS, ORGANICS;
DOLOMITE FROM 536.5 - 539.5 HAS HIGHER POROSITY (15%)

545 - 549.5 DOLOSTONE; YELLOWISH GRAY; 08% POROSITY, PIN POINT VUGS, MOLDIC,
LOW PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: CALCILUTITE-04%, CLAY-04%;
OTHER FEATURES: CHALKY, MUDDY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;
HARD DOLOMITE BRECCIA MIXED WITH CLAY-RICH DOLOMITE AT BOTTOM OF SECTION

549.5- 550 CLAY; OLIVE GRAY TO GRAYISH OLIVE GREEN; 15% POROSITY, INTERGRANULAR, LOW PERMEABILITY;
POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, FISSILE,
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-02%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;

550 - 559.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; 35% POROSITY, INTERGRANULAR,
MOLDIC, POSSIBLY HIGH PERMEABILITY; 0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: SPAR-02%, PEAT-01%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;
THIN ORGANIC-RICH SEAMS LAMINATING THE SECTION

559.5- 564.5 DOLOSTONE; YELLOWISH GRAY; 40% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY;
0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: SPAR-02%;
OTHER FEATURES: SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

564.5- 574.5 DOLOSTONE; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; 40% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY; 0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-03%;
OTHER FEATURES: SUCROSIC, COQUINA, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
NO INTACT CORE, CUTTINGS ONLY DUE TO POOR CEMENTATION

574.5- 579.5 DOLOSTONE; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; 40% POROSITY, INTERGRANULAR, MOLDIC, POSSIBLY HIGH PERMEABILITY; 0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-03%, CLAY-02%;
OTHER FEATURES: SUCROSIC, MUDDY, CHALKY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
HIGH POROSITY DOLOMITE INTERBEDDED WITH LOWER (15%) POROSITY DOLOMITE

579.5- 584.5 LIMESTONE; YELLOWISH GRAY TO GRAYISH YELLOW; 20% POROSITY, INTERGRANULAR, PIN POINT VUGS, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;

584.5- 584.5 LIMESTONE; YELLOWISH GRAY TO GRAYISH YELLOW; 20% POROSITY, INTERGRANULAR, PIN POINT VUGS, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-05%;
OTHER FEATURES: DOLOMITIC, CHALKY, SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

584.5- 589.5 LIMESTONE; YELLOWISH GRAY TO LIGHT ORANGE; 18% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-10%, CALCILUTITE-04%, CLAY-04%;
OTHER FEATURES: DOLOMITIC, MUDDY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

589.5- 600 LIMESTONE; LIGHT ORANGE TO LIGHT GRAYISH RED; 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: CLAY-08%, DOLOMITE-07%, CALCILUTITE-03%;
OTHER FEATURES: DOLOMITIC, CHALKY, MUDDY, LOW RECRYSTALLIZATION, VARVED;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

600 - 604.5 LIMESTONE; LIGHT ORANGE; 25% POROSITY, INTERGRANULAR, PIN POINT VUGS, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-06%, CALCILUTITE-07%, SPAR-03%, CLAY-02%;
OTHER FEATURES: DOLOMITIC, CHALKY;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL FRAGMENTS;

604.5- 609.5 LIMESTONE; LIGHT ORANGE; 12% POROSITY, INTERGRANULAR, PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: CLAY-10%, CALCILUTITE-05%, SPAR-01%;
OTHER FEATURES: CHALKY, MUDDY, LOW RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;
THIN GRAY CLAY SEAMS LAMINATING THE SECTION

609.5- 610.5 DOLOSTONE; LIGHT ORANGE TO GRAYISH ORANGE; 10% POROSITY, INTERGRANULAR, PIN POINT VUGS, LOW PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

610.5- 614.5 LIMESTONE; LIGHT ORANGE TO GRAYISH ORANGE; 15% POROSITY, INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-08%, CALCILUTITE-06%, SPAR-02%;
OTHER FEATURES: COQUINA, SUCROSIC, DOLOMITIC, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
POOR CORE RECOVERY, CUTTINGS OBTAINED

614.5- 623.5 AS ABOVE

623.5- 624.5 DOLOSTONE; GRAYISH ORANGE; 10% POROSITY, INTERGRANULAR, PIN POINT VUGS,
LOW PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: SPAR-03%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, FOSSIL FRAGMENTS;

624.5- 629.5 CALCILUTITE; LIGHT ORANGE TO YELLOWISH GRAY; 30% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-08%;
OTHER FEATURES: DOLOMITIC, CHALKY, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, WORM TRACES, FOSSIL FRAGMENTS;
COMMON MOLLUSK MOLDS, TURRITELLA IDENTIFIED, LOWER POROSITY ZONE (15%) BETWEEN 624.5 - 625

629.5- 634 LIMESTONE; LIGHT ORANGE; 10% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: DOLOMITE-06%, SPAR-01%;
OTHER FEATURES: DOLOMITIC, VARIEGATED, LOW RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
GRAY ORANGE CLAY LAMINATIONS AT TOP AND BOTTOM OF SECTION

634 - 639 CALCARENITE; GRAYISH ORANGE; 45% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-08%, SPAR-03%;
OTHER FEATURES: COQUINA, CHALKY, SUCROSIC, LOW RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL FRAGMENTS;
CALCILUTITE LAYER AT 634 - 634.5

639 - 649.6 DOLOSTONE; LIGHT ORANGE TO YELLOWISH GRAY; 08% POROSITY, PIN POINT VUGS, LOW PERMEABILITY;
10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-04%, SPAR-02%;
OTHER FEATURES: DOLOMITIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
ZONES OF CALCARENITE IDENTIFIED IN INTERVAL

649.6- 659.8 CALCILUTITE; LIGHT ORANGE TO GRAYISH ORANGE; 20% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-06%, SPAR-02%;
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

LOWER POROSITY CALCILUTITE AT TOP OF SECTION (649.6 - 650)

659.8- 664.6 CALCILUTITE; LIGHT ORANGE TO YELLOWISH GRAY; 15% POROSITY, INTERGRANULAR, PIN POINT VUGS,
LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CLAY-05%, SPAR-02%;
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

664.6- 666.6 DOLOSTONE; LIGHT ORANGE; 08% POROSITY, INTERGRANULAR, PIN POINT VUGS,
LOW PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-05%, SPAR-01%;
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

666.6- 669.6 LIMESTONE; LIGHT ORANGE; 06% POROSITY, INTERGRANULAR, PIN POINT VUGS, LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-05%, CALCILUTITE-04%;
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

669.6- 679 DOLOSTONE; LIGHT ORANGE TO GRAYISH ORANGE; 20% POROSITY, PIN POINT VUGS, MOLDIC,
POSSIBLY HIGH PERMEABILITY; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-04%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;
INTERVAL BETWEEN 669.6 - 674.5 HAS VARIABLE POROSITY ZONES

679 - 679.5 LIMESTONE; LIGHT ORANGE TO GRAYISH ORANGE; 25% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-06%, DOLOMITE-04%, SPAR-02%;
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS;

679.5- 684.5 DOLOSTONE; LIGHT ORANGE; 05% POROSITY, PIN POINT VUGS, LOW PERMEABILITY;
50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: DOLOMITE-07%, SPAR-05%, PEAT-01%;
OTHER FEATURES: SPLINTERY, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;
POSSIBLE UNCONFORMITY AT 684.5

684.5- 689.5 DOLOSTONE; LIGHT OLIVE GRAY TO DARK GRAYISH YELLOW; 10% POROSITY, PIN POINT VUGS,
LOW PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: CALCILUTITE-04%, SPAR-02%, PEAT-02%;
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;
PEAT AND CLAY LAYERS INTERBEDDED WITH DOLOMITE

689.5- 694.5 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY; 12% POROSITY, INTERGRANULAR, PIN POINT VUGS,
LOW PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: CALCILUTITE-04%, SPAR-02%, PEAT-01%;
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, ORGANICS;

694.5- 699.3 AS ABOVE
TRACE OF PEAT LAMINATIONS AND PEAT-FILLED FOSSIL VUGS

699.3- 699.5 PEAT; BLACK TO OLIVE GRAY; 05% POROSITY, INTERGRANULAR, LOW PERMEABILITY; POOR INDURATION;
CEMENT TYPE(S): ORGANIC MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
OTHER FEATURES: MUDDY, LOW RECRYSTALLIZATION;
FOSSILS: ORGANICS;

699.5- 701 DOLOSTONE; DARK GRAYISH YELLOW TO LIGHT OLIVE BROWN; 06% POROSITY, PIN POINT VUGS,
LOW PERMEABILITY, MOLDIC;

701 - 701 DOLOSTONE; DARK GRAYISH YELLOW TO LIGHT OLIVE BROWN; 06% POROSITY, PIN POINT VUGS,
LOW PERMEABILITY; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX, ORGANIC MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: CLAY-05%, PEAT-02%;
OTHER FEATURES: SPLINTERY, CHALKY, MUDDY, LOW RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS, ORGANICS;

701 - 704.5 DOLOSTONE; DARK GRAYISH YELLOW TO LIGHT OLIVE GRAY; 35% POROSITY, INTERGRANULAR, MOLDIC,
POSSIBLY HIGH PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, MOTTLED,
ACCESSORY MINERALS: SPAR-01%, CLAY-01%;
OTHER FEATURES: SPLINTERY, GRANULAR, SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, WORM TRACES;
TRACE OF DOLOMITE LINING FOSSIL MOLDS

704.5- 709 AS ABOVE

709 - 711.3 DOLOSTONE; YELLOWISH GRAY TO BROWN; 05% POROSITY, INTERGRANULAR, LOW PERMEABILITY,
NOT OBSERVED; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX, SPARRY CALCITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, MASSIVE,
ACCESSORY MINERALS: CLAY-05%, PEAT-01%;
OTHER FEATURES: SPLINTERY, GRANULAR, MEDIUM RECRYSTALLIZATION, CHALKY, VARIEGATED;
FOSSILS: WORM TRACES, FOSSIL MOLDS, CORAL, MOLLUSKS;
HIGHLY VARAIBLE DOLOMITIC INTERVAL, WITH ORGANICS COMMON DOLOMITIC YELLOW GRAY SILT
INTERBEDDED WITH DOLOMITE AT 711.3

711.3- 712.5 DOLOSTONE; DARK GRAYISH YELLOW TO LIGHT OLIVE BROWN; 05% POROSITY, MOLDIC;
10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, MOTTLED,
ACCESSORY MINERALS: CALCILUTITE-02%;
OTHER FEATURES: GRANULAR, SUCROSIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, WORM TRACES, CORAL;

712.5- 713 DOLOSTONE; DARK GRAYISH YELLOW; 15% POROSITY, INTERGRANULAR,
PIN POINT VUGS; 0-10% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-01%, CLAY-01%;
OTHER FEATURES: CHALKY, SPECKLED, LOW RECRYSTALLIZATION;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;

713 - 714 DOLOSTONE; YELLOWISH GRAY TO DARK GRAYISH YELLOW; 02% POROSITY, PIN POINT VUGS,
LOW PERMEABILITY; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE, LAMINATED,
ACCESSORY MINERALS: CALCILUTITE-03%, QUARTZ SAND-01%;
OTHER FEATURES: GRANULAR, VARVED, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, MILIOLIDS, FOSSIL MOLDS, WORM TRACES;
TRACE PALE YELLOW-BROWN DOLOMITE AND SECONDARY QUARTZ

714 - 714.5 DOLOSTONE; DARK BROWN TO MODERATE BROWN; 01% POROSITY, MOLDIC,
LOW PERMEABILITY; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE,
OTHER FEATURES: SPECKLED, HIGH RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, WORM TRACES, FOSSIL MOLDS;
DARK BROWN RECRYSTALLIZED DOLOMITE CRYSTALS

714.5 TOTAL DEPTH