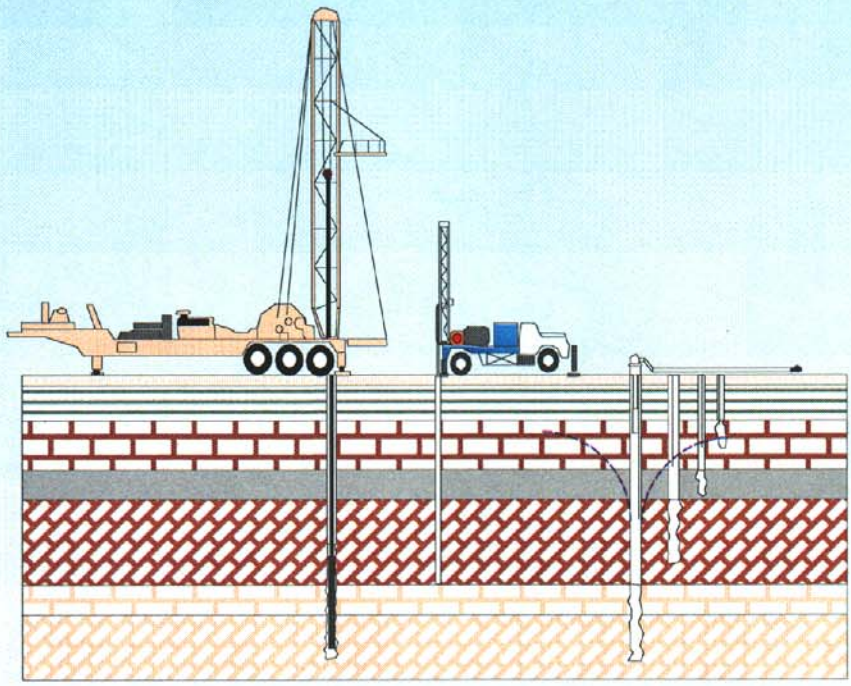
ROMP 25 LILY
MONITOR WELL SITE
HARDEE COUNTY, FLORIDA

PHASE ONE

CORE DRILLING AND TESTING



Geohydrologic Data Section
Resource Data Department
Southwest Florida Water Management District
September 1998

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The geological evaluations and interpretations contained in the *ROMP 25 Core Drilling and Testing Report* have been prepared by or approved by a certified Professional Geologist in the State of Florida, in accordance with Chapter 492, Florida Statutes.

Michael T. Gates
Professional Geologist
License No. PG 0001799

Date: 9-29-98

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MONITOR WELL SITE
HARDEE COUNTY, FLORIDA

PHASE ONE

CORE DRILLING AND TESTING

By Michael T. Gates

Contributing Field Geologist
Douglas H. Rappuhn

Southwest Florida Water Management District

Resource Data Department
Timothy De Foe, Director

Geohydrologic Data Section
S. Greg McQuown, Manager

Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 34609-6899

September 1998

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1.0 INTRODUCTION

The ROMP 25 (WRAP S-6) Lily well site is one of six Regional Observation and Monitor-Well Program (ROMP) well sites (ROMP 5, 9, 12, 13, 25, and TR4-1) constructed for the Southern Water Resource Assessment Project (SWRAP). The SWRAP is a long-term study of the ground-water systems in DeSoto County, Hardee County, and portions of Charlotte, Polk, and Sarasota Counties (Figure 1).

The ROMP 25 Well Site was obtained by the Southwest Florida Water Management District (SWFWMD) in February 1994 for construction of a multiple well monitor site. Drilling, testing, and monitor well construction at ROMP 25 was performed in phases. The data collected at ROMP 25 is presented in three phases: Phase One - **Core Drilling and Testing**, Phase Two - **Exploratory Drilling, Testing and Monitor Well Construction**, and Phase Three - **Aquifer Performance Testing**.

The first phase, wire-line coring from land surface to 1,048 feet below land surface (bls), began December 1995 and was completed in May 1996. The next phase of work, deep exploratory drilling (1,048 to 1,911 feet bls) began in August 1996. The deep exploratory drilling and two permanent monitor wells were completed in March 1997. Construction of the three remaining permanent monitor wells began in January 1998, and was completed in March 1998. The last phase of work, aquifer performance testing, is scheduled for the Spring of 1999. This report, **Phase One - Core Drilling and Testing**, presents the data collected during wire-line coring at ROMP 25.

2.0 SITE LOCATION

The ROMP 25 (WRAP S-6) Lily well site is located in Hardee County, southwest of Zolfo Springs, Florida (Figure 2). ROMP 25 is located on the south side of Roberts Road in the eastern three-quarters of the northeast quarter of Section 9, Township 36 South, Range 23 East at latitude 27° 21' 59", longitude 82° 00' 25.5" (Figure 3). Land surface elevation at the well site is approximately 85 feet above the National Geodetic Vertical Datum of 1929 (NGVD).

3.0 DATA COLLECTION METHODS

Hollow-stem auger, wire-line coring, and mud rotary drilling methods were used to collect lithologic and aqueous samples with depth. The hollow-stem auger method was used initially in the unconsolidated sediments. The wire-line coring method was employed after encountering competent limestone. The mud-rotary method was used to install casing at various locations in order to advance the core-hole. Groundwater samples were collected with a submersible pump and off-bottom packer or with a stainless steel bailer while advancing the core hole. All ground-water samples were collected in accordance with ROMP Water Quality Sampling Protocol.

3.1 LITHOLOGIC SAMPLING

Drilling at ROMP 25 during the coring phase of work was performed with the District-owned Central Mine Exploration (CME) 75 core drilling rig. Continuous core was collected from land surface to 1,048 feet bls from December 1995 to May 1996.

Hollow-stem augers and a split spoon sampler were used to collect continuous lithologic samples from land surface to 40 feet bls. Limestone lenses were encountered at 40 feet bls terminating the auger hole. The auger hole was converted to a permanent surficial aquifer monitor well (Figure 4) and a new core hole was started on-site.

A new 13.5-inch diameter borehole was drilled to 85 feet bls using the mud-rotary method. Eight-inch diameter polyvinyl-chloride (PVC) was installed to 85 feet bls and grouted in place. Four inch diameter HW steel casing was installed inside the eight inch PVC casing and seated into the grout at 77 feet bls. Wire-line coring began at 77 feet bls inside the four inch steel HW casing. Three inch outside diameter (OD) NQ core rods were used to collect the approximate two inch diameter core. The core was collected continuously and retrieved at five foot intervals. Figure 5 presents a diagram of the wire line core drilling configuration. Coring continued to 330 feet bls, then the four inch HW casing was removed and a six inch borehole was advanced from 85 feet bls to 305 feet bls. The HW casing was installed to

305 feet bls and wire-line coring resumed at 330 feet bls. Coring continued from 330 ft bls and was terminated at 1,048 feet bls in the Avon Park Formation. The core hole was then converted to a temporary dual zone (Suwannee Limestone/Arcadia Formation) observation well (Figure 6).

3.2 GROUND-WATER SAMPLING

During coring, groundwater samples were collected by packer testing and with a stainless steel bailer. The packer test samples were collected with a 2-inch submersible pump installed inside the core rods after installing the off-bottom, inflatable packer. The packer allowed the collection of discrete water quality samples and measurement of head levels. Figure 7 presents a diagram of the wire-line packer. The bailer samples were collected by lowering the stainless steel bailer through the core rods to the sample interval and retrieving. Figure 8 presents a diagram of the bailer.

Split-ground-water samples were collected at 20 feet to 40 feet intervals from land surface to 1,048 feet bls while advancing the core-hole. One sample was analyzed in the field for temperature, specific conductance, pH, chloride, sulfate, and density. The other sample was delivered to the District Environmental Chemistry Laboratory for more extensive analyses. Chain-of-Custody forms were used to track the samples. Results of the ground-water samples analyses are presented in Section 6.0. Tables 1 and 2 present the results of the samples analyzed in the field. Tables 3 and 4 present the results of the samples analyzed by the District laboratory.

3.3 HYDRAULIC TESTING

Several samples of the lithologic core were sent to the Florida Geological Survey for vertical permeability and porosity analysis. The Florida Geological Survey performed falling head permeameter tests on 17 core samples selected from ROMP 25. The samples (2-inch diameter by 3 to 6 inches in length) were selected from permeable and confining units within Intermediate and Upper Floridan aquifers at ROMP 25. Table 5 presents the hydraulic values for the core samples.

3.4 GEOPHYSICAL LOGGING

Borehole geophysical logs were collected at ROMP 25 during various stages of core drilling and well construction. Geophysical logs are used to delineate stratigraphic units, characterize water quality, and to calculate amounts of well construction materials. Figure 9 presents the geophysical logs run during the core drilling phase. All logs were run with SWFWMD's digital geophysical logging equipment and are archived with the ROMP 25 File of Record.

4.0 GEOLOGY

The ROMP 25 well site is located on the Wicomico terrace, within the DeSoto Plain physiographic province, a division of the Mid-Peninsular zone of the Florida Peninsula (White, 1970). The well site is within the SWFWMD Peace River Basin and is located west of Horse Creek, a tributary of the Peace River. The well site elevation is approximately 85 feet NGVD.

4.1 STRATIGRAPHY

The ROMP 25 well site stratigraphy was defined from lithologic descriptions of the core samples collected during core drilling from land surface to 1,048 feet bls and from the drill cuttings collected during rotary drilling from 1,048 feet bls to 1,911 feet bls (Phase II - Exploratory Drilling). Figure 10 depicts the geology and hydrogeology described at the ROMP 25 well site. The lithologic log for ROMP 25 is presented in Appendix A.

4.1.1 Undifferentiated Surficial Deposits

The Pliocene to Recent age undifferentiated surficial deposits is the uppermost geologic unit at the ROMP 25 well site. This unit is comprised of fine to medium grained, unconsolidated, quartz sand, with some interbedded silt, clay and organic matter. The undifferentiated surficial deposits extend from land surface to 45 feet bls.

4.1.2 Peace River Formation

The Peace River Formation is a lower Pliocene to Miocene age marine siliciclastic unit that lies unconformably below the undifferentiated surficial deposits. The Peace River Formation is part of the Hawthorn Group sediments described by Scott (1988). In the area of ROMP 25 the Peace River Formation is comprised of a thick sequence of inter-layered siliciclastics and carbonates extending from 45 feet bls to 107 feet bls. Quartz sand, sandy fossiliferous limestone, and interbedded phosphatic sand and clay make up the numerous beds within this unit.

4.1.3 Arcadia Formation

The Arcadia Formation, middle-Miocene in age underlies the Peace River Formation and extends from 107 feet bls to 308 feet bls. The Arcadia Formation as described by Scott (1988), consists primarily of limestone and dolostone with some quartz sand, clay and phosphate grains. The Arcadia Formation, part of the Hawthorn Group sediments, includes the Tampa and Nocatee members in some areas of South Florida. In the area of ROMP 25 neither of these members were described. The Arcadia Formation is characterized by moderately indurated calcarenite, with interbedded clay, quartz sand, phosphatic sand and gravel, and some thin chert and dolostone lenses.

4.1.4 Suwannee Limestone

The Suwannee Limestone is Oligocene in age and extends from 308 feet bls to 675 feet bls at the ROMP 25 well site. The Suwannee Limestone is distinguished from the overlying Arcadia Formation by the absence of phosphatic sediments. The Suwannee consists of a chalky, fossiliferous, calcarenite alternating with thin beds of clay and calcilutite. Permeable zones within the Suwannee are generally formed from fractures and fossil molds and casts. Mollusk and foraminifera molds are very common.

4.1.5 Ocala Limestone

Eocene in age, the Ocala Limestone extends from 675 feet bls to 976 feet bls at ROMP 25. The Ocala is a highly fossiliferous, fine-grained, poorly cemented shallow marine limestone. The limestone is predominantly a chalky, foraminiferal calcarenite or calcilutite with minor interbedded quartz sand and clay. Some thin dolostone lenses are also present. Common foraminifera include *Lepidocyclina sp.* and *Nummulites sp.* Pelecypods, gastropods, milliolids, and echinoids are also common. In the ROMP 25 area the Ocala Limestone is generally of low permeability.

4.1.6 Avon Park Formation

The Avon Park Formation is Eocene in age and extends from 976 feet bls to more than 1900 feet bls in the vicinity of ROMP 25. A thin bed of fine-grained, crystalline dolostone is present at the top of the Avon Park Formation near the Ocala Limestone contact. The Avon Park Formation is characterized by well indurated fossiliferous limestone and dolostone. The middle and lower sections of the unit are characterized by well developed secondary porosity features.

5.0 HYDROLOGY

The ROMP 25 well site hydrology was defined during initial wire-line coring and exploratory drilling. Aquifer systems were delineated from lithologic descriptions of permeable and non-permeable units, potentiometric levels, and water quality data collected during drilling. Changes in water levels were recorded while core drilling through the various aquifers. Table 6 and Figure 11 present the water level data.

5.1 SURFICIAL AQUIFER SYSTEM

The surficial aquifer system (SAS) is an unconfined aquifer that extends from land surface to

approximately 60 feet bls at the ROMP 25 well site. The SAS is comprised almost entirely of fine to medium grained quartz sands of the undifferentiated surficial deposits and Peace River Formation. The well sorted quartz sand, provide the high porosity and permeability of the SAS. The water level in the SAS ranges annually from two to five feet bls (83 feet to 80 feet NGVD) at ROMP 25. In March 1998 the water level of the surficial aquifer measured 2.72 feet bls (82.28 feet NGVD).

5.2 INTERMEDIATE AQUIFER SYSTEM

The intermediate aquifer system (IAS) is a confined aquifer system that includes all transmissive and confining units between the overlying surficial aquifer and underlying UFA (Southeastern Geological Society, 1986). In the area of ROMP 25 the IAS is comprised of transmissive and confining units of the Peace River Formation and Arcadia Formation. Thickness of the IAS is approximately 248 feet thick and extends from 60 feet bls to 308 feet bls at the ROMP 25 well site.

Only one permeable zone was identified in the IAS at ROMP 25. The Arcadia Formation contained a relatively permeable zone of calcilutite with moldic and intergranular porosity features from 107 to 145 feet bls. There were no significant permeable zones identified in the Peace River Formation.

Potentiometric maps of the intermediate aquifer prepared by the United States Geological Survey (USGS) are produced from data collected from wells penetrating multiple zones of the intermediate aquifer. The resulting potentiometric contour lines are composites of several permeable zones. The composite potentiometric IAS maps prepared by the USGS for May 1996 show water levels near the ROMP 25 site at 20 feet NGVD (Figure 12). The September 1996 potentiometric IAS maps show water levels near the ROMP 25 site at 30 feet NGVD (Figure 13). The measured potentiometric surface of the IAS permeable zone at ROMP 25 was 20.10 feet bls (64.90 feet NGVD) in

September 1996. In March 1998 the IAS permeable zone measured 14.65 feet bls (70.35 feet NGVD).

5.3 UPPER FLORIDAN AQUIFER

The Upper Floridan aquifer in the vicinity of ROMP 25 extends from approximately 308 feet bls to greater than 1,900 feet bls. The top of the Upper Floridan aquifer coincides with the top of the Oligocene Age Suwannee Limestone at approximately 308 feet bls. The base of the Upper Floridan aquifer typically is marked by a transition from massive dolostone of the Avon Park Formation, to beds of vertically persistent, intergranular evaporites termed "middle confining unit" by Ryder (1985). The Upper Floridan aquifer is comprised of the Suwannee Limestone, Ocala Limestone, and Avon Park Formation. The low permeability beds of the Ocala Limestone act as a semi-confining unit between the transmissive beds of the overlying Suwannee Limestone and the underlying Avon Park Formation.

Deep exploratory drilling (Phase II) in the Avon Park section of the Upper Floridan aquifer revealed relatively high permeability beds of calcarenite and dolostone from 1,250 feet bls to 1,560 feet bls. The top of the *highly permeable dolostone zone* of the Upper Floridan Aquifer, previously mapped by Wolansky and others (1980) occurs at 1,690 feet bls. This highly transmissive zone extends from 1,690 feet bls to 1, 785 feet bls. Caliper logs and borehole video surveys conducted during the exploratory drilling phase indicate this area is comprised of highly fractured, cavernous, dolostone.

During coring, a noticeable drop in the water level occurred below 308 feet bls after drilling through a hard calcilutite lens (Figure 10). This water level change marks the top of the Upper Floridan aquifer. The potentiometric surface of the Upper Floridan aquifer at ROMP 25 varies seasonally from approximately 40 feet bls to 70 feet bls. Potentiometric maps prepared by the USGS indicate the potentiometric surface of the Upper Floridan aquifer in the area of ROMP 25 ranged from approximately 30 to 50 feet NGVD in September 1995 (Figure 14) to 15 to 20 feet

NGVD in May 1996 (Figures 15). The measured potentiometric surface of the Upper Floridan aquifer at ROMP 25 was approximately 43 feet bls (42 feet NGVD) in March, 1998.

6.0 GROUND-WATER QUALITY

Ground-water samples were collected from the intermediate, and Upper Floridan aquifers at 20 to 40 feet intervals while core drilling from land surface to 1,048 feet bls at the ROMP 25 well site. All samples were collected using the inflatable packer or stainless steel bailer shown in Figures 7 and 8. The results of ground-water quality samples are presented in Tables 1 through 4. Figure 16 presents a graph of the chloride, sulfate, and total dissolved solids (TDS) concentration of ground-water samples collected while core drilling from land surface to 1,048 feet bls.

6.1 SURFICIAL AQUIFER SYSTEM

Ground-water samples were not collected from the surficial aquifer during the coring phase at ROMP 25. However, one ground-water sample was collected from the completed permanent surficial aquifer monitor well in May 1996. The screened interval of the surficial aquifer monitor well extends from 5 to 39 feet bls. The ground-water sample was collected using a submersible pump. Specific conductance was 928 umhos/centimeter (cm). Chloride and sulfate concentrations were 7 milligrams per liter (mg/l) and 14 mg/l, respectively.

6.2 INTERMEDIATE AQUIFER SYSTEM

Ground water within the intermediate aquifer at ROMP 25 is generally within drinking water standards. Samples were collected with the off-bottom packer while coring through the IAS (60 feet bls to 305 feet bls). Specific conductance values for samples collected from the IAS ranged from 282 umhos/cm at the 121-148 feet bls sample interval to 327 umhos/cm at the 271-283 feet bls sample interval (Table 3). Chloride concentrations ranged from 5 mg/l to 7 mg/l, and sulfate concentrations was 4 mg/l for the same sample intervals (Table 3).

6.3 UPPER FLORIDAN AQUIFER

The groundwater of the Upper Floridan aquifer at ROMP 25 is generally low in dissolved minerals. One exception is sulfate concentration which rapidly increases below 333 feet bls. The concentration of sulfate increased from 16 mg/l at the 305-333 feet bls sample interval to a high of 1,020 mg/l at the 871-908 feet bls sample interval. The sulfate concentration then decreased below 908 feet bls to 640 mg/l at 1,048 feet bls. Specific conductance values of the groundwater samples increased from 343 umhos/cm at the 305-333 feet bls sample interval to a high of 1,851 umhos/cm at the 871-908 feet bls sample interval. Specific conductance values decrease below 908 feet bls to 1,359 umhos/cm at 1,048 feet bls. Chloride concentrations increased from 6 mg/l at the 305-333 feet bls sample interval to 13 mg/l at 1,048 feet bls (Tables 3 and 4). Packer tests and the stainless steel bailer were used to collect ground-water samples in the Upper Floridan (305 feet bls to 1,048 feet bls).

7.0 HYDRAULIC DATA

Falling-head permeameter tests were conducted on 17 core samples collected from sections of the Arcadia Formation, Suwannee Limestone, Ocala Limestone, and Avon Park Formation at ROMP 25. Core samples exhibiting both low and high visible porosity features were selected, to determine the relative permeability of permeable and confining units within the intermediate and Upper Floridan aquifers.

The permeameter test results show the mostly confining nature of the Arcadia Formation at ROMP 25. A non-transmissive zone was identified at 361.0 feet bls in the Suwannee Limestone. The Ocala is generally considered to be a confining unit between the Suwannee Limestone and Avon Park Formation, but the permeameter results revealed several thin permeable zones. Only one core sample was selected from the Avon Park Formation and the results indicate this zone is relatively permeable (Table 5). Additional hydraulic data will be collected from aquifer performance tests scheduled to be performed during 1998 and 1999 at ROMP 25. The aquifer performance test data will be presented in the ROMP 25 report: **Phase Three - Aquifer Performance Testing**.

8.0 SUMMARY

Core drilling and testing, the first phase of a hydrogeologic investigation was conducted at the ROMP 25 Lily monitor well site in Hardee County from December 1995 to May 1996. The wire-line coring method was used to collect continuous core samples from land surface to 1,048 feet bls for lithologic description and stratigraphic correlation. Ground-water samples were collected at 20 to 40 foot intervals during coring to characterize the water quality in the surficial, intermediate, and Upper Floridan aquifers. Water levels were measured daily, while coring in the surficial, intermediate and Upper Floridan aquifers.

The results of the coring investigation indicate the ROMP 25 well site is underlain by an unconfined surficial aquifer (0 feet bls to 60 feet bls), a confined intermediate aquifer (60 feet bls to 308 feet bls) with only one permeable zone (107 feet bls to 230 feet bls), and the confined Upper Floridan aquifer (308 feet bls to >1,048 feet bls). The Upper Floridan has two main permeable zones, the Suwannee and Avon Park, separated by the relatively low permeability Ocala Limestone.

Water quality in the surficial aquifer is generally good with most parameters within potable limits. Ground-water samples collected from the permeable zone of the intermediate aquifer also were within potable limits. Water quality within the Upper Floridan aquifer is close to potable limits near the top of the aquifer but becomes more mineralized with depth.

One permanent surficial monitor well and two temporary observation wells were constructed during the coring phase of work. The temporary observation wells were constructed as a dual zone monitor and will be used to monitor water levels during aquifer performance tests at ROMP 25. Both temporary wells will be plugged at the completion of site activities at ROMP 25.

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FIGURES

FIGURES

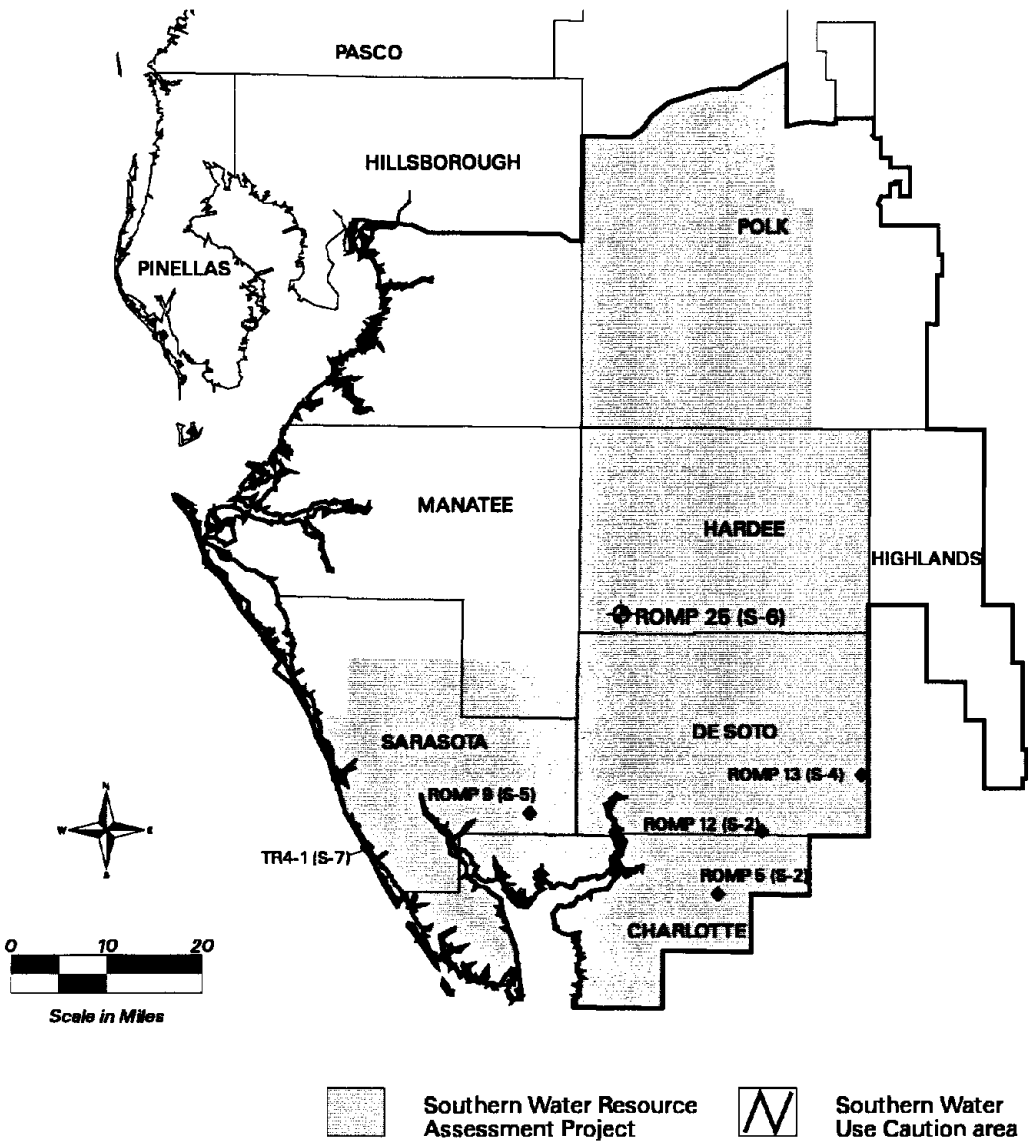


FIGURE 1. ROMP 25 LILY

Project Location Map

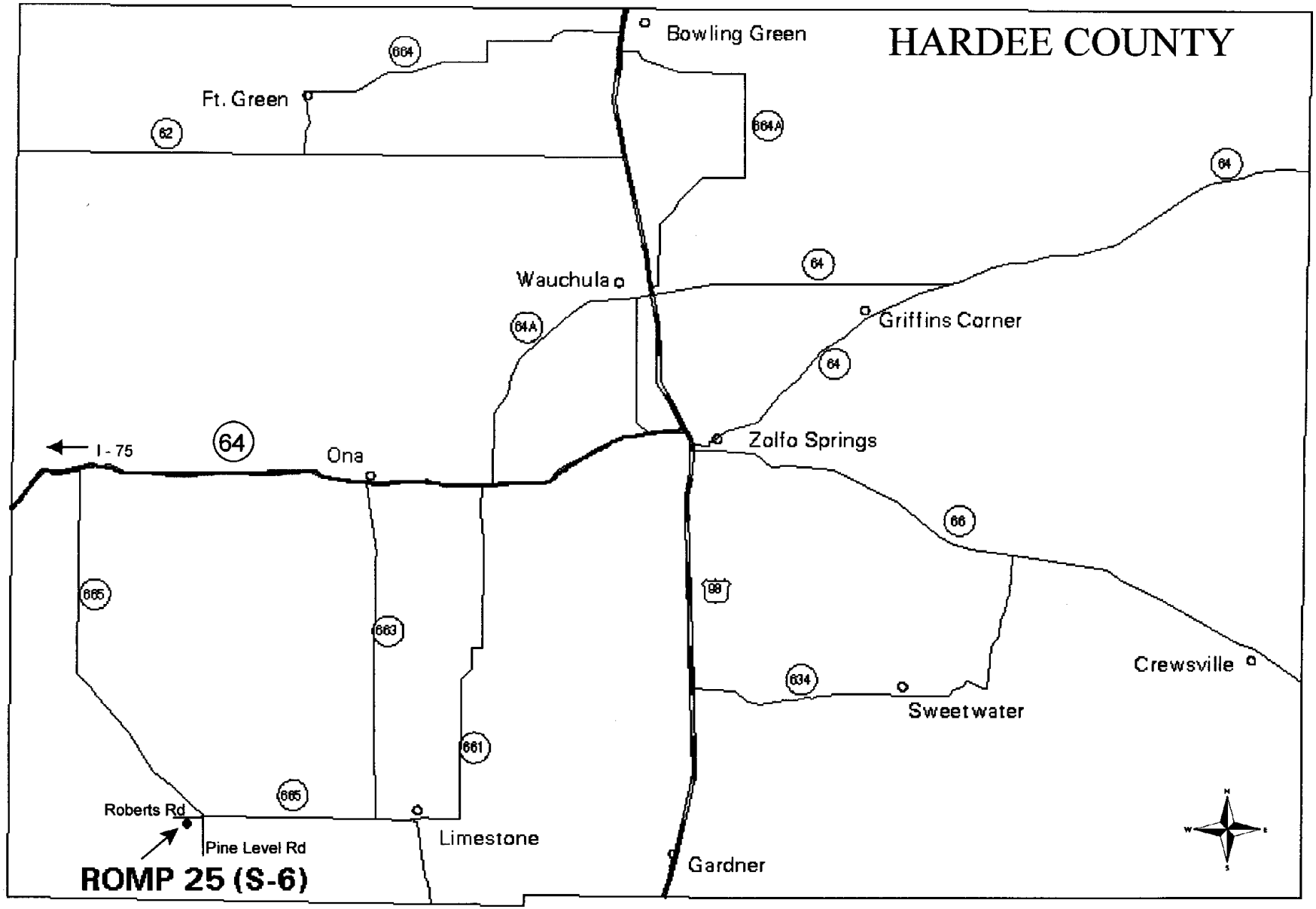
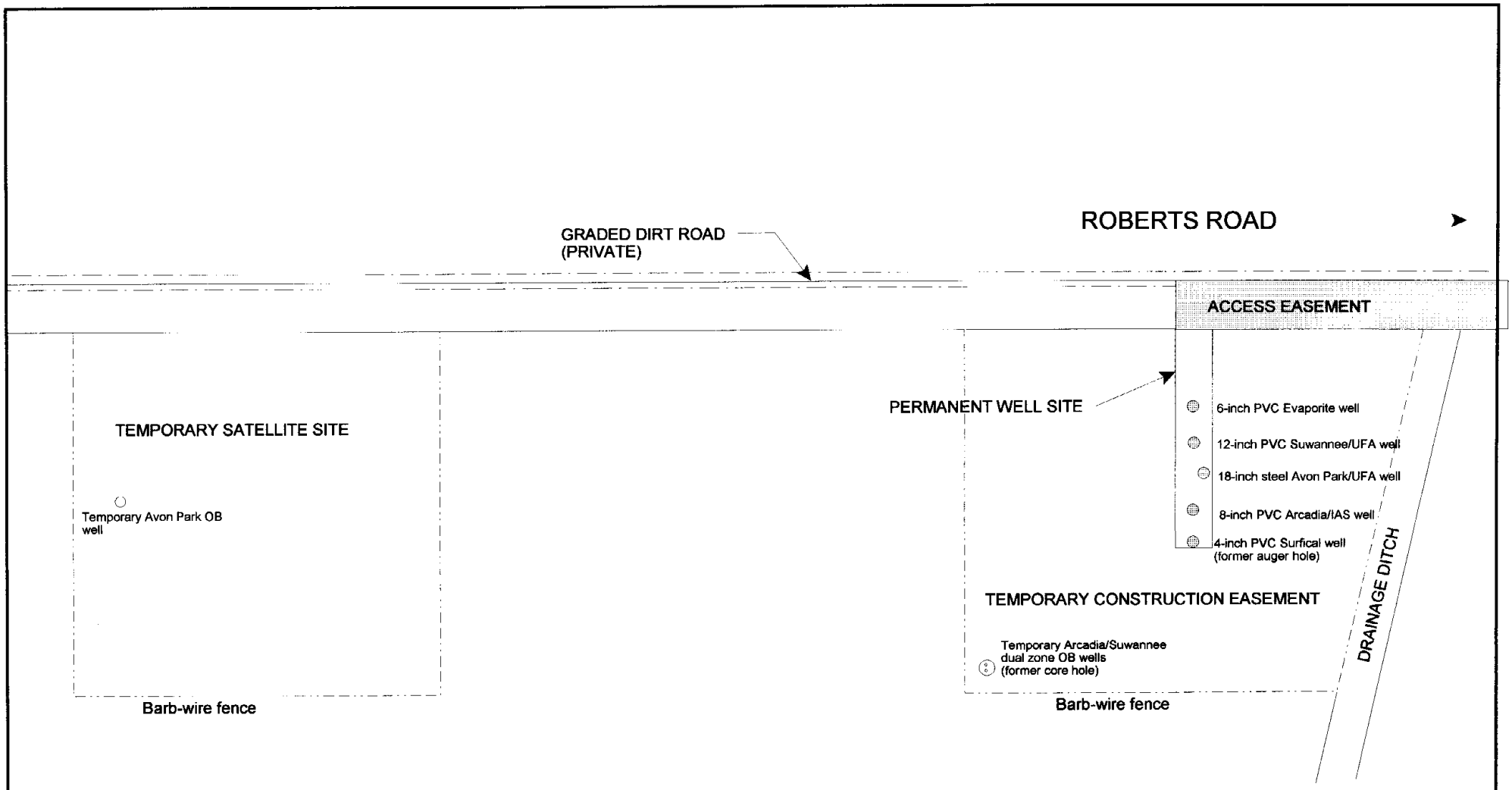


FIGURE 2. ROMP 25 LILY

Location Map



District Parcel No. 20-20-065
HARDEE COUNTY
Edgeville Quad

Lattitude: 27° 21' 59" N
Longitude 82° 00' 25.5" W
S9 T36S R23E
Elevation ~85 NGVD

FIGURE 3. ROMP 25 LILY

WELL SITE DIAGRAM

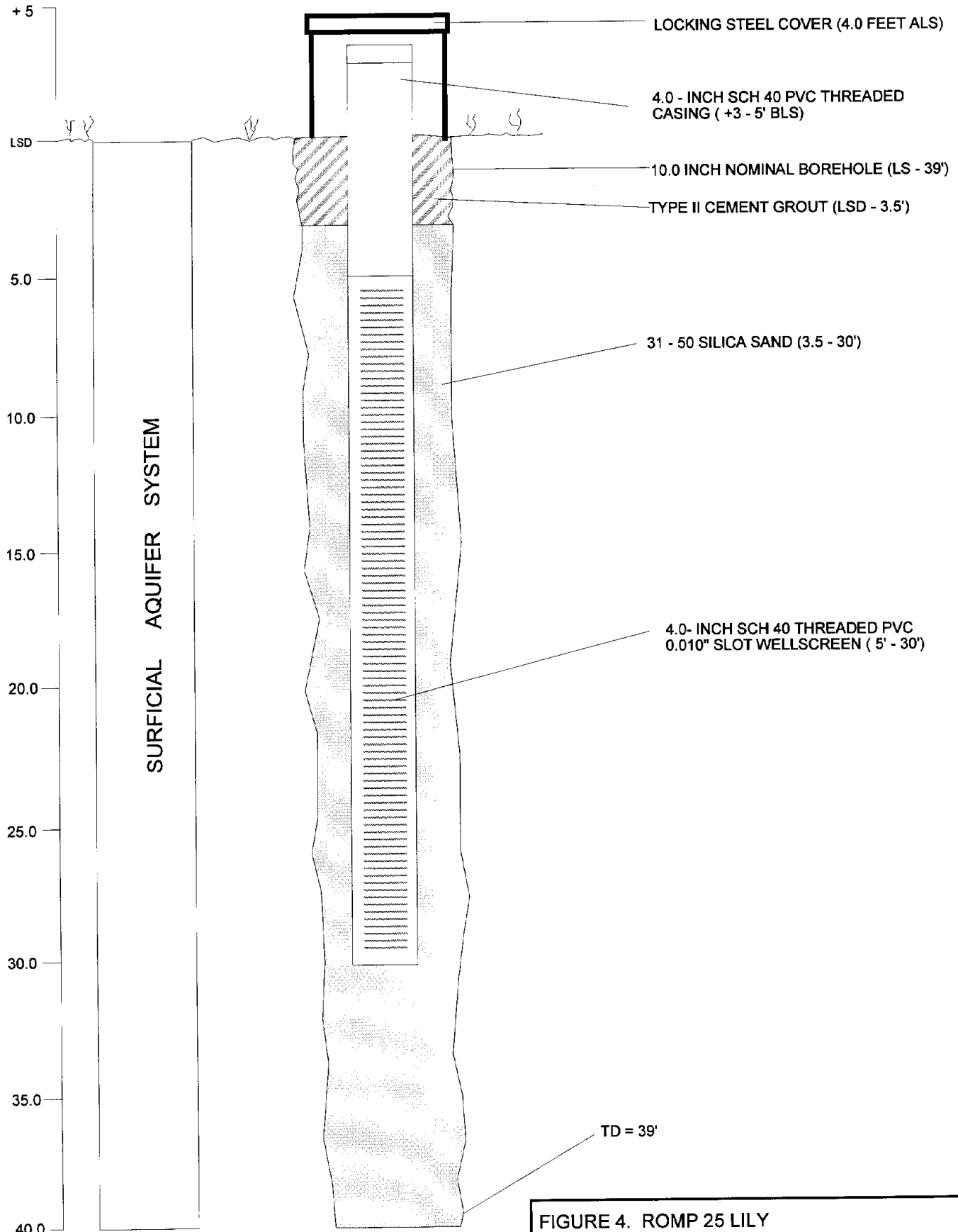


FIGURE 4. ROMP 25 LILY

Permanent Surficial Monitor Well As-Built Diagram (Former Auger Hole)

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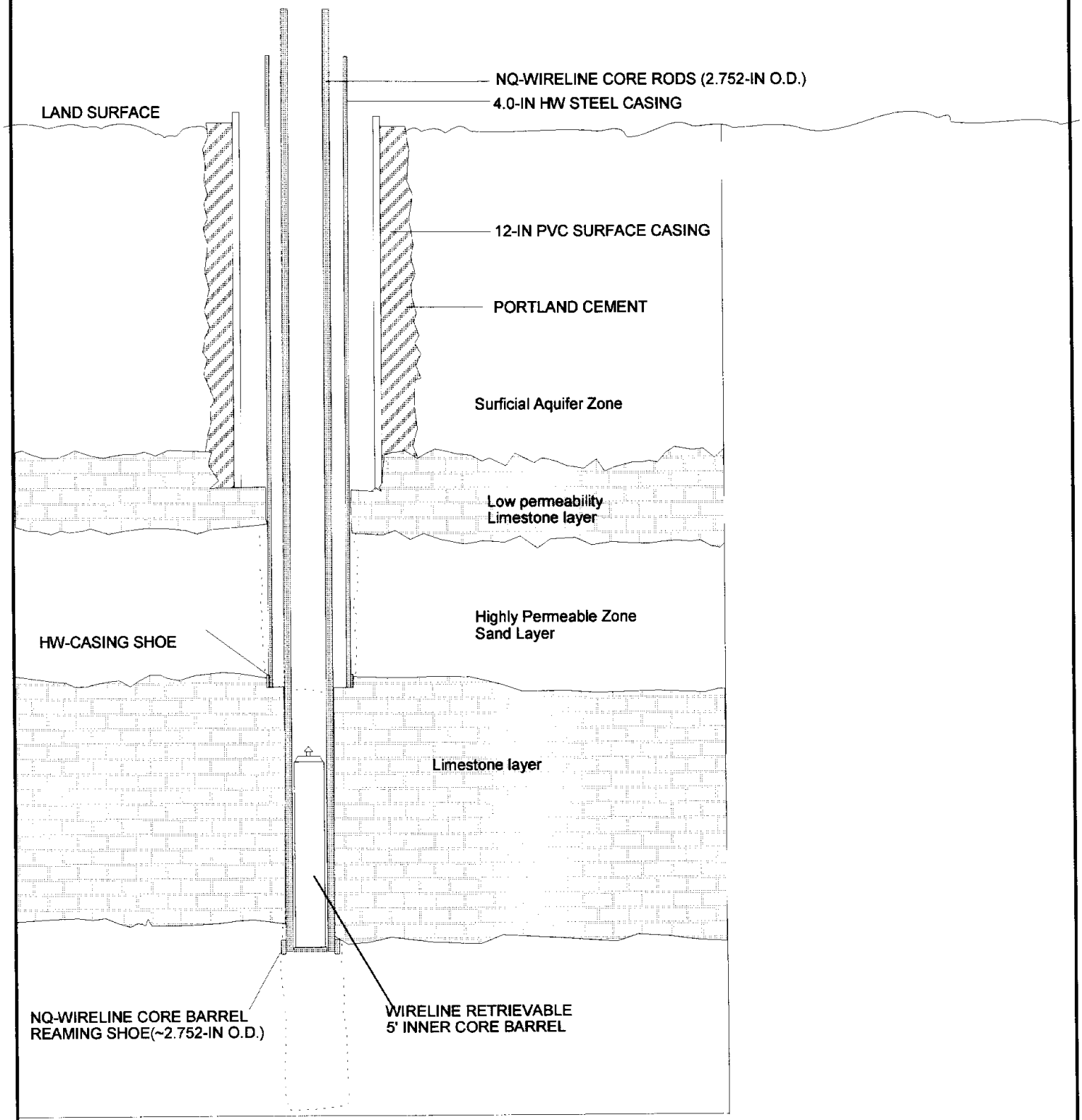

Typical Wire line Coring Installation

FIGURE 5. ROMP 25 LILY

Wire Line Coring Diagram

cordrill.wpg

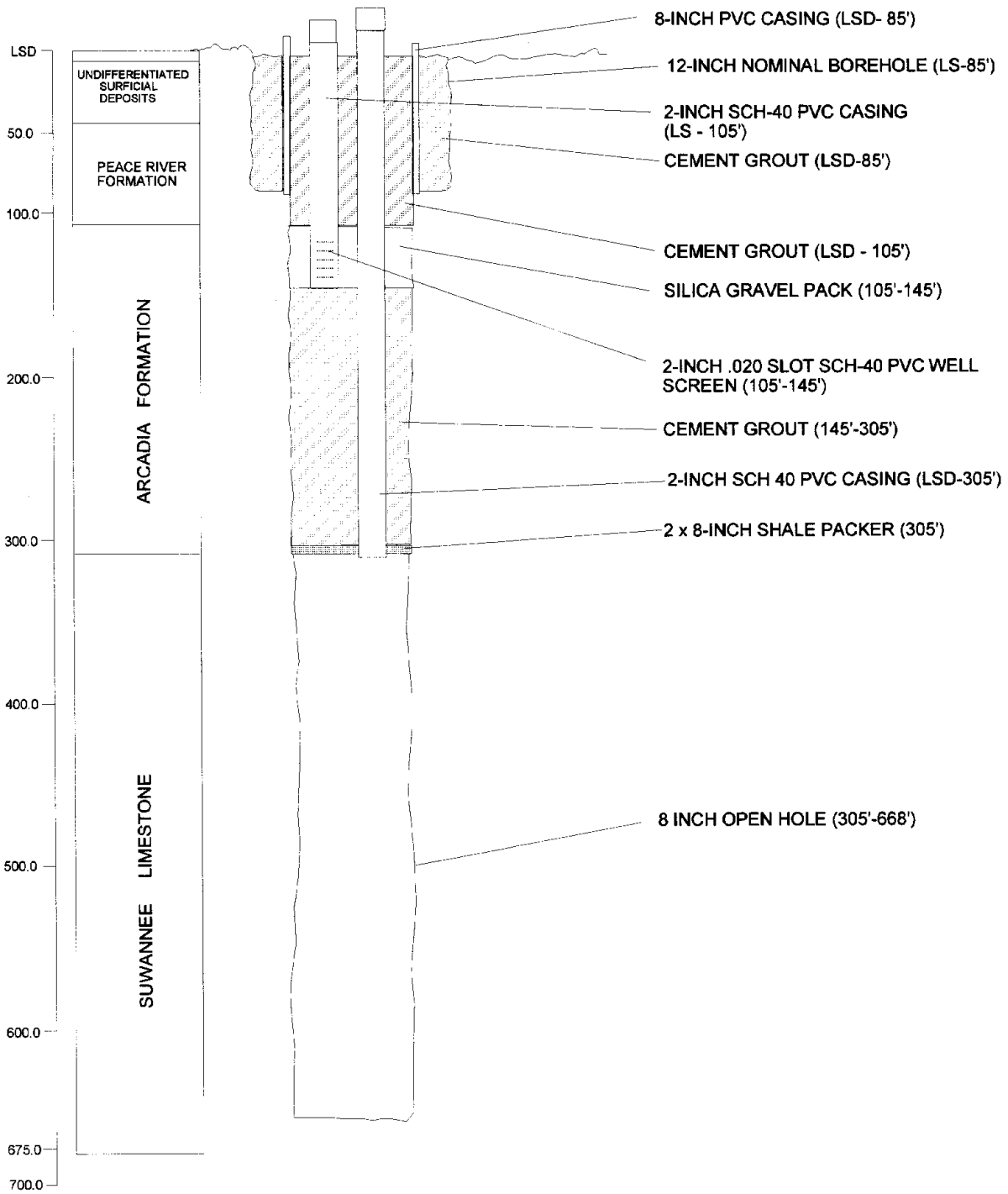

FIGURE 6. ROMP 25 LILY

Temporary Suwannee/Arcadia Dual OB Well As-Built Diagram (Former Core Hole)

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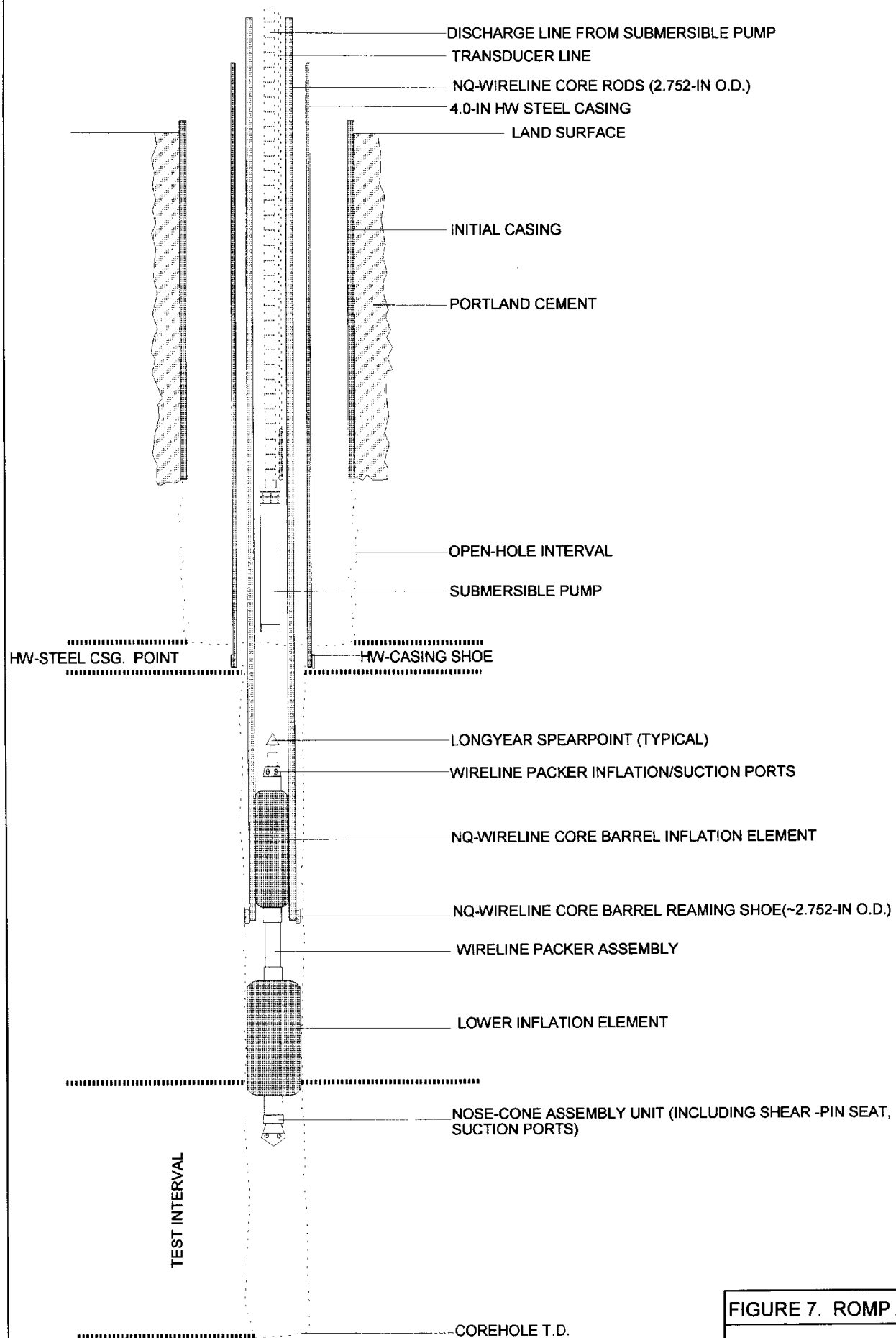

FIGURE 7. ROMP 25 LILY

Wire Line Packer Diagram

NQpacker.wpg

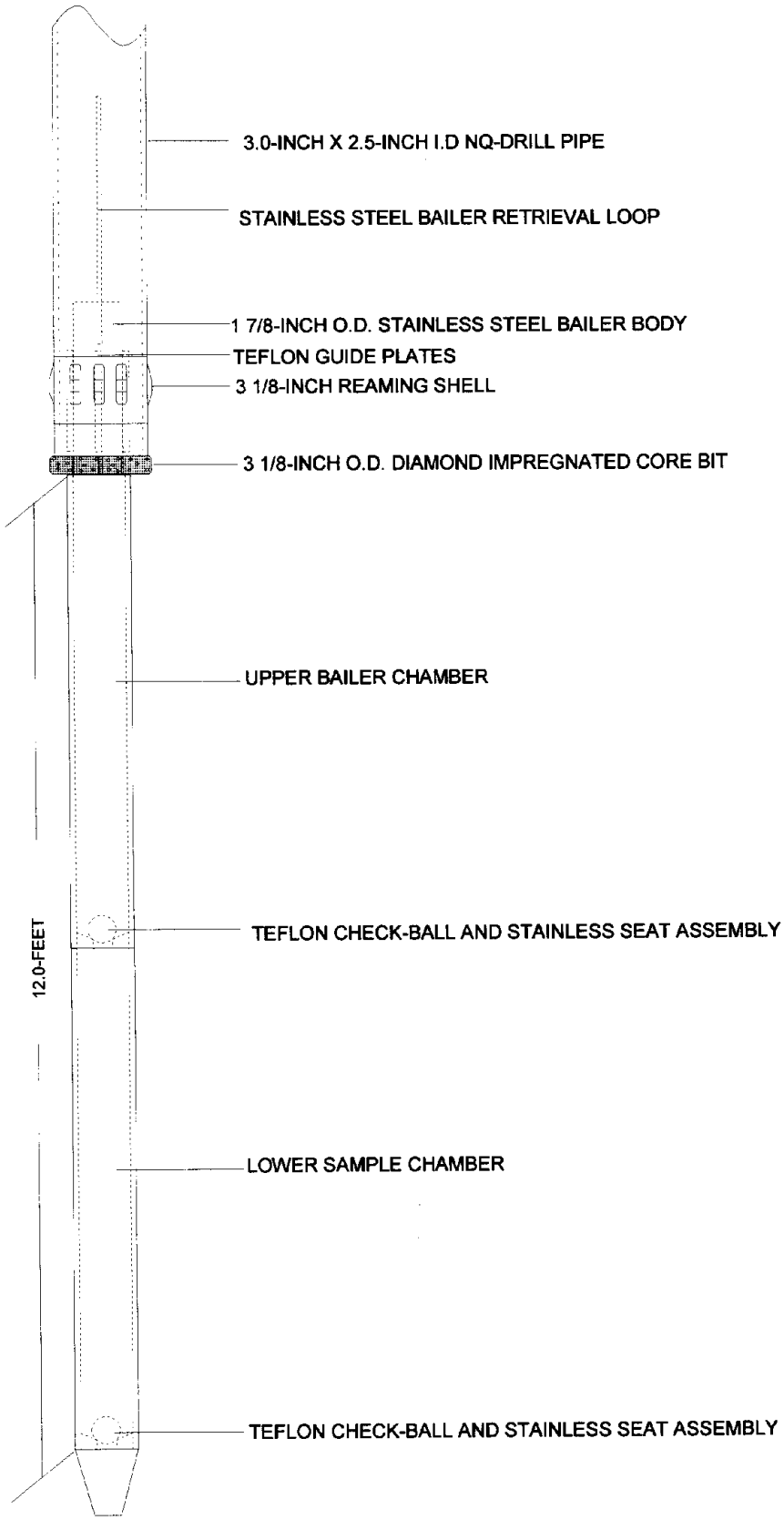

FIGURE 8. ROMP 25 LILY

Wire Line Bailer Diagram

Bailer.wpg

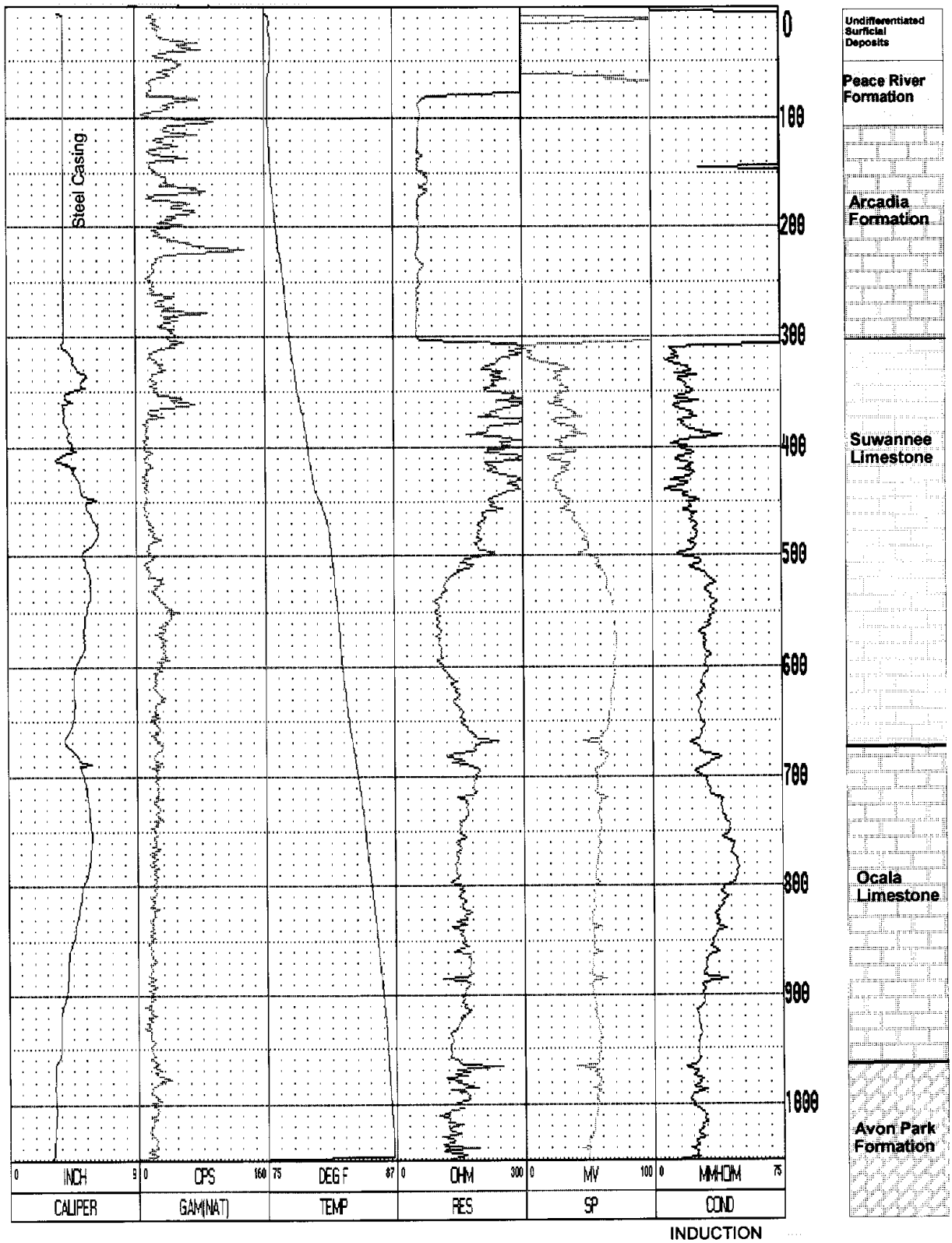

FIGURE 9. ROMP 25 LILY

Geophysical Logs Run During Coring

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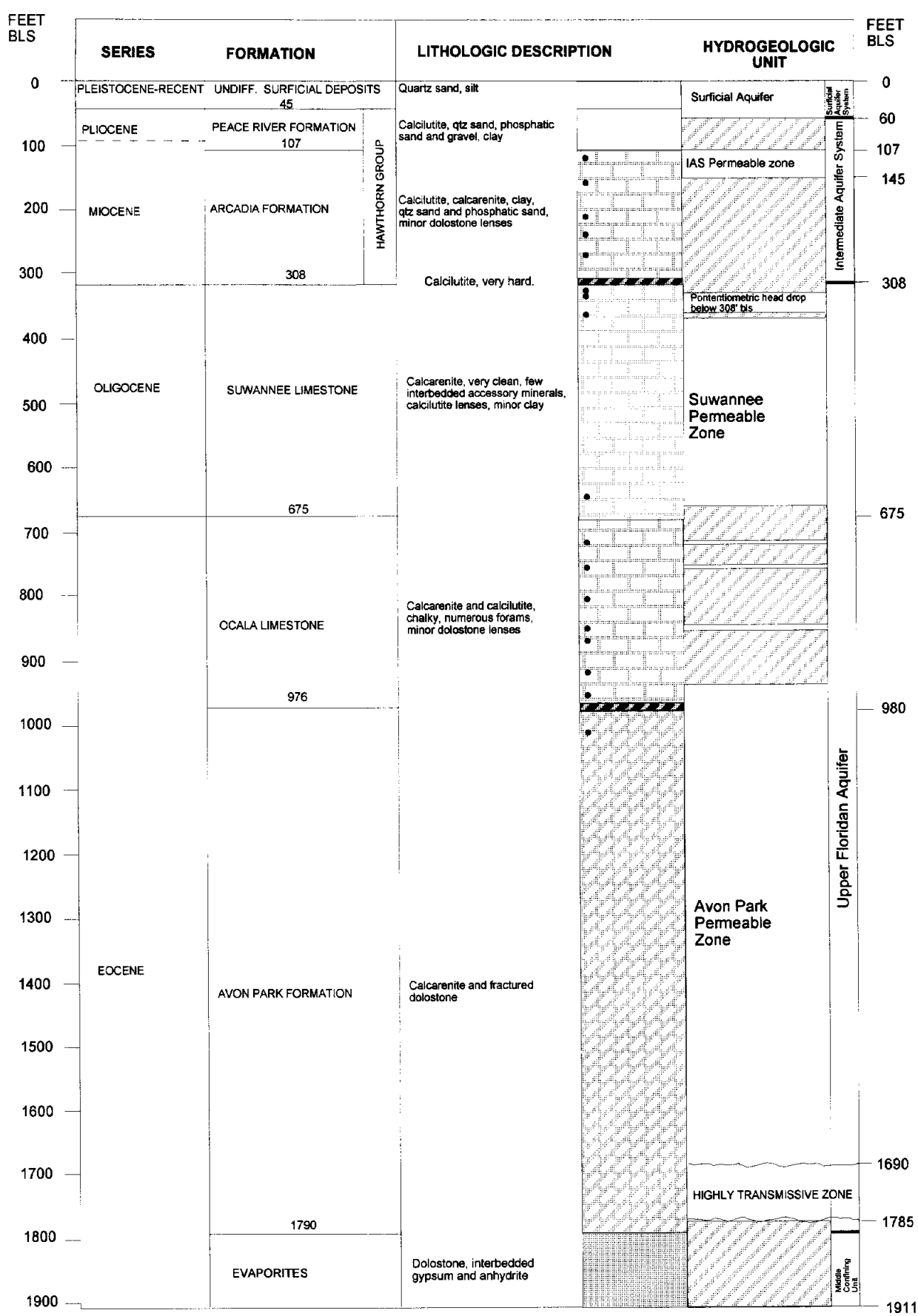

• Permeameter sample locations (see Table 5)

FIGURE 10. ROMP 25 LILY

Hydrogeology Diagram

R25hyd.wpg

ROMP 25 Water Levels During Coring

December 1995 to May 1996

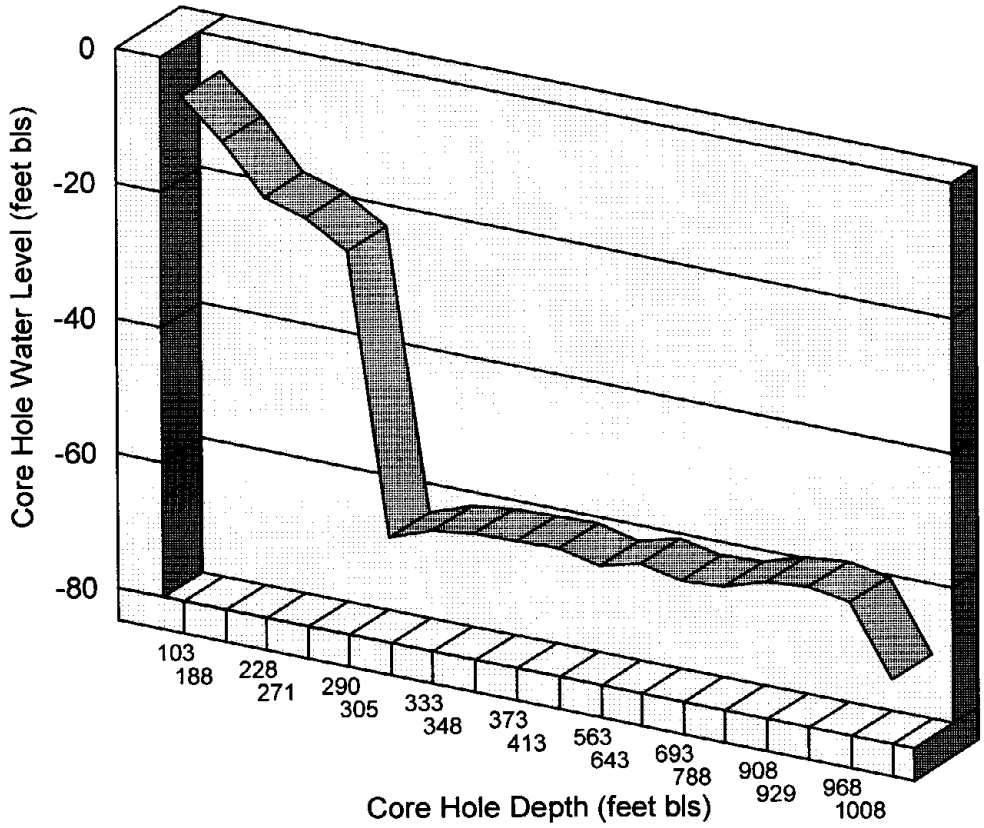

FIGURE 11. ROMP 25 LILY

Graph of Water Levels

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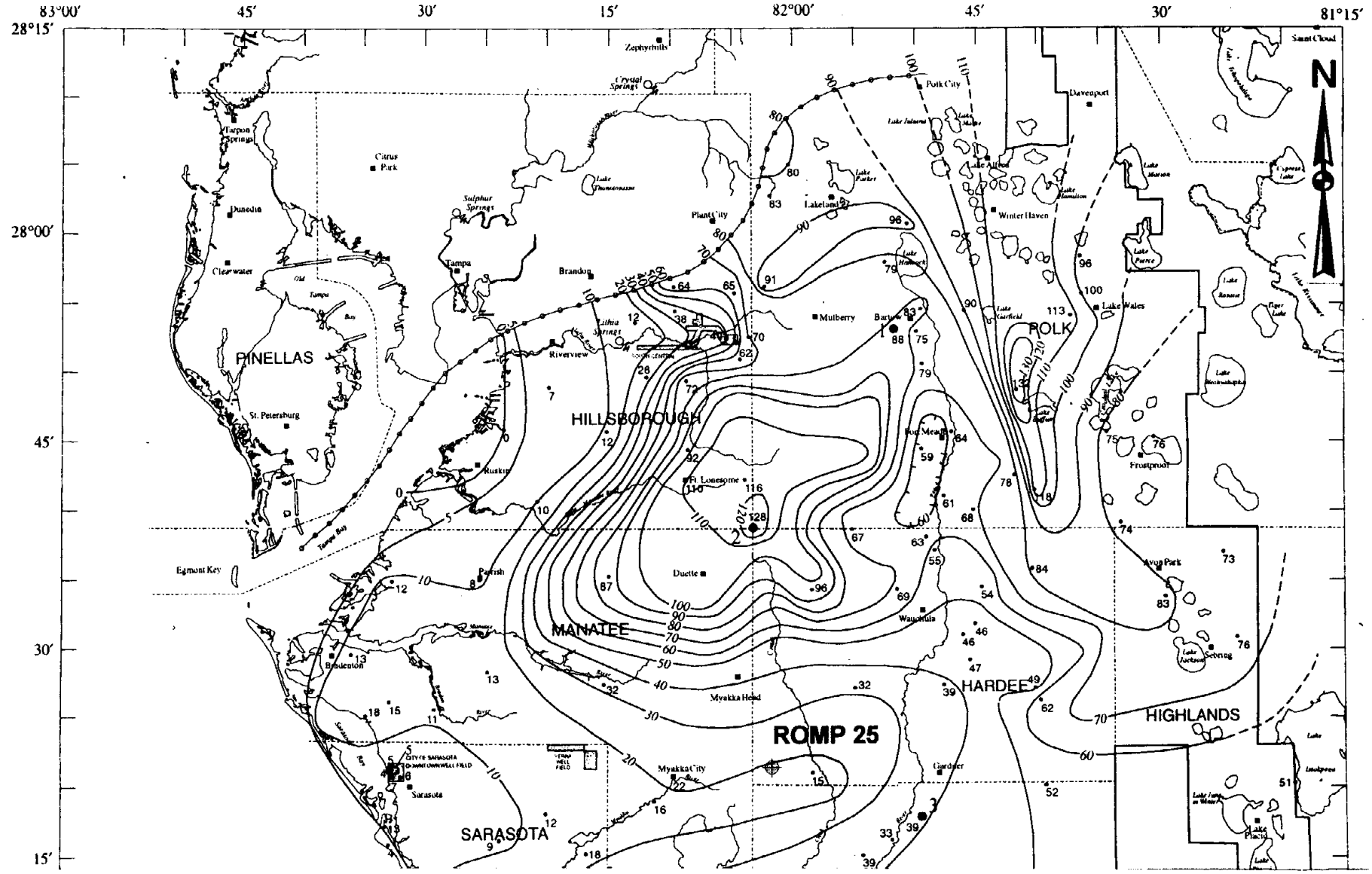

FIGURE 12. ROMP 25 LILY

Composite Potentiometric Surface of the Intermediate Aquifer May 1996.

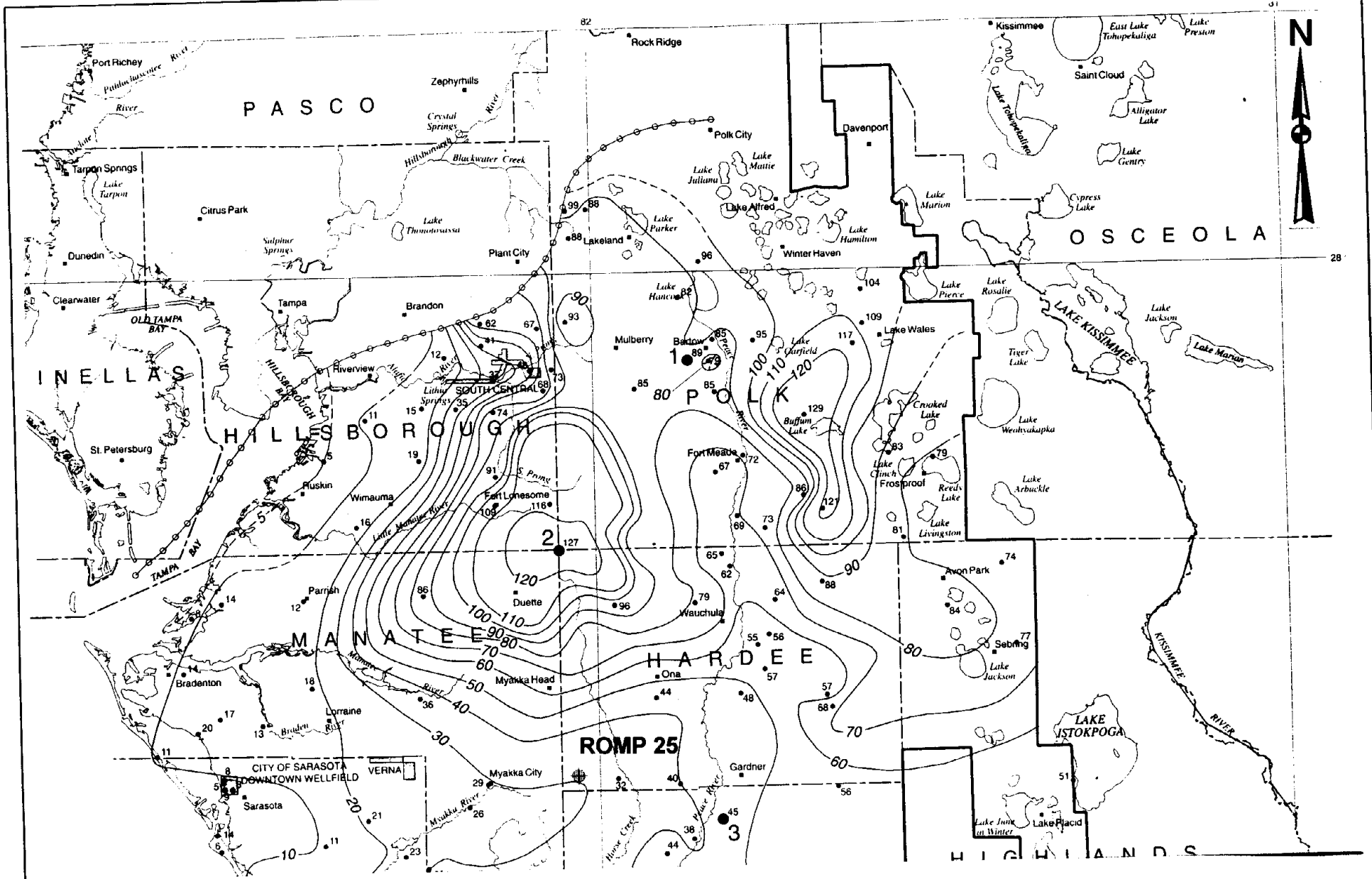

FIGURE 13. ROMP 25 LILY

Composite Potentiometric Surface of the Intermediate Aquifer September 1996.

Figures\las996pot.wpg

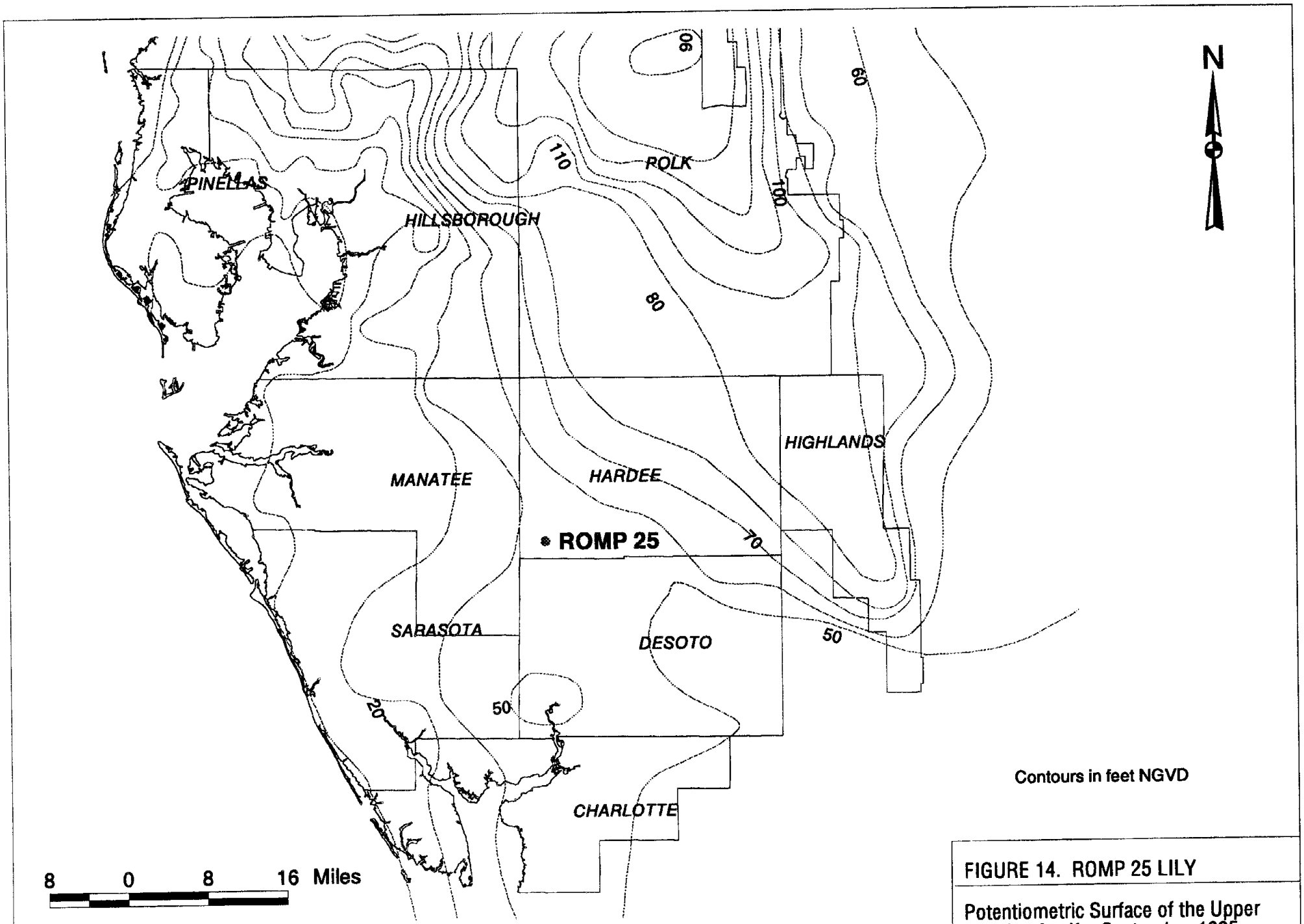

FIGURE 14. ROMP 25 LILY

Potentiometric Surface of the Upper Floridan Aquifer September 1995.

avltedglr25sfpot

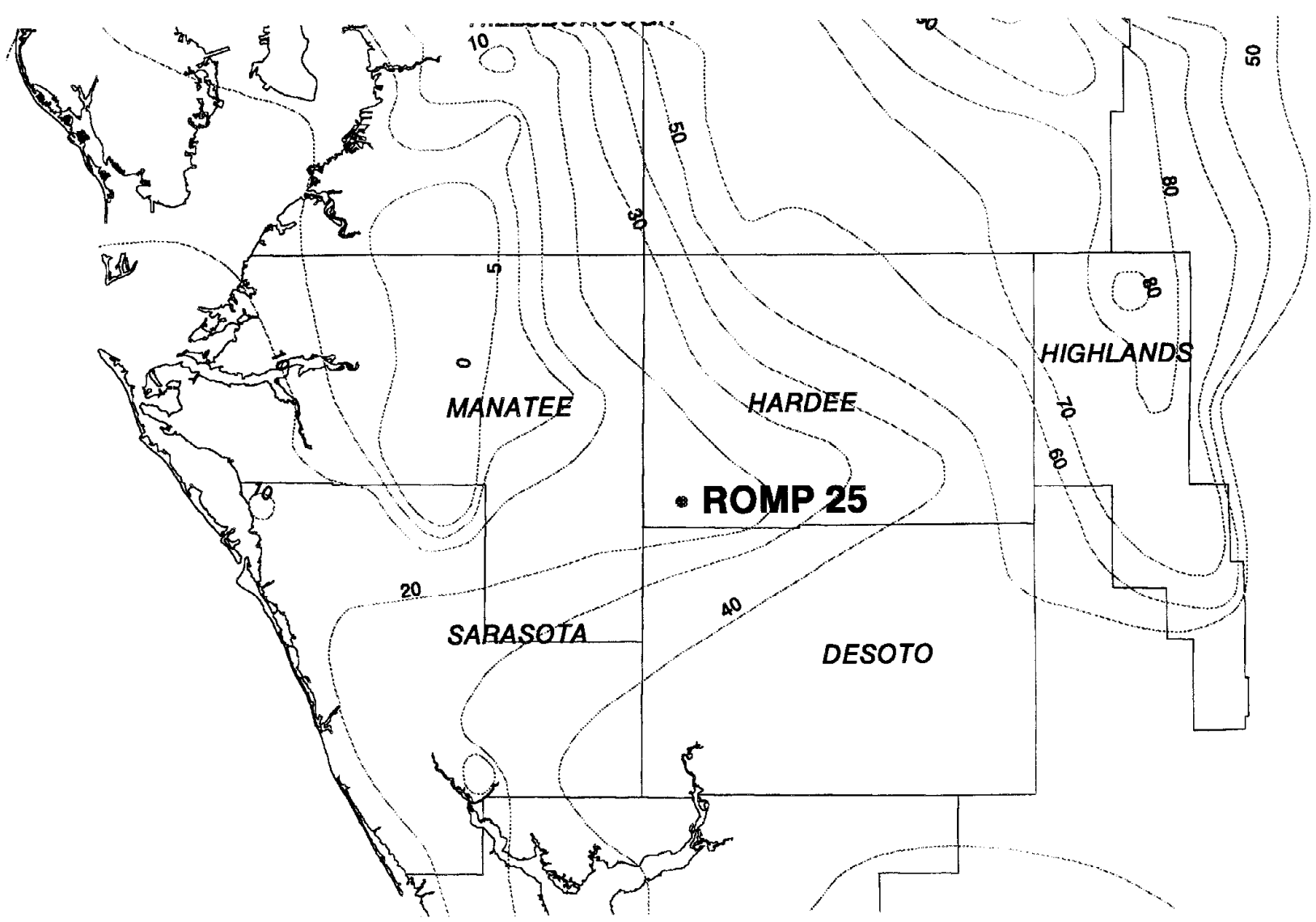

FIGURE 15. ROMP 25 LILY

Potentiometric Surface of the Upper Floridan Aquifer May 1996.

avltedg\r25sfpot

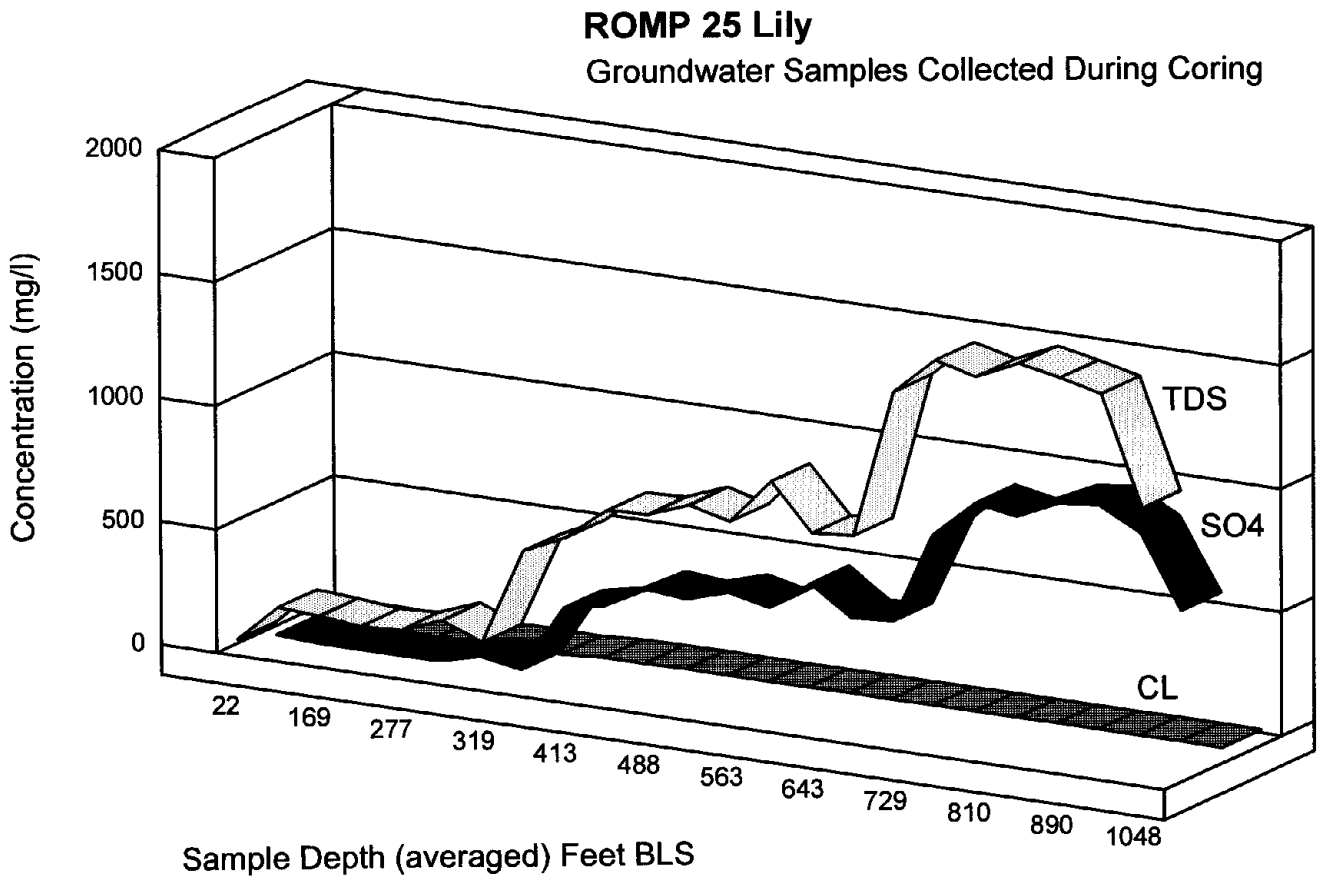

FIGURE 16. ROMP 25 LILY

Chloride, Sulfate, TDS Graph

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TABLES

TABLES

Table 1. Field Analyses of ROMP 25 Groundwater Samples Collected During Coring (8" PVC casing 0-85' bls)[1]

Date (D/M/Y)	Time	Sample Depth (ft bls)	Specific Cond. (umohs)	Water Temp (celcius)	Water Density (g/cm^3)	CL	SO4	pH	Sample Collection Method	Split to Lab ?
19-Dec-1995	1645	121-148[2]	317	24.9	NA	NA	NA	9.10	Packer Test	Y
11-Jan-1996	1530	150-188[2]	312	24.1	NA	NA	NA	7.87	Packer Test	Y
17-Jan-1996	1755	189-228[2]	310	24.1	NA	25	NA	7.22	Packer Test	Y
25-Jan-1996	1340	271-283[2]	320	25.0	NA	25	25	NA	Packer Test	Y
1-Feb-1996	1405	290-323[2]	400	24.9	NA	30	65	7.57	Packer Test	Y
6-Feb-1996	1405	305-333[2]	338	24.1	NA	25	25	7.46	Packer Test	Y

[1] All concentrations reported in mg/l unless otherwise noted

[2] Packer Test Sample

NA - Not Analyzed

Table 2. Field Analyses of ROMP 25 Groundwater Samples Collected During Coring (4" HW Steel casing 0-305' bls)[1]

Date (D/M/Y)	Time	Sample Depth (ft bls)	Specific Cond. (umohs)	Water Temp (celcius)	Water Density (g/cm3)	CL	SO4	pH	Sample Collection Method	Split to Lab ?
13-Mar-96	925	373[3]	700	23.9	1.0001	40	250	7.50	Bailer	Y
13-Mar-96	1530	413[3]	850	24.7	NA	40	325	7.57	Bailer	Y
14-Mar-96	1210	453[3]	1020	25.7	NA	50	400	7.51	Bailer	Y
19-Mar-96	815	488[3]	1023	24.7	NA	NA	NA	7.42	Bailer	Y
19-Mar-96	1225	523[3]	1078	24.8	NA	NA	NA	7.61	Bailer	Y
19-Mar-96	1700	563[3]	1023	24.2	NA	NA	NA	7.65	Bailer	Y
20-Mar-96	1240	603[3]	1223	24.8	NA	60	450	7.60	Bailer	Y
21-Mar-96	900	643[3]	1024	23.6	NA	NA	NA	7.64	Bailer	Y
25-Mar-96	1600	683[3]	1079	27.3	NA	NA	NA	NA	Bailer	Y
27-Mar-96	1615	710-748[2]	1588	27.1	NA	NA	NA	7.23	Packer Test	Y
02-Apr-96	1430	752-788[2]	1726	26.7	NA	40	NA	7.24	Packer Test	Y
03-Apr-96	1730	792-828[2]	1690	27.2	NA	NA	NA	7.51	Packer Test	Y
09-Apr-96	1810	829-868[2]	1830	26.9	NA	NA	NA	7.72	Packer Test	Y
11-Apr-96	1445	871-908[2]	1820	26.9	NA	NA	NA	6.96	Packer Test	Y
16-Apr-96	1930	910-968[2]	1716	26.4	NA	NA	NA	NA	Packer Test	Y
22-May-96	2105	985-1028[2]	1130	27.7	NA	NA	NA	6.86	Packer Test	Y
23-May-96	800	985-1028[2]	1082	25.8	NA	NA	NA	6.64	Packer Test	Y
28-May-96	1310	1048[3]	1353	28.1	NA	NA	NA	6.87	Bailer	Y
29-May-96	1515	1048[4]	1239	26.5	NA	NA	NA	7.17	Geophysical Thief	Y

[1] All concentrations reported in mg/l unless otherwise noted

[2] Packer Test Sample

[3] Bailer Sample

[4] Geophysical thief sample

NA - Not Analyzed

Table 3 Laboratory Analyses of ROMP 25 Ground-water Samples Collected During Coring (8" PVC Casing 0-85' bls)[1]

Date (M/D/Y)	Time	Depth (ft bls)	Specific Cond. (umohs)	Water Density	CL	SO4	pH	Br	TDS	Ca	Mg	Bicarb as (CaCO3)	K	Na	Si	Fe (ug/l)	Total Hardness (CaCO3)	ION %
19-Dec-1995	1645	121-148[2]	282	1.0002	5	4	8.7	0.0	219	22	11	124	21	12	9	3	100	2.32
11-Jan-1996	1530	150-188[2]	319	1.0002	4	1	8.0	0.0	207	38	12	157	4	6	7	34	144	5.97
17-Jan-1996	1755	189-228[2]	314	1.0002	4	1	8.0	0.0	192	38	13	154	2	6	7	148	148	0.93
25-Jan-1996	1340	271-283[2]	327	1.0002	7	4	7.9	0.0	199	29	17	156	2	9	12	647	142	-0.32
1-Feb-1996	1405	290-323[2]	449	1.0003	9	45	7.9	0.0	264	45	21	159	2	9	11	275	199	1.52
6-Feb-1996	1405	305-333[2]	343	1.0002	6	16	7.7	0.0	197	38	16	152	1	7	9	529	161	1.42

[1] All concentrations reported in mg/l unless otherwise noted

[2] Packer Test Sample

[3] Bailer Sample

NA - Not Analyzed

Table 4 Laboratory Analyses of ROMP 25 Ground-water Samples Collected During Coring (4" Steel HW Casing 0-305' bls)[1]

Date (M/D/Y)	Time	Depth (ft bls)	Specific Cond. (umohs)	Water Density	CL	SO4	pH	Br	TDS	Ca	Mg	Bicarb as (CaCO3)	K	Na	Si	Fe (ug/l)	Total Hardness (CaCO3)	ION %
13-Mar-96	925	373[3]	848	1.0006	15	287	7.6	0.0	594	97	46	140	3	13	12	412	432	2.53
13-Mar-96	1530	413[3]	na	na	15	322	na	na	669	112	50	138	na	na	na	na	na	na
14-Mar-96	1210	453[3]	1047	1.0008	18	412	7.7	0.0	805	134	57	140	3	14	13	836	569	2.97
19-Mar-96	815	488[3]	na	na	16	396	na	na	811	128	58	140	na	na	na	na	na	na
19-Mar-96	1225	523[3]	1032	1.0009	15	447	7.5	0.0	875	141	64	134	3	12	11	867	616	3.74
19-Mar-96	1700	563[3]	na	na	16	410	na	na	831	134	56	138	na	na	na	na	na	na
20-Mar-96	1240	603[3]		1.0010	17	532	8.1	0.0	1020	169	71	138	3	13	12	773	714	3.84
21-Mar-96	900	643[3]	na	na	16	415	na	na	832	137	56	136	na	na	na	na	na	na
25-Mar-96	1600	683[3]	1086	1.0008	16	428	7.6	0.0	847	140	58	140	3	12	11	900	588	2.72
27-Mar-96	1615	710-748[2]	1615	1.0014	16	802	7.3	0.0	1451	251	88	113	3	12	10	6218?	989	3.94
02-Apr-96	1430	752-788[2]	na	na	15	956	na	na	1605	280	99	109	na	na	na	na	na	na
03-Apr-96	1730	792-828[2]	na	na	15	924	na	na	1561	273	97	118	na	na	na	na	na	na
09-Apr-96	1810	829-868[2]	1839	1.0016	15	1003	7.2	0.0	1640	255	131	111	4	11	9	6432	1176	2.64
11-Apr-96	1445	871-908[2]	1851	1.0016	15	1020	7.4	0.0	1606	283	120	117	4	11	9	4058	1201	2.36
16-Apr-96	1930	910-968[2]	1756	1.0015	15	930	7.3	0.0	1565	248	128	114	4	11	8	5165	1146	4.32
22-May-96	2105	985-1028[2]	928	1.0009	9	489	7.5	0.0	885	154	60	126	4	7	4	2872	632	1.6
23-May-96	800	985-1028[2]	1079	1.0008	12	463	7.0	0.0	839	138	56	80	4	7	3	10215	575	3.9
28-May-96	1310	1048[3]	1359	1.0011	13	640	7.7	0.0	1125	179	77	124	4	10	7	2592	764	0.32
29-May-96	1515	1048[4]	1228	1.001	9	545	7.8	0.0	979	171	64	124	4	8	5	60	691	1.52

[1] All concentrations reported in mg/l unless otherwise noted

[2] Packer Test Sample

[3] Bailer Sample

[4] Geophysical thief sample

NA - Not Analyzed

Table 5. Falling Head Permeameter Results

Sample Depth (feet bls)	Formation	Lithology	Aquifer	Vertical Hydraulic Conductivity Average (feet/day)	Porosity (%)
123.0	Arcadia	sandy limestone	IAS (permeable zone)	1.44×10^{-3}	49
158.8	Arcadia	sandy limestone	IAS (confining zone)	2.38×10^{-4}	31
212.0	Arcadia	dolostone	IAS (confining zone)	9.96×10^{-5}	38
245.0	Arcadia	limestone	IAS (confining zone)	No Flow	45
276.8	Arcadia	sandy dolostone	IAS (confining zone)	5.30×10^{-5}	29
312.0	Suwannee	limestone	UFA (confining zone)	1.02×10^{-4}	32
329.0	Suwannee	limestone	UFA (permeable zone)	2.12×10^{-3}	41
361.0	Suwannee	sandy dolostone	UFA (confining zone)	No Flow	8
640.5	Suwannee	limestone	UFA (permeable zone)	2.86×10^{-1}	39
728.6	Ocala	limestone	UFA (permeable zone)	3.33×10^{-2}	44
767.0	Ocala	limestone	UFA (permeable zone)	1.46×10^{-2}	43
814.5	Ocala	limestone	UFA (confining zone)	9.83×10^{-3}	42
852.5	Ocala	limestone	UFA (permeable zone)	1.05×10^{-2}	40
875.0	Ocala	limestone	UFA (confining zone)	9.85×10^{-3}	38
927.0	Ocala	limestone	UFA (confining zone)	3.42×10^{-3}	28
959.5	Ocala	dolostone	UFA (permeable zone)	2.48×10^{-3}	21
1022.0	Avon Park	limestone	UFA (permeable zone)	2.71×10^{-2}	30

Testing performed by Florida Geological Survey

Table 6. Water Levels During Coring

Date	Time	Casing Depth (feet bls)	Core Hole Depth (feet bls)	Core Hole Water Level (feet bls)
18-Dec-95	1200	85	103	-5.19
18-Dec-96	1200	85	188	-10.59
16-Jan-96	1345	85	228	-17.63
25-Jan-96	830	85	271	-19.36
01-Feb-96	840	85	290	-23.10
06-Feb-96	1240	85	305	-64.36
07-Feb-96	815	85	333	-62.08
12-Mar-96	1450	305	348	-61.26
13-Mar-96	700	305	373	-61.09
14-Mar-96	800	305	413	-60.94
20-Mar-96	735	305	563	-62.30
21-Mar-96	830	305	643	-60.70
27-Mar-96	700	305	693	-62.02
02-Apr-96	705	305	788	-61.69
15-Apr-96	1300	305	908	-59.75
16-Apr-96	740	305	929	-59.24
17-Apr-96	726	305	968	-60.14
22-May-96	710	305	1008	-70.42

APPENDIX A

APPENDIX A

ROMP 5 LITHOLOGIC LOG

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W-17608
TOTAL DEPTH: 1911 FT.
SAMPLES - NONE

COUNTY - HARDEE
LOCATION: T.36S R.23E S.09 NE
LAT = 27D 21M 59S
LON = 82D 00M 26S

COMPLETION DATE: 06/19/97
ELEVATION: 85 FT
OTHER TYPES OF LOGS AVAILABLE - CALIPER, ELECTRIC, FLUID COND., GAMMA

OWNER/DRILLER: SWFWMD ROMP 25 DRILLED BY TIM LOHNER AND GEORGE DEGROOT

WORKED BY: DOUG RAPPUHN AND TED GATES (SWFWMD GEOLOGIST'S);
WIRE LINE ROTARY CORING FROM 0 FT. TO 1048 FT. BLS - COREHOLE #1
AVON PARK WELL EXPLORATORY CUTTINGS FROM 1048 FT. TO 1556 FT. BLS
EVAPORITE WELL EXPLORATORY CUTTINGS FROM 1556 FT. TO 1911 FT. BLS
CUTTINGS NOT DESCRIBED BETWEEN 1765 - 1911 FT.
FGS GEOLOGISTS REPORT THAT TOP OF OCALA MAY BE AS DEEP AS 693 FT. BLS

0.0	-	45.0	090UDSC	UNDIFFERENTIATED SAND AND CLAY
45.0	-	107.0	122PCRV	PEACE RIVER FM.
107.0	-	313.0	122ARCA	ARCADIA FM.
313.0	-	675.0	123SWNN	SUWANNEE LIMESTONE
675.0	-	976.0	124OCAL	OCALA GROUP
976.0	-	1790.0	124AVPK	AVON PARK FM.

0 - 0.6 SAND AND SHELL DRILLPAD.

0.6- 1.6 SAND; GRAYISH BROWN TO DARK YELLOWISH BROWN
35% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; HIGH SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS-08%, IRON STAIN-02%
OTHER FEATURES: VARIEGATED
CONTAINS ROOTLETS AND ORGANICS. VARIABLY IRON-STAINED.

1.6- 2 SAND; WHITE TO VERY LIGHT ORANGE
40% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY
UNCONSOLIDATED
OTHER FEATURES: SUCROSIC
VERY CLEAN, MODERATELY WELL-SORTED QUARTZ SAND. WATER TABLE
AT 2FT. BLS.

2 - 4 NO SAMPLES
WET SAND, DROPPED OUT OF AUGERS.

4 - 11.4 SAND; GRAYISH BROWN TO DARK BROWN
30% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS-14%, SILT-04%, IRON STAIN-02%
BED AT 10.8 - 11.4 CONTAINS 6-8% IRON AND IS SLIGHTLY
CEMENTED.

11.4- 14 SAND; MODERATE BROWN TO GRAYISH BROWN
35% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SILT-08%, IRON STAIN-03%

14 - 17 SAND; DARK BROWN TO DARK YELLOWISH BROWN
35% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): IRON CEMENT
ACCESSORY MINERALS: SILT-08%, IRON STAIN-04%

17 - 25 SAND; MODERATE BROWN TO MODERATE BROWN

40% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SILT-05%, IRON STAIN-02%

25 - 30 SAND; DARK BROWN TO BLACK
40% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: IRON STAIN-06%, SILT-04%
ALTHOUGH GENERALLY IRON-STAINED, UNIT CONTAINS 10-15%
COARSE, ROUNDED, UNSTAINED QUARTZ SAND.

30 - 35 SAND; GRAYISH BROWN TO LIGHT BROWN
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SILT-04%, IRON STAIN-02%
LIKELY CONTAINS INTERBEDDED MEDIUM-COARSE ROUNDED QUARTZ
SAND AND SLIGHTLY IRON-CEMENTED VERY FINE TO MEDIUM QUARTZ
SAND.

35 - 37 SAND; GRAYISH BROWN TO GRAYISH BROWN
45% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: IRON STAIN-03%, SILT-02%
GENERALLY CLEAR QUARTZ SAND WITH INTERBEDS OF IRON-CEMENTED
VERY FINE QUARTZ SAND.

37 - 40 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
40% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
ACCESSORY MINERALS: SILT-06%, IRON STAIN-01%
AUGER BLADE SAMPLE FROM 39 FT. CONTAINED 10% WHITE SILT
(NONCALCAREOUS). CONTAINS SOME IRON-CEMENTED GRAINS.

40 - 45 SAND; LIGHT GRAY TO GRAYISH ORANGE PINK
40% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-01%, IRON STAIN-01%
FOSSILS: MOLLUSKS, CRUSTACEA, SHARKS TEETH
CLEAN WELL-SORTED SAND WITH (REWORKED?) CRAB SHELL
FRAGMENT, SHARK TOOTH AND OPERCULUM. TRACE ROUNDED
LIMESTONE FRAGMENTS. BASE OF UNDIFFERENTIATED SURFICIAL
DEPOSITS.

45 - 47 SAND; LIGHT GRAY TO GRAYISH ORANGE PINK
40% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-09%, PHOSPHATIC SAND-01%
FOSSILS: SHARKS TEETH
CONTAINS INCREASED PERCENT OF ROUNDED LIMESTONE FRAGMENTS
AND A SMALL PERCENT OF LEACHED ROUNDED PHOSPHATIC SAND. TOP
OF HAWTHORN DEPOSITS.

47 - 51 SAND; MODERATE GRAY
45% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
CEMENT TYPE(S): IRON CEMENT
ACCESSORY MINERALS: LIMESTONE-35%, PHOSPHATIC SAND-06%
OTHER FEATURES: SPECKLED
FOSSILS: WORM TRACES, FOSSIL FRAGMENTS

QUARTZ SAND WITH SUBSTANTIAL PERCENT OF WORN LIMESTONE FRAGMENTS AND INTERBEDDED CALCILUTITE. PHOSPHATE IS BOTH LEACHED AND UNLEACHED.

51 - 55 SAND; DARK GRAY TO LIGHT GRAY
45% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE
ROUNDNESS: ROUNDED TO SUB-ROUNDED; HIGH SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: PHOSPHATIC SAND-35%, CALCILUTITE-04%
LIMESTONE-02%
OTHER FEATURES: SPECKLED
FOSSILS: SHARKS TEETH
COARSE, WELL-ROUNDED PHOSPHATE-RICH QUARTZ SAND. CALCILUTITE TRACES MAY PROVIDE SLIGHT INSITU CEMENTING OF UNIT. BOTTOM OF SURFICIAL AQUIFER SYSTEM.

55 - 60 CALCILUTITE; DARK GRAY TO LIGHT GRAY
18% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PHOSPHATIC SAND-25%, QUARTZ SAND-20%
DOLOMITE-02%
OTHER FEATURES: SPECKLED
FOSSILS: MOLLUSKS
UPPERMOST CARBONATE. RICH IN ROUNDED QUARTZ, PHOSPHATIC SANDS. TOP OF INTERMEDIATE AQUIFER SYSTEM.

60 - 65 PHOSPHATE; DARK GRAY TO LIGHT GRAY
POROSITY: INTERGRANULAR; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%, QUARTZ SAND-06%
A CONCENTRATION OF ROUNDED PHOSPHATE GRANULES (4MM) WITH LESSER CALCILUTITE MATRIX.

65 - 70 CALCILUTITE; MODERATE DARK GRAY
14% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-25%, PHOSPHATIC GRAVEL-15%
PHOSPHATIC SAND-05%, QUARTZ SAND-03%
OTHER FEATURES: SPECKLED
CLAYEY CALCILUTITE WITH MUCH PHOSPHATIC SAND.

70 - 77 CALCILUTITE; OLIVE GRAY TO DARK GRAY
POROSITY: LOW PERMEABILITY, INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
ACCESSORY MINERALS: CLAY-40%, PHOSPHATIC SAND-04%
QUARTZ SAND-02%
VERY CLAYEY CALCILUTITE. CLAY IS DISSEMINATED AND AS STREAKS.

77 - 82 CLAY; LIGHT OLIVE GRAY
POROSITY: LOW PERMEABILITY; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, QUARTZ SAND-08%
PHOSPHATIC SAND-03%
OTHER FEATURES: PARTINGS
VARIABLY CALCAREOUS CLAY CONTAINING SAND STRINGERS AND BURROW FILL.

82 - 85 CALCILUTITE; LIGHT OLIVE GRAY TO LIGHT GRAY
16% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-07%, PHOSPHATIC SAND-03%

85 - 91 CALCILUTITE; YELLOWISH GRAY TO VERY LIGHT GRAY
14% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELTAL CAST
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED, MOTTLED
ACCESSORY MINERALS: CLAY-20%, PHOSPHATIC SAND-10%
QUARTZ SAND-03%, PHOSPHATIC GRAVEL-01%
OTHER FEATURES: SPECKLED, PARTINGS
MEDIUM RECRYSTALLIZATION
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS
UNIT GRADES SOFTER WITH DEPTH. VARIABLY PHOSPHATIC. CLAY IS IN STREAKS, BLEBS, AND DISSEMINATED. A FEW 1-2 CM PHOSPHATE CLASTS. CONTAINS HARDER ALTERED OR DOLOMITIC INCLUSIONS.

91 - 93 CALCILUTITE; LIGHT OLIVE TO YELLOWISH GRAY
POROSITY: NOT OBSERVED, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: CLAY-35%, PHOSPHATIC SAND-14%
QUARTZ SAND-01%
OTHER FEATURES: SPECKLED, MEDIUM RECRYSTALLIZATION
PARTINGS, GRANULAR
SOFT VERY CLAYEY PHOSPHATIC CALCILUTITE.

93 - 96.5 NO SAMPLES
PROBABLY PHOSPHATIC AND QUARTZ SAND (POORLY CONSOLIDATED).

96.5- 101.3 CLAY; DARK GREENISH GRAY
POROSITY: NOT OBSERVED, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: STREAKED
ACCESSORY MINERALS: CALCILUTITE-07%, PHOSPHATIC SAND-07%
QUARTZ SAND-02%
OTHER FEATURES: PARTINGS
UPPER 1-5 FT. CONTAINS THIN INTERBEDS OF SOMEWHAT CALCAREOUS PHOSPHATIC SANDY OLIVE CLAY. 98 - 101.3 FT IS PURE DARK GREEN CLAY.

101.3- 103 CALCILUTITE; YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: NODULAR, MOTTLED
ACCESSORY MINERALS: CLAY-40%, PHOSPHATIC SAND-08%
QUARTZ SAND-02%
OTHER FEATURES: VARIEGATED, MEDIUM RECRYSTALLIZATION
VERY CLAYEY PHOSPHATIC CALCILUTITE. CLAY IS DISSEMINATED IN MATRIX AND ALSO AS INFILL AROUND ROUNDED CLASTS OF PHOSPHATIC CALCILUTITE.

103 - 107 CALCILUTITE; YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX

ACCESSORY MINERALS: CLAY-30%, PHOSPHATIC SAND-10%
QUARTZ SAND-02%
OTHER FEATURES: MUDDY
FOSSILS: MOLLUSKS
SEMI-SOFT PHOSPHATIC CLAYEY CALCILUTITE WITH MINOR LIMESTONE STRINGERS AND BIVALVE CASTS. A RESIDUUM? UNIT RUBBELIZED ON CORING. BOTTOM OF PEACE RIVER FORMATION.

107 - 113.2 CALCILUTITE; VERY LIGHT GRAY TO LIGHT GRAY
16% POROSITY: MOLDIC, INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-12%, CLAY-08%
QUARTZ SAND-04%
OTHER FEATURES: PARTINGS
FOSSILS: FOSSIL MOLDS, MOLLUSKS, CORAL
TOP OF A VERTICALLY PERSISTENT LIMESTONE SECTION WITH LOWER PERCENT OF CLAY. TOP 1 FT. OF UNIT SHOWS INFILL OF QUARTZ AND PHOSPHATIC SAND (IN DESICCATION CRACKS?). THIN, MUDDY LENSES 108 - 110 FT. MORE VERY FINE PHOSPHATE 111 - 113 FT. AND SMALL MOLDS 111 - 113 FT.

113.2- 115 CALCILUTITE; LIGHT GRAY TO MODERATE LIGHT GRAY
18% POROSITY: MOLDIC, INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: PHOSPHATIC SAND-10%, QUARTZ SAND-04%
OTHER FEATURES: VARIEGATED, SPECKLED, POOR SAMPLE
FOSSILS: FOSSIL MOLDS, MOLLUSKS
VARIEGATED DARK AND LIGHT GRAY. DARKER SECTIONS ARE HARDER AND MAY BE DOLOMITIC. STARFISH ARM MOLD AT 113.9 FT.

115 - 115.5 CHERT; MODERATE DARK GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
OTHER FEATURES: GRANULAR
FOSSILS: FOSSIL FRAGMENTS

115.5- 118 CALCILUTITE; VERY LIGHT GRAY TO LIGHT GRAY
14% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: CALCILUTITE, BIOGENIC
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED
ACCESSORY MINERALS: CLAY-10%, PHOSPHATIC SAND-05%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: VARIEGATED
FOSSILS: FOSSIL MOLDS, MOLLUSKS
CONTAINS SOFT CLAYEY STREAKS AND INFILLED BURROWS.

118 - 123.1 CALCARENITE; YELLOWISH GRAY TO VERY LIGHT GRAY
16% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
55% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PHOSPHATIC SAND-07%, QUARTZ SAND-02%
OTHER FEATURES: CHALKY, SPECKLED

123.1- 125.5 CALCILUTITE; LIGHT GRAY
08% POROSITY: PIN POINT VUGS, VUGULAR
GRAIN TYPE: CALCILUTITE; 01% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: PHOSPHATIC GRAVEL-02%
PHOSPHATIC SAND-01%, DOLOMITE- %
OTHER FEATURES: CHALKY, LOW RECRYSTALLIZATION
FOSSILS: MOLLUSKS
VERY HARD, FEATURELESS. DOLOMITIC?

125.5- 128.5 CALCILUTITE; MODERATE LIGHT GRAY TO VERY LIGHT GRAY
14% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-25%, PHOSPHATIC SAND-10%
OTHER FEATURES: GRANULAR, SPECKLED, PARTINGS

128.5- 133.2 CALCILUTITE; YELLOWISH GRAY TO VERY LIGHT GRAY
16% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-06%, PHOSPHATIC SAND-05%
OTHER FEATURES: CHALKY, SPECKLED
FOSSILS: CORAL, FOSSIL FRAGMENTS

133.2- 138.2 CALCILUTITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
14% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-25%, QUARTZ SAND-12%
PHOSPHATIC SAND-08%
OTHER FEATURES: SPECKLED, PARTINGS, CHALKY
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS
CLAYEY CALCILUTITE IRREGULARLY BEDDED WITH OR INFILLED
AROUND QUARTZ - PHOSPHATIC SANDY CALCILUTITE.

138.2- 143 CALCILUTITE; LIGHT OLIVE GRAY TO GRAYISH GREEN
10% POROSITY: LOW PERMEABILITY, INTERGRANULAR
GRAIN TYPE: CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-12%
PHOSPHATIC SAND-08%
OTHER FEATURES: SPECKLED, PARTINGS
CONTAINS SOME SOFTER BEDS.

143 - 160 CALCILUTITE; LIGHT OLIVE GRAY TO LIGHT GRAY
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: CLAY-25%, QUARTZ SAND-20%
PHOSPHATIC SAND-05%
UNIT BECOMES SLIGHTLY LESS CALCAREOUS AND MORE CLAYEY AND
QUARTZ SANDY BELOW 150 FT. CHERT INCLUSION AT 151.8 FT.

160 - 163 CLAY; LIGHT OLIVE GRAY TO DARK GREENISH GRAY
10% POROSITY: LOW PERMEABILITY, INTERGRANULAR
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX

SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-30%, QUARTZ SAND-15%
PHOSPHATIC SAND-10%, PHOSPHATIC GRAVEL-02%
OTHER FEATURES: SPECKLED
IRREGULARLY BEDDED OR INFILLED OLIVE CLAY AND CLAYEY
QUARTZ-PHOSPHATE SANDY CALCILUTITE. RUBBLY.

163 - 168.2 CALCILUTITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-20%, CHERT-06%
PHOSPHATIC SAND-06%, QUARTZ SAND-02%
OTHER FEATURES: CHALKY
DISSEMINATED AND INTERBEDDED CLAY FACTION. CHERT AS
INCLUSIONS AT 163 FT. AND 164.5 FT.

168.2- 175.5 CLAY; LIGHT OLIVE GRAY TO OLIVE GRAY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: PHOSPHATIC SAND-01%
A CLEAN WAXY OLIVE CLAY CONTAINING SOME VEINLETS OF VERY
FINE ORGANIC SAND OR DARK MINERAL.

175.5- 188 CALCILUTITE; LIGHT OLIVE GRAY TO OLIVE GRAY
15% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC GRAVEL-05%
QUARTZ SAND-03%, CLAY-02%
OTHER FEATURES: SPECKLED, MUDDY, FOSSILIFEROUS
FOSSILS: MOLLUSKS
CLAY IS DISSEMINATED AND AS INFILL. CHERT INCLUSION AT 181
FT. DOLOMITIC LENSES AT 184 FT., 185 FT.

188 - 191 SANDSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED
ACCESSORY MINERALS: CALCILUTITE-15%, PHOSPHATIC SAND-30%
PHOSPHATIC GRAVEL-02%, CLAY-01%
OTHER FEATURES: CALCAREOUS, FROSTED, SPECKLED
FOSSILIFEROUS
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
QUARTZ SANDSTONE, ABUNDANT PHOSPHATIC SAND AND GRAVEL.
NUMEROUS CALCAREOUS AND PHOSPHATIC FOSSILS, SHELLS AND
TEETH IN CALCAREOUS CLAY MATRIX.

191 - 193 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, MOLDIC
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-03%
CLAY-01%
OTHER FEATURES: SPECKLED, MUDDY, FOSSILIFEROUS
FOSSILS: ECHINOID, MOLLUSKS

193 - 194.3 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY
03% POROSITY: INTERGRANULAR, LOW PERMEABILITY
10-50% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE

MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-02%
PHOSPHATIC GRAVEL-01%, CLAY-01%
OTHER FEATURES: SPECKLED
DOLOSTONE, LITTLE QUARTZ. PHOSPHATIC SAND. FEWER FOSSILS.

194.3- 198.2 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY
03% POROSITY: INTERGRANULAR, LOW PERMEABILITY
10-50% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-02%
PHOSPHATIC GRAVEL-02%, CLAY-03%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS

198.2- 199.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
02% POROSITY: INTERGRANULAR, MOLDIC
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
CLAY MATRIX
ACCESSORY MINERALS: CLAY-20%, QUARTZ SAND-03%
PHOSPHATIC SAND-02%
FOSSILS: SHARKS TEETH, MOLLUSKS

199.5- 204.7 CLAY; LIGHT OLIVE GRAY TO OLIVE GRAY
01% POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT
CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-03%, PHOSPHATIC SAND-02%
DOLOMITE-02%
OTHER FEATURES: CALCAREOUS, DOLOMITIC, MUDDY, FOSSILIFEROUS
FOSSILS: ECHINOID, MOLLUSKS, BENTHIC FORAMINIFERA
CLAY WITH INTERBEDDED FORAM FRAGMENTS, SOME INTERBEDDED
DOLOSTONE AND SOME QUARTZ AND PHOSPHATIC SAND.

204.7- 210.8 CLAY; LIGHT OLIVE GRAY TO OLIVE GRAY
02% POROSITY: MOLDIC; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT
CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: DOLOMITE-03%, CALCILUTITE-02%
PHOSPHATIC SAND-02%, QUARTZ SAND-02%
OTHER FEATURES: CALCAREOUS, DOLOMITIC, MUDDY
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA

210.8- 217 DOLOSTONE; LIGHT OLIVE GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY; 10-50% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-01%
PHOSPHATIC SAND-01%, PHOSPHATIC GRAVEL-01%
OTHER FEATURES: SPECKLED

217 - 218 CLAY; LIGHT OLIVE GRAY TO OLIVE GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: DOLOMITE-02%, QUARTZ SAND-02%
PHOSPHATIC SAND-02%, QUARTZ SAND-02%
OTHER FEATURES: DOLOMITIC, MUDDY

FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA
CLAY, DOLOMITIC, ABUNDANT PHOSPHATIC GRAVEL.

218 - 233 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, MOLDIC, FRACTURE
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: LIMESTONE-05%, QUARTZ SAND-01%
PHOSPHATIC SAND-01%
OTHER FEATURES: CALCAREOUS
FOSSILS: MOLLUSKS

233 - 233.9 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY, FRACTURE
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: DOLOMITE-20%, QUARTZ SAND-05%
CALCILUTITE-05%
OTHER FEATURES: CALCAREOUS
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA

233.9- 234.6 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
02% POROSITY, LOW PERMEABILITY, FRACTURE; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-01%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: CALCAREOUS

234.6- 238 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
02% POROSITY: INTERGRANULAR, LOW PERMEABILITY, FRACTURE
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-20%, PHOSPHATIC SAND-15%
OTHER FEATURES: BROWN ANHYDRITE CRYSTALS
LOW RECRYSTALLIZATION, CALCAREOUS

238 - 246.9 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
01% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-05%
PHOSPHATIC SAND-03%, CALCITE-01%
OTHER FEATURES: CALCAREOUS, FOSSILIFEROUS
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, ORGANICS

246.9- 248.4 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
01% POROSITY: INTERGRANULAR, LOW PERMEABILITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-10%, QUARTZ SAND-05%
CALCILUTITE-02%, PHOSPHATIC GRAVEL-02%
OTHER FEATURES: CALCAREOUS, SPECKLED, FOSSILIFEROUS
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
CLAY, CALCAREOUS, PHOSPHATIC SAND AND GRAVEL. SOME QUARTZ SAND. MOLLUSK FRAGMENTS ARE CALCAREOUS.

248.4- 263 CLAY; LIGHT OLIVE GRAY TO GREENISH GRAY
01% POROSITY: FRACTURE, LOW PERMEABILITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-05%, PHOSPHATIC SAND-03%
PHOSPHATIC GRAVEL-01%, QUARTZ SAND-01%

OTHER FEATURES: CALCAREOUS
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA

263 - 267.8 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: SKELETAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC SAND-03%
PHOSPHATIC GRAVEL-01%, QUARTZ SAND-01%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
CALCARENITE, SOFT, FOSSILIFEROUS (SORITES-FORAM)
INTERBEDDED CLAY, PHOSPHATIC SAND AND GRAVEL, MINOR QUARTZ
SAND.

267.8- 269 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
02% POROSITY: FRACTURE, LOW PERMEABILITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-05%, PHOSPHATIC SAND-03%
PHOSPHATIC GRAVEL-01%, QUARTZ SAND-01%
OTHER FEATURES: CALCAREOUS, CHALKY
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

269 - 270.1 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR, MOLDIC, FRACTURE
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX
CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-05%, PHOSPHATIC SAND-03%
PHOSPHATIC GRAVEL-01%, QUARTZ SAND-01%
OTHER FEATURES: PARTINGS, FOSSILIFEROUS
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS
DOLOSTONE, FRACTURES, SOME CLAY INFILLED, INTERBEDDED
PHOSPHATIC SAND AND GRAVEL, MOLDIC.

270.1- 278 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
08% POROSITY: FRACTURE
GRAIN TYPE: BIOGENIC, SKELETAL
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-05%, QUARTZ SAND-05%
PHOSPHATIC GRAVEL-01%, CLAY-03%
OTHER FEATURES: GRANULAR, SPECKLED, WEATHERED
FOSSILIFEROUS
FOSSILS: MOLLUSKS, FOSSIL MOLDS

278 - 280 CALCILUTITE; WHITE TO YELLOWISH GRAY
05% POROSITY: FRACTURE, INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%
CLAY-01%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL MOLDS

280 - 283.4 CLAY; DARK GREENISH GRAY TO DARK GREENISH GRAY
02% POROSITY: FRACTURE; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX

SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-05%, QUARTZ SAND-05%
PHOSPHATIC GRAVEL-02%, CALCILUTITE-02%
CLAY, GREEN, INTERBEDDED.

283.4- 284.3 CALCARENITE; WHITE TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, MOLDIC, FRACTURE
GRAIN TYPE: BIOGENIC, PELLET, SKELTAL CAST
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-01%
CALCITE-01%
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, SHARKS TEETH
FOSSIL MOLDS

284.3- 292.8 CALCARENITE; WHITE TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, MOLDIC, FRACTURE
GRAIN TYPE: BIOGENIC, PELLET, SKELTAL CAST
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-01%
CALCITE-01%
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, SHARKS TEETH
VERTEBRATE

292.8- 294.1 CLAY; WHITE TO YELLOWISH GRAY
01% POROSITY: FRACTURE; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-02%, PHOSPHATIC SAND-01%
QUARTZ SAND-01%, PHOSPHATIC GRAVEL-01%
FOSSILS: MOLLUSKS

294.1- 296.8 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
03% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, PELLET
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-05%
PHOSPHATIC GRAVEL-01%, CLAY-01%
OTHER FEATURES: MUDDY, WEATHERED, FOSSILIFEROUS
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, ECHINOID
OSTRACODS

296.8- 298 CALCARENITE; GRAYISH BROWN TO LIGHT OLIVE GRAY
04% POROSITY: INTERGRANULAR, FRACTURE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC GRAVEL-10%
PHOSPHATIC GRAVEL-03%, CLAY-03%
OTHER FEATURES: GRANULAR, SPECKLED, FOSSILIFEROUS
FOSSILS: CORAL, MOLLUSKS, WORM TRACES
CALCARENITE, SANDY, VERY WEATHERED MOLLUSK FRAGMENTS.

298 - 298.8 CLAY; OLIVE GRAY TO DARK GREENISH GRAY
01% POROSITY: FRACTURE; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED
ACCESSORY MINERALS: QUARTZ SAND-15%, PHOSPHATIC GRAVEL-10%
PHOSPHATIC GRAVEL-02%, CALCILUTITE-01%
OTHER FEATURES: CALCAREOUS, FOSSILIFEROUS
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS

298.8- 303.8 CALCILUTITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
03% POROSITY: FRACTURE, INTERGRANULAR

GRAIN TYPE: BIOGENIC, CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC GRAVEL-10%
PHOSPHATIC GRAVEL-01%, CLAY-01%
OTHER FEATURES: PARTINGS, SPECKLED, WEATHERED
FOSSILIFEROUS
FOSSILS: ECHINOID, MOLLUSKS, FOSSIL FRAGMENTS

303.8- 308.8 CALCILUTITE; YELLOWISH GRAY TO LIGHT GREENISH GRAY
01% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED, MASSIVE
ACCESSORY MINERALS: PHOSPHATIC SAND-07%, QUARTZ SAND-05%
PHOSPHATIC GRAVEL-01%, CALCITE-01%
OTHER FEATURES: HIGH RECRYSTALLIZATION, PARTINGS, SPECKLED
FOSSILIFEROUS
FOSSILS: ECHINOID, MOLLUSKS, FOSSIL MOLDS
CALCILUTITE, VERY HARD, NUMEROUS FILLED IN MOLDS-SOME
CALCITE REPLACED. SOME ORGANICS.

308.8- 313 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-03%, QUARTZ SAND-02%
CLAY-02%
OTHER FEATURES: GRANULAR, CHALKY
FOSSILS: ECHINOID, MOLLUSKS, FOSSIL MOLDS

313 - 333 CALCARENITE;
10% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-03%
OTHER FEATURES: CHALKY
FOSSILS: ECHINOID, MOLLUSKS, FOSSIL MOLDS
CALCARENITE, VERY CLEAN, VERY MINOR ORGANICS, POORLY
INDURATED SUWANNEE LIMESTONE.

333 - 341 CALCARENITE;
10% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS
CALCARENITE, CREAM-COLORED, VERY CLEAN, FEW INTERBEDDED
MINERALS, TYPICAL SUWANNEE LIMESTONE CORE.

341 - 348.6 CALCILUTITE;
03% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; UNCONSOLIDATED
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-15%

OTHER FEATURES: CHALKY, MUDDY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS

348.6- 353 CALCILUTITE;
03% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-01%
OTHER FEATURES: CHALKY
FOSSILS: ORGANICS

353 - 373.3 CALCARENITE;
03% POROSITY: INTERGRANULAR, FRACTURE
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-01%
OTHER FEATURES: CHALKY
FOSSILS: CORAL, MOLLUSKS, ECHINOID

373.3- 377 CALCARENITE;
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: SKELETAL, SKELTAL CAST
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
FOSSILS: CORAL

377 - 382.5 CALCILUTITE;
03% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-01%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, WORM TRACES

382.5- 390.5 CALCARENITE;
05% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-04%
OTHER FEATURES: CHALKY
FOSSILS: ECHINOID, MOLLUSKS, BENTHIC FORAMINIFERA
CALCARENITE, FRACTURED, RUBBLE. SOME INTERBEDDED GREEN CLAY.

390.5- 402.1 CALCARENITE;
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE-02%
FOSSILS: ECHINOID, MOLLUSKS, BENTHIC FORAMINIFERA, CORAL
CALCARENITE, MOLDIC, NUMEROUS MOLLUSK MOLDS. APPEARS VERY PERMEABLE.

402.1- 403 CALCILUTITE;
02% POROSITY: FRACTURE, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
UNCONSOLIDATED

CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-30%
FOSSILS: MOLLUSKS, FOSSIL MOLDS

403 - 405 CLAY;
01% POROSITY: FRACTURE, LOW PERMEABILITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS, CHALKY

405 - 413 CALCILUTITE;
03% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, BIOGENIC
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-05%, CHERT-05%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, FOSSIL MOLDS
CALCILUTITE, RUBBLE. LARGE DOLOMITIC CHERT NODULE AT 412 FT.

413 - 418 CLAY;
01% POROSITY: FRACTURE, LOW PERMEABILITY; UNCONSOLIDATED
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: CHALKY
FOSSILS: FOSSIL MOLDS

418 - 419 CALCARENITE;
05% POROSITY: INTERGRANULAR, FRACTURE
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-10%
OTHER FEATURES: CHALKY
FOSSILS: FOSSIL MOLDS

419 - 422.6 CLAY;
02% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: CHALKY, CALCAREOUS
FOSSILS: FOSSIL MOLDS, MOLLUSKS

422.6- 429 CALCARENITE;
05% POROSITY: INTERGRANULAR, FRACTURE
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-05%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA

429 - 433 CLAY;
02% POROSITY: FRACTURE, LOW PERMEABILITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: CHALKY, CALCAREOUS
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA

433 - 438.5 CALCARENITE;
10% POROSITY: INTERGRANULAR, FRACTURE
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE

POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
ACCESSORY MINERALS: CLAY-10%, DOLOMITE-03%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA
FOSSIL MOLDS
CALCARENITE, MOLDIC, INTERBEDDED CLAY LENSES. SOME
DOLOSTONE.

438.5- 478.1 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, MOLLUSKS
FOSSIL MOLDS, CORAL
CALCARENITE, MOLDIC, HIGHLY PERMEABLE, POSSIBLE FAULT
SURFACE AT 447.5 FT.

478.1- 482.6 CLAY; WHITE TO YELLOWISH GRAY
02% POROSITY: INTERGRANULAR, LOW PERMEABILITY
UNCONSOLIDATED
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%
OTHER FEATURES: CALCAREOUS, CHALKY

482.6- 489 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-02%
OTHER FEATURES: GRANULAR
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS

489 - 493 CLAY; WHITE TO YELLOWISH GRAY
02% POROSITY: INTERGRANULAR, LOW PERMEABILITY
UNCONSOLIDATED
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%
OTHER FEATURES: CALCAREOUS, CHALKY

493 - 518.6 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CALCITE-01%, CLAY-05%
FOSSILS: CORAL, ECHINOID, MOLLUSKS, BENTHIC FORAMINIFERA
CALCARENITE, FOSSILIFEROUS, MOLDIC. SOME UNCONSOLIDATED
CALCAREOUS CLAY LENSES.

518.6- 523.6 CLAY; WHITE TO YELLOWISH GRAY
01% POROSITY: INTERGRANULAR, LOW PERMEABILITY
UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: CALCAREOUS, CHALKY

523.6- 535 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, FRACTURE
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
ACCESSORY MINERALS: CLAY-10%
OTHER FEATURES: CHALKY, GRANULAR

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, MOLLUSKS

535 - 568 CLAY; WHITE TO YELLOWISH GRAY
02% POROSITY: INTERGRANULAR, LOW PERMEABILITY
UNCONSOLIDATED
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%
OTHER FEATURES: CALCAREOUS, CHALKY
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS
CLAY, CALCAREOUS, INTERLAYERED WITH CALCARENITE LENSES.

568 - 576 CALCARENITE; YELLOWISH GRAY TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, PELLET, SKELETAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-10%, ORGANICS-01%
OTHER FEATURES: GRANULAR, MUDDY, WEATHERED
FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA
FOSSIL FRAGMENTS
CALCARENITE, INCREASING ORGANICS CONTENT, INTERBEDDED GRAY
CLAY LENSES. VERY WEATHERED.

576 - 593 CLAY; LIGHT GRAY TO YELLOWISH GRAY
01% POROSITY: INTERGRANULAR, LOW PERMEABILITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- %
OTHER FEATURES: CALCAREOUS

593 - 620.5 CALCARENITE; YELLOWISH GRAY TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, VUGULAR
GRAIN TYPE: BIOGENIC, PELLET, SKELETAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
ACCESSORY MINERALS: CLAY-10%, ORGANICS-03%
OTHER FEATURES: GRANULAR, SUCROSIC, FOSSILIFEROUS
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, MOLLUSKS
CALCARENITE, FOSSILIFEROUS, VERY WEATHERED, INTERLAYERED
WITH CALCAREOUS CLAY ZONES.

620.5- 623 CALCARENITE; YELLOWISH GRAY TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR
GRAIN TYPE: BIOGENIC, PELLET, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-05%, ORGANICS-03%
OTHER FEATURES: SUCROSIC, WEATHERED, GRANULAR
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, MOLLUSKS

623 - 639 CALCARENITE; YELLOWISH GRAY TO VERY LIGHT GRAY
06% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: FINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, GRADED BEDDING
ACCESSORY MINERALS: CALCILUTITE-20%, ORGANICS-01%
OTHER FEATURES: GRANULAR
FOSSILS: ORGANICS, WORM TRACES, MOLLUSKS
INTERBEDDED GRANULAR VERY FINE CALCARENITE AND POORLY
INDURATED GRAINY CALCILUTITE. MAY DISPLAY FINING-UPWARD
SEQUENCES. ORGANIC SPECKS AND ALTERED CALCARENITE GRAINS
ARE COMMON.

639 - 640 CALCARENITE; VERY LIGHT ORANGE
24% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE
95% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MEDIUM TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: FOSSILIFEROUS, GRANULAR
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, WORM TRACES

640 - 644.5 CALCARENITE; YELLOWISH GRAY TO VERY LIGHT GRAY
16% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: FINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: CROSS-BEDDED, BANDED
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS-01%
OTHER FEATURES: GRANULAR
FOSSILS: ORGANICS, FOSSIL FRAGMENTS
GRANULAR VERY FINE CALCARENITE, FAINTLY CROSS-BEDDED WITH SLIGHTLY ALTERED LAMINAE. ORGANIC SPECKS COMMON.

644.5- 662 CALCARENITE; VERY LIGHT ORANGE
22% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MEDIUM TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-15%
OTHER FEATURES: FOSSILIFEROUS, GRANULAR
FOSSILS: MILIOLIDS, FOSSIL FRAGMENTS
INTERBEDDED FINE SKELETAL/GRANULAR PACKSTONE AND POORLY CONSOLIDATED GRAINY CALCILUTITE. HARD, THIN CALCILUTITE STRINGERS AT 659 FT. VARIABLY PERMEABLE.

662 - 668.5 LIMESTONE; VERY LIGHT ORANGE TO WHITE
20% POROSITY: MOLDIC, INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
45% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-55%, CALCARENITE-45%
OTHER FEATURES: FOSSILIFEROUS, LOW RECRYSTALLIZATION
FOSSILS: FOSSIL MOLDS, MOLLUSKS, FOSSIL FRAGMENTS
VARIABLY HARD, VARIABLY MOLDIC.

668.5- 674.5 CALCARENITE; YELLOWISH GRAY TO VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: GRANULAR
FOSSILS: FOSSIL FRAGMENTS
VERY FINE CALCARENITE.

674.5- 678 CALCILUTITE; WHITE
12% POROSITY: LOW PERMEABILITY, INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: VERY FINE TO MICROCRYSTALLINE; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY
CHALKY, POOR TO MODERATELY INDURATED. (OCALA TYPE?)

678 - 683 NO SAMPLES
CUTTINGS COLLECTED THROUGH INTERVAL SUGGEST POORLY INDURATED VERY FINE CALCARENITE, BUT MAY CONSIST OF

PREVIOUS CHALKY CALCILUTITE.

683 - 686 SHELL BED; LIGHT GRAY TO WHITE
40% POROSITY: POSSIBLY HIGH PERMEABILITY, MOLDIC
INTERGRANULAR; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-25%
OTHER FEATURES: FOSSILIFEROUS, SPLINTERY
MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS
PERMEABLE BED OF RECRYSTALLIZED OYSTER SHELL WITH INTERBEDS
OF POORLY PERMEABLE, WHITE, POOR TO MEDIUM INDURATED
CALCILUTITE. (OCALA TYPE?).

686 - 687 LIMESTONE; VERY LIGHT ORANGE TO WHITE
20% POROSITY: MOLDIC, INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
45% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-55%
OTHER FEATURES: FOSSILIFEROUS, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, FOSSIL MOLDS
MOLLUSK MOLDS AND CASTS IN HARD SOMEWHAT RECRYSTALLIZED
LIMESTONE. SOME RECRYSTALLIZED OYSTER SHELLS. SUWANNEE-TYPE
LITHOLOGY.

687 - 708.5 CALCARENITE; YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE
55% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-45%
OTHER FEATURES: GRANULAR, CHALKY
FOSSILS: FOSSIL MOLDS, BENTHIC FORAMINIFERA
OCALA TYPE LITHOLOGY ALTHOUGH TRACES OF MOLLUSK MOLDS. VERY
FEW LEPIDOCYCLINA NEAR BOTTOM OF INTERVAL.

708.5- 713.8 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, PIN POINT VUGS
GRAIN TYPE: BIOGENIC, CALCILUTITE
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%
OTHER FEATURES: GRANULAR, CHALKY
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

713.8- 717.9 CALCARENITE; VERY LIGHT ORANGE TO MODERATE GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; UNCONSOLIDATED
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-45%, CLAY-05%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

717.9- 743 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, FRACTURE, PIN POINT VUGS
GRAIN TYPE: BIOGENIC, CALCILUTITE
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-45%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
VERY WEATHERED LEPIDOCYCLINA FRAGMENTS. ALSO MOLLUSK MOLDS.

743 - 748 LIMESTONE; VERY LIGHT ORANGE TO WHITE
05% POROSITY: INTERGRANULAR, FRACTURE, PIN POINT VUGS
GRAIN TYPE: BIOGENIC, CALCILUTITE
GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: CHALKY
FOSSILS: FOSSIL FRAGMENTS
VERY FINE-GRAINED, NEARLY WHITE IN COLOR. VERY WEATHERED.

748 - 754 CALCARENITE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-25%, QUARTZ SAND-02%
CALCITE-01%
OTHER FEATURES: CHALKY, REEFAL, FOSSILIFEROUS
FOSSILS: ECHINOID, MOLLUSKS, BENTHIC FORAMINIFERA
FOSSIL MOLDS

754 - 783 CALCARENITE; VERY LIGHT ORANGE
05% POROSITY: FRACTURE, PIN POINT VUGS
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%, PHOSPHATIC SAND-01%
OTHER FEATURES: CHALKY
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
VERY FINE-GRAINED NUMEROUS FORAMS. VERY WEATHERED.

783 - 788 SILT; YELLOWISH GRAY TO LIGHT OLIVE GRAY
20% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-20%
OTHER FEATURES: CALCAREOUS, GRANULAR, SPECKLED

788 - 793.5 LIMESTONE; YELLOWISH GRAY
03% POROSITY: FRACTURE, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: CHALKY
FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA

793.5- 832 CALCARENITE; YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: FOSSILIFEROUS, CHALKY
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
VERY FINE CALCARENITE WITH MUCH CALCILUTITE MATRIX.
VARIABLE CONCENTRATION OF NUMMULITES AND LEPIDOCYCLINA
CRYSTALLINE SKELETONS (10-30% OF UNIT).

832 - 834 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCARENITE-15%, CLAY-05%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
THIN BED CONTAINS MINOR CLAY FRACTION. TIGHT. FEWER NUMMULITES AND LEPIDOYCLINA.

834 - 852 CALCARENITE; YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%
OTHER FEATURES: FOSSILIFEROUS, CHALKY
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
SIMILAR TO INTERVAL NEAR 832. 10-30% NUMMULITES AND LEPIDOCYCLINA SKELETONS (CRYSTALLINE).

852 - 855.5 CALCARENITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
55% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-45%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
SOME FAINT BANDING. CRYSTALLINE NUMMULITES AND LEPIDOCYCLINA SKELETONS. A FEW GRAY DOLOMITIC(?) SKELETONS INCORPORATING ORGANIC SPECKS.

855.5- 863.5 CALCARENITE; YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%
OTHER FEATURES: FOSSILIFEROUS, CHALKY
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
GENERALLY 15-25% SKELETAL FRAGMENTS (NUMMULITES AND LEPIDOCYCLINA). TRACES OF IRREGULAR GRAY BANDING IN MATRIX.

863.5- 878 CALCARENITE; YELLOWISH GRAY
16% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%, ORGANICS-01%
OTHER FEATURES: FOSSILIFEROUS, CHALKY
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, ORGANICS
SIMILAR TO PREVIOUS INTERVAL BUT CONTAINS 2% ALTERED (DOLOMITIC?) SKELETAL FRAGMENTS. ALTERED FRAGMENTS OFTEN CONTAIN ORGANIC SPECKS.

878 - 883 CALCARENITE; YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BANDED
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
UNIT CONTAINS LESS FORAMS. FAINT GRAY BANDING MAY INDICATE

MINOR DOLOMITIZATION.

883 - 901 CALCARENITE; YELLOWISH GRAY
16% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: FOSSILIFEROUS, CHALKY
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
CONTAINS CRYSTALLINE FORAM TESTS (LEPIDOCYCLINA AND NUMMULITES) IN CONCENTRATIONS OF 20-35%. APPROXIMATELY 1-2% OF FORAMS ARE ALTERED TO GRAY COLORED.

901 - 908 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
55% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-45%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FORAM SKELETONS ARE CHALKIER AND COMPOSE APPROXIMATELY 10-20% OF UNIT. MOSTLY LEPIDOCYCLINA. ROCK MATRIX DARKENS SLIGHTLY.

908 - 928 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: FRACTURE
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
VERY LARGE FORAMS, LEPIDOCYCLINA COMPRISING 25% OF MATRIX.

928 - 932.5 CALCILUTITE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FEWER LARGE FORAMS, MATRIX GRAINS FINER, BECOMING OOLOMITIC.

932.5- 934 LIMESTONE; YELLOWISH GRAY
03% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, SKELETAL, SKELTAL CAST
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CALCILUTITE-30%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
SLIGHTLY LARGER GRAIN SIZE, NUMMULITES INCREASING, DARKER.

934 - 939.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-30%
OTHER FEATURES: CALCAREOUS, CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

939.5- 941.2 CALCILUTITE; YELLOWISH GRAY
03% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, SKELETAL, SKELTAL CAST
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

941.2- 944 CALCILUTITE; YELLOWISH GRAY
03% POROSITY: INTERGRANULAR, FRACTURE
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

944 - 949 CALCILUTITE; YELLOWISH GRAY
03% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

949 - 959 CALCILUTITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
03% POROSITY: INTERGRANULAR, FRACTURE, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%
OTHER FEATURES: CHALKY, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
CALCILUTITE, VERY FINE-GRAINED, DOLOMITIC, NUMEROUS NUMMULITES, FEWER LEPIDOCYCLINA.

959 - 965.5 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE OLIVE BROWN
15% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
10-50% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: FELDSPAR-01%
OTHER FEATURES: SUCROSIC, CRYSTALLINE, FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA
DOLOSTONE, CRYSTALLINE, NUMEROUS MOLDS. APPEARS HIGHLY PERMEABLE.

965.5- 966 LIMESTONE; YELLOWISH GRAY TO DARK GRAYISH YELLOW
05% POROSITY: FRACTURE
GRAIN TYPE: BIOGENIC; 95% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-05%
OTHER FEATURES: DOLOMITIC

966 - 968 CLAY; WHITE TO YELLOWISH GRAY
03% POROSITY: FRACTURE, LOW PERMEABILITY; UNCONSOLIDATED
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX

SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-30%
OTHER FEATURES: CALCAREOUS
CALCAREOUS CLAY, UNCONSOLIDATED.

968 - 969.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
03% POROSITY: FRACTURE, LOW PERMEABILITY; 10-50% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: LIMESTONE-05%
OTHER FEATURES: CALCAREOUS, FOSSILIFEROUS
FOSSILS: FOSSIL MOLDS
DOLOSTONE, HARD LENS, GRADES INTO A CALCAREOUS CLAY.

969.5- 970 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
02% POROSITY: FRACTURE, LOW PERMEABILITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: LIMESTONE-03%, DOLOMITE-02%
OTHER FEATURES: CALCAREOUS

970 - 974 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-05%
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, FOSSIL FRAGMENTS
FOSSIL MOLDS

974 - 976 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
02% POROSITY: FRACTURE, LOW PERMEABILITY; UNCONSOLIDATED
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-30%
OTHER FEATURES: CALCAREOUS

976 - 981.4 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY
20% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: LIMESTONE-02%
OTHER FEATURES: CRYSTALLINE
FOSSILS: ECHINOID
DOLOMITE, CRYSTALLINE NUMEROUS ECHINOID MOLDS, CASTS AND
FRAGMENTS. TOP OF AVON PARK FORMATION AT 976 FT. BLS.

981.4- 988 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: DOLOMITE-15%, CALCITE-05%
OTHER FEATURES: DOLOMITIC, GRANULAR
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA
CALCARENITE, SOME INTERBEDDED DOLOSTONE, NUMEROUS LIMESTONE
AND CALCITE ECHINOID MOLDS.

988 - 992 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY

30% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: BIOGENIC, SKELETAL, SKELTAL CAST
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: DOLOMITE-02%
OTHER FEATURES: GRANULAR, FOSSILIFEROUS
FOSSILS: ECHINOID, MOLLUSKS, BENTHIC FORAMINIFERA
CALCARENITE, VERY FOSSILIFEROUS, NUMEROUS ECHINOID MOLDS. MATRIX IS MADE UP OF FORAM AND ECHINOID FRAGMENTS. APPEARS HIGHLY PERMEABLE.

992 - 996 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: FRACTURE, LOW PERMEABILITY; 10-50% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-25%, CALCITE-02%
OTHER FEATURES: BROWN ANHYDRITE CRYSTALS
LOW RECRYSTALLIZATION
FOSSILS: ECHINOID

996 - 1027 CALCARENITE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MEDIUM TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BEDDED, NODULAR
ACCESSORY MINERALS: CALCILUTITE-30%
OTHER FEATURES: GRANULAR, CHALKY
FOSSILS: FOSSIL FRAGMENTS
SOME ROUNDED CLASTS OR LENSOIDS OF CALCILUTITE.

1027 - 1030 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
12% POROSITY: LOW PERMEABILITY, INTERGRANULAR
0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: STREAKED
ACCESSORY MINERALS: CALCARENITE-25%, CALCILUTITE-10%
OTHER FEATURES: CALCAREOUS, VARIEGATED

1030 - 1033 CALCARENITE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: GRANULAR, CHALKY
FOSSILS: FOSSIL FRAGMENTS

1033 - 1034.5 CALCILUTITE; YELLOWISH GRAY
08% POROSITY: LOW PERMEABILITY, VUGULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BANDED, MOTTLED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-25%, LIMESTONE- 2%
LIMONITE-2 %
OTHER FEATURES: DOLOMITIC, PARTINGS, STROMATAL
FOSSILS: ORGANICS

VERY WELL INDURATED, IRREGULARLY BANDED BED CONTAINING THIN ORGANIC PARTINGS. ORGANIC LAMINAE AT TOP.

1034.5- 1038.5 CALCARENITE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: GRANULAR, CHALKY
FOSSILS: FOSSIL FRAGMENTS

1038.5- 1042.5 CALCARENITE; GRAYISH ORANGE TO VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-25%
OTHER FEATURES: GRANULAR, CHALKY, PARTINGS
FOSSILS: FOSSIL FRAGMENTS
GRAINY FINE-GRAINED CALCARENITE WITH THIN INTERBEDS OF GRAINY CALCILUTITE.

1042.5- 1048 CALCARENITE; GRAYISH ORANGE
26% POROSITY: INTERGRANULAR
GRAIN TYPE: PELLET, SKELETAL, BIOGENIC
95% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: GRANULAR
FOSSILS: WORM TRACES, FOSSIL FRAGMENTS
HARD, BRITTLE MODERATELY WELL-SORTED PELLETAL GRAINSTONE.
END OF CORE.

1048 - 1058 CALCARENITE; VERY LIGHT ORANGE TO GRAYISH ORANGE
18% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, PELLET
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-20%, DOLOMITE-05%
OTHER FEATURES: GRANULAR
FOSSILS: FOSSIL FRAGMENTS
FINE-GRAINED CALCARENITE WITH LESSER INTERBEDS OF LIMESTONE AND GRANULAR DOLOSTONE. LOW PERMEABILITY. SOMEWHAT SOFT. INITIAL GROUP OF CUTTINGS DESCRIPTION IS FROM PERMANENT AVON PARK MONITOR. CEMENT FRAGMENTS ARE SEEN IN THE CUTTINGS IN MODERATE CONCENTRATIONS THROUGH 1090 FT.

1058 - 1070 LIMESTONE; VERY LIGHT ORANGE
14% POROSITY: LOW PERMEABILITY, INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-80%, CALCARENITE-20%
FOSSILS: FOSSIL FRAGMENTS

1070 - 1120 CALCARENITE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, BIOGENIC
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%

OTHER FEATURES: GRANULAR, FOSSILIFEROUS
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA
GRANULAR CALCARENITE. DICTYOCONUS. NOT A BIG WATER PRODUCER. UPPER 10 - 20 FT. ARE SOFTER, SLIGHTLY FINER GRAINED THAN REST.

1120 - 1130 CALCARENITE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-35%
FOSSILS: FOSSIL FRAGMENTS
SOMEWHAT HARDER THAN CALCARENITES ABOVE. 1125 - 1130 FT. IS VERY FINE-GRAINED.

1130 - 1133 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
10% POROSITY: LOW PERMEABILITY; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
NO APPARENT WATER PRODUCTION FROM BED.

1133 - 1145 CALCARENITE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%
OTHER FEATURES: GRANULAR
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA
VERY GRANULAR SKELETAL CALCARENITE. DICTYOCONUS. DOLOMITE IS PROBABLY FALLING FROM OVERLYING BED.

1145 - 1156 LIMESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCARENITE-25%
OTHER FEATURES: CHALKY, GRANULAR
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA
CALCILUTITIC LIMESTONE WITH LESSER AMOUNTS FINE CALCARENITE.

1156 - 1182 CALCARENITE; VERY LIGHT ORANGE TO GRAYISH ORANGE
18% POROSITY: INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-35%
OTHER FEATURES: GRANULAR, CHALKY
FOSSILS: FOSSIL FRAGMENTS
FINE TO VERY FINE-GRAINED CALCARENITE. TRACE AMOUNTS OF GRAY LIMESTONE.

1182 - 1190 LIMESTONE; LIGHT GRAY
14% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%, ORGANICS-02%
OTHER FEATURES: CHALKY, SPECKLED
FOSSILS: MILIOLIDS
DOLOMITIC PERCENT IS AS TRACE DOLOMITE GRAINS.

1190 - 1207 CALCARENITE; GRAYISH ORANGE
20% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, DOLOMITE-10%
OTHER FEATURES: GRANULAR, FOSSILIFEROUS, DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA
GRANULAR CALCARENITE. CONTAINS DOLOMITIC GRAINS.
DICTYOCONUS. NOT MUCH PERMEABILITY.

1207 - 1218 LIMESTONE; LIGHT GRAY TO GRAYISH ORANGE
16% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCARENITE-40%, DOLOMITE-05%
OTHER FEATURES: CHALKY, GRANULAR
FOSSILS: FOSSIL FRAGMENTS
GRAY CALCILUTITIC LIMESTONE WITH SUBEQUAL BEDS GRANULAR
SKELETAL CALCARENITE.

1218 - 1228 DOLOSTONE; DARK YELLOWISH BROWN
30% POROSITY: FRACTURE, POSSIBLY HIGH PERMEABILITY
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
OTHER FEATURES: CRYSTALLINE
HARD, DARK CRYSTALLINE DOLOMITE. UNIT/SEQUENCE OF DOLOSTONE
BEDS MAKES SUBSTANTIAL WATER. TOP OF AVON PARK FRACTURED
DOLOSTONES.

1228 - 1247 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE BROWN
35% POROSITY: FRACTURE, POSSIBLY HIGH PERMEABILITY
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
OTHER FEATURES: CRYSTALLINE, VARIEGATED
OLIVE-COLORED CRYSTALLINE DOLOSTONE WITH SOME BROWN
(ORGANIC?) STREAKING. WATER PRODUCER.

1247 - 1307 DOLOSTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN
35% POROSITY: FRACTURE, POSSIBLY HIGH PERMEABILITY
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: STREAKED
OTHER FEATURES: CRYSTALLINE, LOW RECRYSTALLIZATION
BROWN DOLOSTONE. SHOWS SMALL AMOUNTS RECRYSTALLIZATION ON
CUTTINGS. SOME DARK STREAKING.

1307 - 1344 DOLOSTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN
35% POROSITY: FRACTURE, POSSIBLY HIGH PERMEABILITY
PIN POINT VUGS; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: STREAKED
ACCESSORY MINERALS: ORGANICS-01%
OTHER FEATURES: CRYSTALLINE
HARD BROWN VERY FINE-GRAINED DOLOSTONE. SOME ORGANIC
COATINGS ON CUTTINGS. PRODUCES FETID ODOR ON PUMPING.
TRACES OF OXIDE IRON SPECKS.

1344 - 1359 DOLOSTONE; GRAYISH BROWN TO MODERATE BROWN
POROSITY: FRACTURE, POSSIBLY HIGH PERMEABILITY
PIN POINT VUGS; 10-50% ALTERED; ANHEDRAL

GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
OTHER FEATURES: CRYSTALLINE, GRANULAR

1359 - 1370 DOLOSTONE; GRAYISH BROWN TO MODERATE BROWN
POROSITY: FRACTURE, POSSIBLY HIGH PERMEABILITY
PIN POINT VUGS; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-01%
OTHER FEATURES: CRYSTALLINE, GRANULAR

1370 - 1380 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN
POROSITY: POSSIBLY HIGH PERMEABILITY, PIN POINT VUGS
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-04%
OTHER FEATURES: CRYSTALLINE, GRANULAR
FOSSILS: ORGANICS
ORGANICS ARE AS STREAKS, SPECKS, AND INTERSTITIAL.

1380 - 1421 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE
POROSITY: POSSIBLY HIGH PERMEABILITY; 10-50% ALTERED
ANHEDRAL
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS-02%
QUARTZ-01%
OTHER FEATURES: CRYSTALLINE, GRANULAR, CALCAREOUS
FOSSILS: ORGANICS
INTERBEDDED MICROCRYSTALLINE VERY FINE-GRAINED CALCAREOUS
DOLOSTONE AND SLIGHTLY ORGANIC VERY FINE-GRAINED DOLOSTONE.
SOME OF ORGANIC UNIT APPEARS TO BE BRECCIATED OR CONTAINS
RIP-UP CLASTS. MINOR SECONDARY QUARTZ IN VUGS.

1421 - 1431 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS-02%
QUARTZ-01%
OTHER FEATURES: GRANULAR, CALCAREOUS
FOSSILS: ORGANICS

1431 - 1441 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS-01%
OTHER FEATURES: GRANULAR

1441 - 1451 DOLOSTONE; MODERATE YELLOWISH BROWN
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-05%, ORGANICS-02%
OTHER FEATURES: GRANULAR
FOSSILS: ORGANICS

1451 - 1484 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, QUARTZ-01%

ORGANICS-01%
OTHER FEATURES: CALCAREOUS, GRANULAR
FOSSILS: ORGANICS

1484 - 1499 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-05%, ORGANICS-02%
QUARTZ-01%
OTHER FEATURES: GRANULAR
FOSSILS: ORGANICS

1499 - 1506 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-20%
SUBEQUAL INTERBEDS OF TAN, CRYSTALLINE DOLOSTONE AND
CREAM-COLORED CALCAREOUS ORTHOCRYSTALLINE DOLOMITE.

1506 - 1514 DOLOSTONE; MODERATE YELLOWISH BROWN
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS-01%
OTHER FEATURES: GRANULAR

1514 - 1525 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-20%, QUARTZ-02%
ORGANICS-01%
GOLDEN TAN VERY FINE-GRAINED DOLOMITE WITH LESSER
INTERBEDDED PALE CALCAREOUS ORTHOCRYSTALLINE DOLOSTONE.
FREQUENT QUARTZ PSUEDOMORPHS AFTER RHOMBIC DOLOMITE.

1525 - 1540 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS-03%
QUARTZ-01%
OTHER FEATURES: GRANULAR

1540 - 1556 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE
POROSITY: INTERGRANULAR; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ-03%
ORGANICS-02%
OTHER FEATURES: GRANULAR
INTERBEDDED GOLDEN BROWN VERY FINE GRANULAR DOLOMITE AND
ORGANIC STREAKED/SPECKED CALCAREOUS PALE DOLOSTONE. QUARTZ
PSUEDOMORPHS AFTER RHOMBIC DOLOMITE ON SURFACES OF THE PALE
DOLOSTONE.

1556 - 1560 DOLOSTONE; GRAYISH ORANGE
POROSITY: INTERCRYSTALLINE; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%, QUARTZ-15%
OTHER FEATURES: CALCAREOUS, GRANULAR

GRANULAR CALCAREOUS DOLOMITE WITH MUCH SECONDARY QUARTZ.

1560 - 1575 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN
POROSITY: INTERCRYSTALLINE; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS-03%
QUARTZ-02%
FOSSILS: ORGANICS
CRYSTALLINE LIGHT BROWN DOLOMITE. GRAY AND CREAM-COLORED
CALCAREOUS FRAGMENTS (MORE IN UPPER 5 FT.).

1575 - 1595 DOLOSTONE; MODERATE YELLOWISH BROWN
POROSITY: INTERCRYSTALLINE; 10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ-02%
ORGANICS-02%
FOSSILS: ORGANICS
CRYSTALLINE GOLDEN BROWN DOLOMITE WITH MINOR SECONDARY
QUARTZ AND ORGANIC COATINGS.

1595 - 1623 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
12% POROSITY: LOW PERMEABILITY, INTERGRANULAR
INTERCRYSTALLINE; 0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%, QUARTZ-03%
ORGANICS-03%
OTHER FEATURES: CALCAREOUS
FOSSILS: ORGANICS
CALCAREOUS DOLOSTONE. LIGHTLY BUT VARIABLY SPECKLED WITH
ORGANICS. MINOR VUG-FILL, VEINLETS, AND EUHEDRAL SURFACE
COATINGS OF QUARTZ.

1623 - 1633 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
12% POROSITY: LOW PERMEABILITY, INTERGRANULAR
0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%, QUARTZ-01%
ORGANICS-01%
OTHER FEATURES: CALCAREOUS, LOW RECRYSTALLIZATION
COMPACT VERY CALCAREOUS DOLOSTONE.

1633 - 1638 CALCARENITE; GRAYISH ORANGE TO GRAYISH BROWN
15% POROSITY: LOW PERMEABILITY, INTERGRANULAR
GRAIN TYPE: BIOGENIC, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-20%, CALCILUTITE-25%
QUARTZ-06%, ORGANICS-02%
OTHER FEATURES: DOLOMITIC, GRANULAR
FOSSILS: ORGANICS
VARIABLY DOLOMITIC CALCARENITE WITH MINOR AMOUNTS OF QUARTZ
AS VEINLETS AND DRUSY COATINGS.

1638 - 1660 DOLOSTONE; GRAYISH ORANGE
15% POROSITY: LOW PERMEABILITY, PIN POINT VUGS
0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, QUARTZ-02%
OTHER FEATURES: CALCAREOUS, LOW RECRYSTALLIZATION

1660 - 1665 DOLOSTONE; GRAYISH ORANGE
12% POROSITY: LOW PERMEABILITY, INTERGRANULAR
0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, QUARTZ-08%, SHALE-02%
OTHER FEATURES: CALCAREOUS, GRANULAR
FOSSILS: ORGANICS
CALCAREOUS DOLOSTONE CONTAINING DRUSY QUARTZ ON SOME SURFACES. LAMINATED ORGANICS IN SOME OF THE DOLOSTONE.

1665 - 1686 DOLOSTONE; GRAYISH ORANGE
15% POROSITY: LOW PERMEABILITY, PIN POINT VUGS
0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-15%, QUARTZ-02%
ORGANICS-02%
OTHER FEATURES: CALCAREOUS, GRANULAR
FOSSILS: ORGANICS
CALCAREOUS DOLOSTONE. DOME ORGANIC LAMILLAE.

1686 - 1701 CALCILUTITE; VERY LIGHT ORANGE
12% POROSITY: LOW PERMEABILITY, INTERGRANULAR
PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, BIOGENIC
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-20%, QUARTZ-02%
ORGANICS-01%
OTHER FEATURES: DOLOMITIC, LOW RECRYSTALLIZATION
FOSSILS: ORGANICS
MODERATELY INDURATED DOLOMITIC CALCILUTITE. TRACE AMOUNTS ORGANIC LAMELLAE. DREDGING ZONE. LOW PERMEABILITY RESPONSE DURING DRILLING.

1701 - 1742 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
LOW PERMEABILITY; 0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-20%, ORGANICS-01%
OTHER FEATURES: CALCAREOUS, GRANULAR
FOSSILS: FOSSIL MOLDS, ORGANICS
CALCAREOUS DOLOSTONE, VARIABLY GRANULAR INTERBEDDED WITH OOLOMITIC VUGULAR CALCARENITE. SOME ORGANIC VARVES.

1742 - 1765 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: LOW PERMEABILITY, PIN POINT VUGS
INTERGRANULAR; 0-10% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-30%, ORGANICS-02%
OTHER FEATURES: CALCAREOUS, LOW RECRYSTALLIZATION, GRANULAR
FOSSILS: FOSSIL MOLDS, ORGANICS
INTERBEDDED PALE CALCILUTITIC DOLOMITE, DOLOMITIC CALCARENITE WITH INTERSTITIAL CALCITE, AND ORGANIC-RICH DOLOMITIC CALCARENITE. MINOR BLACK CHERT AT 1765 FT.

1765 TOTAL DEPTH