## Executive Summary ROMP Site 97 - Core and Monitor

Location - ROMP Site No. 97 is located on the northwest corner of the intersection of Placid Street and Waterfall Drive in Hernando County. The site is located in the SW 1/4 of SW 1/4 of SW 1/4 of Section 35, Township 23 South, Range 17 East and at latitude 28°26'06", longitude 82°34'57". Site Easement - The site was obtained from the Deltona Corporation on November 10, 1977 for the sum of one dollar. The perpetual easement is 30 feet by 40 feet. A Temporary Construction Easement was obtained on December 19, 1977 for a period of twelve months with an expiration date of December 19, 1978. The temporary easement contained an additional plot of land which was approximately 40 feet by 25 feet and adjoined the Perpetual Easement. These Easements are recorded in Book 417, Pages 759 through 766 at the Hernando County Courthouse.

Reason for Coring - This site was cored based upon a report by Missimer and Associates which stated that the change from a one to two artesian aquifer system occurs in this general area. Therefore, core, water samples and water levels were gathered at this site in order to try and determine if a one or two artesian aquifer system exists. Coring showed that a single artesian system exists at this site.

<u>Geology</u> - The site is located on the Talbot Terrace at an elevation of approximately 30 feet above mean sea level (MSL). All geologic information was obtained from continuous core sampling from 42 to 419.5 feet below land surface datum (LSD). The generalized geology at this site is as follows:

0-42' Sand

42'-79.5' Tampa Limestone

79.5'-156 Suwannee Limestone

156'-298' Ocala Group

298'-419.5' Avon Park Limestone

Hydrogeology - The coring of this site yielded the results that a single artesian aquifer exists from land surface to the Avon Park Limestone.

The porosity at this site was generally low to moderate except in the Ocala Group where the porosity was low. No pumping tests were conducted at this site so there is no data available on permeabilities or transmissivities.

Core Drilling - Core, water samples, and water levels were obtained from 42 to 419 feet below LSD by the District's CME core drilling rig at a cost of \$11,447.42 or \$27.32 per foot.

Core samples of 1 7/8" diameter were obtained with a wire line core and boxed for shipment to the Geology Department at the University of Florida for detailed analysis. Upon completion of coring operations the core hole was grouted up with a neat cement slurry.

Well Construction - This well was constructed with a cable tool rig under Contract R12171 by Layne-Atlantic Company at a cost of \$15,728.48 or \$44.30 per foot. The well was constructed by driving 12 inch steel work casing from LSD to 60 feet below LSD. A nominal 12 inch diameter hole was then drilled to 310 feet below LSD and 310 feet of 6 inch PVC was installed and grouted in place. A nominal 5 inch diameter hole was then drilled from 310 to 355 feet and the well was developed by pumping for approximately 4 hours. Upon completion of the well a 4 foot section of 18 inch diameter concrete culvert pipe was placed around the 6 inch PVC and cemented in place in order to protect the PVC from chemical and physical damage.

Geophysical Logs - Geophysical logs were obtained on both the core hole and the monitor well. Electric, gamma, and temperature logs were run on both holes while a caliper log was also obtained on the monitor well.

that this well was completed.

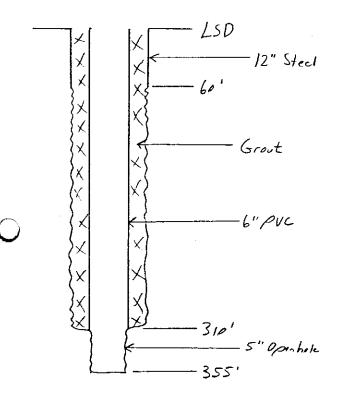
<u>Type of Monitor</u> - ROMP 97 is an artesian monitor designed to monitor the potentiometric levels in the Avon Park Limestone.

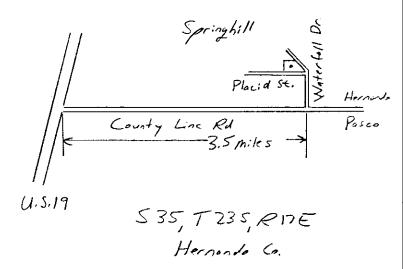
<u>Water Quality</u> - A total of 22 water samples were collected during the coring of ROMP 97. The SWFWMD lab tested for the following parameters: pH, hardness, conductivity, chlorides, sulfates, and color. The results show the water to be well within all established drinking water limitations.

<u>USGS Notification</u> - SWFWMD Planning Section was notified on 5/15/79

As Built Well Diagram

Site Location





LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 14673

TOTAL DEPTH: 00419 FT.

SAMPLES - NONE

COUNTY - HERNANDO

LOCATION: T.23S R.17E S.35CC

LAT = N 28D 26M 06

LON = W 82D 34M 57

COMPLETION DATE - 11/30/87

OTHER TYPES OF LOGS AVAILABLE - ELECTRIC

ELEVATION - 030 FT

OWNER/DRILLER: SWFWMD; ROMP 97 COUNTY LINE ROAD.

WORKED BY: K. PREEDOOM; CODED AND ENTERED BY RICHARD GREEN 10/90 FROM A GEOLOGIST'S LOG PROVIDED BY SWFWMD.

NO DESCRIPTION AVAILABLE FOR 0-42'.

NO FORMATION PICKS MADE FOR 0-156'.

156. - 298. OCALA GROUP

298. - . AVON PARK FM.

0 - 42 NO SAMPLES

42 - 59.5 LIMESTONE; CREAM; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

MODERATE INDURATION:

ACCESSORY MINERALS: IRON STAIN- %;

FOSSILS: MOLLUSKS;

PACKED BIOMICRITE, ABUNDANT MOLLUSKS, IRON STAINED MOST HEAVILY AT TOP BECOMING LESS STAINED WITH DEPTH. POROSITY IS MODERATELY HIGH WITH POOR CONNECTION.

59.5- 65 LIMESTONE; CREAM; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

MODERATE INDURATION;

FOSSILS: MOLLUSKS, CORAL;

SPARSE BIOMICRITE, SOMEWHAT PUNKY, FEW CORALS (ACRAPORA CERVICORNIS), POROSITY IS GENERALLY PRIMARY AND HIGH WITH VERY GOOD CONNECTION. SOME SECONDARY DEVELOPMENT OF POROSITY AROUND FOSSILS.

65 - 67.5 LIMESTONE; CREAM; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GOOD INDURATION;

ACCESSORY MINERALS: IRON STAIN- %;

FOSSILS: MOLLUSKS:

PACKED BIOMICRITE. IRON STAINED PORES. ABUNDANT MOLLUSKS. POROSITY IS MODERATE, WITH SOME SECONDARY DEVELOPMENT AROUND FOSSILS. PORES ARE POORLY CONNECTED.

67.5- 74 LIMESTONE; LIGHT GRAY TO CREAM; LOW PERMEABILITY; GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GOOD INDURATION;

FOSSILS: MOLLUSKS;

SPARSE BIOMICRITE, VERY WELL LITHIFIED, HARD, DENSE. SLIGHTLY MOTTLED WITH GRAINY MICRITE.

MOLLUSKS MOSTLY OCCUR IN GRAINY ZONES.

74 - 76 LIMESTONE; YELLOW TO CREAM; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GOOD INDURATION;

SPARSE BIOMICRITE, SOMEWHAT GRAINY TEXTURE, PUNKY IN ZONES.

76 - 79.5 LIMESTONE; LIGHT TAN; MOLDIC, POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

ACCESSORY MINERALS: IRON STAIN- %;

FOSSILS: MOLLUSKS;

PACKED BIOMICRITE, ABUNDANT MOLLUSKS. PORES ARE IRON STAINED.

79.5- 84 LIMESTONE; LIGHT TAN TO ORANGE; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;

POOR INDURATION;

ACCESSORY MINERALS: CLAY-01%;

FOSSILS: MOLLUSKS:

SPARSE BIOMICRITE. FEW POORLY PRESERVED MOLLUSKS. FRIABLE, PUNKY. TRACE OF CLAY IN PLACES.

84 - 84.5 CALCILUTITE; MODERATE GRAY; LOW PERMEABILITY;

GRAIN TYPE: CALCILUTITE;

ACCESSORY MINERALS: CLAY-%;

CARBONATE MUD AND CLAY, SOFT.

84.5- 87 LIMESTONE;;

SAME AS 79.5-84'.

87 - 88 LIMESTONE; CREAM; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GOOD INDURATION;

FOSSILS: MOLLUSKS;

PACKED BIOMICRITE, DENSE.

88 - 89.5 LIMESTONE; LIGHT GRAY TO CREAM; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

POOR INDURATION;

ACCESSORY MINERALS: CLAY-02%, ORGANICS-02%;

SPARSE BIOMICRITE. FRIABLE. MINOR CLAY FRACTION AND THIN STREAKS OF BLACK ORGANICS. GRAINY

TEXTURE.

89.5- 92 LIMESTONE; CREAM;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

OTHER FEATURES: CHALKY;

SPARSE TO PACKED BIOMICRITE, GRAINY, FRIABLE. MODERATE POROSITY.

92 - 97 LIMESTONE; LIGHT TAN; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

PACKED BIOMICRITE, HARDER THAN ABOVE BUT SOMEWHAT CRUMBLY DUE TO MANY LARGE FOSSILS.

POROSITY IS SECONDARY AND FAIRLY HIGH.

97 - 97.5 LIMESTONE; LIGHT GRAY TO TAN;

GRAIN TYPE: BIOGENIC, CALCILUTITE;

ACCESSORY MINERALS: ORGANICS- %, CLAY-%;

BIOMICRITE, PUNKY, FRIABLE, CONTAINS ORGANIC STREAKS AND MINOR CLAY FRACTION.

97.5- 102 LIMESTONE; LIGHT TAN; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL:

GOOD INDURATION:

SPARSE BIOMICRITE, POROSITY IS GENERALLY LOW.

102 - 106 LIMESTONE; LIGHT BROWNISH GRAY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

ACCESSORY MINERALS: ORGANICS- %:

FOSSILS: MOLLUSKS;

PACKED TO SPARSE BIOMICRTIE. ABUNDANT MOLLUSKS. ORGANIC STREAKS AND POCKETS. POROSITY IS

MODERATE.

106 - 113.5 LIMESTONE; CREAM; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GOOD INDURATION;

ACCESSORY MINERALS: IRON STAIN- %;

FOSSILS: MOLLUSKS:

PACKED BIOMICRITE. HARD BUT CRUMBLY DUE TO MANY LARGE MOLLUSKS. POROSITY IS HIGH.

113.5- 115 LIMESTONE; WHITE; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GRAIN SIZE: FINE; GOOD INDURATION;

SPARSE BIOMICRITE. LOW POROSITY.

115 - 132 LIMESTONE; CREAM TO LIGHT BROWNISH GRAY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GRAIN SIZE: FINE;

SPARSE BIOMICRITE. SOMEWHAT PUNKY. POROSITY IS PRIMARY AND VERY FINE WITH MINOR SECONDARY

DEVELOPMENT AROUND SOME FOSSILS.

132 - 133 CLAY; MODERATE GRAY;

STICKY, BLOCKY, VERY DISTINCT CONTACT ABOVE AND BELOW.

- 133 140 LIMESTONE; ; SAME AS 115-132'.
- 140 156 LIMESTONE; CREAM; POSSIBLY HIGH PERMEABILITY;
  GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
  ACCESSORY MINERALS: IRON STAIN- %;
  FOSSILS: MOLLUSKS;
  PACKED TO SPARSE BIOMICRITE, FRIABLE, GRAINY. ABUNDANT MOLLUSKS. POROSITY IS MOD.-HIGH.
- 156 179.5 LIMESTONE; LIGHT GRAY TO CREAM; LOW PERMEABILITY;

  GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL;

  GRAIN SIZE: VERY FINE;

  FOSSILS: BENTHIC FORAMINIFERA;

  MICRITE TO SPARSE BIOMICRITE. PUNKY, FRIABLE. POROSITY IS PRIMARY AND LOW. CONTAINS LEPS, NUMMULITES.
- 179.5- 182.5 LIMESTONE; CREAM; LOW PERMEABILITY;

  GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

  FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;

  PACKED BIOMICRITE; FRIABLE, ABUNDANT MOLLUSKS AND FORAMS. POROSITY IS PRIMARY AND LOW.
- 182.5- 189 LIMESTONE; GRAYISH BROWN; LOW PERMEABILITY;
  GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
  FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;
  SPARSE TO PACKED BIOMICRITE. FRIABLE. ABUNDANT MOLLUSKS AND FORAMS. POROSITY IS PRIMARY
  AND LOW.
- 189 196 AS ABOVE EXCEPT COLOR IS CREAM.
- 196 211 AS ABOVE SAME AS 182.5-189'.
- 211 215 LIMESTONE; CREAM; LOW PERMEABILITY;

  GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

  GRAIN SIZE: FINE;

  SPARSE BIOMICRITE, FRIABLE. POROSITY IS PRIMARY AND LOW.
- 215 224 LIMESTONE; ; SAME AS 182.5-189'.
- 224 229 LIMESTONE; LIGHT GREENISH GRAY; LOW PERMEABILITY;

  GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

  GRAIN SIZE: FINE;

  FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;

  PACKED BIOMICRITE; FRIABLE. ABUNDANT MOLLUSKS AND FORAMS. POROSITY IS PRIMARY AND LOW.

229 - 244.5 LIMESTONE; CREAM; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;

SPARSE TO PACKED BIOMICRITE. SOME ZONES CONTAIN PROFUSE AMOUNTS OF FORAMS. POROSITY IS

PRIMARY AND LOW.

244.5- 264 AS ABOVE

BUT CONTAINS MINOR FINE GRAINED GTZ SAND.

264 - 298 LIMESTONE; CREAM;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS:

PACKED TO SPARSE BIOMICRITE. POROSITY IS MOSTLY PRIMARY WITH SOME SECONDARY POROSITY

AROUND FOSSILS GIVING A MODERATE POROSITY. POROSITY INCREASES W/ DEPTH.

298 - 299.5 LIMESTONE; LIGHT GRAY TO CREAM; LOW PERMEABILITY;

GRAIN TYPE: CALCILUTITE;

ACCESSORY MINERALS: ORGANICS-%:

PUNKY TEXTURE, CONTAINS STREAKS OF BLACK ORGANICS.

299.5- 307.5 LIMESTONE; LIGHT TAN; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: CALCILUTITE:

FRIABLE, GRAINY. POROSITY IS PRIMARY AND HIGH, VERY WELL CONNECTED.

307.5- 308 LIMESTONE; TAN; LOW PERMEABILITY;

GRAIN TYPE: CRYSTALS, BIOGENIC, CALCILUTITE:

GOOD INDURATION;

OTHER FEATURES: DOLOMITIC:

SPARRY SPARSE BIOMICRITE. PRIMARY POROSITY IS LOW WITH SOME SECONDARY DEVELOPMENT BUT NOT

CONNECTED.

308 - 309 LIMESTONE; LIGHT GRAY TO CREAM; LOW PERMEABILITY;

GRAIN TYPE: CALCILUTITE;

ACCESSORY MINERALS: ORGANICS-%;

ORGANIC MICRITE. FRIABLE, PUNKY. BLACK ORGANIC STREAKS.

309 - 314.5 LIMESTONE: :

SAME AS 299-307'.

314.5- 316 LIMESTONE; TAN; POSSIBLY HIGH PERMEABILITY:

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GOOD INDURATION;

PACKED BIOMICRITE; FOSSIL HASH; PRIMARY AND SECONDARY POROSITY IS HIGH AND WELL CONNECTED.

316 - 318.5 LIMESTONE; ;

SAME AS 299-307'.

318.5- 321.5 LIMESTONE; ;

SAME AS 314-316'.

229 - 244.5 LIMESTONE; CREAM; LOW PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;

SPARSE TO PACKED BIOMICRITE. SOME ZONES CONTAIN PROFUSE AMOUNTS OF FORAMS. POROSITY IS

PRIMARY AND LOW.

244.5- 264 AS ABOVE

BUT CONTAINS MINOR FINE GRAINED QTZ SAND.

264 - 298 LIMESTONE; CREAM;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;

PACKED TO SPARSE BIOMICRITE. POROSITY IS MOSTLY PRIMARY WITH SOME SECONDARY POROSITY

AROUND FOSSILS GIVING A MODERATE POROSITY. POROSITY INCREASES W/ DEPTH.

298 - 299.5 LIMESTONE; LIGHT GRAY TO CREAM; LOW PERMEABILITY;

GRAIN TYPE: CALCILUTITE;

ACCESSORY MINERALS: ORGANICS-%;

PUNKY TEXTURE, CONTAINS STREAKS OF BLACK ORGANICS.

299.5- 307.5 LIMESTONE; LIGHT TAN; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: CALCILUTITE:

FRIABLE, GRAINY. POROSITY IS PRIMARY AND HIGH, VERY WELL CONNECTED.

307.5- 308 LIMESTONE; TAN; LOW PERMEABILITY;

GRAIN TYPE: CRYSTALS, BIOGENIC, CALCILUTITE;

GOOD INDURATION;

OTHER FEATURES: DOLOMITIC;

SPARRY SPARSE BIOMICRITE. PRIMARY POROSITY IS LOW WITH SOME SECONDARY DEVELOPMENT BUT NOT

CONNECTED.

308 - 309 LIMESTONE; LIGHT GRAY TO CREAM; LOW PERMEABILITY;

GRAIN TYPE: CALCILUTITE;

ACCESSORY MINERALS: ORGANICS-%;

ORGANIC MICRITE. FRIABLE, PUNKY. BLACK ORGANIC STREAKS.

309 - 314.5 LIMESTONE; ;

SAME AS 299-307'.

314.5- 316 LIMESTONE; TAN; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

GOOD INDURATION;

PACKED BIOMICRITE; FOSSIL HASH; PRIMARY AND SECONDARY POROSITY IS HIGH AND WELL CONNECTED.

316 - 318.5 LIMESTONE; ;

SAME AS 299-307'.

318.5- 321.5 LIMESTONE; ;

SAME AS 314-316'.

321.5- 331 LIMESTONE; TAN; LOW PERMEABILITY; GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL; ACCESSORY MINERALS: ORGANICS- %; FOSSILS: OSTRACODS, BENTHIC FORAMINIFERA, MOLLUSKS; PACKED SPARRY BIOMICRITE. SOMEWHAT FRIABLE. POROSITY IS PRIMARY AND FAIRLY LOW.

331 - 332 AS ABOVE BUT SOMEWHAT DOLOMITIZED AND VERY HARD.

332 - 341 LIMESTONE;; SAME AS 321.5-331' GAINING LITHIFICATION WITH DEPTH.

341 - 341.5 LIMESTONE; ; LOW PERMEABILITY; GRAIN TYPE: BIOGENIC, CALCILUTITE; POOR INDURATION: ACCESSORY MINERALS: ORGANICS- %; OTHER FEATURES: DOLOMITIC: ORGANIC BIOMICRITE, POSSIBLY DOLOMITIC, SOFT, FRIABLE. ABUNDANT FINE MOLLUSKS AND ORGANICS.

341.5- 346.5 LIMESTONE; MODERATE GRAY TO GRAYISH BROWN; LOW PERMEABILITY; GRAIN TYPE: CALCILUTITE;

SEDIMENTARY STRUCTURES: MOTTLED. ACCESSORY MINERALS: ORGANICS- %; OTHER FEATURES: DOLOMITIC:

DOLOMITIC MICRITE, MOTTLED GRAY AND TANNISH CREAM. SLIGHTLY FRIABLE, BECOMING MORE FRIABLE W/ DEPTH. ORGANIC STREAKS AND POCKETS. POROSITY IS GENERALLY PRIMARY AND LOW.

346.5- 348 DOLOSTONE; LIGHT BROWN TO GRAYISH BROWN; LOW PERMEABILITY; GOOD INDURATION: ACCESSORY MINERALS: ORGANICS-%; VERY DENSE AND HARD. VERY FEW LEACHED FOSSILS.

348 - 350.5 LIMESTONE; CREAM TO GRAYISH BROWN; LOW PERMEABILITY; GRAIN TYPE: CALCILUTITE; GOOD INDURATION;

OTHER FEATURES: DOLOMITIC:

DOLOMITIC MICRITE. CONTAINS ZONES OF PARTIAL DOLOMITIZATION. POROSITY IS PRIMARY AND VERY LOW.

350.5- 354.5 LIMESTONE; TAN; POSSIBLY HIGH PERMEABILITY; GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL; GOOD INDURATION;

PACKED TO SPARRY BIOMICRITE. CONTAINS PRIMARY AND SECONDARY POROSITY THAT IS VERY WELL CONNECTED.

354.5- 363.5 LIMESTONE; CREAM TO GRAYISH BROWN; LOW PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: ORGANICS- %, SPAR- %;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, OSTRACODS;
SPARSE SPARRY BIOMICRITE. FOSSILS BECOME MORE FINE GRAINED WITH DEPTH.

- 363.5- 366 LIMESTONE;; SAME AS 350-354'.
- 366 379 LIMESTONE; GRAYISH BROWN; LOW PERMEABILITY;
  GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
  GOOD INDURATION;
  FOSSILS: MOLLUSKS;
  MICRITE TO SPARSE BIOMICRITE; POROSITY IS GENERALLY PRIMARY AND LOW W/ MINOR SECONDARY DEVELOPMENT AROUND FOSSILS.
- 379 396 LIMESTONE; CREAM; LOW PERMEABILITY;
  GRAIN TYPE: CALCILUTITE;
  GOOD INDURATION;
- 396 399 DOLOSTONE; BROWN; POSSIBLY HIGH PERMEABILITY;
  VARIES FROM VERY HARD TO POWDERY. MOD-HIGH POROSITY.
- 399 410 LIMESTONE; CREAM; LOW PERMEABILITY;
  GRAIN TYPE: CALCILUTITE;
  GOOD INDURATION;
- 410 411.5 DOLOSTONE; BROWN TO GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY; ORGANIC STREAKS PRESENT.
- 411.5- 419 DOLOSTONE; BROWN;
  GOOD INDURATION;
  POROSITY RANGES FROM LOW TO HIGH.
- 419 TOTAL DEPTH