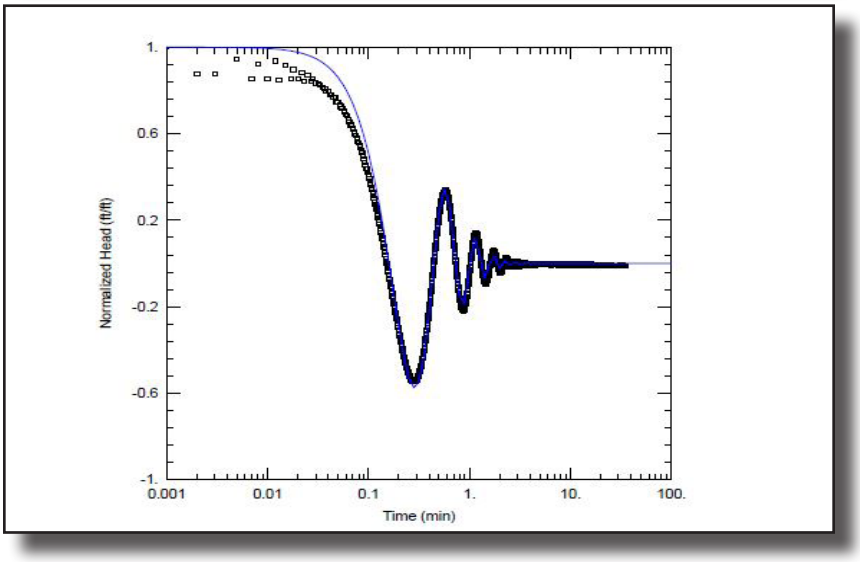
Southwest Florida
Water Management District

Hydrogeology and Water Quality of the Lower Floridan Aquifer below Middle Confining Unit II at the ROMP 74X - Davenport Well Site in Polk County, Florida



Southwest Florida Water Management District
Geohydrologic Data Section

July 2015

Cover: Clockwise from top left: 1. District UDR 200 LS coring rig set up at the ROMP 74X well site in Polk County in July 2007, 2. Lithologic core collected from 2,355 to 2,365 feet below land surface, 3. Graphic display of slug test conducted in the Lower Floridan aquifer.

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By Michael T. Gates, P.G.

July 2015

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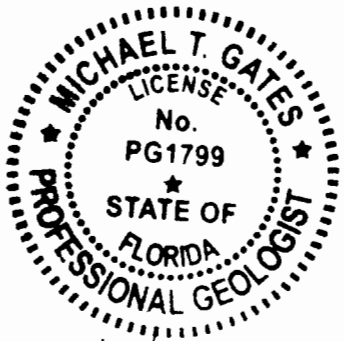
The hydrogeologic evaluations and interpretations contained in *Hydrogeology and Water Quality of the Lower Floridan Aquifer below Middle Confining Unit II at the ROMP 74X - Davenport Well Site in Polk County, Florida* have been prepared by or approved by a licensed Professional Geologist in the State of Florida, in accordance with Chapter 492, Florida Statutes.



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Date: 7/1/2015

Foreword

The Geohydrologic Data Section administers the Regional Observation and Monitor-well Program (ROMP) at the Southwest Florida Water Management District (District). The ROMP was started in 1974 in response to the need for hydrogeologic information by the District. The focus of the ROMP is to quantify the flow characteristics and water quality of the groundwater systems which serve as the primary source of water supply within southwest Florida. The original design of the ROMP consisted of an inland 10-mile grid network composed of 122 well sites and a coastal transect network composed of 24 coastal monitor transects of two to three well sites each. The number of wells at a well site varies with specific regional needs; usually two to five permanent monitor wells are constructed at each site. The numbering system for both networks generally increase from south to north with ROMP-labeled wells representing the inland grid network and TR-labeled wells representing the coastal transect network.

The ROMP networks have been the primary means for data collection; however, in recent years, changing District directives have created the need for more project-specific data collection networks outside the original two well networks for various programs throughout the District. The broad objectives at each well site are to determine the geology, hydrology, water quality, and hydraulic properties, and to install wells for long-term monitoring, depending on the goal of each project. Site activities include coring, testing, and well construction. These activities provide data for the hydrogeologic and groundwater quality characterization of the well sites. These characterizations are used to ensure the monitor wells are properly constructed. At the completion of each well site, a summary report is generated and can be found at the District's website at www.watermatters.org/data. The monitor wells form the backbone of the District's long-term aquifer monitoring networks, which supply critical data for the District's regional models and hydrologic conditions reporting.

Sandie Will

Manager

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Conversion Factors

Multiply	By	To obtain
	Length	
inch (in)	2.54	centimeter (cm)
foot (ft)	0.3048	meter (m)
mile	1.609	kilometer (km)
	Area	
acre	4,047	square meter (m^2)
	Mass	
ounce, avoirdupois (oz)	28.35	gram (g)
ton (short ton)	907.18474	kilograms (kg)
	Volume	
gallon (gal)	3.785	liter (L)
gallon (gal)	0.003785	cubic meter (m^3)
	Flow Rate	
gallons per minute (gpm)	0.003785	cubic meters per minute (m^3/min)

Acronyms and Abbreviations

APT	aquifer performance test
BLS	below land surface
CGWQMN	Coastal Groundwater Quality Monitoring Network
CME	Central Mining Equipment
District	Southwest Florida Water Management District
GEO	Geohydrologic Data Section
MIA	Most Impacted Area
ROMP	Regional Observation and Monitor-well Program
SWUCA	Southern Water Use Caution Area
UDR	Universal Drill Rig
WMIS	Water Management Information System

Hydrogeology and Water Quality of the Lower Floridan Aquifer below Middle Confining Unit II at the ROMP 74X - Davenport Well Site in Polk County, Florida

By Michael T. Gates, P.G.

Introduction

The Southwest Florida Water Management District's (District) Geohydrologic Data Section conducted a hydrogeologic investigation of the Lower Floridan aquifer below "middle confining unit II" (Miller, 1986) at the Regional Observation and Monitor-well Program (ROMP) 74X well site from October 2010 to February 2011. Deep exploratory core drilling and testing was conducted from 1,427 feet below land surface (bls) to 2,777 feet bls to delineate the permeable and confining sections of the Lower Floridan aquifer and determine the vertical extent of freshwater.

The exploratory core drilling began at the bottom of the existing Lower Floridan aquifer (L FLDN AQ MONITOR) monitor well at the ROMP 74X well site. Permanent monitor wells were previously constructed in the surficial aquifer, Upper Floridan aquifer and Lower Floridan aquifer at the site from May 2003 to July 2004 and September 2004 to January 2005. The hydrogeology, water quality, and hydraulic parameters of the ROMP 74X well site were previously delineated from land surface to 1,560 feet bls while core drilling and testing from October 2002 to June 2003. The results are presented in *Hydrogeology of the ROMP 74X Davenport Monitor Well Site, Polk County, Florida, Final Report* (Gates, 2006). The top of the Lower Floridan aquifer was identified at 1,250 feet bls during the previous exploration.

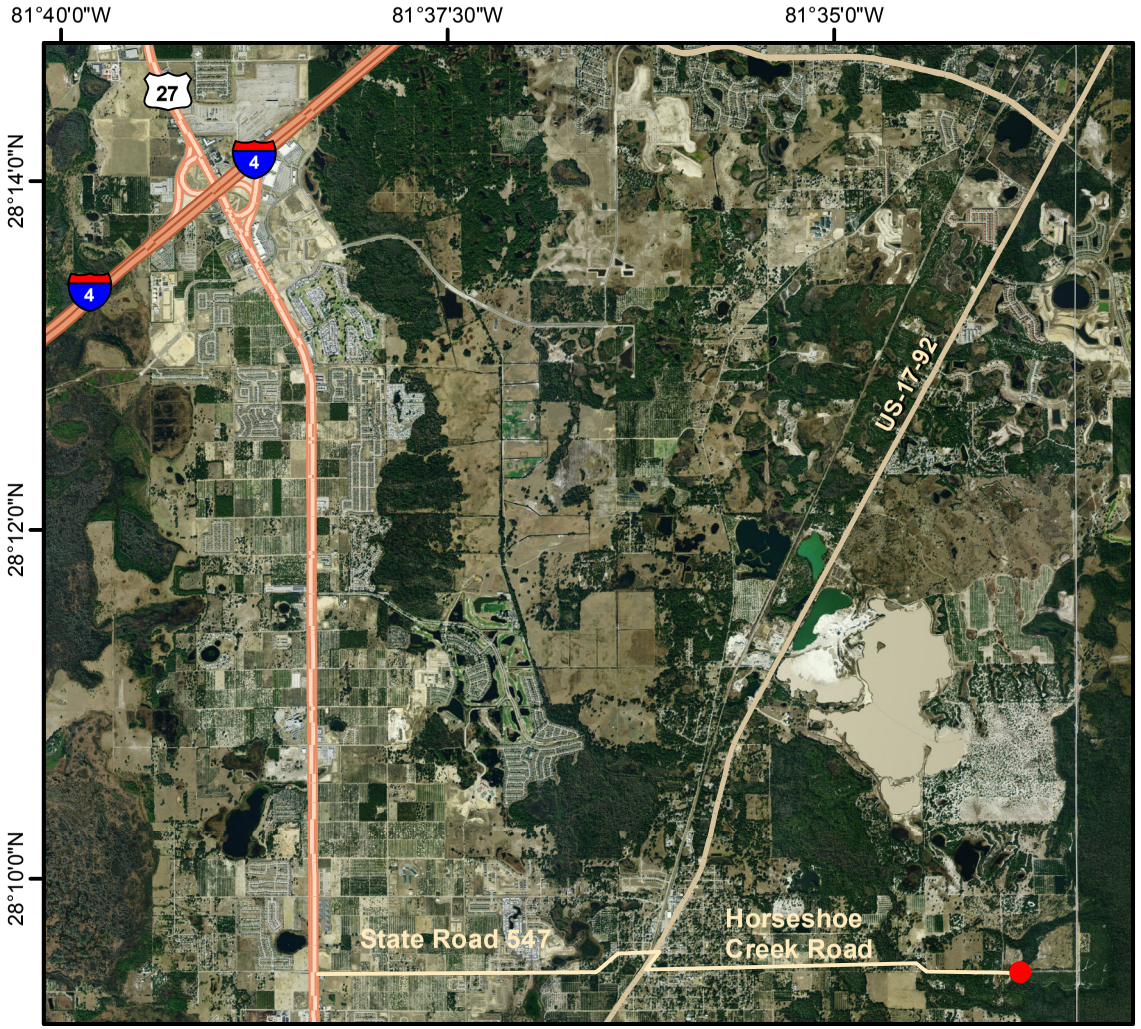
The ROMP 74X well site is located within the District's Heartland Planning Region, which includes Hardee County, and portions of Polk and Highlands counties (fig. 1). The population of this region is projected to increase from 619,628 in 2005 to 874,525 in 2030. Demand for water from all users in this area is projected to increase from 380 million gallons per day (mgd) in 2005 to 509 mgd in 2030, a 34 percent increase (SWFWMD, 2011). The Upper Floridan aquifer has historically provided most of the groundwater used in the area. In 2006, approximately 96 percent of the 380 mgd of water used in the region was from traditional groundwater. Additional sources will be required to meet the demand for freshwater in the future. The Lower Floridan aquifer is being evaluated as a potential alternative water supply source for the area (SWFWMD, 2011).

Purpose and Scope

This report presents the results of an investigation of the Lower Floridan aquifer below middle confining unit II at the ROMP 74X - Davenport well site. Exploratory coring and testing was planned from 1,560 feet bls to 3,000 feet bls in the Lower Floridan aquifer. The scope of work for the ROMP 74X well site is detailed in the Regional Observation and Monitor-well Program Work Plan 2009-2013 (Mallams and Janosik, 2009). The objectives of the study were to: (1) delineate the vertical extent of middle confining unit II; (2) characterize the water quality, thickness, and productivity of the Lower Floridan aquifer below middle confining unit II; and (3) construct a long-term ground water monitoring well in the Lower Floridan aquifer at the ROMP 74X well site. Information presented in this report consists of lithologic, hydraulic, geophysical, and water quality data collected from October 2010 to February 2011. Data collected from this well site are available online in the District's Water Management Information System (WMIS). The WMIS can be accessed at the following web address: http://www18.swfwmd.state.fl.us/ResData/Search/ExtDefault.aspx.

Site Location

The ROMP 74X well site is located in the Lake Wales Ridge physiographic province (White, 1970) in northeast Polk County at the eastern border of the District. The site is located on a 130-acre parcel of District-owned land adjacent to the Lake Marion Creek Wildlife Management Area (WMA) in the South Florida Water Management District. The site can be found by taking exit 55 off Interstate 4 in Polk County and driving south on Highway 27 for 5.3 miles to County Road 547. Drive east on County Road 547 for 2.3 miles to Highway 17 in the City of Davenport. Drive south on Highway 17 for two blocks to Palmetto Street. Drive east on Palmetto Street (Palmetto Street becomes Horseshoe Creek Road) for 2.4 miles to the Lake Marion Creek WMA entrance. The ROMP 74X well site is located just inside the Lake Marion Creek WMA gate (fig. 2).



Base from Southwest Florida Water Management District digital orthophoto, 2011
NAD 1983 HARN StatePlane Florida West FIPS 0902 Feet Projection

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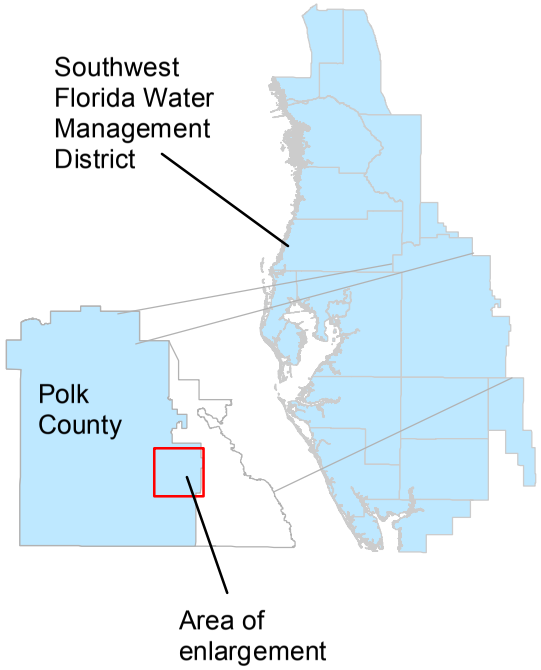
0 0.75 1.5 Kilometers



EXPLANATION

● ROMP 74X - Davenport Well Site
Section/Township/Range: 12/27South/27East
Latitude: 28 09 23.70
Longitude: 81 33 54.90

From I-4 take exit 55 south to Highway 27. Drive south on Highway 27 for 5.3 miles, turn east onto Davenport Boulevard (State Road 547). Drive east for 2.3 miles to Highway 17. Drive south on Highway 17 for 2 blocks. Turn east onto Palmetto Street. Drive east on Palmetto Street (becomes Horseshoe Creek Road) for 2.4 miles to the entrance of the Lake Marion Creek Wildlife Management Area. The well site is located inside the gate to the south.

Figure 1. Location of the ROMP 74X – Davenport well site in Polk County, Florida.

Figure 2. Well site layout of the ROMP 74X – Davenport well site in Polk County, Florida.

The well site is located in the northwest ¼ of the northeast ¼ of Section 12, Township 27 South, Range 27 East at latitude 28° 09' 23.70" and longitude 81° 33' 54.90" (fig. 2). Elevation at the site is approximately 90 feet above the National Geodetic Vertical Datum of 1929 (NGVD 29). The site is located in the Davenport Quadrangle – 7.5 minute series published by the United States Geological Survey. The permanent well site is located within a 20 foot x 80 foot perpetual easement.

Methods

The Geohydrologic Data Section uses a variety of methods for the collection of lithologic, water level, water quality, and hydraulic data. Wireline core samples were collected for lithologic description. Water level data was measured with pressure transducers and electronic water level meters. Water quality samples were collected from isolated intervals while core drilling using an off-bottom inflatable packer. Hydraulic data were collected from slug tests conducted during wireline core drilling. In addition, geophysical logs and borehole video logs were collected at various intervals while core drilling. A detailed description of the data collection methods is presented in appendix A.

Lithologic Sampling

The District-owned Universal Drill Rig (UDR) 200D LS hydraulic-rotary core drilling rig was used to conduct the exploratory core drilling in the Lower Floridan aquifer. Core drilling was initiated at 1,427 feet bls at the bottom of the previously constructed Lower Floridan aquifer monitor well (L FLDN AQ MONITOR NEW) located on the ROMP 74X perpetual easement. This well was designed with an 8-inch diameter steel casing installed to 1,250 feet bls to accommodate further exploration of the Lower Floridan aquifer and is designated as core hole 3. Wireline core samples were collected continuously from 1,427 to 2,777 feet bls using a three-inch diameter, ten foot long core barrel. Core drilling was terminated on February 22, 2011, at 2,777 feet bls after encountering drilling problems. It was determined the core rods broke at 2,614 feet bls.

Slug Testing

Slug testing was performed to estimate the hydraulic parameters of the aquifers and confining units. Seven slug tests were performed during the exploratory core drilling between 1,617 and 2,587 feet bls. Five slug tests were previously conducted in the middle confining unit II and Lower Floridan aquifer while core drilling between 1,100 and 1,486 feet bls in 2002 and 2003. An off-bottom packer was used during both phases of exploratory core drilling to isolate specific intervals of the borehole. The slug tests were conducted in the nominal 3-inch exploratory core hole.

Water Quality Sampling

Four groundwater samples were collected from the Lower Floridan aquifer while core drilling between 1,427 feet bls and 2,777 feet bls. Three groundwater samples were previously collected in the Lower Floridan aquifer while core drilling between 1,256 and 1,486 feet bls in 2002 and 2003. The groundwater samples were collected using the off-bottom packer to isolate specific sections of the borehole. The off-bottom packer was installed at the selected depth, and the interval between the packer and the bottom of the borehole was pumped using the reverse-air lifting method or a submersible pump. A portion of each sample was analyzed in the field for temperature, specific conductance, pH, chloride and sulfate. The remainder of each sample was bottled and delivered to the District's Environmental Chemistry Laboratory for more extensive analyses. The groundwater samples were collected in accordance with established protocols (SWFWMD, 2009).

Geophysical Logging

Borehole geophysical logs are used to help delineate stratigraphic units, identify permeable sections, determine casing and borehole conditions, and to calculate borehole volumes for grouting. Logs were run on three occasions during the Lower Floridan aquifer exploration phase (table1). The first suite of logs was run on March 10, 2011 in the nominal 3-inch core hole after drilling was stopped at 2,777 feet bls.

The 8044C multifunction tool was run in the open hole interval below the 3-inch HQ casing installed to 1,362 feet bls. The log was run from 1,362 to 2,604 feet bls. The HQ casing was pulled up to 1,190 feet bls and the 9064A caliper log was run in the open hole from 1,190 to 2,604 feet bls. An obstruction in the borehole stopped the geophysical tools at 2,604 feet bls. The remaining open hole interval between 2,604 feet bls and 2, 777 feet bls could not be logged. The induction tool was run in the borehole on March 22, 2011 from 1,386 feet bls to 2,605 feet bls. The multifunction tool was run on May 11, 2011 in the Lower Floridan aquifer well after the 3-inch temporary casing had been removed and the core hole had been back plugged from 2,777 feet bls to 1,334 feet bls. All geophysical logs were collected using the District-owned Century® geophysical logging equipment.

Well Construction

The exploratory core drilling was terminated at 2,777 feet bls on February 22, 2011. From March 2011 to April 2011, District staff back plugged core hole 3 from 2,777 feet bls to 1,352 feet bls using cement grout. A geophysical logging tool

Table 1. Summary of borehole geophysical logs collected while core drilling in the Lower Floridan aquifer at the ROMP 74X - Davenport well site in Polk County, Florida.

[bls, below land surface; PVC, poly-vinyl chloride; TEMP, temporary; U FLDN AQ , Upper Floridan aquifer]

Date	Geophysical tool number	Geophysical logs	Borehole Diameter (inches)	Casing Type	Casing Depth (feet BLS)	Total Depth (feet BLS)	Reason for Logging
3/10/2011	9064A	Caliper/gamma	3	Steel	1,362	2,604	Collect logs at end of coring
3/10/2011	8044C	Multifunction[1]	3	Steel	1,190	2,604	Collect logs at end of coring
3/22/2011	9512C	Induction	3	Steel	1,386	2,605	Collect logs at end of coring
5/11/2011	8044C	Multifunction	3	PVC	1,190	1,334	Collect logs after back-plugging

[1] Multifunction- includes natural gamma, 16-inch normal resistivity, 64-inch normal resistivity, fluid resistivity, lateral resistivity, spontaneous potential, single point resistance, temperature and delta temperature

Table 2. Well construction details for the Lower Floridan aquifer monitor well at the ROMP 74X Davenport well site in Polk County, Florida.

[bls, below land surface; deg, degrees; min, minutes; sec, seconds; L FLDN AQ, Lower Florida aquifer; NGVD 29, National Geodetic Vertical Datum of 1929; SID, site identification; TOC, top of casing; WCP, well construction permit]

Well Name	SID	WCP	Well Type	Well Diameter (inches)	Casing Depth (feet bls)	Total Depth (feet bls)	Water Level (feet NGVD29) 6/3/2014	Latitude (deg min sec)	Longitude (deg min sec)
L FLDN AQ MONITOR NEW	777957	811480	Open Hole	8	1,250	1,352	95.33	28 09 23.70	81 33 54.90

run in the borehole on May 11, 2011, stopped at 1,334 feet bls. A video log run in the borehole on May 12, 2011, showed carbonate rocks from the borehole wall obstructing the borehole at around 1,334 feet bls. The obstruction did not affect the water level in the borehole so no attempt was made to remove the obstruction. An as-built diagram of the modified Lower Floridan aquifer monitor well is presented in figure 3. Table 2 presents the well construction details. The Lower Floridan aquifer monitor well was equipped with water-level recorders in August 2011.

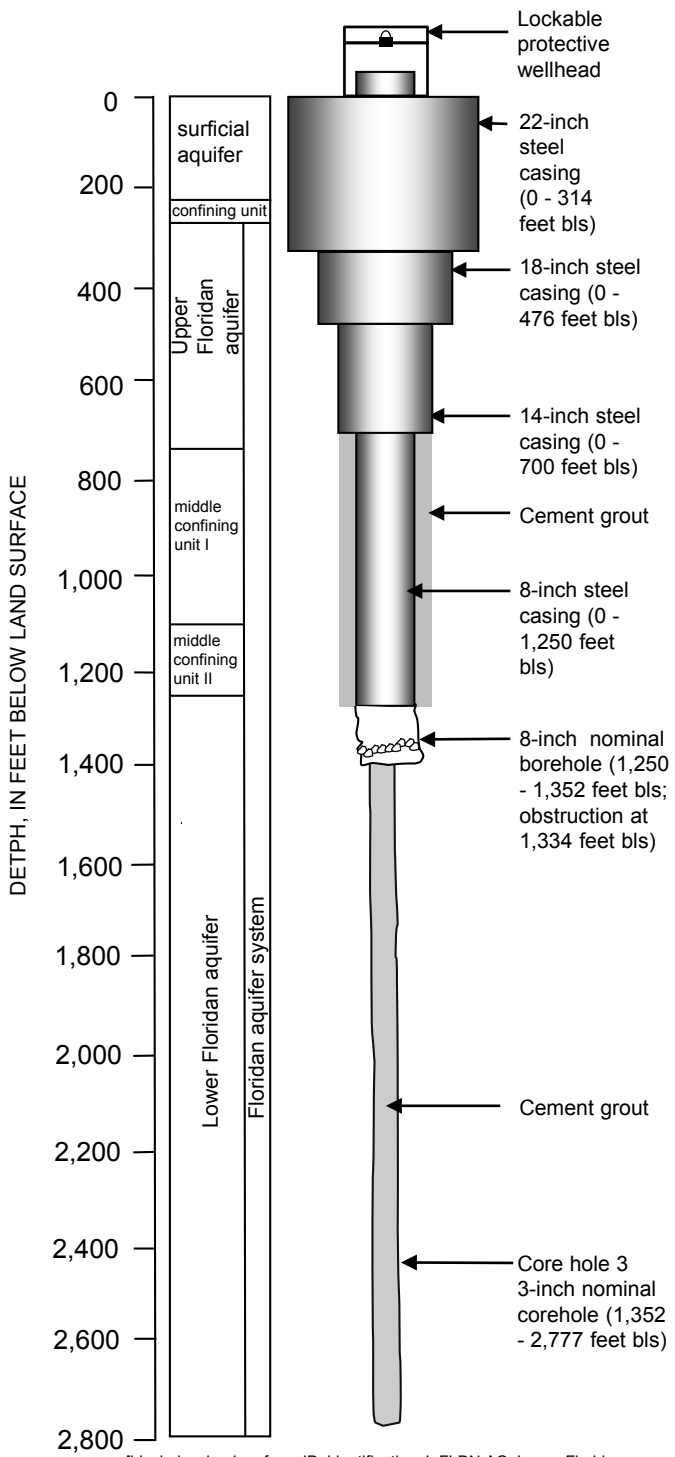
Geology

The stratigraphy at the ROMP 74X well site was previously delineated from land surface to 1,560 feet during the exploratory core drilling phase conducted from October 2002 to June 2003. A description of the geologic units encountered are presented in *Hydrogeology of the ROMP 74X Davenport Monitor Well Site, Polk County, Florida, Final Report* (Gates, 2006).

This report delineates the stratigraphy encountered from 1,560 feet bls to 2,777 feet bls, the total exploration depth during core drilling. The geologic units encountered, in ascending order are: the Cedar Keys Formation, Oldsmar Formation, and the Avon Park Formation. A depiction of the entire stratigraphy and hydrogeology underlying the study area is shown in figure 4. The lithologic logs collected from the this exploratory core drilling phase, corehole 3 (1,560 to 2,777 feet bls), as well as the two previous exploratory core drilling phases, corehole 1 (0 to 406 feet bls), and corehole 2 (256 to 1,560 feet bls) are presented in appendix B. Digital photographs of the corehole 3 samples are presented in appendix C.

Cedar Keys Formation

The Cedar Keys Formation is late Paleocene in age and extends from 2,554 feet bls to more than 2,777 feet bls (the



[bls, below land surface; ID, identification; L FLDN AQ, Lower Floridan aquifer; NE, northeast; NW, northwest; SID, site identification; S/T/R, section, township, range, WCP, well construction permit]

WCP#	811480
SID#	777957
S/T/R	NW ¼ NE ¼ 12/27S/27E
Latitude	28 09 23.70
Longitude	81 33 54.90
Well ID	L FLDN AQ MONITOR NEW

Figure 3. Lower Floridan aquifer monitor well as-built diagram at the ROMP 74X – Davenport well site in Polk County, Florida.

end of core drilling exploration) at the ROMP 74X well site. The formation primarily consists of alternating layers of dolostone and anhydrite. Packstone is present at the top of the formation and some mudstone intervals are present to 2,583.1 feet bls. The dolostone is hard, dense, and crystalline with grain size ranging from microcrystalline to coarse. Lenses and nodules of anhydrite are abundant below 2,587 feet bls. These low permeability sediments form the base of the Floridan aquifer system in most of peninsular Florida (Miller, 1986). Core recovery in the Cedar Keys Formation was 100 percent.

Oldsmar Formation

The Oldsmar Formation is early Eocene in age and extends from 1,676 to 2,554 feet bls. The Oldsmar Formation consists of white to gray limestone with alternating beds of crystalline dolostone. Anhydrite-filled nodules, fractures, and fossil molds are common. Minor amounts of glauconite, pyrite and organics were also present. The limestone varies from mudstone to packstone. The dolostone is well indurated but becomes less dense and more calcareous below 2,200 feet bls. This is indicated by the decrease in resistivity on the geophysical resistivity logs (appendix D.) Secondary porosity is present in moldic sections of the formation lacking the anhydrite infilling. Core recovery in the Oldsmar Formation was 100 percent.

Avon Park Formation

The Avon Park Formation is middle Eocene in age and extends from 381 feet bls to 1,676 feet bls. The Avon Park Formation consists of alternating layers of fossilifer-ous limestone and dolostone of varying induration. Fossils are common and include benthic foraminifera and echinoids. Clay, organics, and quartz sand are also present. The limestone varies from mudstone to packstone and is more common in the upper section of the formation. The dolostone is moldic, moderately indurated, and highly fractured in some intervals. The dolostone grains range from anhedral to euhedral and grain size ranges from microcrystalline to medium. Gypsum and anhydrite is present as infills in some vugs and fossil molds and as thin beds and nodules in the lower section of the formation. The core recovery rate in the Avon Park Formation averaged 100 percent while core drilling from 1,427 feet bls to 1,676 feet bls.

Hydrogeology

The hydrogeology of the ROMP 74X site was previously delineated from land surface to 1,560 feet bls during the exploratory core drilling conducted from October 2002 to June 2003. The hydrologic units delineated at that time include in descending order: the surficial aquifer, a confining unit,

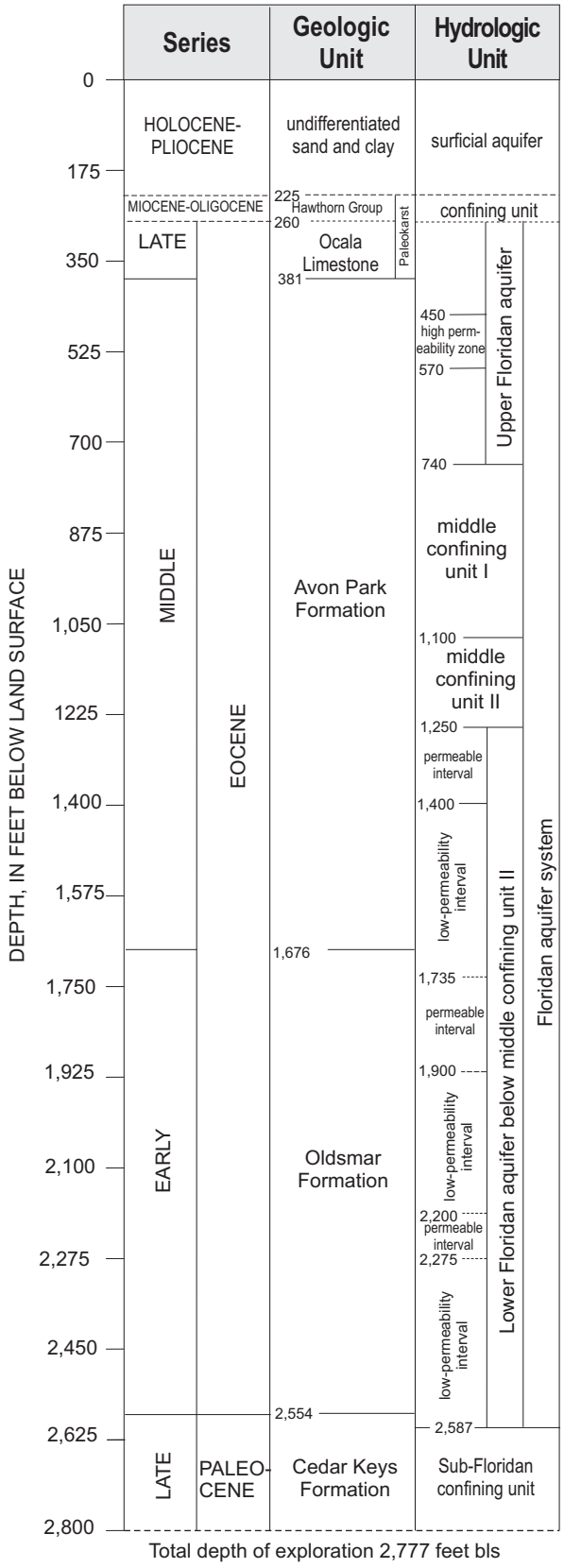


Figure 4. Stratigraphic column detailing the hydrogeologic setting at the ROMP 74X – Davenport well site in Polk County, Florida.

the Upper Floridan aquifer, middle confining unit I, middle confining unit II, and the partial extent of the Lower Floridan aquifer below middle confining unit II. This report delineates the total extent of the Lower Floridan aquifer below middle confining unit II. The naming conventions used in this report are consistent with guidelines proposed by Laney and Davidson (1986) and the North American Stratigraphic Code (2005). A comparison of nomenclature used in this report (District nomenclature that is not site-specific) and previously published reports in presented in appendix E.

Lower Floridan aquifer below Middle Confining Unit II

The Lower Floridan aquifer below middle confining unit II (Lower Floridan aquifer) extends from 1,250 feet bls to approximately 2,587 feet bls. The top of the Lower Floridan aquifer was identified as the first permeable interval below middle confining unit II, a sequence of evaporite-rich carbonates extending from 1,100 feet bls to 1,250 feet bls. Miller (1986) estimated the top of the Lower Floridan aquifer at 1,150 feet bls in the area of the ROMP 74X well site. The Lower Floridan aquifer consists of the Avon Park Formation, Oldsmar Formation, and small portion of the Cedar Keys Formation at the ROMP 74X well site. Miller (1986) describes the Lower Floridan aquifer in southern Florida as “a thick sequence of largely low-permeability rocks separated by thin permeable zones”. The Lower Floridan aquifer at the ROMP 74X site consists of three thin permeable units alternating with thick sequences of low-permeability carbonates.

The first permeable interval extends from 1,250 to 1,400 feet bls in the Avon Park Formation. This permeable zone consists of moldic and fractured dolostone lacking gypsum. In 2005 a single well aquifer test was conducted when the open hole interval of this well extended from 1,250 to 1,400 feet bls. The results of the test showed an estimated transmissivity of 16,500 feet^2/day and an estimated hydraulic conductivity of 109 feet/day (Gates, 2006).

Low-permeability carbonate rocks of the Avon Park and Oldsmar Formations extend from 1,400 to 1,735 feet bls. These sediments consist of very dense, crystalline dolostone and dolomitic limestone with interbedded anhydrite. Beds of anhydrite up to two feet thick were encountered throughout this interval. A falling head slug test using fluid as the slug was conducted from 1,617 to 1,667 feet bls (table 3). This test was deemed invalid because it appeared some of the fluid from the slug adhered to the surface of the core rods before impacting the surface of the water located 50 feet bls. The resulting water level displacement was much lower than expected.

The second permeable interval extends from 1,735 to 1,900 feet bls in the Oldsmar Formation. This interval consists of fractured and moldic limestone. A slug test conducted from 1,717 to 1,817 feet bls yielded an estimated hydraulic conductivity value of 12 feet/day (table 3 and fig .5). An increase in

Table 3. Summary of the core hole slug test results performed while core drilling in the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida

[bls, below land surface; LFA, Lower Floridan aquifer; MCU, middle confining unit; MM, month; DD, day; YYYY, year; NA, not applicable; No., number]

Slug Test No.	Date (MM/DD/YYYY)	Test Interval (feet bls)	Visual Lithologic Characterization	Aquifer or Confining Unit Tested	Analytical Method	Estimated Hydraulic Conductivity (feet/day)	Test Initiation Method	Comments
15[1]	4/29/2003	1,100 - 1,1136	Dolostone, gypsum	MCU II	KGS (Hyder and others, 1994)	0.04	Fluid Slug	-
16[1]	5/6/2003	1,196 - 1,226	Dolostone, gypsum	MCU II	KGS (Hyder and others, 1994	0.01	Fluid Slug	-
17[1]	5/12/2003	1,256 - 1,286	Permeable dolostone	LFA below MCU II	Butler	3	Fluid Slug	-
18[1]	5/21/2003	1,351 - 1,381	Fractured dolostone	LFA below MCU II	Butler	3	Fluid Slug	-
19[1]	5/30/2003	1,456 - 1,486	Dolostone, gypsum	LFA below MCU II	KGS (Hyder and others, 1994	0.9	Fluid Slug	-
1	10/27/2010	1,617- 1,667	Dolostone, gypsum	LFA below MCU II	NA	NA	Fluid Slug	Test invalid - depth to water too deep for fluid slug
2	11/10/2010	1,717 - 1,817	Wackestone	LFA below MCU II	Butler-Zhan (2004)	12	Pneumatic	-
3	11/22/2010	1,917 - 1,977	Dolostone	LFA below MCU II	KGS (Hyder and others, 1994)	0.2	Pneumatic	-
4	1/20/2011	2,195 - 2,237	Dolostone, moldic	LFA below MCU II	Butler-Zhan (2004)	83	Pneumatic	-
5	1/31/2011	2,347 - 2,387	Dolostone, gypsum	LFA below MCU II	NA	NA	Pneumatic	Test invalid - water level did not move - too confining
6	2/15/2011	2,437 - 2,587	Dolostone, gypsum	LFA below MCU II	KGS (Hyder and others, (1994)	0.02	Solid slug	-
7	2/16/2011	2,437 - 2,587	Dolostone, gypsum	LFA below MCU II	KGS (Hyder and others, (1994)	0.02	Solid slug	-

1 Slug tests conducted during previous exploratory core drilling phase conducted from December 2002 to May 2003

the permeability of the rocks is also indicated by a decrease in resistivity between 1,700 and 1,875 feet bls (appendix D).

Low permeability crystalline dolostone and limestone with abundant gypsum and anhydrite filled molds and nodules of the Oldsmar Formation extend from 1,900 to 2,200 feet bls. Numerous fossil molds of corals, foraminifera, and echinoids are also present. A hydraulic conductivity estimate of 0.2 feet/day was obtained from a slug test conducted from 1,917 to 1,977 feet bls (table 3 and fig. 5).

A third permeable interval extends from approximately 2,200 to 2,275 feet bls in the Oldsmar Formation. This interval consists mainly of crystalline dolostone with two intervals of gypsum filled molds and nodules. Fractures, molds, and pinpoint vugs are primarily responsible for the porosity and per-

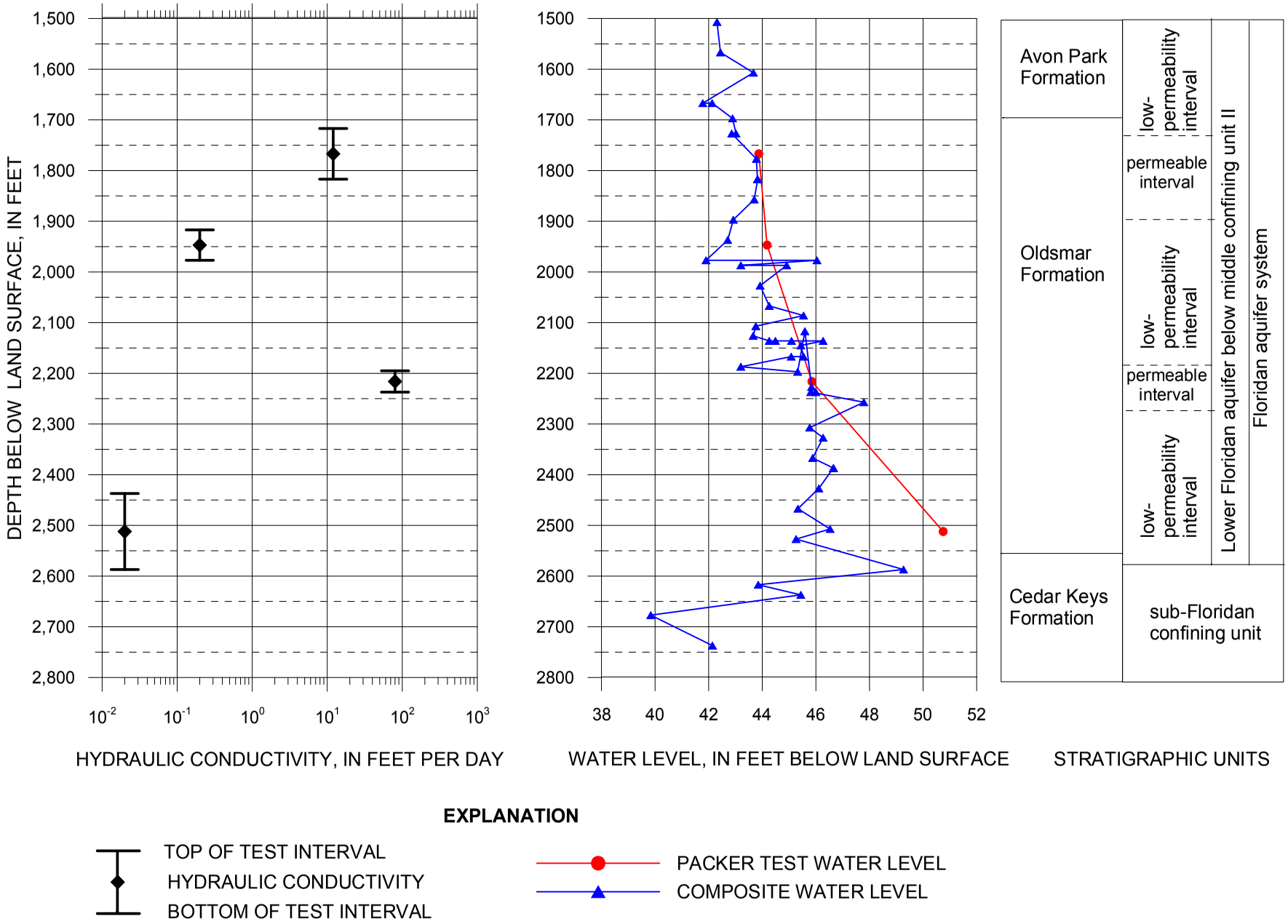


Figure 5. Water levels and hydraulic conductivity estimates from packer tests conducted while exploratory core drilling in the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida.

meability within the interval. A slug test conducted from 2,195 to 2,237 feet bls produced a hydraulic conductivity estimate of 83 feet/day (table 3 and fig. 5).

Low permeability carbonates extend from 2,275 feet bls to 2,587 feet bls. The interval consists of crystalline dolostones and limestones with frequent beds and nodules of gypsum and anhydrite. Slug tests were conducted at intervals from 2,347 to 2,387 feet bls and 2,437 to 2,587 feet bls. The hydraulic conductivity of the slug test from 2,347 to 2,387 feet bls could not be estimated because the water level movement during the test was too small to measure. This indicates the test interval porosity is too low to allow movement of water into the formation. The slug test conducted from 2,437 to 2,587 feet bls yielded a hydraulic conductivity estimate of 0.02 feet/day (table 3 and fig. 5). The horizontal hydraulic conductivity of the Lower Floridan aquifer below middle confining unit II ranged from 0.02 to 83 feet/day with a geometric mean of 1foot/day (table 3, fig. 5). The slug test curve matches are presented in appendix F.

The water level in the Lower Floridan aquifer ranged from a high of 33.3 feet bls on February 23, 2011 at a coring depth of 2,677 feet bls to a low of 49.3 feet bls on February 16, 2011 at coring depth of 2,587 feet bls. Water levels generally increased with depth while coring, until reaching 2,587 feet bls. Water levels decreased while coring from 2,587 feet bls to 2,777 feet bls. The water level data records are presented in appendix G.

Sub-Floridan Confining Unit

The base of the Lower Floridan aquifer is formed by the sub-Floridan confining unit, which consists of low-permeability carbonate rocks with abundant gypsum and anhydrite (O'Reilly and others, 2002). The lithologic description and hydraulic characteristics of the Cedar Keys Formation extending from 2,587 to 2,777 feet bls at the ROMP 74X site are consistent with the sub-Floridan confining unit. Additionally, Miller (1986) suggests the base of the Lower Floridan aquifer is approximately 2,700 feet bls in the area of the ROMP 74X well site.

Groundwater Quality

Three groundwater samples were collected between 1,256 and 1,486 feet bls during the previous exploratory core drilling phase conducted from October 2002 to June 2003. Four groundwater samples were collected during exploratory core drilling between 1,427 and 2,777 feet bls. The laboratory analyzed sample results are presented in table 4 and the field analyzed results are presented in appendix H-1. The national secondary drinking water standards for total dissolved solids (TDS), sulfate, chloride, and iron are 500 milligrams per liter (mg/L), 250 mg/L, 250 mg/L, and 0.3 mg/L (300 micrograms per liter, µg/L) respectively (U.S. Environmental Protection Agency, 2011).

The results of the laboratory analyses show that most of the groundwater samples collected from the Lower Floridan aquifer below middle confining unit II exceed the parameters for secondary drinking water standards. The chloride concentration ranges from 7 to 1,850 mg/L, iron concentration ranges from less than 13 µg/L (0.013 mg/L) to 16,700 µg/L (16.7 mg/L), sulfate concentration ranges from 320 to 2,970 mg/L, and TDS ranges from 615 to 6,160 mg/L (table 4 and fig. 6).

The water types determined for each sample are identified by the predominant cation and anion, reported in milliequivalents per liter (meq/L). The equivalent weights and water types, and select molar ratio calculations for the laboratory analyzed samples are presented in appendix H-2 and H-3, respectively. Select molar ratio changes in the water quality with depth are shown in figure 7. The major ions concentrations for the samples collected are presented graphically on a Piper (1944) diagram (fig. 8).

The predominant water type for the Lower Floridan aquifer below middle confining unit II is calcium sulfate. The likely source for the calcium and sulfate in the groundwater is from the dissolution of gypsum (CaS04 * 2H2O) and anhydrite (CaSO4), in less permeable sections of the aquifer. The deepest sample collected, from 2,207 to 2,777 feet bls, was a mixed-cation chloride type. This change in water type is because of an increase in chloride and sodium concentrations. The increase in sodium and chloride may be from relict seawater (O'Reilly and others, 2002).

Summary

A hydrogeologic investigation of the Lower Floridan aquifer below middle confining unit II was conducted at the ROMP 74X – Davenport well site in Polk County, Florida from October 2010 to February 2011. Exploratory core drilling and testing was performed from 1,560 to 2,777 feet bls to delineate the vertical extent of middle confining unit II and characterize the permeability, water quality and vertical extent of the Lower Floridan aquifer below middle confining unit II. The hydrogeology of the ROMP 74X – Davenport well site from land surface to 1,560 feet bls was delineated during a previous phase of work completed in June 2003.

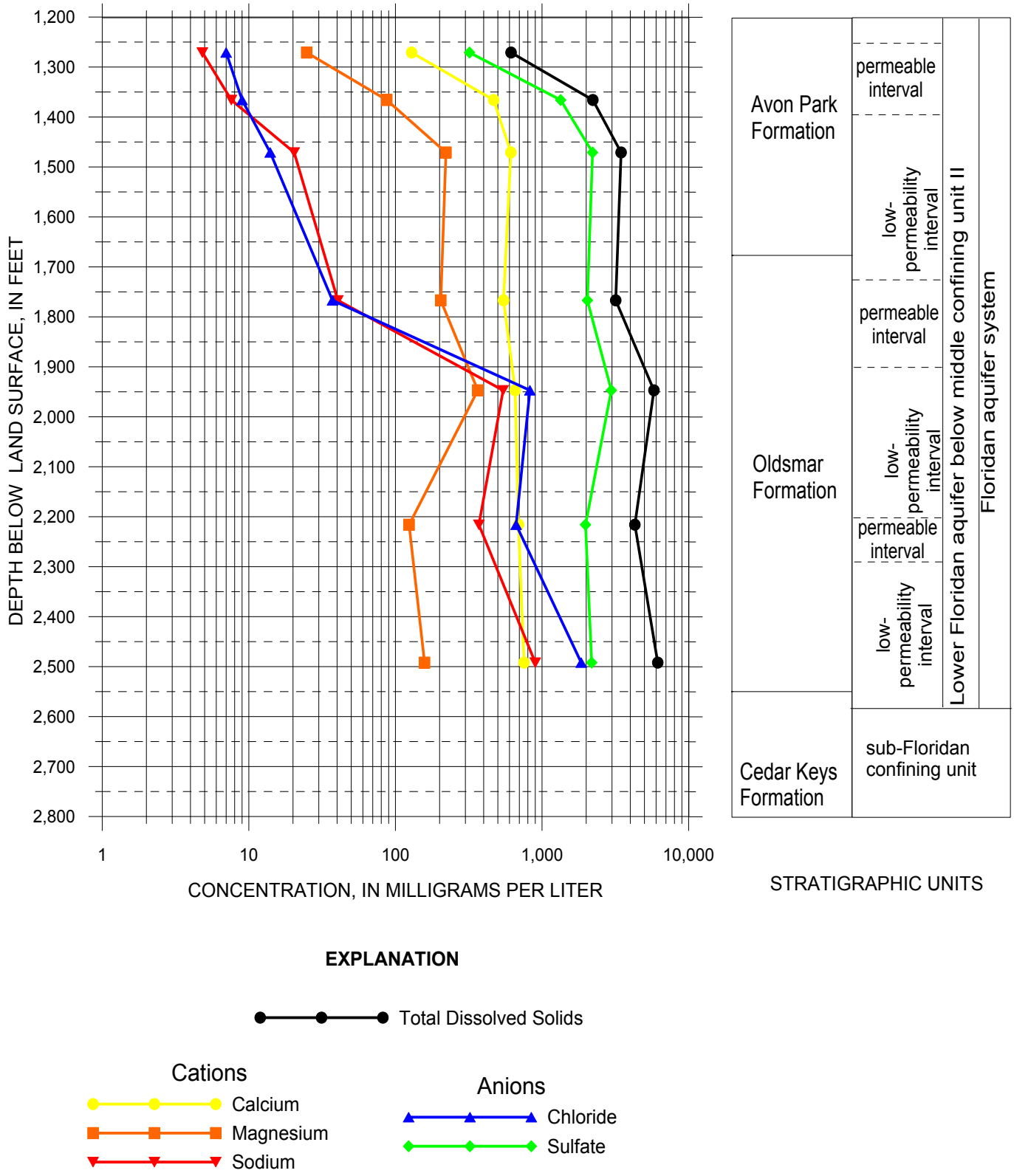
The Lower Floridan aquifer extends from 1,250 to approximately 2,587 feet bls. The geologic formations delineated include in ascending order: the Cedar Keys Formation, the Oldsmar Formation, and the Avon Park Formation. The portion of the Cedar Keys Formation included in the Lower Floridan aquifer extends from 2,554 to 2,587 feet bls. The Cedar Keys Formation primarily consists of dolostone with beds and nodules of anhydrite and gypsum. The Oldsmar Formation extends from 1,676 to 2,554 feet bls and consists of limestone and crystalline dolostone with beds of gypsum and anhydrite and fossil molds filled with anhydrite. The Avon

Table 4. Results of the laboratory analyzed groundwater samples collected from the Lower Floridan aquifer at the ROMP 74X - Davenport well site.

[All samples collected from core hole; Corehole universal identification # 3082-24620; All samples collected from discharge line except where noted; bls, below land surface; °C, degrees Celsius; SU, standard units; umohs/cm, micromohs per centimeter; mg/L, milligrams per liter; NM, not measured]

						MAJOR ANIONS		MAJOR CATIONS								
Monitor Well SID	Date	Time	Open Interval (feet bls)	pH (SU)	Specific Conductance (umohs/cm)	Cl $^{1-}$ (mg/L)	SO4 ^{2} (mg/L)	Ca $^{2-}$ (mg/L)	Mg $^{2-}$ (mg/L)	Na $^{-}$ (mg/L)	K $^{-}$ (mg/L)	Fe $^{2-}$ (mg/L)	Sr $^{2-}$ (mg/L)	Si as SiO_2 (mg/L)	Total Dissolved Solids (mg/L)	Total Alkalinity $CaCO_3$
735450	5/12/2003[1]	12:45	1,256-1,2861	7.89	792	7	320	129	24.8	4.82	1.2	<13	7.05	10.7	615	84.8
735450	5/21/2003[1]	13:00	1,351-1,3811	7.91	2280	9	1340	468	87.2	7.6	1.99	498	8.87	13.2	2220	103
735450	5/30/2003[1]	12:00	1,456-1,4861	7.84	3360	14	2210	613	221	20.4	9.9	71	12.3	16.5	3460	119
777954	11/10/2010	16:10	1,717-1,817	7.09	3080	37.2	2040	546	204	40.50	8.09	128	11	19.5	3180	107.3
777954	11/23/2010	15:35	1,917-1,977	7.11	6620	827.0	2970	656	365	543	26.50	334	11	19.0	5800	113.6
777954	1/20/2011	14:15	2,195-2,237	7.61	5100	666.0	1980	691	124	371	26.10	187	12	18.5	4300	116.6
777954	3/23/2011	17:30	2,207-2,777	7.47	8580	1850.0	2180	754	158	900	40.4	16700	14	10.5	6160	72.1

[1]Samples collected during previous exploratory coring phase conducted from December 2002 to May 2003.



Depth represents the middle of the discrete open interval at the time of sampling.

Figure 6. Select parameter concentrations for groundwater samples collected from the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida.

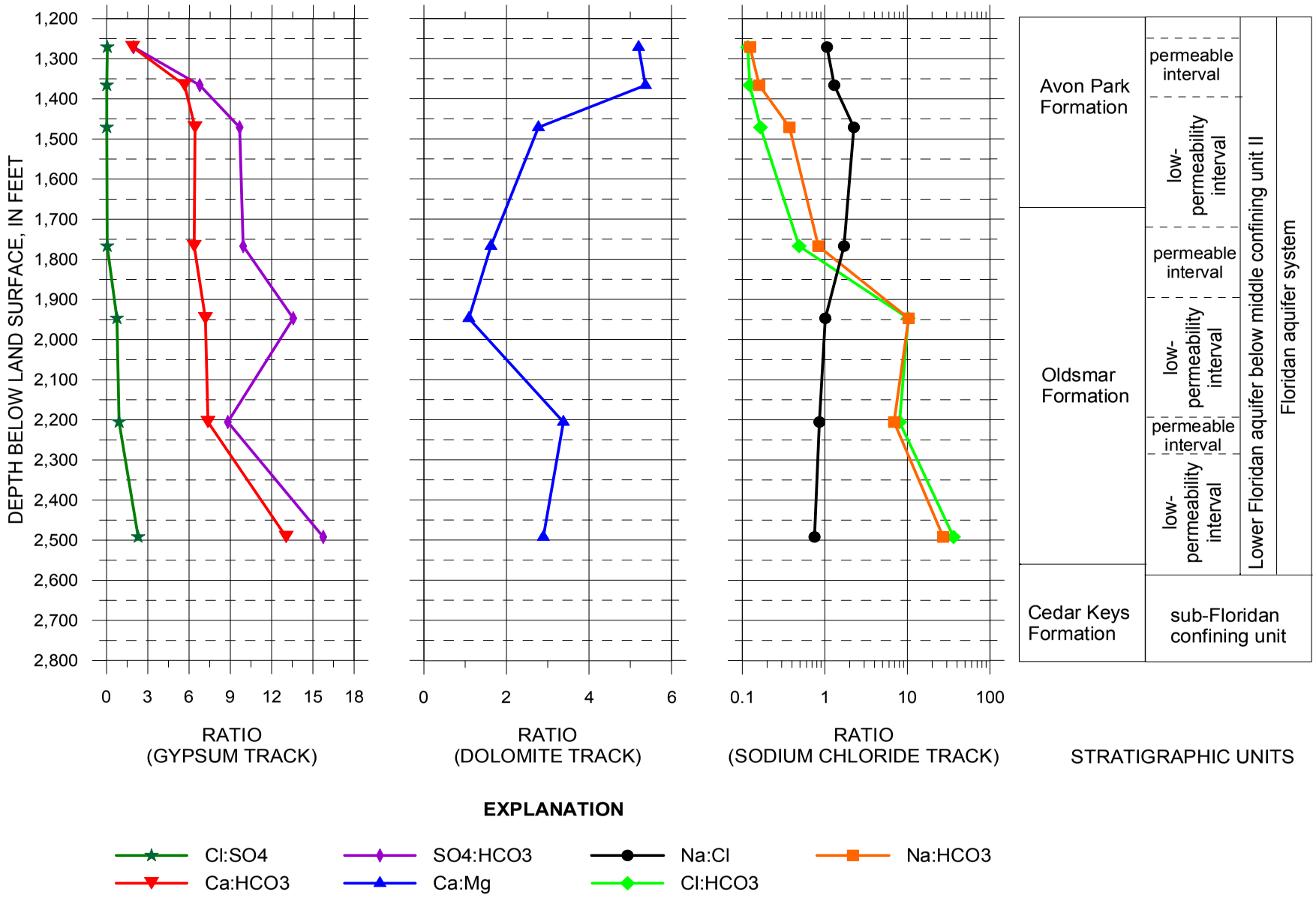


Figure 7. Select molar ratios with depth for groundwater samples collected from the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida.

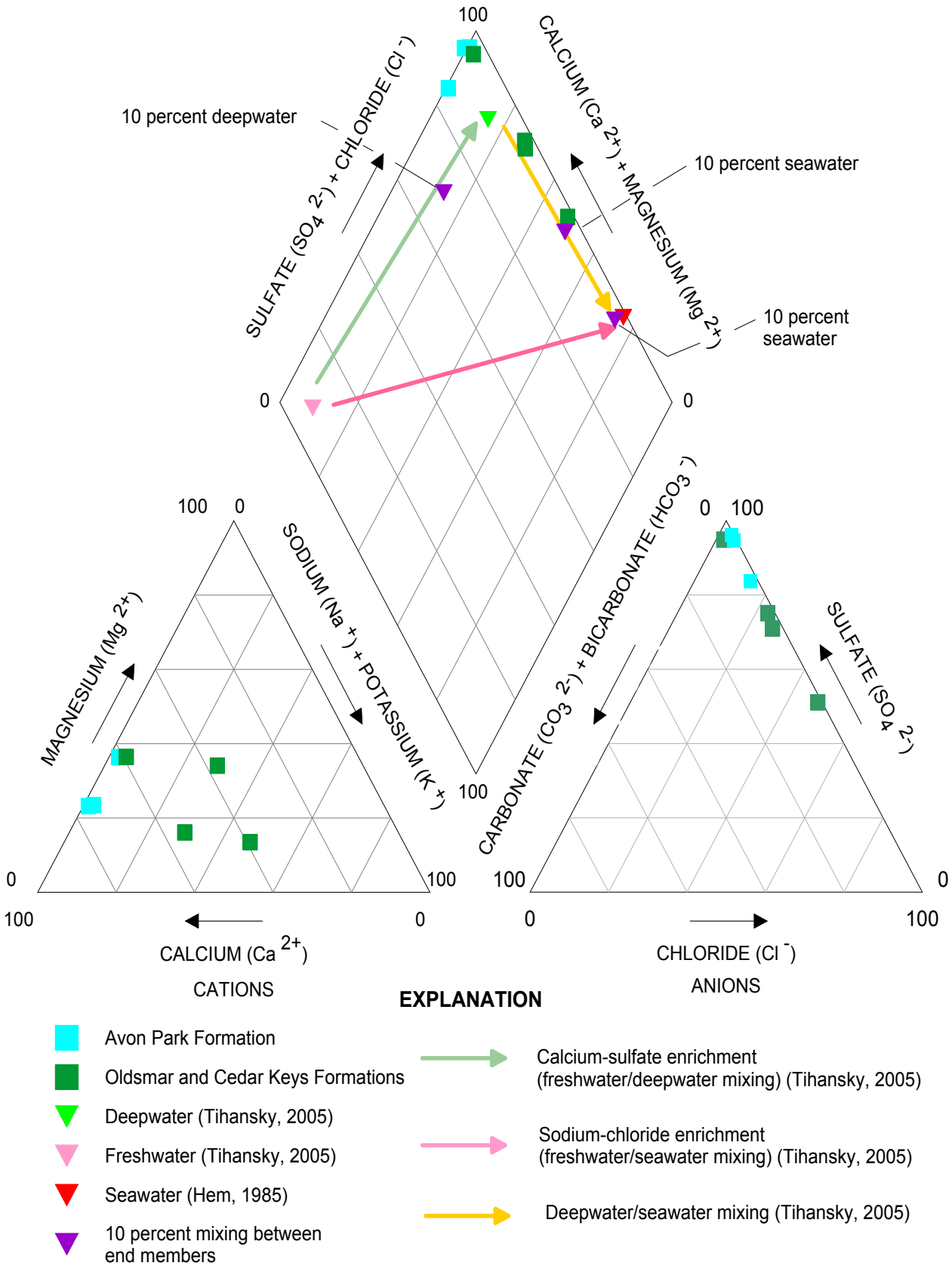


Figure 8. Piper diagram displaying the laboratory data from the groundwater samples collected from the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida.

Park Formation extends from approximately 445 to 1,676 feet bls. The Avon Park is made up of alternating layers of limestone and dolostone and thin beds of anhydrite.

The Lower Floridan aquifer consists of three thin permeable units alternating with thick intervals of low-permeability evaporitic carbonates. The first permeable interval extends from 1,250 to 1,400 feet bls in the Avon Park formation and consists of moldic and fractured dolostone. The estimated transmissivity for this interval is 16,500 feet^2/day and the hydraulic conductivity is 109 feet/day. Low permeability carbonates with interbedded evaporite sediments extend from 1,400 to 1,735 feet bls. A second permeable zone consisting of moldic and fractured limestone extends from 1,735 to 1,900 feet bls. A slug test conducted from 1,717 to 1,817 feet bls yielded an estimated hydraulic conductivity value of 12 feet/day. Low permeability, crystalline dolostone and limestone extends from 1,900 to 2,200 feet bls. A hydraulic conductivity value of 0.2 feet/day was obtained from a slug test conducted in the interval from 1,917 to 1,977 feet bls. A third permeable zone consisting of fractured, moldic, and crystalline dolostone extends from 2,200 to 2,275 feet bls. A slug test conducted from 2,195 to 2,237 feet bls yielded a hydraulic conductivity value of 83 feet/day. Low permeability evaporitic dolostones characterize the Lower Floridan aquifer from 2,237 to 2,587 feet bls. A slug test conducted from 2,437 to 2,587 produced a hydraulic conductivity estimate of 0.02 feet/day.

The Sub-Floridan Confining Unit forms the base of the Floridan aquifer and is made up of dolostone and with interbedded gypsum and anhydrite. This unit is contained within the Cedar Keys Formation and extends from 2,587 feet bls to more than 2,777 feet bls.

Three groundwater samples were collected from the Lower Floridan aquifer below middle confining unit II between 1,256 and 1,486 feet bls during the previous investigation completed in June 2003. Four additional groundwater samples were collected from the Lower Floridan aquifer while core drilling between 1,427 and 2,777 feet bls. The results of the laboratory analyses showed most of the groundwater samples collected exceed the secondary drinking water standards. Chloride concentration ranged from 7 to 1,850 mg/L, iron concentration ranged from less than 13 µg/L (0.013 mg/L) to 16,700 µg/L (16.7 mg/L), sulfate concentration ranged from 320 to 2,970 mg/L, and TDS ranged from 615 to 6,160 mg/L.

Following the exploratory coring and testing the exploratory borehole was backplugged with cement grout from 2,777 to 1,352 feet bls, leaving an open hole interval from 1,250 to 1,352 feet bls in the Lower Floridan aquifer below middle confining unit II. The well was subsequently equipped with water level recorders in August 2011.

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Appendix A. Methods of the Geohydrologic Data Section

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The Southwest Florida Water Management District (District) collects the majority of the hydrogeologic data during the exploratory core drilling phase of the project. Lithologic samples will be collected during the core drilling process. Hydraulic and water quality data are collected primarily during packer tests as the core hole is advanced. Geophysical logging will be conducted on the core hole providing additional hydrogeologic data. After well construction, an aquifer performance test (APT) will be conducted on each of the major freshwater aquifers or producing zones encountered at the project site. These data will be uploaded into the District's Water Management Information System (WMIS).

Collection of Lithologic Samples

The District conducts hydraulic rotary core drilling, referred to as diamond drilling, with a Central Mining Equipment (CME) 85 core drilling rig and an Universal Drilling Rigs (UDR) 200D LS. The basic techniques involved in hydraulic rotary core drilling are the same as in hydraulic rotary drilling (Shuter and Teasdale, 1989). The District applies a combination of HQ, HW, NW, and PW gauge working casings along with NQ or NRQ core drilling rods, associated bits, and reaming shells from Boart Longyear®. The HQ, HW, NW, and PW working casings are set and advanced as necessary to maintain a competent core hole. The NQ and NRQ size core bits produce a nominal 3-inch hole. The HQ, HW, NW, and PW working casings and NQ and NRQ coring rods are removed at the end of the project. Details on the core drilling activities are recorded on daily drilling logs completed by the District's drilling crew and hydrogeologists.

Recovery of the core samples is accomplished using a wireline recovery system (fig. A1). The District's drilling crew uses the Boart Longyear® NQ wireline inner barrel assembly. This system allows a 1.87-inch by 5 or 10-foot section and a 1.99-inch by 10-foot section of core to be retrieved with the CME 85 rig and UDR 200D LS rig, respectively. The core is retrieved without having to remove the core rods from the core hole. Grab samples of core hole cuttings are collected and bagged where poor core recovery occurs because of drilling conditions or where the formation is unconsolidated or poorly indurated. The core samples are placed in core boxes, depths marked, and recovery estimates

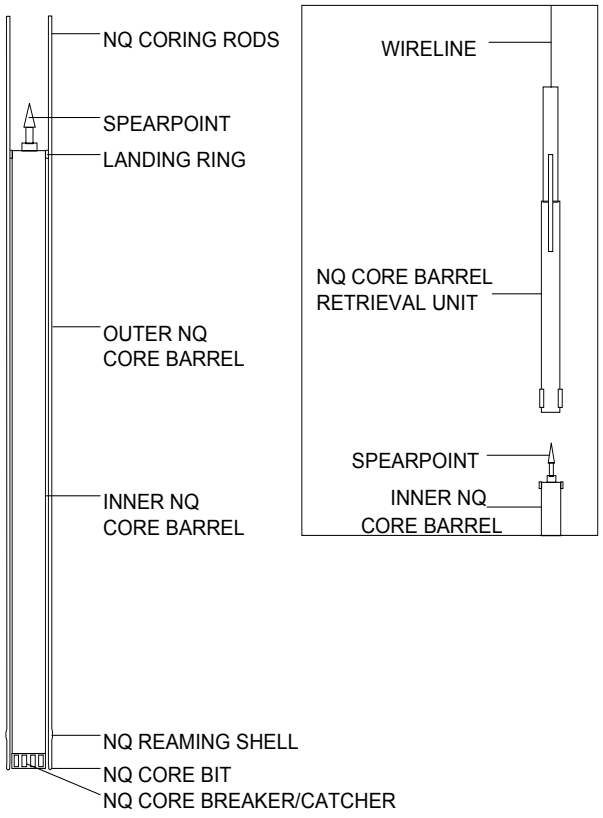


Figure A1. Boart Longyear® NQ Wireline Coring Apparatus.

calculated. Core descriptions are made in the field using standard description procedures. Rock color names are taken from the "Rock-Color Chart" of the National Research Council (Goddard and others, 1948). The textural terms used to characterize carbonate rocks are based on the classification system of Dunham (1962). The core samples are shipped to the Florida Geological Survey for detailed lithologic descriptions of core, cuttings, and unconsolidated sediments. All lithologic samples will be archived at the Florida Geological Survey in Tallahassee, Florida.

Unconsolidated Coring

Various methods exist for obtaining unconsolidated material core samples, which is extremely difficult as compared to rock coring (Shuter and Teasdale, 1989). To ensure maximum sample recovery, the District drilling crew utilizes a punch shoe adapter on the bottom of the inner barrel

along with an unconsolidated core catcher. The punch shoe extends the inner barrel beyond the bit allowing collection of the sample prior to disturbance by the bit or drilling fluid. A variety of bottom-discharge bits are used during unconsolidated coring. A thin bentonite mud may be used to help stabilize the unconsolidated material.

Rock Coring

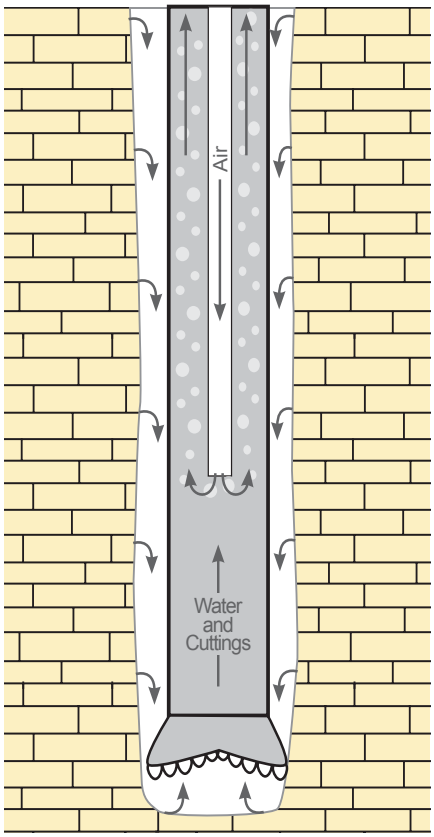
During rock coring, the District drilling crew utilizes HQ, HW, NW, and PW working casings as well as permanent casings to stabilize the core hole. NQ and NRQ core drilling rods and associated products are employed during the core drilling process. Core drilling is conducted by direct-circulation rotary methods using fresh water for drilling fluid. Direct water is not effective in removing the cuttings from the core hole, therefore, a reverse-air (air-lift) pumping discharge method (fig. A2) is used to develop the core hole every 20 feet or as necessary. The District typically uses face-discharge bits for well indurated rock core drilling.

Formation Packer Testing

Formation (off-bottom) packer testing allows discrete testing of water levels, water quality, and hydraulic parameters. A competent core hole is necessary for packer testing, meaning unconsolidated sediments and some of the shallow weathered limestone cannot be tested using this technique. The packer assembly (fig. A3) is employed by raising the NQ or NRQ coring rods to a predetermined point, lowering the packer to the bottom of the rods by using a combination cable/air inflation line, and inflating the packer with nitrogen gas. This process isolates the test interval, which extends from the packer to the total depth of the core hole. Sometimes, the working casing may be used in place of the packer assembly. Test intervals are selected based on a regular routine of testing or at any distinct hydrogeologic change that warrants testing.

Collection of Water Level Data

Water level data is collected daily before core drilling. Additionally, water levels are recorded during each formation packer test after the necessary equilibration time. Equilibration is determined when the change in water level per unit time is negligible. Water levels are measured using a Solinst® water level meter. The water level is measured relative to an arbitrary datum near land surface, which is maintained throughout the project. These data provide a depiction of water level with core hole depth. However, these data are normally collected over several months and will include temporal variation.



Reverse-air pumping

Reverse-air pumping allows cuttings to be removed without the introduction of man-made drilling fluids. As air bubbles leave the airline and move up inside the rods, they expand and draw water with them, creating suction at the bit. Groundwater comes from up-hole permeable zones and is natural formation water. Suction at the bit draws water and drill cuttings up the rods to be discharged at the surface.

Figure A2. Reverse-air drilling and water sampling procedure.

Collection of Water Quality Data

Water quality samples are collected during each formation packer test. Sampling methods are consistent with the “Standard Operating Procedures for the Collection of Water Quality Samples” (Water Quality Monitoring Program, 2009). The procedure involves isolating the test interval with the off-bottom packer (fig. A3) as explained above,

and air-lifting the water in the NQ or NRQ coring rods. To ensure a representative sample is collected, three core hole volumes of water are removed and temperature, pH, and specific conductance are monitored for stabilization using a YSI® multi-parameter meter. Samples are collected either directly from the air-lift discharge point, with a wireline retrievable stainless steel bailer (fig. A4), or with a nested bailer. When sampling a poorly producing interval, the purge time may be substantial. The nested bailer is an alternative that is attached directly to the packer orifice thereby reducing the volume of water to be evacuated from the core hole because it collects water directly from the isolated interval through the orifice. Bailers are better for obtaining non-aerated samples, which are more representative because aerated samples may have elevated pH and consequently iron precipitation.

Once the water samples are at the surface, they are transferred into a clean polypropylene beaker. A portion of the sample is bottled according to standard District procedure for laboratory analysis (SWFWMD, 2009). A 500 ml bottle is filled with unfiltered water. Two bottles, one 250 ml and one 500 ml, are filled with water filtered through a 0.45-micron filter. A Masterflex® console pump is used to dispense the water into the bottles. The sample in the 250 ml bottle is acidified with nitric acid to a pH of 2 in order to preserve metals for analysis. The remainder is used to collect field parameters including specific conductance, temperature, pH, and chloride and sulfate concentrations. Temperature, specific conductance, and pH are measured using a YSI® multi-parameter handheld meter. Chloride and sulfate concentrations are analyzed with a YSI® 9300 photometer. The samples are delivered to the District's chemistry laboratory for additional analysis. A "Standard Complete" analysis that includes pH, calcium, chloride, ion balance, iron, magnesium, potassium, silica, sodium, strontium, specific conductance, sulfate, total dissolved solids (TDS), and total alkalinity is performed on each set of samples (SWFWMD, 2009). Chain of Custody forms are used to track the samples.

The analysis of the water quality data includes the evaluation of relative ion abundance and ion or molar ratios, and the determination of water type(s). The laboratory data are used to calculate milliequivalents per liter (meq/L) and percent meq/L. Using the criteria of 50 percent or greater of relative abundance of cations and anions, the water type for each sample is determined (Hem, 1985). The data are plotted on a Piper (1944) diagram to give a graphical depiction of the relative abundance of ions in an individual sample (Domenico and Schwartz, 1998) as well as how the individual

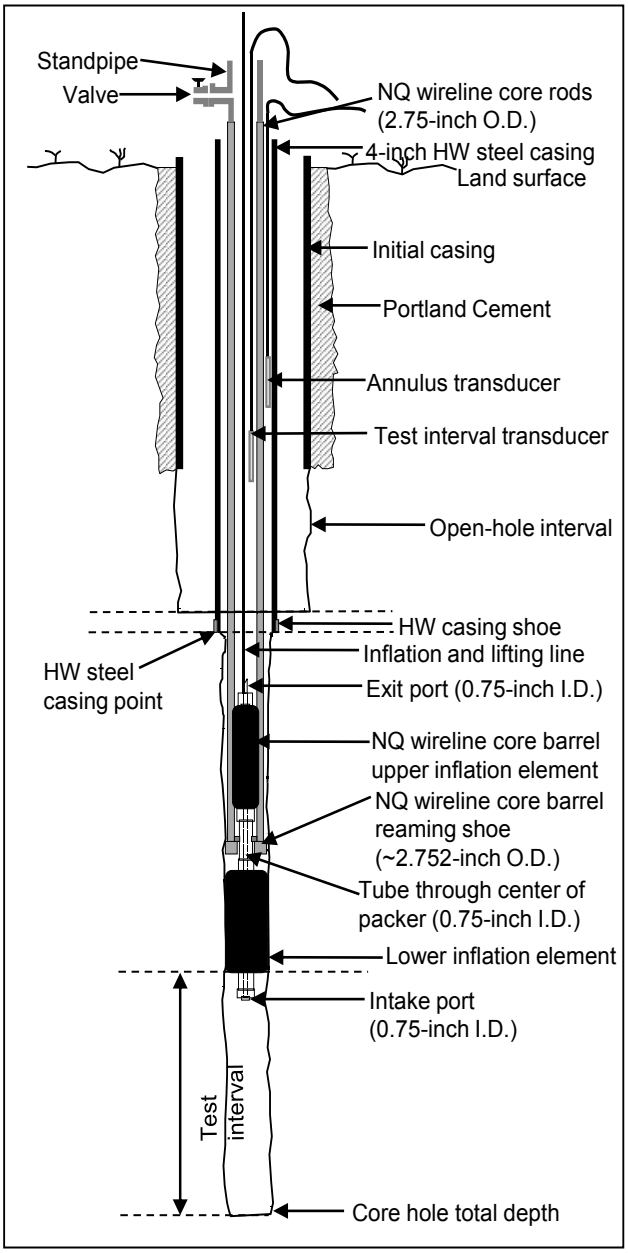


Figure A3. Formation (off-bottom) packer assembly deployed in the core hole.

samples compare to each other. Select ion ratios are calculated for each sample to further evaluate chemical similarities or differences among waters and to help explain why certain ions change with depth. Field pH is used in analyses because it is more likely to represent the actual conditions in the water since pH is sensitive to environmental changes (Driscolll, 1986; Fetter, 2001). Additionally, total alkalinity is used as bicarbonate concentration because hydroxyl ions generally are insignificant in natural groundwater and carbonate ions typically

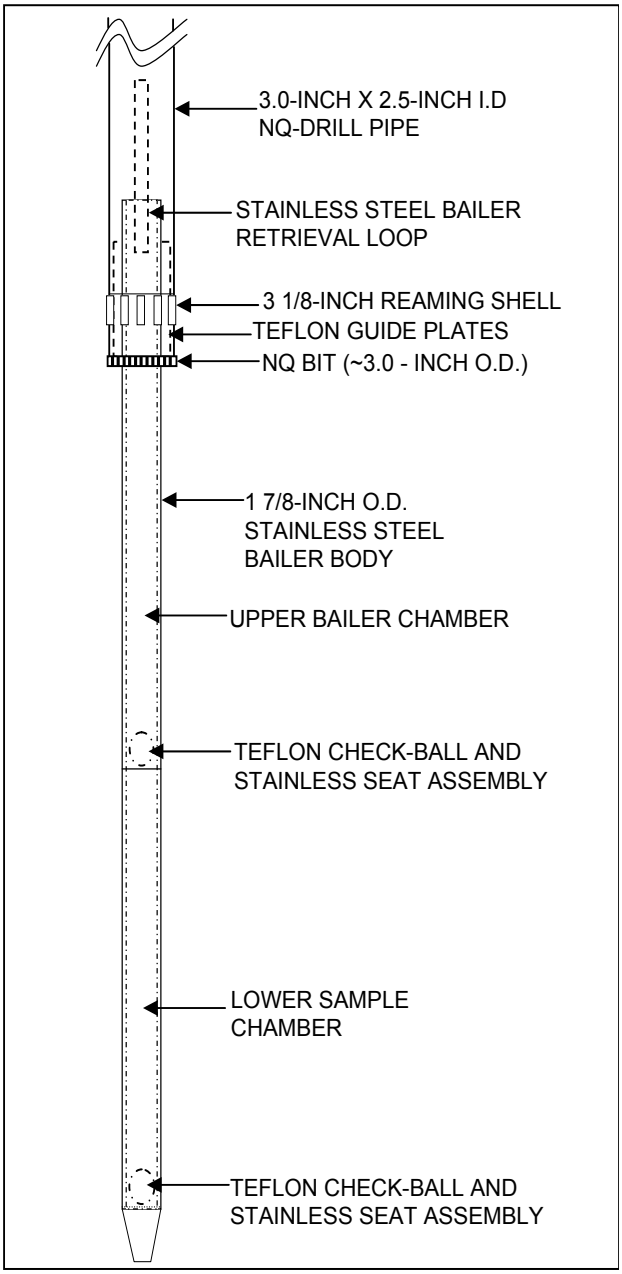


Figure A4. Diagram of the wireline retrievable bailer.

are not present in groundwater with a pH less than 8.3 (Fetter, 2001).

Collection of Slug Test Data

Some hydraulic properties can be estimated by conducting a series of slug tests. During slug tests, the static water level in the test interval is suddenly displaced, either up or down, and the water level response is recorded as it returns to a static state. Typically, the slug tests are conducted using the off-bottom packer assembly to isolate test intervals as the core hole is advanced. KPSI® pressure transducers are used to measure the water level changes in the test interval and the annulus between the HQ or HW casing and the NQ or NRQ coring rods. The annulus pressure transducer is used as a quality control device to detect water level changes indicative of a poorly seated packer or physical connection (i.e. fractures or very permeable rocks) within the formation. A third pressure transducer is used to measure air pressure during pneumatic slug testing. All pressure transducer output is recorded on a Campbell Scientific, Inc. CR800 datalogger. Prior to all slug tests, the test interval is thoroughly developed.

Slug tests can be initiated several ways. The primary methods used by the District are the pneumatic slug method and the drop slug method. Core hole conditions and apparent formation properties dictate which method is used. The pneumatic slug method is used for moderate to high hydraulic conductivity formations because of the near instantaneous slug initiation. The pneumatic slug method uses a NQ rod modified to include a pressure gauge and regulator, and an electronic or manual valve. The opening is sealed with compression fittings. Air pressure is used to depress the static water level. The water level is monitored for equilibration and once it returns to the initial static water level the test is initiated. The electronic or manual valve is opened to release the air pressure causing the water level to rise (rising head test). The water level is recorded until it reaches the initial static water level. The drop slug method is used for low hydraulic conductivity formations because of the slow slug initiation. This test initiation method is slower than the pneumatic method because the water has to travel down the core hole before reaching the test interval. The drop slug method involves adding a predetermined volume of water into the NQ or NRQ rods raising the static water level. A specially designed PVC funnel fitted with a ball valve placed over the NQ or NRQ rods is used to deliver the water. The valve is opened releasing the water causing the water level to rise. The water level is recorded until the raised level falls (falling head test) back to static level.

Several quality assurance tests are conducted in the field in order to identify any potential sources of error in the slug test data. The quality assurance tests include evaluation of the discrepancy between the expected and observed initial displacements (Butler, 1998), evaluation of the normalized plots for head dependence and evolving skin effects, and the evaluation of the annulus water level for movement. Lastly, estimates of the hydraulic conductivity

values are made based on the slug test data using AQTESOLV® (Duffield, 2007) software by applying the appropriate analytical solution.

Slug tests in which the formation packer assembly is used all have one common source of error resulting from the orifice restriction (fig. A3). The water during the slug tests moves through NQ or NRQ coring rods with an inner diameter of 2.38 inches, the orifice on the packer assembly that has an inner diameter of 0.75 inch, and the core hole that has a diameter of approximately 3 inches. The error associated with this restriction is evident as head dependence in the response data of multiple tests conducted on the same test interval with varying initial displacements. The error associated with the orifice restriction will result in an underestimation of the hydraulic conductivity values. In order to reduce the error associated with the orifice restriction, the District inserts a spacer within the zone of water level fluctuation thereby reducing the effective casing radius from 1.19 inches to 0.81 inch. A second technique used to minimize the effects caused by the orifice restriction is the use of initial displacements (slugs) of less than 1.5-feet in height. Also, if the working casing is used instead of the packer, the error is eliminated.

Geophysical Logging

Geophysical logs are useful in determining subsurface geologic and groundwater characteristics (Fetter, 2001). Geophysical logs provide three major types of information from water wells: hydrologic (water quality, aquifer characteristics, porosity, and flow zone detection), geologic (lithology, formation delineation), and physical characteristics (depth, diameter, casing depth, texture of well bore, packer points, and integrity of well construction).

Geophysical logging entails lowering the geophysical tool into the monitor well on a wireline and measuring the tool's response to the formations and water quality in and near the core hole during retrieval. Core hole geophysical logs are run during various stages of core drilling. When feasible, geophysical logs are run prior to casing advancements, while the core hole is still open to the formation.

The District uses Century® geophysical logging equipment. The three types of geophysical probes used are the caliper/gamma, induction, and multifunction. The multifunction tool measures natural gamma-ray [GAM (NAT)], spontaneous potential (SP), single-point resistivity (RES), short [RES(16N)], long [RES(64N)] normal resistivity, fluid temperature (TEMP) and fluid specific conductance (SP COND). Each log type is explained below.

Caliper (CAL)

Caliper logs are used to measure the diameter of the borehole. This log can identify deviations from the nominal borehole diameter and, in turn, locate cavities, washouts, and build-up. This log is useful for determining packer and casing placement because competent, well-indurated layers can be located. The caliper log also aids in calculating volumes of material such as cement, gravel, sand, and bentonite needed when installing casing during well construction and filling open hole intervals for abandonment.

Gamma [GAM(NAT)]

Natural gamma-ray logs measure the amount of natural radiation emitted by materials surrounding the borehole. Natural gamma radiation is emitted from decaying radioactive elements present in certain types of geologic materials, thus specific rock materials can be identified from the log. Some of these materials include clays that trap radioactive isotopes as they migrate with groundwater, organic deposits, and phosphates. Clays contain high amounts of radioactive isotopes in contrast to more stable rock materials like carbonates and sands, therefore, can be identified easily. One advantage using natural gamma-ray radiation is that it can be measured through PVC and steel casing, although it is subdued by steel casing. Gamma-ray logs are used chiefly to identify rock lithology and correlate stratigraphic units because gamma-ray radiation can be measured through casing and is relatively consistent.

Spontaneous Potential (SP)

Spontaneous potential logs measure the electrical potential (voltages) that result from chemical and physical changes at the contacts between different types of geological materials (Driscoll, 1986). They must be run in fluid-filled, uncased boreholes, and function best when the fluid in the borehole is different from that in the formation. They are useful in identifying contacts between different lithologies and stratigraphic correlation.

Single-Point Resistance (RES)

Single-point resistance logs measure the electrical resistance, in ohms, from rocks and fluids in the borehole to a point at land surface. Electrical resistance of the borehole materials is a measure of the current drop between a current electrode placed in the borehole and the electrode placed on land surface. The log must be run in a fluid-filled, uncased borehole. They are used for geologic correlation, such as bed boundaries, changes in lithology, and identification of fractures in resistive rocks (Keys and MacCary, 1971).

Short-Normal [RES (16N)] and Long-Normal [RES (64N)]

Short-normal and long-normal resistivity logs measure the electrical resistivity of the borehole materials and the surrounding rocks and water by using two electrodes. The 16 and 64 refers to the space, in inches, between the potential electrodes on the logging probe. The short-normal curve indicates the resistivity of the zone close to the borehole and the long-normal has more spacing between the electrodes, therefore measures the resistivity of materials further away from the borehole (Fetter, 2001). Short-normal and long-normal logs are useful in locating highly resistive geologic materials such as limestone, dolostone, and pure, homogenous sand and low resistivity materials like clay or clayey, silty sand. Also, the logs indicate water quality changes because fresh water has high resistivity whereas poor quality water has low resistivity. Resistivity logs must be run in fluid-filled, open boreholes.

Temperature (TEMP)

Temperature logs record the water temperature in the borehole. Temperature variations may indicate water entering or exiting the borehole from different aquifers. Thus, the log is useful in locating permeable zones. The log must be run in fluid-filled boreholes.

Specific Conductance (SP COND)

Specific Conductance logs measure the capacity of borehole fluid to conduct an electrical current with depth. The log indicates the total dissolved solids concentration of the borehole fluid. The specific conductance log may be useful in determining permeable zones because zones of increased inflow or outflow may show a change in water quality.

Aquifer Performance Tests

An APT is a controlled field experiment conducted to determine the hydraulic properties of water-bearing (aquifers) units (Stallman, 1976). APTs can be either single-well or multi-well and may partially or fully penetrate the aquifer. An APT involves pumping the aquifer at a known rate and monitoring the water level response. The general procedure, applied by the District, for conducting an APT involves design, field observation, and data analysis. Test design is based on the geologic and hydraulic setting of the site, such as knowledge of the aquifer thickness, probable range in transmissivity and storage, the presence of uncontrolled boundaries (sources/sinks), and any practical limitations imposed by equipment. Field observations of the discharge and water levels are recorded to ensure a successful test. The District measures the discharge rate using an impeller meter and circular orifice weir. The District measures water levels using pressure transducers and an electric tape. All the recording devices are calibrated and traceable to the National Institute of Standards and Technology.

Data analysis includes first making estimates of drawdown observed during the test and then using analytical and numerical methods to estimate hydraulic properties of the aquifer and adjacent confining units. Diagnostic radial flow plots and derivative analyses of APT data are valuable tools in characterizing the type of aquifer present and specific boundary conditions that may be acting on the system during an APT.

Single-Well Aquifer Performance Test

Single-well APTs includes one test (pumped) well within the production zone used for both pumping and monitoring the water level response. A single-well APT may include monitoring the background water level in the test well for a duration of at least twice the pumping period (Stallman, 1976). Background data collection may not be necessary if the duration of the single-well test is short and the on-site hydrogeologist does not consider background data necessary. After background data collection is complete and it is determined that a successful test can be accomplished, pumping is started. During the test, the discharge rate is monitored and controlled to less than 10 percent

fluctuation to ensure a constant rate test. The water level is recorded in the test well during the drawdown (pumping) and recovery phases. Other wells outside of the production zone may be monitored in order to provide additional information on the flow system. The response data are used to estimate drawdown and then analyzed using analytical methods to estimate the hydraulic properties of the aquifer and adjacent confining units. Typically, response data is analyzed using AQTESOLV® (Duffield, 2007) software by applying the appropriate analytical solution.

Multi-Well Aquifer Performance Test

Multi-well APTs involve a test (pumped) well and at least one observation well for monitoring the water level response in the production zone. Background water level data is collected for a period of at least twice the planned pumping period (Stallman, 1976). The background data allows for the determination of whether a successful test can be conducted and permits the estimation of drawdown. After the background data collection period is complete and it is determined that a successful test can be completed, pumping is started. During the test, the discharge rate is monitored and controlled to less than 10 percent fluctuation. The water level response is recorded in both the test well and the observation well(s) during the drawdown (pumping) and recovery phases. Other wells outside of the production zone may be monitored in order to provide additional information on the flow system. The response data are used to estimate drawdown and then analyzed using analytical or numerical methods to estimate the hydraulic properties of the aquifer and adjacent confining units. Typically, response data is analyzed using AQTESOLV® (Duffield, 2007) software by applying the appropriate analytical solution.

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Appendix B. Lithologic Logs

PO18748

LITHOLOGIC WELL LOG PRINTOUT SOURCE - FGS

WELL NUMBER: W-18748 COUNTY - POLK
TOTAL DEPTH: N/A FT. LOCATION: T.27 R.27 S.12
10 SAMPLES FROM 0 TO 407 FT. LAT = 28D 09M 24S
LON = 81D 33M 53S
COMPLETION DATE: 11/04/02 ELEVATION: 85 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER:SWFWMD ROMP 74X, WELL DRILLED IN SINKHOLE.

WORKED BY:ADAM HUMPHREYS MARCH 2007

0.	-	358.	090UDSC	UNDIFFERENTIATED SAND AND CLAY
358.	-	405.5	124AVPK	AVON PARK FM.

0 - 1 SAND; YELLOWISH GRAY TO VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%, LIMESTONE-10%
SHELL- 7%
TRACE PHOSPHATIC SAND

1 - 2 SAND; VERY LIGHT ORANGE TO BLACK
30% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: ANGULAR TO SUB-ROUNDED; LOW SPHERICITY
POOR INDURATION
CEMENT TYPE(S): ORGANIC MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PEAT-35%, PLANT REMAINS-10%
INTERBEDED WITH SAND FROM ABOVE DESCRIPTION

2 - 4 SAND; MODERATE BROWN TO MODERATE YELLOWISH BROWN
30% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; LOW SPHERICITY
POOR INDURATION
CEMENT TYPE(S): ORGANIC MATRIX
ACCESSORY MINERALS: PEAT-35%
TRACE PLANT REMAINS

4 - 5 SAND; MODERATE BROWN TO DARK BROWN
25% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): ORGANIC MATRIX
ACCESSORY MINERALS: PEAT-35%, ORGANICS-25%
TRAVE PHOSPHATIC SAND

5 - 8 SAND; MODERATE BROWN TO DARK BROWN
30% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
POOR INDURATION
CEMENT TYPE(S): ORGANIC MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED

PO18748

ACCESSORY MINERALS: PEAT-30%, ORGANICS- 1%, SHELL- 2%
TRACE PHOSPHATIC SAND INTERBEDED WITH LAYERS OF SHELL FRAGMENTS

8 - 10 SAND; YELLOWISH GRAY TO VERY LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: PHOSPHATIC SAND- 5%, ORGANICS- 2%

10 - 15 SAND; GRAYISH BROWN TO DARK BROWN
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: PEAT-30%, PHOSPHATIC SAND- 2%
TRACE ORGANICS

15 - 20 SAND; GRAYISH BROWN TO VERY LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: PEAT-10%, ORGANICS- 7%
PHOSPHATIC SAND- 2%

20 - 22 AS ABOVE

22 - 24 AS ABOVE

24 - 26 AS ABOVE

26 - 28 AS ABOVE

28 - 30 SAND; GRAYISH BROWN TO VERY LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: PEAT-10%, ORGANICS- 7%
PHOSPHATIC SAND- 2%

30 - 3O TRACE CLAY

3O - 32 SAND; GRAYISH BROWN TO WHITE
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 3%, PHOSPHATIC SAND- 3%
OTHER FEATURES: FROSTED
LAMINATED WITH LAYERS OF HIGHER ORGANIC CONCENTRATIONS

32 - 34 AS ABOVE

34 - 36 AS ABOVE

36 - 38 AS ABOVE

38 - 40 AS ABOVE

PO18748

40 - 167 NO SAMPLES

167 - 177 SAND; YELLOWISH GRAY TO OLIVE GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ROUNDED TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHELL- 7%, PLANT REMAINS- 1%
PHOSPHATIC SAND- 1%
TRACE CLAY TRACE ORGANICS TRACE MICA (MUSCOVITE)

177 - 187 SAND; VERY LIGHT GRAY TO MODERATE LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ROUNDED TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHELL-10%, ORGANICS- 2%
PLANT REMAINS- 1%
TRACE PHOSPHATIC SAND

187 - 197 SAND; VERY LIGHT GRAY TO LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: COARSE; RANGE: COARSE TO GRANULE
ROUNDNESS: SUB-ROUNDED TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHELL-10%, ORGANICS- 7%
PLANT REMAINS- 3%
LARGEST GRAIND VERY WELL ROUNDED MORE ORGANICS AT BOTTOM OF
INTERVAL

197 - 207 SAND; VERY LIGHT GRAY TO LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO GRANULE
ROUNDNESS: ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHELL-10%, ORGANICS- 5%, CLAY- 3%
TRACE MICA (MUSCOVITE) LARGEST GRAINS ARE WELL ROUNDED

207 - 227 SAND; VERY LIGHT GRAY TO LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHELL-10%, ORGANICS- 5%, CLAY- 3%
TRACE PLANT REMAINS LARGEST GRAINS WELL ROUNDED

227 - 237 AS ABOVE

237 - 247 AS ABOVE

247 - 257 SAND; LIGHT GRAY TO VERY LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO GRANULE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-15%, ORGANICS- 1%
LARGEST GRAINS ARE WELL ROUNDED

257 - 267 SAND; MODERATE GRAY TO MODERATE LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO GRANULE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY

PO18748

UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%
TRACE PHOSPHATIC SAND TRACE MICA (MUSCOVITE)

267 - 270 NO SAMPLES

270 - 273 SAND; YELLOWISH GRAY TO LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO FINE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMONITE-15%, ORGANICS- 1%
TRACE CLAY

273 - 277.6 SAND; LIGHT GRAY TO VERY LIGHT GRAY
25% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, ORGANIC MATRIX
ACCESSORY MINERALS: CLAY-15%, ORGANICS- 7%
PHOSPHATIC SAND- 1%
TRACE MICA (MUSCOVITE)

277.6- 278 SAND; LIGHT GRAY TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC SAND-10%
ORGANICS- 1%

278 - 280 AS ABOVE

280 - 285 SAND; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: PHOSPHATIC SAND-15%, CLAY-10%
PHOSPHATIC SAND UPTO GRANUAL SIZE, WELL ROUNDED TRACE
LIMESTONE

285 - 288 SAND; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CLAY-20%, PHOSPHATIC SAND-10%
TRACE LIMESTONE TRACE ORGANICS

288 - 289.5 SAND; MODERATE LIGHT GRAY TO MODERATE DARK GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ROUNDED TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, PHOSPHATIC SAND-15%
TRACE LIMESTONE

289.5- 293.8 SAND; VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM

PO18748

ROUNDNESS: SUB-ROUNDED TO ROUNDED; LOW SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CLAY-25%, PHOSPHATIC SAND- 7%

293.8- 295 SAND; MODERATE LIGHT GRAY TO LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ROUNDED TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-40%
INTERBEDED SANDS AND CLAYS TRACE PHOSPHATIC SAND TRACE EVAPORITES

295 - 298 AS ABOVE

298 - 303 SAND; LIGHT GRAY TO VERY LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
ROUNDNESS: ANGULAR TO SUB-ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: PHOSPHATIC SAND-10%, CLAY- 7%

303 - 308 SAND; VERY LIGHT ORANGE TO MODERATE LIGHT GRAY
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC SAND- 1%

308 - 313 SAND; VERY LIGHT GRAY TO LIGHT GRAY
30% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CLAY-25%
TRACE ORGANICS TRACE PHOSPHATIC SAND

313 - 315.5 SAND; DARK BROWN TO LIGHT YELLOWISH ORANGE
30% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-30%
OTHER FEATURES: FROSTED
TRACE PHOSPHATIC SAND TRACE ORGANICS INTERBEDED WITH CLAYS UP TO 70%

315.5- 318 SAND; VERY LIGHT GRAY TO MODERATE GRAY
25% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CLAY-25%, PHOSPHATIC SAND- 1%
TRACE ORGANICS

318 - 320.5 AS ABOVE

PO18748

320.5- 323 SAND; VERY LIGHT GRAY TO MODERATE GRAY
20% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: ANGULAR TO ROUNDED; LOW SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CLAY-25%
TRACE PHOSPHATIC SAND

323 - 328 AS ABOVE

328 - 333 SAND; VERY LIGHT GRAY TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ROUNDED TO ROUNDED; LOW SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: CLAY-30%
TRACE PHOSPHATIC SAND

333 - 338 AS ABOVE

338 - 358 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO GRANULE; UNCONSOLIDATED
OTHER FEATURES: CHALKY

358 - 368 GRAINSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: MEDIUM TO GRANULE
UNCONSOLIDATED
ACCESSORY MINERALS: CALCITE- 1%
OTHER FEATURES: CHALKY
FOSSILS: CONES
TRACE QUARTZ SAND

368 - 373 GRAINSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
95% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: GRANULE; RANGE: VERY COARSE TO GRANULE
UNCONSOLIDATED
OTHER FEATURES: CHALKY
FOSSILS: CONES
TRACE CALCITE TRACE PYRITE

373 - 383 GRAINSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
95% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: GRANULE; RANGE: VERY COARSE TO GRANULE
UNCONSOLIDATED
ACCESSORY MINERALS: CALCITE- 1%
OTHER FEATURES: CHALKY
FOSSILS: CONES
TRACE PYRITE

383 - 388 AS ABOVE

PO18748

388 - 393 PACKSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: GRANULE; RANGE: MEDIUM TO GRANULE
UNCONSOLIDATED
OTHER FEATURES: CHALKY

PO18595

LITHOLOGIC WELL LOG PRINTOUT — SOURCE - FGS

WELL NUMBER: W-18595 — COUNTY - POLK
TOTAL DEPTH: 1560 FT. — LOCATION: T.27 R.27 S.12
89 SAMPLES FROM 256 TO 1560 FT. — LAT = 28D 09M 26S
LON = 81D 33M 55S
COMPLETION DATE: 06/04/03 — ELEVATION: 91 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER:SWFWMD ROMP 74X (HOLE 2)

WORKED BY:ADAM HUMPHREYS (MARCH 2007)

256. - 381. 124OCAL OCALA GROUP
381. - 1560. 124AVPK AVON PARK FM.

0 - 255.7 NO SAMPLES

255.7- 256 MUDSTONE; YELLOWISH GRAY TO LIGHT GRAY
POROSITY: NOT OBSERVED
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO COARSE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND- 3%

256 - 261 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO COARSE; UNCONSOLIDATED
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
TRACE CALCITE LEPIDOCYLINA OCALANA AND AMPHISTEGINA
PINARENSIS COSDENI

261 - 266 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
TRACE QUARTZ SAND LEPIDOCYLINA OCALANA AND AMPHISTEGINA
PINARENSIS COSDENI

266 - 271 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; UNCONSOLIDATED
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
LEPIDOCYLINA OCALANA AND AMPHISTEGINA PINARENSIS COSDENI
TRACE CALCITE

271 - 276 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED

PO18595

OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
LEPIDOCYLINA OCALANA AND AMPHISTEGINA PINARENSIS COSDENI
TRACE SHELL FRAGMENTS WITH THIN LAYER OF SHELL FRAGMENTS

276 - 280 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
LEPIDOCYLINA OCALANA AND AMPHISTEGINA PINARENSIS COSDENI

280 - 281 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
FOUND A SLICKENSIDE TRACE GLAUCONITE LEPIDOCYLINA OCALANA
AND NUMULITES OCALANUS

281 - 286 AS ABOVE

286 - 291 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS- 1%
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS
POCKETS OF QUARTZ SAND GREENISH MATRIX FOR THE SAND
LEPIDOCYLINA OCALANA TRACE PYRITE TRACE GLAUCONITE LAYER
WITH MOLDS SMALL AND WELL LITHIFIED

291 - 293 WACKESTONE; LIGHT GRAYISH GREEN TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: GLAUCONITE-15%
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
NUMULITES OCALANUS AND LEPIDOCYLINA OCALANA

293 - 296 WACKESTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, PELLET
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PYRITE- 2%, HEAVY MINERALS- 2%
OTHER FEATURES: CHALKY
TRACE CALCITE

296 - 301 SAND; LIGHT GRAY TO VERY LIGHT GRAY
POROSITY: INTERGRANULAR

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GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; LOW SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-20%, GLAUCONITE- 2%
FOSSILS: BENTHIC FORAMINIFERA
TRACE PHOSPHATIC SAND TRACE HEAVY MINERALS NUMULITES
OCALANUS POSSIBABLY FROM DRILLING

301 - 306 AS ABOVE

306 - 379 NO SAMPLES

379 - 381 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, OOLITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE- 2%, HEAVY MINERALS- 1%
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS
NUMULITES OCALANUS

381 - 386 SAND; VERY LIGHT GRAY TO WHITE
POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ROUNDED TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: PHOSPHATIC SAND- 3%, LIMESTONE- 5%
TRACE PYRITE

386 - 416 NO SAMPLES

416 - 421 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE
UNCONSOLIDATED
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
TRACE QUARTZ SAND TRACE BROWN SEDIMENTS, POSSIBABLY CLAY
FORAM ABUNDANCE DECREASES ACROSS INTERVAL

421 - 431 UNABLE TO IDENTIFY FORAMS, PROBABLY LITUONELLA FLORIDIANA

431 - 426 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY
FOSSILS: CONES
TRACE CALCITE FEW CONES

426 - 428.5 AS ABOVE

428.5- 431 WACKESTONE; GRAYISH ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS

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40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY
TRACE CALCITE

431 - 436 GRAINSTONE; GRAYISH ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
98% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
OTHER FEATURES: CHALKY, SUCROSIC
INTERBEDED WITH LAYERS OF WACKSTONE FROM ABOVE TRACE
CALCITE

436 - 440 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-15%

440 - 441 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; UNCONSOLIDATED
OTHER FEATURES: CHALKY

441 - 442.5 AS ABOVE

442.5- 443 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-25%

443 - 444 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
35% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-20%, CALCILUTITE-10%
OTHER FEATURES: LOW RECRYSTALLIZATION

444 - 445 SILT-SIZE DOLOMITE; MODERATE YELLOWISH BROWN TO DARK YELLOWIS
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE- 7%

445 - 446 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS; 0-10% ALTERED
EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

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ACCESSORY MINERALS: LIMESTONE-90%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

446 - 447.5 DOLOSTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

447.5- 451 DOLOSTONE; LIGHT OLIVE GRAY
20% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

451 - 453.5 SILT-SIZE DOLOMITE; GRAYISH ORANGE
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE- 3%

453.5- 456 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR; 50-90% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
OTHER FEATURES: LOW RECRYSTALLIZATION
TRACE PYRITE

456 - 458 AS ABOVE

458 - 461 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%, PYRITE- 5%
OTHER FEATURES: LOW RECRYSTALLIZATION

461 - 462.5 AS ABOVE

462.5- 464 DOLOSTONE; LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION
TRACE PYRITE

464 - 466 DOLOSTONE; MODERATE YELLOWISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: LIMESTONE- 3%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION
FOSSILS: FOSSIL MOLDS

PO18595

INTERBEDED DOLOMITE FROM ABOVE CAST OF ECHINOIDS
NEOLAGANUM DALLI

466 - 471 DOLOSTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
OTHER FEATURES: LOW RECRYSTALLIZATION
TRACE PYRITE

471 - 472 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
POROSITY: POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED
EUHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%, PYRITE- 7%

472 - 476 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-30%
THIN LAYER OF FINE EUHEDRAL DOLOMITE, UNCONSOLIDATED

476 - 481 DOLOSTONE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
10-50% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-50%, QUARTZ SAND-40%
SAND PROBABLY FROM DRILLING

481 - 486 NO SAMPLES

486 - 491 NO SAMPLES

491 - 496 SAND FROM 481

496 - 501 DOLOSTONE; LIGHT OLIVE GRAY
POROSITY: POSSIBLY HIGH PERMEABILITY; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 1%

501 - 506 AS ABOVE

506 - 508 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
3% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE SAND, PROBABLY FROM DRILLING

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508 - 511 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
POROSITY: POSSIBLY HIGH PERMEABILITY; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 2%

511 - 511.5 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 2%
TRACE ORGANICS TRACE BROWN SEDIMENTS

511.5- 515 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
10% POROSITY: PIN POINT VUGS, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: PYRITE- 7%, LIMESTONE- 3%

515 - 515.5 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE
40% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-20%

515.5- 516 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BANDED
ACCESSORY MINERALS: LIMESTONE- 5%

516 - 517.5 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
10-50% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-50%

517.5- 518 MUDSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 3% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-20%
TRACE ORGANICS BLUISH GREY CLAYS

518 - 520.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL

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GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
TRACE BLUISH GREEN CLAYS

520.5- 521 MUDSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
7% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
TRACE CLAYS

521 - 526 WACKESTONE; YELLOWISH GRAY TO WHITE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE CALCITE

526 - 531 MUDSTONE; WHITE TO GRAYISH BROWN
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
5% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE-15%
OTHER FEATURES: CHALKY
MOSTLY EUHEDRAL DOLOMITE, FINE GRAINED

531 - 534 MUDSTONE; WHITE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
7% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE CALCITE

534 - 535 SILT-SIZE DOLOMITE; DARK YELLOWISH BROWN TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS- 7%

535 - 536 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%

536 - 537 DOLOSTONE; MODERATE OLIVE BROWN TO MODERATE YELLOWISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%

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537 - 541 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
TRACE ORGANICS

541 - 546 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-15%

546 - 548.5 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%
CORE BROKEN INTO LOTS OF FRAGMENTS TRACE BLUISH GREEN CLAYS

548.5- 551 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%, CLAY- 1%
BLUISH GREEN CLAYS TRACE PYRITE

551 - 556 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
TRACE PYRITE

556 - 561 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-30%
TRACE PYRITE

561 - 563.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-25%

563.5- 566 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS

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50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-30%
GREEN STAINING AT 563.5 FT

566 - 568.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
10-50% ALTERED; EUHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-15%
GREEN STAINING

568.5- 571 PACKSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
30% POROSITY: PIN POINT VUGS, INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%

571 - 576 DOLOSTONE; YELLOWISH GRAY TO LIGHT YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%, PYRITE- 2%

576 - 590 DOLOSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-10%

590 - 600 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
7% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED

600 - 610 AS ABOVE

610 - 616 WACKESTONE; YELLOWISH GRAY
35% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: CALCILUTITE, INTRACLASTS
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL MOLDS

616 - 621 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED

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621 - 626 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS

626 - 631 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED

631 - 636 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 3%

636 - 641 DOLOSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-10%
TRACE LIMONITE

641 - 646 DOLOSTONE; YELLOWISH GRAY TO LIGHT BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%
FOSSILS: FOSSIL MOLDS

646 - 651 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
26% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%
FOSSILS: FOSSIL MOLDS

651 - 653 DOLOSTONE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
10-50% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-30%
TRACE PYRITE

653 - 656 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
5% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED

PO18595

ACCESSORY MINERALS: DOLOMITE- 3%
TRACE ORGANICS

656 - 660 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED

660 - 661 DOLOSTONE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-40%

661 - 666 DOLOSTONE; YELLOWISH GRAY
40% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE- 3%

666 - 671 DOLOSTONE; YELLOWISH GRAY
40% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): ORGANIC MATRIX
TRACE ORGANICS VERY FINE TO FINE TERMINATED QUARTZ CRYSTALS

671 - 676 DOLOSTONE; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%

676 - 681 DOLOSTONE; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%

681 - 686 DOLOSTONE; DARK YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-30%
TRACE CALCITE TRACE CLAYS

686 - 691 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION

PO18595

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BEDDED
ACCESSORY MINERALS: LIMESTONE-10%
TRACE CLAY TRACE ORGANICS BEDDING PRESENT AT 686 FT

691 - 696 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
TRACE CLAYS

696 - 701 DOLOSTONE; GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-20%

701 - 704.5 AS ABOVE

704.5- 706 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-15%

706 - 707 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 5%

707 - 708 DOLOSTONE; MODERATE YELLOWISH BROWN TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%

708 - 708.5 DOLOSTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE
35% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%

708.5- 711 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%

PO18595

711 - 716 AS ABOVE

716 - 718.5 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE
35% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%

718.5- 719 DOLOSTONE; MODERATE YELLOWISH BROWN
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS- 7%, LIMESTONE- 5%
FOSSILS: FOSSIL MOLDS

719 - 721 DOLOSTONE; GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 7%
TRACE ORGANICS FEW MOLDS OF SHELLS

721 - 726 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 7%, LIMESTONE- 5%
ORGANIC LAMINATIONS TRACE IRON STANING

726 - 731 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%
FEW MOLDS OF SHELLS

731 - 736 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-50%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS

736 - 741 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-20%
FOSSILS: FOSSIL MOLDS

PO18595

741 - 746 MUDSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
5% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 7%
TRACE ORGANICS

746 - 751 MUDSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
7% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE-10%

751 - 751.5 AS ABOVE

751.5- 751.8 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%

751.8- 752.5 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 2%

752.5- 753 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%

753 - 754 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO VERY COARSE
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-25%

754 - 756 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 5%

756 - 756.5 AS ABOVE

756.5- 761 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL

PO18595
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: LIMESTONE-15%
TRACE ORGANICS INTERBEDED WITH THIN LAYERS OF LIMESTONE

761 - 761.8 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
2% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 1%
TRACE ORGANICS

761.8- 764 DOLOSTONE; GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%

764 - 764.8 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
7% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 3%

764.8- 766 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%
TRACE ORGANICS

766 - 767 DOLOSTONE; GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-25%, ORGANICS- 2%
LOTS OF BROKEN FRAGMENTS

767 - 771 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-30%
TRACE ORGANICS

771 - 776 MUDSTONE; YELLOWISH GRAY TO WHITE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
3% ALLOCHEMICAL CONSTITUENTS

PO18595
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
TRACE DOLOMITE TRACE ORGANICS

776 - 781 AS ABOVE

781 - 781.8 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-50%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS TRACE PYRITE

781.8- 782.5 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
2% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 2%

782.5- 783 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
35% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BEDDED
ACCESSORY MINERALS: LIMESTONE-30%
TRACE ORGANICS

783 - 785.5 DOLOSTONE; GRAYISH ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%

785.5- 786 DOLOSTONE; YELLOWISH GRAY TO WHITE
POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE-40%
OTHER FEATURES: CHALKY
TRACE ORGANICS

786 - 786.2 DOLOSTONE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%
FOSSILS: FOSSIL MOLDS
TARCE ORGANICS

786.2- 786.5 DOLOSTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION

PO18595

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%

786.5- 787 MUDSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
2% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE- 5%
TRACE ORGANICS

787 - 791 DOLOSTONE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%
TRACE ORGANICS

791 - 794 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%
FOSSILS: FOSSIL MOLDS

794 - 794.2 MUDSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
2% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: DOLOMITE- 2%, ORGANICS- 2%
THIN LAMINATION OF CLAY-ORGANIC LAYER WITH DOUBLE
TERMINATED QUARTZ CRYSTALS

794.2- 796 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 7%

796 - 798.5 AS ABOVE

798.5- 799.5 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
2% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 1%
TRACE EUHEDRAL QUARTZ CRYSTALS IN LAMINATIONS TRACE CLAYS
CLAY-ORGANIC LAMINATIONS

PO18595

799.5- 801 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 1%

801 - 802 AS ABOVE

802 - 805 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS FEW SHELL MOLDS

805 - 806 SILT-SIZE DOLOMITE; YELLOWISH GRAY
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-20%
TRACE ORGANICS TRACE PHOSPHATIC SAND

806 - 806.5 DOLOSTONE; GRAYISH ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%

806.5- 810 DOLOSTONE; YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-25%
FOSSILS: FOSSIL MOLDS

810 - 811 DOLOSTONE; GRAYISH ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 5%
TRACE ORGANICS

811 - 813 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%
TRACE ORGANICS

813 - 816 MUDSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS

PO18595

10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
OTHER FEATURES: SUCROSIC
TRACE ORGANICS TRACE DOLOMITE

816 - 817 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 3%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS

817 - 821 DOLOSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-10%
OTHER FEATURES: SUCROSIC

821 - 822.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%
TRACE ORGANICS

822.5- 823.2 DOLOSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-15%
TRACE ORGANICS

823.2- 826 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%

826 - 826.6 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%
FOSSILS: FOSSIL MOLDS
TRACE GYPSUM

826.6- 829.2 DOLOSTONE; VERY LIGHT ORANGE TO PINKISH GRAY
POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-15%
VERY TRACE PHOSPHATIC SAND

829.2- 831 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL

PO18595

GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS VERY TRACE PHOSPHATIC SAND

831 - 831.5 AS ABOVE

831.5- 832 DOLOSTONE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-30%

832 - 832.5 DOLOSTONE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
10-50% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-50%
OTHER FEATURES: SUCROSIC
TRACE ORGANICS TRACE QUARTZ CRYSTALS, FINE TO VERY FINE

832.5- 834 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 7%
TRACE ORGANICS

834 - 836 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS TRACE DOLOMITE

836 - 838 DOLOSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-30%
TRACE ORGANICS

838 - 839 DOLOSTONE; YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 3%
TRACE ORGANICS

839 - 840 DOLOSTONE; YELLOWISH GRAY

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POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE-30%

840 - 842 DOLOSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-20%
OTHER FEATURES: CHALKY

842 - 841.2 AS ABOVE

841.2- 841.5 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
5% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
TRACE DOLOMITE TRACE ORGANICS

841.5- 846 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
10-50% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%

846 - 846.5 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
TRACE DOLOMITE

846.5- 847.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE- 5%, LIMESTONE-20%
FOSSILS: FOSSIL MOLDS

847.5- 851 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: CALCITE-10%
OTHER FEATURES: SUCROSIC

851 - 856 PACKSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION

PO18595

CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE- 5%, CALCITE- 1%
ABUNDANT FIBEROUS ORGANICS ON SURFACE, POST DRILLING

856 - 859 DOLOSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE- 5%
TRACE ORGANICS ABUNDANT FIBEROUS ORGANICS ON SURFACE, POST DRILLING

859 - 861 PACKSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
TRACE BLUISH GRAY CLAYS AT 816FT TRACE SAND, POSSIBABLY FROM DRILLING TRACE ORGANICS

861 - 866 PACKSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
OTHER FEATURES: CHALKY
TRACE ORGANICS THIN LAMINATION OF ORGANICS WITH QUARTZ CRYSTALS

866 - 868.5 WACKESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 5%
OTHER FEATURES: CHALKY

868.5- 871 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED

871 - 876 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
65% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE- 5%
TRACE CALCITE TRACE ORGANICS

876 - 879 DOLOSTONE; LIGHT OLIVE GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-25%, ORGANICS- 1%
FOSSILS: FOSSIL MOLDS

PO18595

879 - 879.2 MUDSTONE; YELLOWISH GRAY TO DARK YELLOWISH BROWN
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS-50%, CALCITE- 1%
SOME CALCITE IS EUHEDRAL

879.2- 881 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: DOLOMITE-15%
OTHER FEATURES: CHALKY
TRACE QUARTZ TRACE ORGANICS

881 - 881.5 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: LIMESTONE-25%

881.5- 882 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
3% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
ACCESSORY MINERALS: CALCITE-10%

882 - 882.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO YELLOWISH GRAY
30% POROSITY: VUGULAR, INTERGRANULAR, PIN POINT VUGS
10-50% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%
TRAEC QUARTZ IN VUGS

882.5- 886 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
TRACE ORGANICS

886 - 891 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
OTHER FEATURES: CHALKY, SUCROSIC
TRACE ORGANICS TRACE CALCITE

PO18595

891 - 892 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-35%
TRACE CALCITE

892 - 896 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE ORGANICS TRACE CALCITE

896 - 901 PACKSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE CALCITE TRACE ORGANICS TRACE BLUISH GRAY CLAYS

901 - 906 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, INTRACLASTS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
OTHER FEATURES: CHALKY, SUCROSIC
TRACE ORGANICS

906 - 911 AS ABOVE

911 - 916 MUDSTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE DOLOMITE TRACE ORGANICS

916 - 916.5 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY, SUCROSIC
TRACE ORGANICS TRACE LIMESTONE

916.5- 921 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
TRACE BLUISH GRAY CLAYS AT 921FT TRACE DOLOMITE AT 921FT

921 - 926 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
20% ALLOCHEMICAL CONSTITUENTS

PO18595
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCITE- 3%
LAMINATIONS OF CALCITE

926 - 926.5 DOLOSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%
TRACE ORGANICS

926.5- 928 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE DOLOMITE

928 - 928.5 DOLOSTONE; OLIVE GRAY TO GRAYISH ORANGE PINK
POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%

928.5- 931 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-30%
TRACE ORGANICS

931 - 931.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 7%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS

931.5- 932.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-15%

932.5- 933 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-25%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS TRACE CALCITE, EUHEDRAL FEW SHELL MOLDS
PYRITE REPLACED FROAM, VALVULINA

PO18595

933 - 936 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ACCESSORY MINERALS: CLAY- 1%
BLUISH GRAY CLAYS TRACE ORGANICS TRACE DOLOMITE

936 - 939 WACKESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
OTHER FEATURES: CHALKY

939 - 940.5 PACKSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS, OOLITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: SPAR- 2%, CLAY- 2%
VERY COARSE GRAIND OF CALCITE BLUISH GRAY CLAYS DUSKY BLUE
SECONDARY COLOR

940.5- 941 DOLOSTONE; VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, MOLDIC; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%
TRACE ORGANICS IN PORE SPACES

941 - 943.5 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-35%
OTHER FEATURES: CHALKY

943.5- 946 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO MODERATE BLUISH GRAY
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-50%, CLAY-10%
OTHER FEATURES: CHALKY
TRACE SPARRY CALCITE

946 - 947.5 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 5%
FOSSILS: FOSSIL MOLDS
TRACE CALCITE

947.5- 948 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-15%
OTHER FEATURES: CHALKY

948 - 948.7 DOLOSTONE; WHITE TO MODERATE GRAY
POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL

PO18595

GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-30%

948.7- 949 PACKSTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE-10%
TRACE SPARRY CALCITE TRACE CLAYS

949 - 950 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-25%
TRACE BLUISH GRAY CLAYS TRACE CALCTIE

950 - 951 DOLOSTONE; VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-10%
TRACE ORGANICS

951 - 952 DOLOSTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
TRACE LIMESTONE TRACE CALCITE

952 - 953 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
35% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%
TRACE ORGANICS IN LENSES

953 - 955.8 SILT-SIZE DOLOMITE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 5%
BROKEN FRAGMENTS OF CORE

955.8- 956 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO GRAYISH BROWN
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS-10%, LIMESTONE- 3%, CLAY- 3%
OTHER FEATURES: CHALKY

956 - 958.5 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
TRACE LIMESTONE TRACE ORGANICS

PO18595

958.5- 961 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-10%
TRACE CLAYS LAMINATIONS OF CLAYS TRACE CALCITE

961 - 961.4 SILT-SIZE DOLOMITE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-30%

961.4- 963 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-15%

963 - 963.5 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE- 3%
TRACE ORGANICS

963.5- 966 WACKESTONE; WHITE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
TRACE ORGANICS

966 - 970 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORAN
20% POROSITY: INTERGRANULAR; MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%
TRACE ORGANICS

970 - 971 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE- 7%
TRACE ORGANICS

971 - 975 DOLOSTONE; YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, MOLDIC; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-30%
FOSSILS: FOSSIL MOLDS
TRACE CALCITE TRACE ORGANICS

975 - 976 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

PO18595

POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
UNCONSOLIDATED
OTHER FEATURES: CHALKY

976 - 977.5 DOLOSTONE; YELLOWISH GRAY TO MODERATE YELLOWISH BROWN
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%
TRACE ORGANICS

977.5- 981 CALCILUTITE; WHITE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE ORGANICS

981 - 985.5 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 7%, ORGANICS- 1%

985.5- 986 WACKESTONE; WHITE TO MODERATE BLUISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS, OOLITE
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; UNCONSOLIDATED
ACCESSORY MINERALS: SPAR- 1%
OTHER FEATURES: CHALKY
TRACE ORGANICS

986 - 988 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 7%

988 - 991 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS, OOLITE
7% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY
TRACE ORGANICS

991 - 996 WACKESTONE; YELLOWISH GRAY TO WHITE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE ORGANICS

PO18595

996 - 998.5 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
19% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
OTHER FEATURES: CHALKY
TRACE ORGANICS

998.5- 1001 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: SPAR- 1%

1001 - 1002 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-25%
TRACE ORGANICS

1002 - 1005 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
TRACE CALCITE ORGANIC LAMINATIONS TRACE DOLOMITE

1005 - 1005.5 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SILT-SIZE DOLOMITE- 1%
TRAEC CALCITE

1005.5- 1006 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, OOLITE
1% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO FINE; UNCONSOLIDATED
OTHER FEATURES: CHALKY, SUCROSIC
TRACE ORGANICS

1006 - 1006.5 DOLOSTONE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, MOLDIC; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-25%
TRACE ORGANICS

1006.5- 1008 DOLOSTONE; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS

PO18595

50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%, CALCITE- 1%
TRACE ORGANICS

1008 - 1011 WACKESTONE; WHITE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; UNCONSOLIDATED
OTHER FEATURES: CHALKY, SUCROSIC

1011 - 1012 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, MOLDIC; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%
FOSSILS: FOSSIL MOLDS
TRACE CALCITE

1012 - 1014 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; UNCONSOLIDATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-15%
TRACE CALCITE

1014 - 1016 CALCILUTITE; VERY LIGHT ORANGE TO WHITE
POROSITY: INTERGRANULAR
UNCONSOLIDATED
TRACE CALCITE TRACE ORGANICS TRACE BLUISH GRAK CLAYS

1016 - 1020 SILT-SIZE DOLOMITE; WHITE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR; UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE-15%
OTHER FEATURES: CHALKY, SUCROSIC

1020 - 1021 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO DARK YELLOWISH BROWN
10% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED, NODULAR
ACCESSORY MINERALS: CHERT-30%, LIMESTONE- 2%, ORGANICS- 1%
OTHER FEATURES: CHALKY, SUCROSIC

1021 - 1021.5 AS ABOVE

1021.5- 1022 CALCILUTITE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED
TRACE ORGANICS TRACE BROWN CLAYS TRACE CALCITE IN BROWN
CLAY

1022 - 1026 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION

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CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%

1026 - 1028.5 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
OTHER FEATURES: CHALKY, SUCROSIC
TRACE DOLOSILT

1028.5- 1031 MUDSTONE; YELLOWISH GRAY TO WHITE
20% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE- 3%
OTHER FEATURES: CHALKY
VEIN OF CALCITE NEAR 1031FT

1031 - 1032.5 CALCILUTITE; WHITE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
UNCONSOLIDATED
ACCESSORY MINERALS: CALCITE- 5%
OTHER FEATURES: CHALKY, SUCROSIC

1032.5- 1034.3 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: NODULAR, LAMINATED
ACCESSORY MINERALS: LIMESTONE-25%, CALCITE-10%
CALCITE IN THIN LAMINATIONS TRACE CHERT NODULES CLEARLY
VISIABLE CONTACT WITH NEXT UNIT

1034.3- 1034.7 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS- 1%
ANHYDRITE LEECHING OUT ON SURFACE, POST DRILLING

1034.7- 1035 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: CALCITE- 2%, SILT-SIZE DOLOMITE- 2%
TRACE QUARTZ CRYSTALS

1035 - 1036 DOLOSTONE; VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, MOLDIC; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-15%
FOSSILS: FOSSIL MOLDS

PO18595

VERY TRACE QUARTZ CRYSTALS

1036 - 1038.5 WACKESTONE; YELLOWISH GRAY TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE- 5%
TRACE CALCITE TRACE ORGANICS

1038.5- 1041 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
TRACE CALCITE TRACE ORGANICS

1041 - 1043 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%, ORGANICS- 1%
FOSSILS: FOSSIL MOLDS

1043 - 1046 WACKESTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, VUGULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-20%, CALCITE- 5%
TRAEC CHERT

1046 - 1047 AS ABOVE

1047 - 1048 DOLOSTONE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%
TRACE ORGANICS TRACE CALCITE

1048 - 1048.7 DOLOSTONE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%
TRACE CALCITE IN VUGS

1048.7- 1050.5 SILT-SIZE DOLOMITE; YELLOWISH GRAY TO GRAYISH ORANGE
30% POROSITY: INTERGRANULAR, VUGULAR; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, CALCITE-20%
OTHER FEATURES: CHALKY

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CALCITE IN VEINS

1050.5- 1051 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, SHELL-%

1051 - 1051.3 AS ABOVE

1051.3- 1051.5 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%
TRAEC CALCITE

1051.5- 1052.5 WACKESTONE; YELLOWISH GRAY TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
CEMENT TYPE(S): GYPSUM CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE-10%, SILT-SIZE DOLOMITE- 7%
TRACE QUARTZ IN VEINS

1052.5- 1053 CALCITE, WELL INDURATED, TRACE QUARTZ, 34
TO 76 IN COLOR, NO EUHEDRAL CRYSTALS INTERGROWN, NO CEMENT

1053 - 1054.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: LIMESTONE-20%, CALCITE- 5%

1054.5- 1056 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: LIMESTONE-15%
OTHER FEATURES: CHALKY
TRACE ORGANIC LAMINATIONS

1056 - 1056.8 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-25%
TRACE ORGANICS

1056.8- 1060 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION

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CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: LIMESTONE-30%, CALCITE-15%
TRACE ORGANICS

1060 - 1061 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE- 7%
TRACE ORGANICS

1061 - 1062 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-20%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS

1062 - 1063.8 CALCILUTITE; YELLOWISH GRAY TO MODERATE YELLOWISH BROWN
25% POROSITY: VUGULAR, INTERGRANULAR
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE-15%
SOME LARGER CALCITE CRYSTALS >2MM

1063.8- 1064 SILT-SIZE DOLOMITE; YELLOWISH GRAY TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%, CALCITE-20%
TRACE ORGANICS

1064 - 1064.5 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
POROSITY: INTERGRANULAR, VUGULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: LAMINATED, BANDED
ACCESSORY MINERALS: ORGANICS- 3%, CLAY- 3%, CALCITE- 1%
OTHER FEATURES: CHALKY
ANHYDRITE LEECHING OUT OF SURFACE, POST DRILLING

1064.5- 1065.9 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%, CALCITE- 5%
TRACE ANHYDRITE

1065.9- 1066 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE

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UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS- 3%, CALCITE- 2%
LEECHING OF ANHYDRITE ON SURFACE, POST DRILLING TRACE CLAYS

1066 - 1066.3 AS ABOVE

1066.3- 1067 PACKSTONE; GRAYISH ORANGE TO YELLOWISH GRAY
35% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
GRAIN TYPE: INTRACLASTS, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCITE-10%, DOLOMITE- 2%
FOSSILS: FOSSIL MOLDS

1067 - 1067.8 WACKESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, VUGULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE- 7%
OTHER FEATURES: CHALKY

1067.8- 1070 WACKESTONE; YELLOWISH GRAY
POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-15%, CALCITE- 5%

1070 - 1071 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-15%, CALCITE- 5%
FOSSILS: FOSSIL MOLDS

1071 - 1073.5 PACKSTONE; WHITE TO MODERATE YELLOWISH GREEN
6 % POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: CALCITE- 3%
OTHER FEATURES: CHALKY

1073.5- 1074 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-20%, CALCITE- 3%
FOSSILS: FOSSIL MOLDS

1074 - 1076 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS

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50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-15%, ORGANICS-10%, CLAY- 3%

1076 - 1076.2 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%

1076.2- 1077 WACKESTONE; YELLOWISH GRAY TO MODERATE DARK GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, ORGANICS-10%

1077 - 1078 SILT-SIZE DOLOMITE; VERY LIGHT GRAY TO YELLOWISH GRAY
POROSITY: INTERGRANULAR; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: LIMESTONE-10%, ORGANICS- 3%, CHERT- 3%
FOSSILS: FOSSIL MOLDS

1078 - 1081 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- 7%
TRACE ORGANICS TRAEC CALCITE

1081 - 1081.5 DOLOSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-15%, CALCITE- 3%
ANHYDRITE- 1%
TRACE ORGANICS

1081.5- 1082.5 DOLOSTONE; VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: LIMESTONE-20%, CALCITE- 3%
FOSSILS: FOSSIL MOLDS

1082.5- 1086 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
40% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

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SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE- 7%, CALCITE- 1%
OTHER FEATURES: WEATHERED
INTERBEDED WITH WELL LITHIFIED DOLOSILT

1086 - 1086.8 AS ABOVE

1086.8- 1087 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS- 3%
DESSICATION CRACKS TRACE CALCITE

1087 - 1091 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE- 5%, CALCILUTITE- 3%
SINGLE LAMINATION AT 1089.8FT OF ORGANICS

1091 - 1092.5 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE- 5%, CALCITE- 1%
TRACE ORGANICS

1092.5- 1093.5 DOLOSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, CALCITE- 1%
TRACE ORGANICS ANHYDRITE LEECHING OUT ON SURFACE, POST DRILLING

1093.5- 1096 DOLOSTONE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: NODULAR
ACCESSORY MINERALS: LIMESTONE- 5%, ANHYDRITE- 3%
ANHYDRITE IN LARGE VUGS TRACE CHERT TRACE HEAVY MINERALS

1096 - 1098 AS ABOVE

1098 - 1101 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED, NODULAR
ACCESSORY MINERALS: LIMESTONE-15%, ANHYDRITE-15%
THIN LAMINATIONS OF BROWN ANHYDRITE TRACE GYPSUM

1101 - 1103 AS ABOVE

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1103 - 1103.5 ANHYDRITE; DARK YELLOWISH BROWN TO WHITE
POROSITY: FRACTURE
SEDIMENTARY STRUCTURES: LAMINATED, BRECCIATED
ACCESSORY MINERALS: LIMESTONE- 2%
LOWER PORTION BRECCIATED ORGANIC LAMINATIONS TRACE QUARTZ

1103.5- 1106 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, MOLDIC; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: NODULAR
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM- 3%
CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
LARGE NODULES OF EVAPORITES EVAPORITES FILLING POROUS
SPACES

1106 - 1107 AS ABOVE

1107 - 1107.5 ANHYDRITE; WHITE TO DARK YELLOWISH BROWN
POROSITY: NOT OBSERVED
SEDIMENTARY STRUCTURES: LAMINATED, BRECCIATED
ACCESSORY MINERALS: ORGANICS- 5%, LIMESTONE- 1%
ORGANIC LAMINATIONS DESCIATION CRACKS IN LIMESTONE

1107.5- 1108 DARK BROWN ORGANICS WITH A RIND OF ANHYDRITE

1108 - 1109.3 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: GYPSUM- 3%, CALCILUTITE- 2%
TRACE ORGANICS

1109.3- 1109.5 ANHYDRITE; DARK YELLOWISH BROWN TO YELLOWISH GRAY
POROSITY: NOT OBSERVED
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: LIMESTONE- 5%, QUARTZ SAND- 1%

1109.5- 1111 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS- 1%
ORGANIC LAMINATIONS TRAEC EVAPORITES LEECHING OUT, POST
DRILLING

1111 - 1114.2 DOLOSTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED

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ACCESSORY MINERALS: CALCILUTITE-25%, ANHYDRITE-10%
OTHER FEATURES: CHALKY
INTERBEDED WITH A LAYER OF CALCILUTITE AT 1112.5FT

1114.2- 1114.7 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: NOT OBSERVED; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: NODULAR
ACCESSORY MINERALS: CALCILUTITE-10%, ANHYDRITE- 7%
NODULES OF ANHYDRITE LEECHING OF ANHYDRITE ON SURFACE, POST DRILLING

1114.7- 1115.2 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
3% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
TRACE ORGANICS

1115.2- 1116 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS-10%
ANHYDRITE- 1%
ANHYDRITE FILLING VUGS ORGANIC LAMINATIONS LEECHING OF ANHYDRITE ON SURFACE, POST DRILLING

1116 - 1117.7 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, INTRACLASTS
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: DOLOMITE-10%, SHELL-%
ORGANIC LAMINATIONS LEECHING OF ANHYDRITE ON SURFACE, POST DRILLING

1117.7- 1118.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-15%, ANHYDRITE- 1%
ORGANIC LAMINATIONS LEECHING OF ANHYDRITE ON SURFACE, POST DRILLING

1118.5- 1119.7 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-15%, GYPSUM-15%
MOLDS FILLED WITH GYPSUM, LARGER VUGS FILLED WITH ANHYDRITE

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1119.7- 1121 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BANDED
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 5%
GYPSUM FILLING POROUS SPACES TRACE ORGANIC LAMINATIONS AT 1120.9FT

1121 - 1122.7 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 7%, CALCILUTITE- 5%
GYPSUM- 3%
ORGANIC LAMINATIONS

1122.7- 1122.7 GYPSUM; NO COLOR GIVEN TO NO COLOR GIVEN
M % POROSITY: FRACTURE, INTERGRANULAR, LOW PERMEABILITY

1122.7- 1122.8 WACKESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS-40%, CLAY- 5%, ANHYDRITE- 1%
TRAEC CALCITE LEECHING OF ANHYDRITE ON SURFACE, POST DRILLING

1122.8- 1124.4 DOLOSTONE; MODERATE ORANGE PINK TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE-10%
GYPSUM FILLING PORES

1124.4- 1124.8 GYPSUM;
POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
BRECCIATED WITH ORGANIC LAMINATED DOLOMITE

1124.8- 1126 DOLOSTONE; GRAYISH ORANGE PINK TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 1%
GYPSUM FILLING POROUS SPACES

1126 - 1131 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE

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GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED, INTERBEDDED
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 7%
ANHYDRITE- 1%
EVAPORITES FILLING POROUS SPACES ORGANIC LAMINATIONS
INTERBEDED WITH CALCILUTITE

1131 - 1133.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%, GYPSUM- 7%
ANHYDRITE- 7%
EVAPORITES FILLING POROUS SPACES TRACE ORGANICS

1133.5- 1134.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%, GYPSUM-10%
GYPSUM FILLING POROUS SPACES ONE LAMINATION OF ORGANICS

1134.5- 1136 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS- 1%

1136 - 1137.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 5%
FOSSILS: FOSSIL MOLDS
GYPSUM FILLING PORES TRACE ORGANICS

1137.5- 1141 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, GYPSUM- 3%
QUARTZ SAND- 2%, ANHYDRITE- 1%
EVAPORITES FILLING PORES TRACE ORGANIC LAMINATIONS AT
1141FT

1141 - 1142.7 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: VERY FINE TO MICROCRYSTALLINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 3%, CALCILUTITE- 3%

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ORGANICS- 1%
GYPSUM FILLING PORES TRACE IRON STAINS

1142.7- 1143.3 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%, GYPSUM- 2%
FOSSILS: FOSSIL MOLDS
GYPSUM FILLING PORES

1143.3- 1144.4 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%, ORGANICS- 1%
TRACE EVAPORITES

1144.4- 1146 MUDSTONE; WHITE TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
5% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-20%, ANHYDRITE-10%
GYPSUM- 3%, ORGANICS- 1%
OTHER FEATURES: CHALKY
FOSSILS: BENTHIC FORAMINIFERA
EVAPORITES FILLING PORES CAPS OF LITUONELLA FLORIDANA

1146 - 1147.5 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
3% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: DOLOMITE- 5%, ORGANICS- 5%, GYPSUM- 3%
GYPSUM FILLING PORES

1147.5- 1148.4 WACKESTONE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 1%
OTHER FEATURES: CHALKY
LEECHING OF EVAPORITES ON SURFACE, POST DRILLING EVAPORITES
FILLING PORES

1148.4- 1150.9 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

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ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS- 5%
TRACE ORGANIC LAMINATIONS AT 11509FT TRACE EVAPORITES
FILLING PORES

1150.9- 1151 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 7%, CALCILUTITE- 2%
ORGANICS- 5%

1151 - 1153 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-20%, GYPSUM-10%
ORGANICS- 3%
FOSSILS: FOSSIL MOLDS
GYPSUM FILLING PORES ORGANIC LAMINATIONS

1153 - 1154.3 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE- 7%, GYPSUM- 1%
ORGANICS- 1%
EVAPORITES FILLING PORES TRACE IRON STAINS

1154.3- 1155.2 DOLOSTONE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-15%, GYPSUM-15%
TRACE ORGANICS EVAPORITES FILLING PORES

1155.2- 1156 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: LIMESTONE-20%, ORGANICS- 1%
ORGANICE LAMINATIONS

1156 - 1156.8 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: GYPSUM-15%, CALCILUTITE-10%
EVAPORITES FILLING PORES ORGANIC LAMINATIONS

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1156.8- 1158.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 7%, CALCILUTITE- 3%
ORGANIC LAMINATIONS TRACE GYPSUM LEECHING OF EVAPORITES ON SURFACE, POST DRILLING

1158.5- 1161 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS-10%, CALCILUTITE- 3%
ORGANIC LAMINATIONS

1161 - 1161.3 MUDSTONE; YELLOWISH GRAY TO WHITE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
7% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: GYPSUM-10%, ORGANICS- 5%, DOLOMITE- 5%
EVAPORITES FILLING PORES

1161.3- 1162 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 1%
TRACE ORGANICS

1162 - 1165 WACKESTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 5%, DOLOMITE- 3%
EVAPORITES FILLING PORES TRACE ANHYDRITE TRACE ORGANICS

1165 - 1166 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 7%, DOLOMITE- 3%
TRACE EVAPORITES ORGANIC LAMINAITONS

1166 - 1166.5 AS ABOVE

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1166.5- 1167.3 GYPSUM; MODERATE YELLOWISH BROWN TO WHITE
POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT
SEDIMENTARY STRUCTURES: BANDED, BRECCIATED

1167.3- 1168.5 WACKESTONE; MODERATE REDDISH BROWN TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE- 1%
TRACE EVAPORITES TRACE ORGANICS TRACE METALLIC GRAY FLAKES

1168.5- 1169.4 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE- 7%, ORGANICS- 5%
ORGANIC LAMINATIONS

1169.4- 1169.5 ANHYDRITE; WHITE TO MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT

1169.5- 1169.8 DOLOSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 5%, CALCILUTITE- 2%
TRACE ORGANICS

1169.8- 1170.1 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, INTRACLASTS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 5%, DOLOMITE- 3%
ORGANIC LAMINATIONS

1170.1- 1171 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%, GYPSUM- 3%
ORGANICS- 1%
FOSSILS: FOSSIL MOLDS
EVAPORITES FILLING PORES

1171 - 1171.2 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR

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GRAIN TYPE: INTRACLASTS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: DOLOMITE-15%, ORGANICS- 5%, GYPSUM- 3%
ORGANIC LAMINATIONS

1171.2- 1171.9 ANHYDRITE; WHITE TO MODERATE LIGHT GRAY
POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, GYPSUM CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: GYPSUM-25%, LIMESTONE-15%
BRECCIATED WITH LIMESTONE FROM ABOVE

1171.9- 1173.2 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 7%
LARGE DEPOSITS OF GYPSUM AT 1172.5 FT

1173.2- 1174.2 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT BLUISH GRAY
POROSITY: INTERGRANULAR, PIN POINT VUGS; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: GRADED BEDDING
EVAPORITES FILLING PORES ORGANICS IN GYPSUM TRACE IRON
STAINS

1174.2- 1174.4 GYPSUM; VERY LIGHT ORANGE TO MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: LIMESTONE-10%
BRECCIATED WITH LIMESTONE

1174.4- 1175.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 5%
GYPSUM FILLING PORES

1175.5- 1176 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS- 7%
ORGANIC LAMINATIONS

1176 - 1178.6 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC

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10-50% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS- 7%
GYPSUM- 7%
FOSSILS: FOSSIL MOLDS
ORGANIC LAMINATIONS EVAPORITES FILLING PORES LARGE GYPSUM
DEPOSITS AT 1176.5FT

1178.6- 1181 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
2I% POROSITY: PIN POINT VUGS, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-15%, CALCILUTITE- 2%
FOSSILS: FOSSIL MOLDS
LARGE DEPOSITS OF GYPSUM GYPSUM FILLING PORES TRACE
ORGANICS

1181 - 1181.8 AS ABOVE

1181.8- 1182.7 ANHYDRITE; WHITE TO YELLOWISH GRAY
POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: DOLOMITE- 5%
BRECCIATED WITH DOLOMITE

1182.7- 1184.2 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE-10%
ORGANICS- 3%
FOSSILS: FOSSIL MOLDS

1184.2- 1184.6 GYPSUM; VERY LIGHT GRAY TO LIGHT GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT
SEDIMENTARY STRUCTURES: LAMINATED, BANDED
ACCESSORY MINERALS: LIMESTONE-52%
ORGANIC LAMINATIONS

1184.6- 1185.5 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%, ORGANICS- 3%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS

1185.5- 1186 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL

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GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS

1186 - 1187.3 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 5%, CALCILUTITE- 3%
GYPSUM- 1%
OIRGANIC LAMINATIONS GYPSUM FILLING FRACTURE AT 1187.3FT

1187.3- 1188 DOLOSTONE; VERY LIGHT ORANGE TO DARK YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE- 7%, GYPSUM- 5%
FOSSILS: FOSSIL MOLDS
ORGANIC AND GYPSUM LAMINATIONS MOLDS OF DICTYOCONUS
AMERICANUS AND VAIVULINA

1188 - 1190.2 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: GYPSUM-10%, DOLOMITE-10%

1190.2- 1191 GYPSUM; VERY LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: ANHYDRITE- 3%, ORGANICS- 1%
INTERBEDED WITH A LAYER OF ANHYDRITE

1191 - 1193 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-16%, CALCILUTITE- 3%
FOSSILS: FOSSIL MOLDS

1193 - 1193.2 WACKESTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: ORGANICS-30%, GYPSUM- 1%

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1193.2- 1196 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%, ORGANICS- 1%
FOSSILS: FOSSIL MOLDS
TRACE CHERT NODULE TRACE CALCITE MOLD OF DICTYOCONUS
AMERICANUS CAP TRACE EVAPORITES

1196 - 1199.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%, GYPSUM- 2%
ORGANICS- 2%
FOSSILS: FOSSIL MOLDS

1199.5- 1199.8 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, GYPSUM CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: GYPSUM-10%, ORGANICS- 7%
ORGANIC LAMINATIONS

1199.8- 1201 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE- 3%, CALCILUTITE- 2%
ORGANICS- 1%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS

1201 - 1206 ANHYDRITE; VERY LIGHT GRAY TO DARK YELLOWISH BROWN
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, GYPSUM CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: GYPSUM-30%, ORGANICS- 3%
LIMESTONE- 1%
BRECCIATED WITH ORGANICS

1206 - 1206.3 AS ABOVE

1206.3- 1208.8 DOLOSTONE; VERY LIGHT ORANGE TO DARK YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%, GYPSUM- 2%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS

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1208.8- 1209 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS-10%, DOLOMITE- 7%
ANHYDRITE- 2%
ORGANIC LAMINATIONS LEECHING OUT OF EVAPORITES ON SURFACE
POST DRILLING

1209 - 1210.3 DOLOSTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 3%, CALCILUTITE- 2%
FOSSILS: FOSSIL MOLDS
PORE FILLING GYPSUM TRAEC ORGANICS

1210.3- 1211 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, GYPSUM- 1%

1211 - 1212.5 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: INTRACLASTS, CALCILUTITE
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE-10%, ORGANICS- 3%
GYPSUM- 1%
OTHER FEATURES: CHALKY
ORGANIC LAMINATIONS

1212.5- 1213.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%, GYPSUM- 1%
TRACE IRON STAINING TRACE ORGANICS

1213.5- 1214.1 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%, GYPSUM- 3%
ORGANICS- 1%

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FOSSILS: FOSSIL MOLDS
EVAPORITES FILLING PORES MOLDS OF DICTYOCONUS AMERICANUS

1214.1- 1214.3 ANHYDRITE; VERY LIGHT GRAY TO GRAYISH BROWN
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT

1214.3- 1215.5 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE- 2%, CALCILUTITE- 2%
FOSSILS: FOSSIL MOLDS
TRACE GYPSUM

1215.5- 1215.7 ANHYDRITE; LIGHT BLUISH GRAY TO MODERATE YELLOWISH BROWN
10% POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-35%, ORGANICS-10%

1215.7- 1216 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORAN
15% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS- 5%
OTHER FEATURES: CHALKY
ORGANIC LAMINATIONS

1216 - 1217.1 AS ABOVE

1217.1- 1217.6 GYPSUM; VERY LIGHT GRAY TO YELLOWISH GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: QUARTZ-3%
BRECCIATED WITH DOLOMITE

1217.6- 1218.9 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORAN
10% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 3%, CALCILUTITE-15%
TRACE EVAPORITES ORGANIC LAMINATIONS

1218.9- 1219.8 GYPSUM; VERY LIGHT GRAY TO YELLOWISH GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE- 3%
BRECCIATED WITH DOLOSILT

1219.8- 1220.1 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORAN
10% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS- 3%
ORGANIC LAMINATIONS

1220.1- 1220.8 GYPSUM; VERY LIGHT GRAY TO YELLOWISH GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, DOLOMITE CEMENT

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SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: SILT-SIZE DOLOMITE- 3%
BRECCIATED WITH DOLOSILT

1220.8- 1221 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORAN
10% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS- 3%

1221 - 1223.5 SILT-SIZE DOLOMITE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS- 3%
ORGANIC LAMINATIONS

1223.5- 1226 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-10%, GYPSUM-10%
ORGANICS- 5%
FOSSILS: FOSSIL MOLDS
ORGANIC LAMINATIONS EVAPORITES FILLING PORES

1226 - 1227.6 DOLOSTONE; LIGHT YELLOWISH ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 7%, CALCILUTITE- 5%
FOSSILS: FOSSIL MOLDS
ORGANIC LAMINATIONS TRACE EVAPORITES

1227.6- 1229.7 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS GYPSUM FILLING PORES

1229.7- 1229.9 ANHYDRITE; VERY LIGHT GRAY TO MODERATE GRAY
GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, ORGANIC MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: ORGANICS- 3%
BRECCIATED WITH ORGANICS

1229.9- 1231 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

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ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS TRAEC ORGANICS

1231 - 1232 AS ABOVE

1232 - 1232.5 GYPSUM; MODERATE LIGHT GRAY TO GRAYISH BROWN
10% POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ORGANIC MATRIX
SEDIMENTARY STRUCTURES: GRADED BEDDING
ACCESSORY MINERALS: ORGANICS-10%, ANHYDRITE- 2%
BRECCIATED WITH ORGANICS

1232.5- 1234 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 7%, ANHYDRITE- 2%
CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS EVAPORITES FILLING PORES

1234 - 1234.3 ANHYDRITE; WHITE TO VERY LIGHT GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT
TRACE ORGANIC LAMINATIONS AT BASE OF ROCK

1234.3- 1235 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 1%, ORGANICS- 1%
TRACE EVAPORITES

1235 - 1235.5 GYPSUM; VERY LIGHT GRAY TO LIGHT BLUISH GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 3%

1235.5- 1236 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS- 7%, CALCILUTITE- 7%
GYPSUM- 7%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS CAPS LARGE DEPOSTIS OF
GYPSUM

1236 - 1237 DOLOSTONE; MODERATE YELLOWISH BROWN TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS- 7%, GYPSUM- 5%

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CALCILUTITE- 2%
FOSSILS: FOSSIL MOLDS
LARGE DEPOSITS OF GYPSUM

1237 - 1237.3 GYPSUM; WHITE TO LIGHT GRAY
10% POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, DOLOMITE CEMENT
ORGANIC MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: DOLOMITE-10%, ORGANICS- 3%
ANHYDRITE- 2%
ANHYDRITE RIND ON SURFACE, POST DRILLING

1237.3- 1238.5 DOLOSTONE; YELLOWISH GRAY TO MODERATE YELLOWISH BROWN
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 7%, ORGANICS- 7%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS TRACE LIMESTONE GYPSUM
FILLING PORES

1238.5- 1239.2 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, FRACTURE, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED, INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-15%, GYPSUM- 5%
ORGANICS- 3%, ANHYDRITE- 1%
INTERBEDED LAYERS OF GYPSUM AND LIMESTONE ORGANIC
LAMINATIONS

1239.2- 1239.7 DOLOSTONE; YELLOWISH GRAY TO MODERATE YELLOWISH BROWN
29% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%, ORGANICS- 3%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS

1239.7- 1241 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 7%, CALCILUTITE- 5%
ORGANICS- 3%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS GYPSUM FILLING PORES

1241 - 1246 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

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SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 7%
ORGANICS- 3%, ANHYDRITE- 3%
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS LARGE EVAPORITE DEPOSITS

1246 - 1249 AS ABOVE

1249 - 1249.2 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS-10%
ORGANIC LAMINATIONS

1249.2- 1251 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
30% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-10%, GYPSUM- 5%
CALCILUTITE- 5%
FOSSILS: FOSSIL MOLDS
RICH BLACK ORGANICS EVAPORITES FILLING PORES MOLDS OF
DICTYOCONUS AMERICANUS

1251 - 1251.3 AS ABOVE

1251.3- 1252.8 DOLOSTONE; GRAYISH ORANGE TO GRAYISH PURPLE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: GYPSUM-60%, CALCILUTITE-10%
ORGANICS- 5%
BRECCIATED WITH GYPSUM ORGANICS AT BASE OF SECTION

1252.8- 1256 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 7%, ANHYDRITE- 3%
CALCILUTITE- 2%, ORGANICS- 2%
FOSSILS: FOSSIL MOLDS
GYPSUM FILLING PORES

1256 - 1256.7 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE
35% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%, ORGANICS- 2%
FOSSILS: FOSSIL MOLDS
TRACE IRON STAINS

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1256.7- 1261 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE- 5%, ORGANICS- 3%
FOSSILS: FOSSIL MOLDS
INTERBEDED LAYERS OF VUGGYNESS SUBHEDRAL DOLOMITE IN MORE VUGGY SECTIONS TRACE CALCITE IN VUGS MOLDS OF DICTYOCONUS AMERICANUS

1261 - 1262.5 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
FOSSILS: FOSSIL MOLDS
MOLDS OF DICTYOCONUS AMERICANUS

1262.5- 1263 DOLOSTONE; DARK YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 5%, CALCILUTITE- 5%
CHERT- 1%
ORGANIC LAMINATIONS

1263 - 1265 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
30% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS-10%, CALCILUTITE- 5%
FOSSILS: FOSSIL MOLDS, BENTHIC FORAMINIFERA
ORGANIC LAMINATIONS TRACE CALCITE SILICIFIED DICTYOCONUS AMERICANUS

1265 - 1266 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
FOSSILS: FOSSIL MOLDS
TRACE SILICIFIED NODULES, POSSIBABLY FOSSILS

1266 - 1266.7 AS ABOVE

1266.7- 1266.9 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE
35% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ACCESSORY MINERALS: CALCILUTITE- 2%, ORGANICS- 1%
OTHER FEATURES: WEATHERED
FOSSILS: FOSSIL MOLDS

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TRACE SILICIFIED NODULES

1266.9- 1268.3 DOLOSTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE
30% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%, ORGANICS- 1%
TRACE SILICIFIED NODULES AND FORAMS

1268.3- 1269.8 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
INTERBEDED WITH LAYERS OF EUHEDRAL DOLOMITE MOLDS OF
DICTYOCONUS AMERICANUS TRACE ORGANICS

1269.8- 1270 DOLOSTONE; MODERATE YELLOWISH BROWN
POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; UNCONSOLIDATED
ACCESSORY MINERALS: CALCILUTITE- 2%, ORGANICS- 1%

1270 - 1271 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 2%
TRACE ORGANICS

1271 - 1271.5 AS ABOVE

1271.5- 1272 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION
CEMENT TYPE(S): ORGANIC MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 3%, CALCILUTITE- 3%
ORGANIC LAMINATIONS

1272 - 1276 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%, CALCITE- 2%
QUARTZ- 1%
EUHEDRAL QUARTZ IN VUGS, DOUBLE TERMINATED EUHEDRAL CALCITE
IN VUGS

1276 - 1281 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

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ACCESSORY MINERALS: ORGANICS- 2%, CALCILUTITE- 1%

1281 - 1281.1 AS ABOVE

1281.1- 1281.9 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 1%
TRACE SILICIFIED NODULES

1281.9- 1282.4 WACKESTONE; VERY LIGHT ORANGE
POROSITY: INTERGRANULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
UNCONSOLIDATED
ACCESSORY MINERALS: DOLOMITE- 5%

1282.4- 1284.5 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
TRACE ORGANICS

1284.5- 1285.5 DOLOSTONE; LIGHT YELLOWISH ORANGE TO GRAYISH ORANGE
30% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%
FOSSILS: FOSSIL MOLDS
TRACE CALCITE

1285.5- 1286 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%

1286 - 1286.7 AS ABOVE

1286.7- 1288 DOLOSTONE; MODERATE YELLOWISH BROWN
25% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 1%

1288 - 1288.7 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 1%

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1288.7- 1290 DOLOSTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%

1290 - 1291 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%
TRAC ORGANICS TRACE SILICIFIED NODULES

1291 - 1292.4 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%

1292.4- 1292.6 DOLOSTONE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%

1292.6- 1296 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
25% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE- 5%
INTERBEDED WITH LAYERS OF POORLY INDURATED SUBHEDRAL
DOLOMITE, FINE TO MEDIUM TRACE CALCITE

1296 - 1299 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
30% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE- 7%, CALCITE- 1%
INTERBEDED WITH LAYERS OF POORLY INDURATED SUBHEDRAL
DOLOMITE, FINE TO MEDIUM TRAC QUARTZ CRYSTALS IN VUGS TRACE
ORGANICS

1299 - 1301 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE- 5%, ORGANICS- 1%
VARYINIG DEGREE OF POROSITY, 10-30% INTERBEDED WITH POORLY

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INDURATED DOLOMITE

1301 - 1302.5 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%
TRACE ORGANICS TRACE QUARTZ IN VUGS

1302.5- 1303 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
OTHER FEATURES: WEATHERED
TRACE ORGANICS TRACE LIMESTONE

1303 - 1304 DOLOSTONE; DARK YELLOWISH ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
EUHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE- 2%
TRAEC ORGANICS

1304 - 1306 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
TRACE ORGANICS

1306 - 1307 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%, ORGANICS- 1%
TRACE SILICIOUS NODULES

1307 - 1308 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
30% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-10%, CALCILUTITE-10%
CALCITE- 1%
OTHER FEATURES: WEATHERED
CALCITE IN VUGS

1308 - 1310.7 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, CALCITE- 2%

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CALCITE IN VUGS TRACE ORGANICS

1310.7- 1311 DOLOSTONE; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE
40% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE-10%, CALCILUTITE- 7%
ORGANICS- 1%
EUHEDRAL CALCITE IN VUGS

1311 - 1311.5 DOLOSTONE; VERY LIGHT ORANGE TO OLIVE GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-15%, ORGANICS- 1%
INTERBEDED WITH EUHEDRAL ANHEDRAL

1311.5- 1316 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS- 3%
INTERBEDED WITH ANHEDRAL DOLOMITE WITH LOTS OF ORGANICS

1316 - 1320 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%, ORGANICS- 1%
CALCITE- 1%
CALCITE FILLING PORES

1320 - 1321 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE
30% POROSITY: INTERGRANULAR; 90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 1%
OTHER FEATURES: WEATHERED
TRACE SHELL FRAGMENTS

1321 - 1321.5 AS ABOVE

1321.5- 1324 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%, CALCITE- 5%
CALCITE IN VUGS TRACE ORGANICS

1324 - 1326 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE

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MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS- 2%, CALCILUTITE- 1%
TRACE CALCITE

1326 - 1331 DOLOSTONE; MODERATE YELLOWISH BROWN TO MODERATE GRAY
25% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BANDED
ACCESSORY MINERALS: CALCITE- 7%, ORGANICS- 1%
CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
CALCITE IN VUGS MOLDS OF DICTYOCONUS AMERICANUS

1331 - 1331.7 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE-10%, CALCILUTITE- 5%
ORGANICS- 1%
TRACE EVAPORITES

1331.7- 1336 DOLOSTONE; YELLOWISH GRAY TO MODERATE GRAY
35% POROSITY: INTERGRANULAR, VUGULAR, FRACTURE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE-10%, CALCILUTITE- 7%
ORGANICS- 1%
FOSSILS: FOSSIL MOLDS
CALCITE IN VUGS AND FRACTURES MOLDS OF DICTYOCONUS
AMERICANUS

1336 - 1341 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, VUGULAR, FRACTURE
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, CALCITE- 5%
ORGANICS- 3%
TRACE CALCITE IN VUGS

1341 - 1346 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, VUGULAR, FRACTURE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE- 7%, ORGANICS- 3%
CALCITE- 1%
ORGANIC LAMINATIONS

1346 - 1351 DOLOSTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION

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CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE-10%, CALCITE- 1%
CHERT- 2%
LARGE NODULES OF CHERT AT 1348FT INTERBEDED WITH LAYERS OF POORLY INDURATED DOLOMITE

1351 - 1356 DOLOSTONE; DARK YELLOWISH ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, FRACTURE, VUGULAR
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE- 7%, CALCILUTITE- 3%
ORGANICS- 1%
CALCITE FILLING FRACTURES AND VUGS SOME ORGANIC CLUMPS IN VUGS

1356 - 1356.5 AS ABOVE

1356.5- 1357.5 DOLOSTONE; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR, FRACTURE, VUGULAR
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE- 2%
CALCITE FILLING VUGS AND FRACTURES TRACE LIMESTONE TRACE ORGANICS TRACE QUARTZ CRYSTALS

1357.5- 1358 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%, CALCITE- 1%
TRACE ORGANICS

1358 - 1361 DOLOSTONE; DARK YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN
25% POROSITY: INTERGRANULAR, FRACTURE, VUGULAR
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%, CALCITE- 2%
SOME STAINING SOME EUHEDRAL DOLOMITE

1361 - 1361 CLAY; NO COLOR GIVEN TO NO COLOR GIVEN
TE% POROSITY, INTERGRANULAR, NOT OBSERVED

1361 - 1365.5 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE- 1%, CALCITE- 1%
TRACE ORGANIC LAMINATIONS

1365.5- 1366 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION

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CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE- 3%, ORGANICS- 2%
OTHER FEATURES: WEATHERED
SINGLE ORGANIC LAMINATION, .5 - 1MM THICK

1366 - 1367.1 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 5%, CALCITE- 1%
FOSSILS: FOSSIL MOLDS

1367.1- 1367.3 DOLOSTONE; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR; 90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 2%
OTHER FEATURES: WEATHERED
TRACE ORGANICS

1367.3- 1368 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 2%

1368 - 1370 PACKSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, VUGULAR
GRAIN TYPE: INTRACLASTS, CALCILUTITE, CRYSTALS
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CALCITE- 2%
CALCITE IN VUGS TRACE ORGANICS

1370 - 1371 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
TRACE ORGANICS

1371 - 1376 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-10%

1376 - 1377 CRYSTALINE LIMESTONE

1377 - 1381 DOLOSTONE; GRAYISH BROWN TO GRAYISH OLIVE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE

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GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: CALCILUTITE- 3%, ORGANICS- 2%
MOSTLY BROKEN PEICES OF CORE ORGANIC LAMINATIONS

1381 - 1382 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
TRACE QUARTZ CRYSTALS

1382 - 1386 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
MOSTLY BROKEN PEICES OF CORE TRACE LIMESTONE TRACE ORGANICS

1386 - 1391 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE- 2%
MOSTLY BROKEN PEICES OF CORE TRACE CALCITE IN VUGS

1391 - 1396 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 7%, ORGANICS- 1%
MOSTLY BROKEN PEICES OF CORE

1396 - 1401 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM- 7%
CALCILUTITE- 5%, ORGANICS- 1%
LARGE CLASTS OF EVAPORITES

1401 - 1401.7 AS ABOVE

1401.7- 1402.3 ANHYDRITE; WHITE TO MODERATE GRAY
5% POROSITY: FRACTURE, INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: DOLOMITE- 2%, ORGANICS- 1%
BRECCIATED WITH DOLOMITE

1402.3- 1402.8 GYPSUM; MODERATE LIGHT GRAY TO WHITE
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%

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ANHYDRITE CLASTS IN GYPSUM

1402.8- 1403 GYPSUM; WHITE TO MODERATE LIGHT GRAY
3% POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 7%, ORGANICS- 2%
ANHYDRITE RIND AROUND CORE, POST DRILLING ORGANICS IN FRACTURES

1403 - 1406 GYPSUM; MODERATE LIGHT GRAY TO GRAYISH BLUE GREEN
10% POROSITY: INTERGRANULAR, FRACTURE; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: ANHYDRITE-10%, DOLOMITE- 5%
ORGANICS- 3%
INTERBEDED WITH DOLOMITE WITH ORGANICS ANHYDRITE CALSTS IN GYPSUM

1406 - 1408.5 ANHYDRITE; WHITE TO MODERATE LIGHT GRAY
5% POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: GYPSUM-10%, DOLOMITE- 7%
ANHYDRITE RIND AROUND CORE, POST DRILLING CLASTS OF DOLOMITE

1408.5- 1409.1 DOLOSTONE; VERY LIGHT ORANGE TO WHITE
20% POROSITY: INTERGRANULAR, FRACTURE; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 7%, ORGANICS- 5%
CALCILUTITE- 3%
GYPSUM FILLING FRACTURES

1409.1- 1411 GYPSUM; WHITE TO MODERATE LIGHT GRAY
5% POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%
ANHYDRITE RIND AROUND CORE, POST DRILLING

1411 - 1413.5 ANHYDRITE; WHITE TO LIGHT GRAY
10% POROSITY: FRACTURE; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 3%
ANHYDRITE RIND AROUND CORE, POST DRILLING

1413.5- 1415 DOLOSTONE; DARK YELLOWISH BROWN TO DARK GRAYISH YELLOW
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ORGANICS- 7%, CALCILUTITE- 3%
ORGANIC LAMINATIONS

1415 - 1415.4 ANHYDRITE; WHITE TO LIGHT GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-10%
ANHYDRITE IN GYPSUM MATRIX ANHYDRITE RIND AROUND CORE

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1415.4- 1416 DOLOSTONE; DARK YELLOWISH BROWN TO DARK GRAYISH YELLOW
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS- 7%, CALCILUTITE- 3%

1416 - 1421 DOLOSTONE; DARK YELLOWISH BROWN TO DARK GRAYISH YELLOW
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: ORGANICS- 7%, GYPSUM- 7%
ANHYDRITE- 5%, CALCILUTITE- 3%
LARGE CLASTS OF EVAPORITES EVAPORITES FILLING FRACTURES

1421 - 1426 DOLOSTONE; DARK YELLOWISH BROWN TO DARK GRAYISH YELLOW
15% POROSITY: INTERGRANULAR, FRACTURE; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 7%, ORGANICS- 5%
CALCILUTITE- 3%
GYPSUM FILLING FRACTURES

1426 - 1428.5 DOLOSTONE; LIGHT OLIVE GRAY TO DARK GRAYISH YELLOW
20% POROSITY: INTERGRANULAR, FRACTURE; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS- 5%, ANHYDRITE- 3%
CALCILUTITE- 1%
LARGE EVAPORITE CLASTS

1428.5- 1431 DOLOSTONE; MODERATE OLIVE BROWN TO GRAYISH BROWN
25% POROSITY: INTERGRANULAR, VUGULAR, FRACTURE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 5%, ORGANICS- 5%
CALCILUTITE- 2%
EVAPORITES FILLING PORES TRACE ANHYDRITE

1431 - 1435 DOLOSTONE; LIGHT OLIVE GRAY TO DARK GRAYISH YELLOW
30% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
EVAPORITES FILLING FRACTURES INTERBEDED LAYERS OF GYPSUM
TRACE ORGANICS

1435 - 1436 ANHYDRITE; WHITE TO MODERATE LIGHT GRAY

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POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: DOLOMITE- 2%
INTERBEDED WITH DOLOMITE

1436 - 1436.5 ANHYDRITE; WHITE TO MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT

1436.5- 1440 DOLOSTONE; LIGHT OLIVE GRAY TO DARK GRAYISH YELLOW
30% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-10%, CALCILUTITE- 1%
ANHYDRITE- 1%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS EVAPORITES FILLING FRACTURES LARGE CLASTS OF EVAPORITES

1440 - 1440.5 ANHYDRITE; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT
LOOKS FIBEROUS, BUT HARDER THAN FINGER NAIL

1440.5- 1441 DOLOSTONE; LIGHT OLIVE GRAY TO DARK GRAYISH YELLOW
30% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 7%, CALCILUTITE- 2%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS EVAPORITES FILLING PORES LARGE GYPSUM CRYSTALS AT BASE OF INTERVAL, LOOSE CRYSTALS

1441 - 1446 DOLOSTONE; VERY LIGHT ORANGE TO DARK GRAYISH YELLOW
35% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE- 3%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS TRACE EVAPORITES

1446 - 1451 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY
35% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 2%, CALCILUTITE- 3%
FOSSILS: FOSSIL MOLDS
GYPSUM DECREASES DONW INTERVAL

1451 - 1455 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
35% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR
90-100% ALTERED; ANHEDRAL

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GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 3%, CALCILUTITE- 2%
FOSSILS: FOSSIL MOLDS
GYPSUM FILLING PORES POORLY INDURETED AT 1455FT

1455 - 1455.5 GYPSUM; LIGHT GRAY TO GRAYISH BLUE GREEN
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 2%

1455.5- 1456 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-10%, ORGANICS- 1%
CALCILUTITE- 1%
OTHER FEATURES: WEATHERED

1456 - 1456.5 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-20%, CALCITE- 2%
OTHER FEATURES: WEATHERED
TRACE ORGANICS TRACE LIMESTONE LARGE CLASTS OF GYPSUM

1456.5- 1457 ANHYDRITE; MODERATE GRAY TO LIGHT YELLOWISH ORANGE
15% POROSITY: INTERGRANULAR, FRACTURE; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-15%
SAME DOLOMITE AS ABOVE TRACE GYPSUM

1457 - 1458 DOLOSTONE; GRAYISH BROWN TO LIGHT YELLOWISH ORANGE
35% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- 2%, CALCILUTITE- 1%
OTHER FEATURES: WEATHERED

1458 - 1459 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: MEDIUM TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 7%, CALCILUTITE- 1%
TRACE ORGANICS

1459 - 1460 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
TRACE LIMESTONE TRACE ORGANICS

1460 - 1461 DOLOSTONE; LIGHT OLIVE TO GRAYISH ORANGE

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10% POROSITY: INTERGRANULAR; 90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: MEDIUM TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE- 3%, CALCILUTITE- 1%
ANHYDRITE RIND ON SOME PORTIONS OF CORE, POST DRILLING

1461 - 1461.5 AS ABOVE

1461.5- 1463.2 ANHYDRITE; WHITE TO YELLOWISH GRAY
5% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, DOLOMITE CEMENT
GYPSUM CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: GYPSUM-10%, DOLOMITE-10%
SAME DOLOMITE AS ABOVE GYPSUM LAMINATIONS

1463.2- 1464 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE GRAY
10% POROSITY: INTERGRANULAR; 90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: MEDIUM TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ANHYDRITE- 3%, CALCILUTITE- 1%
EVAPORITE LAMINATIONS

1464 - 1466 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR, MOLDIC; 90-100% ALTERED
EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 1%
FOSSILS: FOSSIL MOLDS
TRACE LIMESTONE TRACE GREEN STAINING, LOOKS LIKE COPPER

1466 - 1471 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS- 2%, ANHYDRITE- 1%

1471 - 1472.6 GYPSUM;

1472.6- 1473.5 ANHYDRITE; LIGHT OLIVE GRAY TO VERY LIGHT GRAY
15% POROSITY: INTERGRANULAR; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, DOLOMITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE- 7%, LIMESTONE- 3%
ORGANICS- 3%
TRACE PYRITE SAME DOLOMITE AS ABOVE

1473.5- 1476 DOLOSTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE- 3%, GYPSUM- 1%
CALCILUTITE- 1%

1476 - 1481 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT GRAY

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20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: GYPSUM- 2%, CALCILUTITE- 1%
FOSSILS: FOSSIL MOLDS
TRACE ORGANICS

1481 - 1484.7 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CALCILUTITE- 2%, ANHYDRITE- 2%
FOSSILS: FOSSIL MOLDS
INTERBEDED LAYER OF HIGHER LIMESTONE, 10% TRACE GYPSUM

1484.7- 1486 DOLOSTONE; YELLOWISH GRAY TO LIGHT YELLOWISH ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 5%, CALCILUTITE- 5%
FOSSILS: FOSSIL MOLDS
TRACE IRON STAIN, POST DRILLING LAGRE ANHYDRITE CLASTS

1486 - 1491 DOLOSTONE; LIGHT YELLOWISH ORANGE TO MODERATE GRAY
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MEDIUM TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 7%, GYPSUM- 3%
ORGANICS- 1%
ANHYDRITE FILLIGN PORES TRACE LIMESTONE TRACE PYRITE

1491 - 1493.5 DOLOSTONE; LIGHT YELLOWISH ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-20%, ANHYDRITE- 2%
GYPSUM % INCREASES WITH DEPTH EVAPORITES FILLING PORES

1493.5- 1494.5 ANHYDRITE; VERY LIGHT GRAY TO LIGHT GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT, GYPSUM CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: GYPSUM-20%
LAMINATIONS OF EVAPORITES

1494.5- 1495.5 DOLOSTONE; LIGHT GRAY TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: ANHYDRITE- 3%, GYPSUM- 1%
CALCILUTITE- 1%

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BRECCIATED WITH EVAPORITES EVAPORITES FILLING PORES

1495.5- 1496.4 GYPSUM; LIGHT GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-35%
ANHYDRITE RIND AROUND CORE

1496.4- 1498.5 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MEDIUM TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 2%, CALCILUTITE- 2%
TRACE GYPSUM

1498.5- 1499 GYPSUM; VERY LIGHT GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): GYPSUM CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%
ANHYDRITE RIND AROUND CORE

1499 - 1501 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, CALCILUTITE- 1%
TRACE GYPSUM LARGE CLASTS OF ANHYDRITE

1501 - 1501.5 ANHYDRITE; VERY LIGHT GRAY TO LIGHT BLUISH GRAY
POROSITY: NOT OBSERVED; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT

1501.5- 1504 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE
20% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: NODULAR
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM- 3%
CALCILUTITE- 2%
NODULES OF ANHYDRITE ORANGE STAINING, POST DRILLING

1504 - 1506 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE- 2%, ANHYDRITE- 2%
VISABLE ZONING IN DOLOMITE CRYSTALS

1506 - 1511 AS ABOVE

1511 - 1516 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, FRACTURE; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: GYPSUM- 2%, CALCILUTITE- 2%

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BROWN STAINING, POST DRILLING

1516 - 1521 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 5%, ANHYDRITE- 2%
CALCILUTITE- 1%, ORGANICS- 1%
TRACE IRON STAINSAROIND ORGANICS ANHYDRITE FILLING PORES

1521 - 1526 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 7%
TRACE LIMESTONE TRACE ORGANICS LENSES OF GYPSUM

1526 - 1531 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM- 5%, ANHYDRITE- 2%
ORGANICS- 1%, CALCILUTITE- 1%
LENSES OF EVAPORITES TRACE IRON STAINS

1531 - 1532.5 AS ABOVE

1532.5- 1533.5 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE LIGHT GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: GYPSUM- 5%, ANHYDRITE- 5%
CALCILUTITE- 1%
EVAPORITES FILLING PORES TRACE IRON STAINING X-SHAPED
FRACTURE

1533.5- 1535 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: LAMINATED, INTERBEDDED
ACCESSORY MINERALS: ANHYDRITE-10%, LIMESTONE- 5%
GYPSUM- 3%, ORGANICS- 3%
LAMINATIONS OF ANHYDRITE INTERBEDED WITH A LAYER OF
ANHYDRITE LARGE CLASTS OF EVAPORITES

1535 - 1535 ORTHOQUARTZITE; NO COLOR GIVEN TO NO COLOR GIVEN
IC% POROSITY, LOW PERMEABILITY, INTRAGRANULAR
TRACE GREEN STAINING, COPPER

1535 - 1536 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; EUHEDRAL

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GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
SEDIMENTARY STRUCTURES: LAMINATED
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM- 5%
ORGANICS- 3%
FOSSILS: FOSSIL MOLDS
TRACE LIMESTONE ANHYDRITE LAMINATIONS LARGE CLASTS OF
ANHYDRITE

1536 - 1540 DOLOSTONE; YELLOWISH GRAY TO LIGHT GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 5%, GYPSUM- 3%
FOSSILS: FOSSIL MOLDS
LARGE ANHYDRITE CLASTS TRACE ORGANICS TRAEC LIMESTONE

1540 - 1540.5 DOLOSTONE; GRAYISH ORANGE TO MODERATE GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ORGANIC MATRIX
ACCESSORY MINERALS: ORGANICS-10%
FOSSILS: FOSSIL MOLDS
TRACE LIMESTONE TRACE QUARTZ CRYSTALS

1540.5- 1541 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-35%
TRACE ORGANICS

1541 - 1543.5 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-20%, ORGANICS- 2%
FOSSILS: FOSSIL MOLDS
BRYOZAN MOLDS

1543.5- 1545.8 DOLOSTONE; LIGHT OLIVE GRAY TO GRAYISH ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE- 5%, ORGANICS- 3%
TRACE GYPSUM

1545.8- 1546 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION

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CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS- 2%
TRAEC LIMESTONE

1546 - 1548.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS

1466 - 1548.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE
25% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, IRON CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: IRON STAIN-15%, LIMESTONE- 7%
ANHYDRITE- 2%
OTHER FEATURES: WEATHERED
WEATHERED SURFACE HAS IRON STAINS WEATHERED DOLOMITE IS
EUHEDRAL AND FINE TO MEDIUM LARGE ANHYDRITE CLASTS

1548.5- 1551 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE- 3%, CALCILUTITE- 1%
LARGE ANHYDRITE CLASTS TRAEC ORGANICS TRACE GYPSUM EUHEDRAL
DOLOMIIE IN VUGS

1551 - 1556 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
90-100% ALTERED; EUHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM- 3%

1556 - 1560 NO SAMPLES

1560 TOTAL DEPTH

PO19309.txt

LITHOLOGIC WELL LOG PRINTOUT SOURCE - FGS

WELL NUMBER: W-19309 COUNTY - PO19309
TOTAL DEPTH: 2779 FT. LOCATION: T.27S R.27E S.12 00
140 SAMPLES FROM 1427 TO 2779 FT. LAT = 28D 09M 24S
LON = 81D 33M 54S
COMPLETION DATE: N/A ELEVATION: 85 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER:SWFWMD / ROMP 74X - DAVENPORT - UDR DEEP

WORKED BY:SCOTT BARRETT DYER 02/06/2012
LATITUDE SECONDS ROUNDED UP FROM 23.54
LONGITUDE SECONDS ROUNDED DOWN FROM 54.21
CORE RECOVERY GOOD

1427.0 - 1675.9 124AVPK AVON PARK FM.
1675.9 - 2554.2 124OLDM OLDSMAR LIMESTONE
2554.2 - 2777.0 125CDRK CEDAR KEYS LIMESTONE

0 - 1439.4 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%, GYPSUM-10%
ORGANICS-01%
OTHER FEATURES: CRYSTALLINE
FOSSILS: NO FOSSILS
LOW POROSITY AND PERMEABIITY DUE TO ANHYDRITE AND GYPSUM
FILLED PORESPACE

1439.4- 1441 DOLOSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%, GYPSUM-03%
ORGANICS-03%
FOSSILS: NO FOSSILS, ORGANICS

1441 - 1445 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%, GYPSUM-10%
ORGANICS-03%
OTHER FEATURES: CRYSTALLINE
FOSSILS: NO FOSSILS, ORGANICS

1445 - 1446 ANHYDRITE; WHITE TO VERY LIGHT GRAY
05% POROSITY: INTERCRYSTALLINE, INTERGRANULAR, FRACTURE
GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-15%, DOLOMITE-05%
OTHER FEATURES: DOLOMITIC, CRYSTALLINE
FOSSILS: NO FOSSILS

1446 - 1447 DOLOSTONE; GRAYISH BROWN TO LIGHT GRAYISH RED
IP% POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%, ORGANICS-02%

1447 - 1447.4 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%, ORGANICS-12%
OTHER FEATURES: SPECKLED, FOSSILIFEROUS
FOSSILS: ORGANICS
FOSSILS HIGHLY RECRYSTALIZED, ECHINOID AND CONES
IMPRESSIONS

1447.4- 1450.4 DOLOSTONE; GRAYISH BROWN
15% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

1450.4- 1454.5 DOLOSTONE; YELLOWISH GRAY
25% POROSITY: MOLDIC, VUGULAR, INTERGRANULAR
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO COARSE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: FOSSIL MOLDS, FOSSIL FRAGMENTS
DOLOMITIZED PACKSTONE INTERBEDDED WITH CRYSTALLINE
DOLOSTONE

1454.5- 1456.4 DOLOSTONE; YELLOWISH GRAY
05% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

1456.4- 1457.9 DOLOSTONE; YELLOWISH GRAY
05% POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%
ANHYDRITE INFILLED PORES AND NODULES

1457.9- 1465.4 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
18% POROSITY: MOLDIC, PIN POINT VUGS, INTERCRYSTALLINE

90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%
OTHER FEATURES: SPECKLED

1465.4- 1469.4 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
10% POROSITY: MOLDIC, PIN POINT VUGS, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM-10%
OTHER FEATURES: CRYSTALLINE, FROSTED, FOSSILIFEROUS
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS
RECRYSTALIZED PACKSTONE AND GRAINSTONE; ANHYDRITE AND
GYPSUM INFILL PORES AND MOLDS

1469.4- 1470.7 DOLOSTONE; LIGHT OLIVE GRAY TO WHITE
08% POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%, GYPSUM-10%

1470.7- 1477 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM-05%

1477 - 1478.4 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
08% POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%, GYPSUM-05%

1478.4- 1481.4 SAND; YELLOWISH GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-18%, GYPSUM-05%
ORGANICS-01%

1481.4- 1482.9 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
08% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%, GYPSUM-05%
ORGANICS-01%

1482.9- 1487.4 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
12% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM-05%
ORGANICS-01%

1487.4- 1489 DOLOSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
14% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%, GYPSUM-10%
ORGANICS-01%

1489 - 1493.3 DOLOSTONE; YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-08%, ORGANICS-01%
OTHER FEATURES: FROSTED
FOSSILS: ORGANICS

1493.3- 1494.7 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
08% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%, GYPSUM-03%

1494.7- 1496.7 ANHYDRITE; WHITE TO VERY LIGHT GRAY
ACCESSORY MINERALS: DOLOMITE-03%

1496.7- 1498 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM-05%

1498 - 1498.5 ANHYDRITE; WHITE TO VERY LIGHT GRAY

1498.5- 1499.1 DOLOSTONE; YELLOWISH GRAY
08% POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

1499.1- 1499.5 DOLOSTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%, ORGANICS-01%

1499.5- 1499.7 ANHYDRITE; WHITE TO VERY LIGHT GRAY

1499.7- 1502.5 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

1502.5- 1505.7 ANHYDRITE; VERY LIGHT GRAY TO YELLOWISH GRAY
ACCESSORY MINERALS: DOLOMITE-10%

1505.7- 1517 DOLOSTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

1517 - 1518.8 DOLOSTONE; YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1518.8- 1524.2 DOLOSTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

1524.2- 1527.9 DOLOSTONE; YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-08%

1527.9- 1532.5 DOLOSTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

1532.5- 1534.5 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1534.5- 1539.4 DOLOSTONE; LIGHT OLIVE GRAY TO GRAYISH BROWN

12% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1539.4- 1543.3 WACKESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, CRYSTALS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-03%
OTHER FEATURES: DOLOMITIC, CHALKY

1543.3- 1547 DOLOSTONE; GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, ORGANICS-02%
OTHER FEATURES: CALCAREOUS

1547 - 1548.1 DOLOSTONE; DARK YELLOWISH BROWN TO VERY LIGHT ORANGE
21% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%, ORGANICS-02%
ANHYDRITE-02%
OTHER FEATURES: SUCROSIC
ANHYDRITE OCCURS AS A SINGLE NODULE INFILLING A VUG

1548.1- 1555.5 DOLOSTONE; GRAYISH BROWN
16% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%
NODULES OF ANHYDRITE THROUGHOUT THE INTERVAL

1555.5- 1560 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
20% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%
OTHER FEATURES: SUCROSIC

1560 - 1567.5 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%
ANHYDRITE PRESENT AS NODULES AND IN PORE SPACE OF MATRIX

1567.5- 1570.4 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
12% POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
ACCESSORY MINERALS: ANHYDRITE-01%, ORGANICS-05%
OTHER FEATURES: VARVED, SUCROSIC
ORGANICS IN VARVES AT TOP AND BOTTOM OF SECTION

1570.4- 1586 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
06% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-25%, ORGANICS-03%

1586 - 1642.2 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-05%, ANHYDRITE-03%
PLANT REMAINS-01%
FOSSILS: ORGANICS, PLANT REMAINS, NO FOSSILS
ANHYDRITE NODULES SURROUNDED BY ORGANIC FINES OVER
INTERVAL; ORGANICS AND PLANT REMAINS SCATTERED OVER THE
INTERVAL

1642.2- 1659.9 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-07%, PLANT REMAINS-01%
OTHER FEATURES: HIGH RECRYSTALLIZATION

1659.9- 1675.9 DOLOSTONE; GRAYISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-12%, ORGANICS-09%
FOSSILS: ORGANICS
TOP OF THE OLDSMAR FORMATION

1675.9- 1677 DOLOSTONE; GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%, ORGANICS-05%
PYRITE-03%
OTHER FEATURES: CALCAREOUS
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, ORGANICS
THE ORGAINCS AND PYRITE MAY CONTAIN GLAUCONITE; BENTHIC
FORAMS ARE POSSIBLY ORBITOLITES

1677 - 1681.1 MUDSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
02% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%, ORGANICS-02%
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

1681.1- 1691.5 WACKESTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-03%, PYRITE-04%
GLAUCONITE-01%
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, ORGANICS
SIGNIFICANT PYRITE CLUSTER AT 1682.0; PLENTIFUL BENTHIC
FORAMS MAY BE ORBITOLITES

1691.5- 1697.6 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-03%, PYRITE-02%
GLAUCONITE-01%
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

1697.6- 1699 DOLOSTONE; GRAYISH BROWN
10% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-02%

1699 - 1700.1 MUDSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: DOLOMITE-05%, ANHYDRITE-05%
GLAUCONITE-02%, ORGANICS-01%
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, ORGANICS
GLAUCONITE CONCENTRATED IN FRACTURE AT 1700 FEET

1700.1- 1703 WACKESTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, INTRAGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%, ORGANICS-03%

GLAUCONITE-01%, DOLOMITE-01%
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

1703 - 1707.9 MUDSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, PIN POINT VUGS, INTRAGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, ORGANICS-03%
GLAUCONITE-02%, DOLOMITE-01%

1707.9- 1710.3 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, CRYSTALS
08% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%, CLAY-05%
CLAY CONCENTRATED AT 1709.1, GREEN GRAY AND WAXY

1710.3- 1711.8 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, BIOGENIC
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-02%
FOSSILS: BENTHIC FORAMINIFERA, CONES, FOSSIL FRAGMENTS

1711.8- 1712.3 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: GLAUCONITE-02%, ORGANICS-01%

1712.3- 1712.7 WACKESTONE; LIGHT GRAY TO YELLOWISH GRAY
14% POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC
GRAIN TYPE: SKELETAL, CRYSTALS, BIOGENIC
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO COARSE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-05%, CLAY-05%
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS, ORGANICS

1712.7- 1713.8 MUDSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-10%, ORGANICS-05%
FOSSILS: ORGANICS
CALCAREOUS CLAY CONCENTRATED AT BOTTOM OF INTERVAL

1713.8- 1714.8 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, BIOGENIC
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: BENTHIC FORAMINIFERA, CONES

1714.8- 1715.9 MUDSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, FRACTURE
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%, GLAUCONITE-01%
OTHER FEATURES: DOLOMITIC
FOSSILS: ORGANICS

1715.9- 1716.8 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT GRAY
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-04%, GLAUCONITE-01%
FOSSILS: ORGANICS

1716.8- 1719.7 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-07%
FOSSILS: ORGANICS, BENTHIC FORAMINIFERA, CONES
FOSSIL FRAGMENTS

1719.7- 1719.9 MUDSTONE; YELLOWISH GRAY TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: CRYPTOCRYSTALLINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-02%, ORGANICS-02%

1719.9- 1720.2 MUDSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, FRACTURE, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%
FOSSILS: ORGANICS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

1720.2- 1723.6 MUDSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1723.6- 1725.2 WACKESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
17% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
GRAIN TYPE: CALCILUTITE, SKELETAL, BIOGENIC
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1725.2- 1727.3 MUDSTONE; VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL
02% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PYRITE-02%, ORGANICS-02%, CLAY-01%
OTHER FEATURES: MUDDY
FOSSILS: ORGANICS

1727.3- 1729.7 MUDSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
18% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 01% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-03%, CLAY-01%
OTHER FEATURES: MUDDY
FOSSILS: ORGANICS
BASE OF THIS INTERVAL IS POSSIBLE EROSIONAL CONTACT
SEVERAL LENSES OF MEDIUM GRAIN NEAR BOTTOM OF INTERVAL
LAST 1.25 INCH IS UNIQUELY DARK BROWN

1729.7- 1730.5 MUDSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY
15% POROSITY: VUGULAR, INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: OOLITE, CALCILUTITE
03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%

1730.5- 1731.4 MUDSTONE; YELLOWISH GRAY TO GRAYISH BROWN
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%, PYRITE-01%, CLAY-01%
FOSSILS: ORGANICS

1731.4- 1734.5 MUDSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-04%, PYRITE-01%

1732 HAS MEDIUM GRAY SPECKS OF MUDSTONE AND ORGANICS

1734.5- 1735.2 WACKESTONE; VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-01%, ANHYDRITE-01%

1735.2- 1736.1 MUDSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%

1736.1- 1737 WACKESTONE; VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-03%

1737 - 1740.7 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
22% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%

1740.7- 1745 WACKESTONE; LIGHT GRAY TO GRAYISH BROWN
18% POROSITY: VUGULAR, INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: OOLITE CLAST, SKELETAL, CALCILUTITE
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO GRANULE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CALCITE-01%
OTHER FEATURES: HIGH RECRYSTALLIZATION, CRYSTALLINE
FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, FOSSIL FRAGMENTS
CRYSTALLINE MATRIX, VUGULAR AND INFILLED WITH VERY FINE
GRANULE SIZED ALLOCHEMS; POSSIBLE LITUONELLA FLORIDAN AT
1742.7

1745 - 1748.1 MUDSTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
15% POROSITY: VUGULAR, INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: OOLITE CLAST, SKELETAL, CALCILUTITE
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO GRANULE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CALCITE-01%, PYRITE-01%, CLAY-01%
OTHER FEATURES: HIGH RECRYSTALLIZATION, CRYSTALLINE
FOSSILIFEROUS

FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
SIMILAR TO PREVIOUS, BUT LESS VUGULAR

1748.1- 1751.6 PACKSTONE; VERY LIGHT ORANGE
20% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: CRYPTOCRYSTALLINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: CALCITE-01%, SPAR-01%, CLAY-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
AT 1749.9, 2 INCH DARK CRYSTALINE MUDSTONE AND GREEN CLAY

1751.6- 1756.2 PACKSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
22% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
GRAIN TYPE: SKELETAL, SKELTAL CAST, CRYSTALS
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: CRYPTOCRYSTALLINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%, CALCITE-03%, CLAY-01%
ORGANICS-01%
OTHER FEATURES: FROSTED, CRYSTALLINE
HIGH RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
RECRYSTALIZED PACKSTONE WITH VUGS FILLED WITH VERY FINE TO
MEDIUM GRAINED LIMESTONE INCLUDING CONES AND LITUONELLA

1756.2- 1757.4 MUDSTONE; LIGHT OLIVE GRAY TO LIGHT GRAY
15% POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR
GRAIN TYPE: OOLITE CLAST, SKELETAL, CALCILUTITE
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO COARSE; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PYRITE-01%
OTHER FEATURES: HIGH RECRYSTALLIZATION
PREDOMINANTLY CRYSTALLINE MUDSTONE WITH VUGS INFILLED WITH
VERY FINE TO MEDIUM GRAIN LIMESTONE

1757.4- 1761 WACKESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY
10% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS
GRAIN TYPE: OOLITE CLAST, SKELETAL, CALCILUTITE
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: DOLOMITIC
FOSSILS: BENTHIC FORAMINIFERA, CONES, FOSSIL FRAGMENTS

1761 - 1771 PACKSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCITE-01%, IRON STAIN-01%

FOSSILS: BENTHIC FORAMINIFERA, CONES, ECHINOID, MILIOLIDS
FOSSIL FRAGMENTS

1771 - 1774.6 PACKSTONE; VERY LIGHT ORANGE TO LIGHT GRAY
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: CRYPTOCRYSTALLINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-20%
OTHER FEATURES: LOW RECRYSTALLIZATION, DOLOMITIC CRYSTALLINE
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS
CRYSTALLINE PORTIONS ARE DOLOMITIC AND LIGHT GRAY

1774.6- 1781.3 PACKSTONE; GRAYISH BROWN
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-01%
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS
POSSIBLE GLAUCONITE VARVE AT 1778 FEET

1781.3- 1782 MUDSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 01% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: NO FOSSILS

1782 - 1787.5 PACKSTONE; GRAYISH BROWN
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, IRON STAIN-01%, PYRITE-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, CORAL, MILIOLIDS
FOSSIL FRAGMENTS
IRON STAIN AND PYRITE IN FRACTURE OF CORE AT 1787

1787.5- 1790 WACKESTONE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, FOSSIL FRAGMENTS

1790 - 1793 WACKESTONE; YELLOWISH GRAY TO GRAYISH BROWN
18% POROSITY: INTERGRANULAR, VUGULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE, OOLITE CLAST

40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: CRYPTOCRYSTALLINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: DOLOMITIC
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS
CRYSTALINE PORTION APPEARS TO BE DOLOMITIC

1793 - 1796 WACKESTONE; GRAYISH BROWN
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS

1796 - 1800 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
18% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: IRON STAIN-02%
IRON STAIN APPEARS ON EXTERIOR, POSSIBLY RESULT OF CORING

1800 - 1800.5 MUDSTONE; GRAYISH BROWN
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
06% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-01%
FOSSILS: ORGANICS

1800.5- 1802.3 PACKSTONE; GRAYISH BROWN TO GRAYISH ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO GRANULE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

1802.3- 1803.4 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1803.4- 1806 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA

1806 - 1807 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
13% POROSITY: INTERGRANULAR, INTRAGRANULAR, MOLDIC
GRAIN TYPE: SKELETAL, CALCILUTITE
55% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL MOLDS, FOSSIL FRAGMENTS
BENTHIC FORAMINIFERA

1807 - 1811 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-02%, IRON STAIN-02%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS, CONES

1811 - 1817 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: VERY FINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-03%, CALCITE-01%, IRON STAIN-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS

1817 - 1824.5 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
18% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-03%, CALCITE-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS
EXTERIOR OF CORE IS DARK YELLOWISH ORANGE THOUGHT TO BE
FROM CORE EQUIPMENT; DARK TO 1820.5, LIGHT UP TO 1822.5

1824.5- 1826.5 PACKSTONE; VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: VERY FINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-03%, CALCITE-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS

1826.5- 1827 WACKESTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, VUGULAR

GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM
RANGE: CRYPTOCRYSTALLINE TO VERY COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, MILIOLIDS

1827 - 1828.9 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-02%, CALCITE-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS, CORAL
EXTERIOR HAS IRON STAINING THOUGHT TO BE FROM CORING

1828.9- 1829.9 PACKSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-02%, CALCITE-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: FOSSIL FRAGMENTS, CONES, BENTHIC FORAMINIFERA

1829.9- 1832 PACKSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-02%, CALCITE-01%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS, CORAL

1832 - 1834 WACKESTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, MOLDIC
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS

1834 - 1836.8 WACKESTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

1836.8- 1837 MUDSTONE; LIGHT GRAY TO VERY LIGHT ORANGE

07% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1837 - 1837.9 WACKESTONE; VERY LIGHT ORANGE TO LIGHT GRAY
10% POROSITY: INTERGRANULAR, INTRAGRANULAR, MOLDIC
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, CALCITE-01%
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS

1837.9- 1840.1 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS, MILIOLIDS

1840.1- 1840.6 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%
OTHER FEATURES: VARVED
FOSSILS: FOSSIL FRAGMENTS

1840.6- 1843.8 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, MOLDIC
GRAIN TYPE: SKELETAL, CALCILUTITE
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: FOSSILIFEROUS
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS
FOSSIL FRAGMENTS

1843.8- 1849.4 PACKSTONE; VERY LIGHT ORANGE TO LIGHT GRAY
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-02%, ORGANICS-02%
FOSSILS: FOSSIL FRAGMENTS
VARVES OF ORGANICS AND LIGHT GRAY MICRITIC MUD AT 1844.1

1849.4- 1847.6 PACKSTONE; LIGHT GREENISH GRAY TO TRANSPARENT
4I% POROSITY: PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL

05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%
OTHER FEATURES: VARVED, CHALKY

1847.6- 1857 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: ORGANICS-01%
OTHER FEATURES: CHALKY
FOSSILS: CONES, FOSSIL FRAGMENTS

1857 - 1858.2 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS, VUGULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
65% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-03%
FOSSILS: CONES, FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA

1858.2- 1860.2 PACKSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: CONES, MILIOLIDS, BENTHIC FORAMINIFERA
FOSSIL FRAGMENTS

1860.2- 1864.1 WACKESTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

1864.1- 1867 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS, CONES

1867 - 1869.4 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

FOSSILS: FOSSIL FRAGMENTS

1869.4- 1870.6 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE, PELLET
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: FOSSIL FRAGMENTS

1870.6- 1873.5 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

1873.5- 1875 WACKESTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: FOSSIL FRAGMENTS

1875 - 1876.2 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

1876.2- 1876.9 MUDSTONE; LIGHT OLIVE GRAY
08% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%, DOLOMITE-04%
OTHER FEATURES: DOLOMITIC

1876.9- 1877.8 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: IRON STAIN-08%
FOSSILS: FOSSIL FRAGMENTS
EXTERIOR IRON STAIN THOUGHT TO BE RESULT OF CORE EQUIPMENT

1877.8- 1878.1 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

1878.1- 1880.1 WACKESTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY
FOSSILS: FOSSIL FRAGMENTS

1880.1- 1882.1 WACKESTONE; VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

1882.1- 1884.8 WACKESTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY
FOSSILS: FOSSIL FRAGMENTS

1884.8- 1887 MUDSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-03%
OTHER FEATURES: CHALKY

1887 - 1889.5 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: CHALKY

1889.5- 1892.1 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-01%, DOLOMITE-01%
OTHER FEATURES: CHALKY

1892.1- 1897.2 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%

1897.2- 1898 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS
04% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-02%, ANHYDRITE-02%

1898 - 1899.6 DOLOSTONE; GRAYISH BROWN
05% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
LOW PERMEABILITY; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

1899.6- 1900.9 MUDSTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, CRYSTALS
02% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-25%, ANHYDRITE-01%
OTHER FEATURES: CHALKY
FOSSILS: NO FOSSILS

1900.9- 1907.5 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: BANDED, MASSIVE
ACCESSORY MINERALS: ANHYDRITE-02%

1907.5- 1909.8 WACKESTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%
DOLOMITE RHOMBS AT TOP AND BOTTOM OF SECTION

1909.8- 1910.7 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-08%, ANHYDRITE-02%

1910.7- 1911.8 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-15%
OTHER FEATURES: CHALKY

1911.8- 1912.1 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%
EUHEDRAL DOLOMITE RHOMBS SURROUNDED BY MICRITE

1912.1- 1914.5 DOLOSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1914.5- 1914.7 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

1914.7- 1917 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: ANHYDRITE-02%

1917 - 1917.9 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-25%

1917.9- 1918.4 MUDSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, CRYSTALS
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-25%
OTHER FEATURES: CHALKY

1918.4- 1919.1 DOLOSTONE; GRAYISH BROWN
10% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1919.1- 1919.6 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%
OTHER FEATURES: DOLOMITIC

1919.6- 1925 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-02%
FOSSILS: FOSSIL FRAGMENTS
ANHYDRITE CONCENTRATION AT 1922.0

1925 - 1926.3 WACKESTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-02%, DOLOMITE-01%

1926.3- 1927.4 MUDSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-30%
OTHER FEATURES: DOLOMITIC

1927.4- 1929.8 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%, ORGANICS-01%
OTHER FEATURES: CALCAREOUS

1929.8- 1930.3 WACKESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-10%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

1930.3- 1933.4 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1933.4- 1934.4 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1934.4- 1935.2 MUDSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-02%

1935.2- 1936.3 WACKESTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-03%, DOLOMITE-01%

1936.3- 1937 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1937 - 1939.4 WACKESTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE, BIOGENIC
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-04%
FOSSILS: FOSSIL FRAGMENTS

1939.4- 1944.5 WACKESTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-03%

1944.5- 1945.1 DOLOSTONE; GRAYISH BROWN
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1945.1- 1945.5 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1945.5- 1947.2 WACKESTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
ACCESSORY MINERALS: DOLOMITE-07%

1947.2- 1947.3 MUDSTONE; DARK GRAY TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA

1947.3- 1948.8 MUDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL; 03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-25%
OTHER FEATURES: DOLOMITIC

1948.8- 1950.6 WACKESTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%

1950.6- 1953 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
15% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1953 - 1954 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE

GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
OTHER FEATURES: CALCAREOUS

1954 - 1957 MUDSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-25%
OTHER FEATURES: DOLOMITIC

1957 - 1957.4 MUDSTONE; GRAYISH BROWN
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-18%
OTHER FEATURES: DOLOMITIC

1957.4- 1963.2 DOLOSTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN
12% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1963.2- 1963.9 MUDSTONE; VERY LIGHT ORANGE TO OLIVE GRAY
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-03%
OTHER FEATURES: CHALKY

1963.9- 1963.2 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
14% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1963.2- 1966 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-15%
OTHER FEATURES: DOLOMITIC

1966 - 1966.6 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
14% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-05%

1966.6- 1973.4 WACKESTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS

1973.4- 1978.5 WACKESTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

1978.5- 1978.7 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-08%
OTHER FEATURES: VARVED
FOSSILS: ORGANICS

1978.7- 1981 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-02%
OTHER FEATURES: DOLOMITIC

1981 - 1981.7 PACKSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1981.7- 1983.4 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-08%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

1983.4- 1985.3 DOLOSTONE; DARK YELLOWISH BROWN
14% POROSITY: INTERGRANULAR, PIN POINT VUGS

90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

1985.3- 1986.3 DOLOSTONE; GRAYISH BROWN
15% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%
OTHER FEATURES: CALCAREOUS

1986.3- 1991.5 WACKESTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

1991.5- 1992.5 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%
OTHER FEATURES: DOLOMITIC

1992.5- 1995.5 PACKSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-01%

1995.5- 1996.2 PACKSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-06%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

1996.2- 1997 PACKSTONE; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

1997 - 1999.1 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-07%, GYPSUM-02%
ANHYDRITE-02%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

1999.1- 2001.6 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-05%

2001.6- 2002.7 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2002.7- 2003.1 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

2003.1- 2003.4 MUDSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2003.4- 2004.2 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

2004.2- 2007 WACKESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-02%, GYPSUM-02%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

2007 - 2007.5 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

2007.5- 2009.9 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, ANHYDRITE CEMENT
DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%, DOLOMITE-03%
OTHER FEATURES: DOLOMITIC

2009.9- 2010.2 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2010.2- 2011.2 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

2011.2- 2012.2 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2012.2- 2015.8 PACKSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-10%
OTHER FEATURES: DOLOMITIC
FOSSILS: FOSSIL FRAGMENTS

2015.8- 2016.6 MUDSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS

GRAIN TYPE: CALCILUTITE; 04% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-40%
OTHER FEATURES: DOLOMITIC

2016.6- 2017.8 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
09% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2017.8- 2018.8 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
09% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
OTHER FEATURES: CALCAREOUS

2018.8- 2020.3 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN
09% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2020.3- 2020.4 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
OTHER FEATURES: CALCAREOUS

2020.4- 2020.5 MUDSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 02% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-05%
OTHER FEATURES: DOLOMITIC

2020.5- 2020.8 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
12% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-18%
OTHER FEATURES: CALCAREOUS

2020.8- 2024 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2024 - 2024.4 ANHYDRITE; WHITE TO VERY LIGHT GRAY
ACCESSORY MINERALS: DOLOMITE-30%

2024.4- 2025.3 DOLOSTONE; DARK YELLOWISH BROWN
08% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%, GYPSUM-02%

2025.3- 2028.4 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
30% POROSITY: VUGULAR, FRACTURE
POSSIBLY HIGH PERMEABILITY; 90-100% ALTERED; EUHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-01%
OTHER FEATURES: POOR SAMPLE
ONLY 1.5 FEET FOR THE INTERVAL

2028.4- 2032.4 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN
05% POROSITY: INTERCRYSTALLINE, MOLDIC; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: ANHYDRITE-02%, GYPSUM-02%

2032.4- 2035.6 WACKESTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

2035.6- 2036 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%
OTHER FEATURES: DOLOMITIC

2036 - 2037.6 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
05% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2037.6- 2037.7 DOLOSTONE; GRAYISH BROWN
16% POROSITY: INTERGRANULAR, VUGULAR; 90-100% ALTERED
EUHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2037.7- 2038.9 ANHYDRITE; VERY LIGHT GRAY TO WHITE

2038.9- 2039.5 DOLOSTONE; GRAYISH BROWN
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2039.5- 2041.4 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2041.4- 2043.1 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2043.1- 2044.9 PACKSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2044.9- 2046.6 PACKSTONE; VERY LIGHT ORANGE
18% POROSITY: INTERGRANULAR, INTRAGRANULAR, VUGULAR
GRAIN TYPE: SKELETAL, PELLET, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: VERY FINE TO VERY COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2046.6- 2051.3 PACKSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
65% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2051.3- 2051.6 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-01%

2051.6- 2055.8 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, FRACTURE, MOLDIC
GRAIN TYPE: SKELETAL, CALCILUTITE, OOLITE CLAST
50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-01%
OTHER FEATURES: LOW RECRYSTALLIZATION

2055.8- 2057.2 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2057.2- 2060.1 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: SKELETAL, PELLET
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: COARSE; RANGE: VERY FINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2060.1- 2060.7 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: SKELETAL, PELLET, CALCILUTITE
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-01%
OTHER FEATURES: VARVED
FOSSILS: FOSSIL FRAGMENTS

2060.7- 2061.8 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2061.8- 2063.5 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
GRAIN TYPE: SKELETAL, PELLET, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-03%
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS

2063.5- 2065 PACKSTONE; VERY LIGHT ORANGE
16% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: SPAR-02%
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS

2065 - 2066.1 WACKESTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS

GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
FOSSILS: FOSSIL FRAGMENTS

2066.1- 2067.8 PACKSTONE; VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2067.8- 2068.5 WACKESTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-08%
FOSSILS: FOSSIL FRAGMENTS

2068.5- 2068.7 DOLOSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; EUHEDRAL
GRAIN SIZE: COARSE; RANGE: VERY FINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-25%

2068.7- 2070 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
16% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2070 - 2070.3 ANHYDRITE; VERY LIGHT GRAY TO GRAYISH BROWN
ACCESSORY MINERALS: DOLOMITE-15%

2070.3- 2077.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%

2077.5- 2084.5 FOOTAGE ERROR IN BOX 69, 2084.5-2092.5
DESCRIPTION OF CORE/FOOTAGE NOTED HERE IS AS MEASURED
FOOTAGE NOT CORRECT AS LABLED IN BOX; ERROR APPEARS TO HAVE
OCCURED AT BLOCK LABELED AS 2087; BLOCK 2087 SHOULD HAVE
BEEN LABELED AS 2089

2084.5- 2087.1 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN
05% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-10%

2087.1- 2087.6 ANHYDRITE; VERY LIGHT GRAY TO DARK YELLOWISH ORANGE
ACCESSORY MINERALS: DOLOMITE-10%

2087.6- 2089.1 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
03% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

2089.1- 2089.6 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN
07% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MOTTLED

2089.6- 2092.1 DOLOSTONE; DARK YELLOWISH BROWN TO DARK YELLOWISH BROWN
04% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

2092.1- 2092.2 DOLOSTONE; DARK YELLOWISH BROWN TO VERY LIGHT GRAY
05% POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-45%
THIS DEPTH IS MEASURED DEPTH FOR END OF BOX 69; DIFFERENCE
IN ACTUAL FOOTAGE AND MARKED FOOTAGE IS 1.7 FEET

2092.5- 2093.6 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2093.6- 2095.6 DOLOSTONE; GRAYISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ANHYDRITE-05%
LARGE ANHYDRITE NODULES AT 2096 AND 2096.3

2095.6- 2097.1 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
16% POROSITY: INTERGRANULAR, VUGULAR, FRACTURE

50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%, GYPSUM-02%
OTHER FEATURES: FROSTED

2097.1- 2099.8 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-01%
ORGANICS IN FRACTURE AT 2099.6

2099.8- 2099.1 DOLOSTONE; GRAYISH BROWN
05% POROSITY: INTERGRANULAR, LOW PERMEABILITY
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2099.1- 2102 DOLOSTONE; GRAYISH BROWN
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-03%
GYPSUM FILLED FRACTURES

2102 - 2102.3 DOLOSTONE; GRAYISH BROWN
05% POROSITY: INTERGRANULAR, LOW PERMEABILITY
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-10%, ANHYDRITE-05%
GYPSUM AND ANHYDRITE FILL MOST PORES, FRACTURES AND VOIDS

2102.3- 2106.9 DOLOSTONE; GRAYISH BROWN TO OLIVE GRAY
04% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
LOW PERMEABILITY; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM-02%
LARGE ANHYDRITE NODULES AT 2108.5

2106.9- 2113.8 DOLOSTONE; GRAYISH BROWN
06% POROSITY: INTERCRYSTALLINE, INTERGRANULAR, FRACTURE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%, GYPSUM-02%
SMALL VUGS 1 TO 5MM MOSTLY FILLED WITH ANHYDRITE GYPSUM
FRACTURES ALSO FILLED WITH ANHYDRITE AND GYPSUM

2113.8- 2117 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-04%
BLACK FRAGMENTS THROUGHOUT INTERVAL INTERPRETED AS
ORGANICS; 2117.5-2118.0 HIGHLY FRACTURED, SHARP AND ANGULAR
SHARDS

2117 - 2122 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
05% POROSITY: PIN POINT VUGS, INTERCRYSTALLINE
LOW PERMEABILITY; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%, GYPSUM-02%

2122 - 2124.2 DOLOSTONE; GRAYISH BROWN TO OLIVE GRAY
03% POROSITY: LOW PERMEABILITY, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: GYPSUM-02%, ANHYDRITE-01%
PORTIONS OF THE MATRIX ARE DARKER IN COLOR; THE DARK
PORTIONS ARE RECTANGULAR OR GEOMETRICALLY SHAPED

2124.2- 2125.4 DOLOSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-01%

2125.4- 2126.8 DOLOSTONE; GRAYISH BROWN TO LIGHT GRAY
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2126.8- 2127.4 DOLOSTONE; GRAYISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2127.4- 2128 DOLOSTONE; GRAYISH BROWN
12% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2128 - 2128.5 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: SPAR-04%
OTHER FEATURES: VARVED

2128.5- 2129.3 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2129.3- 2130.8 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
10% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-01%

2130.8- 2132 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE; RANGE: FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-02%

2132 - 2133.7 DOLOSTONE; GRAYISH BROWN
03% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-02%

2133.7- 2133.8 ANHYDRITE; VERY LIGHT GRAY

2133.8- 2135 DOLOSTONE; GRAYISH BROWN
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2135 - 2136 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
08% POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

2136 - 2136.5 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN
06% POROSITY: INTERCRYSTALLINE, FRACTURE; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2136.5- 2136.8 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2136.8- 2137 DOLOSTONE; GRAYISH BROWN
01% POROSITY: LOW PERMEABILITY, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2137 - 2137.3 DOLOSTONE; GRAYISH BROWN
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
LOW PERMEABILITY; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

2137.3- 2138 ANHYDRITE; VERY LIGHT GRAY

2138 - 2138.5 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
08% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2138.5- 2140.8 DOLOSTONE; GRAYISH BROWN
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%
ALL FRACTURES FILLED WITH ANHYDRITE

2140.8- 2141.3 DOLOSTONE; DARK YELLOWISH BROWN
10% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2141.3- 2144.6 DOLOSTONE; DARK YELLOWISH BROWN TO VERY LIGHT ORANGE
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-01%

2144.6- 2144.7 DOLOSTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-02%

2144.7- 2148.3 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
05% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
LOW PERMEABILITY; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

2148.3- 2148.8 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2148.8- 2148.8 DOLOSTONE; MODERATE YELLOWISH BROWN
10% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2148.3- 2148.8 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2148.8- 2150.4 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: GYPSUM-03%, ANHYDRITE-05%

2150.4- 2152.8 DOLOSTONE; OLIVE GRAY TO GRAYISH BROWN
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2152.8- 2153.6 DOLOSTONE; GRAYISH BROWN
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

2153.6- 2153.8 ANHYDRITE; DARK YELLOWISH BROWN TO VERY LIGHT GRAY

2153.8- 2264.7 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: ANHYDRITE-05%

2162.7- 2163.3 ANHYDRITE; VERY LIGHT GRAY

2163.3- 2166 DOLOSTONE; GRAYISH BROWN TO LIGHT GRAY
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

2166 - 2167.3 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE
05% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-01%

2167.3- 2167.9 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%

2167.9- 2168.3 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS MORE OF A BLUISH WHITE

2168.3- 2171.3 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE
08% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
LOW PERMEABILITY; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-30%
LARGE NODULES OF ANHYDRITE OVER THE INTERVAL

2171.3- 2172.9 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT GRAY
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-15%
ANHYDRITE NODULES THROUGHOUT

2172.9- 2173.4 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE YELLOWISH BROWN
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-15%

2173.4- 2175.6 DOLOSTONE; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2175.6- 2179.3 DOLOSTONE; GRAYISH BROWN
03% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: CRYPTOCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2179.3- 2179.9 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-20%

2179.9- 2183.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

2183.5- 2184.5 DOLOSTONE; VERY LIGHT ORANGE
10% POROSITY: VUGULAR, INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2184.5- 2186.9 DOLOSTONE; GRAYISH BROWN
04% POROSITY: PIN POINT VUGS, INTERCRYSTALLINE
INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2186.9- 2188.9 DOLOSTONE; VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2188.9- 2191.1 DOLOSTONE; GRAYISH BROWN
04% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2191.1- 2194.7 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
09% POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2194.7- 2195.7 DOLOSTONE; YELLOWISH GRAY
04% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
LOW PERMEABILITY; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2195.7- 2196.7 DOLOSTONE; VERY LIGHT ORANGE
09% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2196.7- 2197.2 DOLOSTONE; VERY LIGHT ORANGE
15% POROSITY: VUGULAR, INTERGRANULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2197.2- 2198.3 DOLOSTONE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-07%, CALCILUTITE-01%
OTHER FEATURES: CALCAREOUS

2198.3- 2199 DOLOSTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, PYRITE-01%
OTHER FEATURES: CALCAREOUS

2199 - 2199.4 DOLOSTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
12% POROSITY: VUGULAR, INTERGRANULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-01%
OTHER FEATURES: CALCAREOUS

2199.4- 2202 DOLOSTONE; VERY LIGHT ORANGE
18% POROSITY: VUGULAR, INTERGRANULAR
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, PYRITE-01%
OTHER FEATURES: CALCAREOUS

2202 - 2202 DOLOSTONE; LIGHT OLIVE GRAY
12% POROSITY: VUGULAR, INTERGRANULAR
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): ORGANIC MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%
OTHER FEATURES: CALCAREOUS

2202 - 2203.6 DOLOSTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-04%
OTHER FEATURES: CALCAREOUS

2203.6- 2205.6 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: VUGULAR, INTERGRANULAR
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-04%, PYRITE-02%
OTHER FEATURES: CALCAREOUS

2205.6- 2207 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-04%, PYRITE-04%
OTHER FEATURES: CALCAREOUS

2207 - 2207.9 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
15% POROSITY: VUGULAR, INTERGRANULAR
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2207.9- 2208.1 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2208.1- 2208.6 MUDSTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
12% POROSITY: INTERGRANULAR, PIN POINT VUGS, FRACTURE
GRAIN TYPE: CALCILUTITE, OOLITE CLAST
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-15%, PYRITE-01%
OTHER FEATURES: DOLOMITIC

2208.6- 2210.3 DOLOSTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY

12% POROSITY: VUGULAR, INTERGRANULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: CALCILUTITE-10%, GYPSUM-07%
OTHER FEATURES: CALCAREOUS

2210.3- 2211.4 DOLOSTONE; MODERATE LIGHT GRAY TO YELLOWISH GRAY
14% POROSITY: VUGULAR, FRACTURE, INTERGRANULAR
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-08%
OTHER FEATURES: CALCAREOUS

2211.4- 2215 DOLOSTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY
16% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2215 - 2216.3 DOLOSTONE; MODERATE LIGHT GRAY TO YELLOWISH GRAY
16% POROSITY: VUGULAR, INTERGRANULAR, LOW PERMEABILITY
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2216.3- 2218.4 DOLOSTONE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-05%
OTHER FEATURES: VARVED

2218.4- 2220.2 DOLOSTONE; MODERATE LIGHT GRAY
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2220.2- 2222.7 DOLOSTONE; YELLOWISH GRAY TO LIGHT GRAY
12% POROSITY: INTERGRANULAR, VUGULAR; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, PYRITE-05%
OTHER FEATURES: CALCAREOUS

2222.7- 2223.7 DOLOSTONE; MODERATE LIGHT GRAY TO YELLOWISH GRAY
15% POROSITY: FRACTURE, INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, GYPSUM-05%
IRON STAIN-02%, CLAY-01%
OTHER FEATURES: CALCAREOUS
UNIQUE FIBROUS GYPSUM CRYSTALS

2223.7- 2226.3 DOLOSTONE; MODERATE LIGHT GRAY TO YELLOWISH GRAY
12% POROSITY: VUGULAR, INTERGRANULAR, FRACTURE
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: CALCILUTITE-05%, GYPSUM-02%
OTHER FEATURES: CALCAREOUS

2226.3- 2234.4 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
14% POROSITY: VUGULAR, INTERGRANULAR, MOLDIC
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
GYPSUM CEMENT
ACCESSORY MINERALS: CALCILUTITE-08%, GYPSUM-01%
OTHER FEATURES: CALCAREOUS

2234.4- 2236 DOLOSTONE; LIGHT OLIVE GRAY TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%, CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2236 - 2237.6 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%, CALCILUTITE-04%
OTHER FEATURES: CALCAREOUS

2237.6- 2237.1 DOLOSTONE; LIGHT OLIVE GRAY
12% POROSITY: VUGULAR, INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2237.1- 2240.8 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%
OTHER FEATURES: CALCAREOUS

2240.8- 2243.1 DOLOSTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
10% POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC
50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-02%, CALCILUTITE-01%

2243.1- 2243.4 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2243.4- 2247.6 DOLOSTONE; MODERATE LIGHT GRAY TO VERY LIGHT ORANGE
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, CALCILUTITE-10%
ORGANICS-05%
OTHER FEATURES: CALCAREOUS
ANHYDRITE NODULES ARE SURROUNDED BY ORGANICS

2247.6- 2250 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE LIGHT GRAY
05% POROSITY: INTERCRYSTALLINE, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-20%, CALCILUTITE-02%

2250 - 2252 DOLOSTONE; LIGHT OLIVE GRAY
07% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2252 - 2253.6 DOLOSTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
07% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-08%, CALCILUTITE-02%
ORGANICS-01%
OTHER FEATURES: CALCAREOUS
ORGANICS IN FRACTURE AT END OF INTERVAL

2253.6- 2254.4 DOLOSTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%, ORGANICS-05%
FOSSILS: FOSSIL FRAGMENTS

2254.4- 2257.4 DOLOSTONE; LIGHT OLIVE GRAY
12% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: ANHYDRITE-01%
OTHER FEATURES: GRANULAR

2257.4- 2258 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, PIN POINT VUGS
LOW PERMEABILITY; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
OTHER FEATURES: GRANULAR

2258 - 2258.3 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
09% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-05%
OTHER FEATURES: VARVED

2258.3- 2266.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-01%

2266.5- 2266.9 DOLOSTONE; YELLOWISH GRAY
09% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-03%
OTHER FEATURES: VARVED

2266.9- 2268.7 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
09% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO COARSE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-01%, PYRITE-01%

2268.7- 2269.7 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
07% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-02%

2269.7- 2271 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN
06% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2271 - 2273 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
06% POROSITY: INTERGRANULAR, PIN POINT VUGS

90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ANHYDRITE CEMENT
ACCESSORY MINERALS: GYPSUM-06%, ANHYDRITE-03%

2273 - 2287.3 DOLOSTONE; LIGHT OLIVE GRAY
06% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-01%

2287.3- 2304.1 AS ABOVE

2304.1- 2304.7 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2304.7- 2307.5 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-01%
AHYDRITE NODULE AT 2306.9

2307.5- 2308.1 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2308.1- 2326.6 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: CALCAREOUS, CHALKY

2326.6- 2327.2 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2327.2- 2337.9 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: CALCAREOUS, CHALKY

2337.9- 2343.5 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%, ANHYDRITE-12%
OTHER FEATURES: CHALKY
ANHYDRITE IN NODULES AT 2340.4, 2342.9, 2344.5, 2346
ANHYDRITE FILLS NUMEROUS FRACTURES OVER INTERVAL

2343.5- 2344.5 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2344.5- 2347.8 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%, ANHYDRITE-10%
OTHER FEATURES: CHALKY
ANHYDRITE NODULE AT 2347.1 AND IN FRACTURES

2347.8- 2348.5 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2348.5- 2364.8 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ANHYDRITE-05%
OTHER FEATURES: CHALKY
ANHYDRITE IN 5 NODULES OVER INTERVAL

2364.8- 2371.9 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ANHYDRITE-05%
MORE SUBHEDRAL FINES, DENSER; BETTER INDURATION

2371.9- 2374.6 DOLOSTONE; LIGHT OLIVE GRAY
04% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-04%, CALCILUTITE-02%
OTHER FEATURES: CHALKY

2374.6- 2376.5 DOLOSTONE; LIGHT OLIVE GRAY
03% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: FINE TO VERY FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-02%, CALCILUTITE-02%
OTHER FEATURES: CHALKY

2376.5- 2377.2 DOLOSTONE; LIGHT OLIVE GRAY TO VERY LIGHT GRAY
04% POROSITY: INTERGRANULAR, FRACTURE; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-35%, CALCILUTITE-03%
OTHER FEATURES: CHALKY

2377.2- 2379.8 DOLOSTONE; OLIVE GRAY
03% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%, ORGANICS-02%
ANHYDRITE NOW PARTLY IN MATRIX NOT JUST NODULES/FRACTURES

2379.8- 2380.5 ANHYDRITE; VERY LIGHT GRAY
ANHYDRITE IS BLUISH WHITE

2380.5- 2386.3 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY
04% POROSITY: INTERCRYSTALLINE, INTERGRANULAR, MOLDIC
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-02%, ORGANICS-04%
GYPSUM IN MATRIX; ORGANIC VARVES AT 2386.4-2387.8

2386.3- 2386.4 DOLOSTONE; OLIVE GRAY
15% POROSITY: INTERGRANULAR, FRACTURE; 90-100% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-05%

2386.4- 2388.3 DOLOSTONE; MODERATE DARK GRAY TO OLIVE GRAY
03% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2388.3- 2390.5 DOLOSTONE; DARK GRAY TO MODERATE GRAY
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ORGANICS-02%

2390.5- 2391.7 DOLOSTONE; OLIVE GRAY
04% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2391.7- 2393.9 DOLOSTONE; DARK GRAY TO MODERATE GRAY
04% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL

GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

2393.9- 2401.1 DOLOSTONE; MODERATE GRAY TO OLIVE GRAY
04% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%

2401.1- 2404.4 WACKESTONE; MODERATE GRAY
08% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%, PYRITE-01%
FOSSILS: FOSSIL FRAGMENTS
2MM LAYER OF DOLOSILT AND ORGANICS AT TOP OF INTERVAL

2404.4- 2407 WACKESTONE; MODERATE GRAY
06% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: PYRITE-01%
FOSSILS: FOSSIL FRAGMENTS

2407 - 2412.7 WACKESTONE; MODERATE GRAY TO VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MOTTLED
FOSSILS: FOSSIL FRAGMENTS

2412.7- 2415.6 WACKESTONE; MODERATE GRAY TO VERY LIGHT ORANGE
08% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BANDED
ACCESSORY MINERALS: ORGANICS-05%
OTHER FEATURES: VARVED
FOSSILS: FOSSIL FRAGMENTS

2415.6- 2418.5 PACKSTONE; VERY LIGHT ORANGE TO MODERATE GRAY
08% POROSITY: INTERGRANULAR, INTRAGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: BANDED
ACCESSORY MINERALS: ORGANICS-05%
OTHER FEATURES: VARVED
FOSSILS: FOSSIL FRAGMENTS

2418.5- 2426.6 WACKESTONE; MODERATE LIGHT GRAY
04% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2426.6- 2427.7 WACKESTONE; MODERATE LIGHT GRAY
04% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2427.7- 2428 MUDSTONE; MODERATE DARK GRAY
04% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 02% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM-02%

2428 - 2437 WACKESTONE; YELLOWISH GRAY TO MODERATE LIGHT GRAY
04% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PYRITE-03%, GYPSUM-02%, ORGANICS-02%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: FOSSIL FRAGMENTS
GREEN MINERALS ARE INTERPRETED AS OXIDIZED PYRITE AND
GLACONITE

2437 - 2437.9 WACKESTONE; LIGHT OLIVE GRAY
08% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2437.9- 2439.9 WACKESTONE; LIGHT OLIVE GRAY
04% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
45% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PYRITE-01%, GYPSUM-01%

2439.9- 2447 WACKESTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
04% POROSITY: INTERGRANULAR
GRAIN TYPE: SKELETAL, CALCILUTITE

60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: PYRITE-02%, GYPSUM-02%

2447 - 2449.6 MUDSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, FRACTURE, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-20%, GYPSUM-04%
OTHER FEATURES: VARVED, MUDDY
SUBSTAINTIAL ORGANICS LAST 1.0 FOOT

2449.6- 2453.9 WACKESTONE; LIGHT OLIVE GRAY
07% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: ORGANICS-10%, SPAR-04%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: FOSSIL FRAGMENTS

2453.9- 2457 WACKESTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
06% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: ORGANICS-01%, SPAR-02%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2457 - 2464.8 MUDSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
03% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%

2464.8- 2466.3 WACKESTONE; LIGHT OLIVE GRAY
07% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2466.3- 2467.1 MUDSTONE; YELLOWISH GRAY TO GRAYISH BROWN
05% POROSITY: INTERGRANULAR, FRACTURE, PIN POINT VUGS
GRAIN TYPE: CALCILUTITE; 04% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

2467.1- 2469 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2469 - 2470.6 DOLOSTONE; GRAYISH BROWN
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
OTHER FEATURES: CALCAREOUS

2470.6- 2477.3 WACKESTONE; YELLOWISH GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS
GRAIN TYPE: SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-04%
VARVES OF ORGANICS AT 2478.0

2477.3- 2479 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, SKELETAL, OOLITE CLAST
40% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-01%, DOLOMITE-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
AT 2480.3 SMALL SECTION WITH DOLOMITE CRYSTALS

2479 - 2483.6 WACKESTONE; YELLOWISH GRAY
06% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: HIGH RECRYSTALLIZATION

2483.6- 2485 WACKESTONE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, MOLDIC, INTERCRYSTALLINE
GRAIN TYPE: SKELETAL, CALCILUTITE, SKELTAL CAST
65% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-03%
FOSSILS: FOSSIL MOLDS, FOSSIL FRAGMENTS

2485 - 2487.1 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, SKELETAL, CALCILUTITE
65% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: HIGH RECRYSTALLIZATION

2487.1- 2489.6 WACKESTONE; LIGHT OLIVE GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, SKELETAL, CALCILUTITE
55% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: HIGH RECRYSTALLIZATION

2489.6- 2493.5 WACKESTONE; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-03%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2493.5- 2494.4 WACKESTONE; YELLOWISH GRAY
07% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: ORGANICS-03%
OTHER FEATURES: VARVED, MEDIUM RECRYSTALLIZATION
3MM VARVE AT 2495.8

2494.4- 2495.8 WACKESTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
35% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: ORGANICS-04%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2495.8- 2496.8 WACKESTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
45% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2496.8- 2497.8 WACKESTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
45% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2497.8- 2500.1 WACKESTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE

50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: HIGH RECRYSTALLIZATION

2500.1- 2504.1 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: HIGH RECRYSTALLIZATION

2504.1- 2504.3 WACKESTONE; VERY LIGHT GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: HIGH RECRYSTALLIZATION

2504.3- 2507.4 WACKESTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: LOW RECRYSTALLIZATION

2507.4- 2509.7 PACKSTONE; VERY LIGHT ORANGE
10% POROSITY: INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS
GRAIN TYPE: SKELETAL, SKELTAL CAST, CALCILUTITE
85% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: LOW RECRYSTALLIZATION

2509.7- 2514.9 WACKESTONE; YELLOWISH GRAY
07% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE, SKELETAL
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2514.9- 2515.1 PACKSTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS
GRAIN TYPE: CRYSTALS, SKELETAL, CALCILUTITE
60% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: LOW RECRYSTALLIZATION

2515.1- 2516.4 PACKSTONE; VERY LIGHT GRAY TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR

GRAIN TYPE: SKELETAL, CALCILUTITE, CRYSTALS
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-15%
OTHER FEATURES: LOW RECRYSTALLIZATION, VARVED
VARVES AROUND 2517.2-2517.8

2516.4- 2517 PACKSTONE; LIGHT OLIVE GRAY
08% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
GRAIN TYPE: CRYSTALS, SKELETAL, CALCILUTITE
75% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%
OTHER FEATURES: HIGH RECRYSTALLIZATION

2517 - 2518.7 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE, SKELETAL
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-02%
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2518.7- 2518.9 WACKESTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
30% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-01%
OTHER FEATURES: LOW RECRYSTALLIZATION

2518.9- 2527.8 MUDSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-10%, ANHYDRITE-02%
OTHER FEATURES: VARVED
ORGANIC VARVES AT 2522.0

2527.8- 2529.9 MUDSTONE; LIGHT OLIVE GRAY TO VERY LIGHT GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX

2529.9- 2531.9 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
06% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM

GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ORGANICS-01%, ANHYDRITE-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
ORGANIC FRAGMENTS THROUGHOUT; ANHYDRITE IN NODULE AT 2533.4

2531.9- 2532.4 WACKESTONE; VERY LIGHT GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE, SKELETAL
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2532.4- 2533.2 PACKSTONE; LIGHT OLIVE GRAY TO VERY LIGHT GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE, MOLDIC
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO VERY COARSE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-04%
OTHER FEATURES: LOW RECRYSTALLIZATION

2533.2- 2534.9 WACKESTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, SKELETAL, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-01%
OTHER FEATURES: LOW RECRYSTALLIZATION

2534.9- 2535.1 DOLOSTONE; MODERATE GRAY
03% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%
OTHER FEATURES: CALCAREOUS

2535.1- 2537 WACKESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: LOW RECRYSTALLIZATION

2537 - 2539.4 WACKESTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CRYSTALS, CALCILUTITE
50% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: HIGH RECRYSTALLIZATION

2539.4- 2539.6 DOLOSTONE; MODERATE LIGHT GRAY

03% POROSITY: INTERCRYSTALLINE, INTERGRANULAR
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%
OTHER FEATURES: CALCAREOUS

2539.6- 2547.3 MUDSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
03% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-25%
OTHER FEATURES: DOLOMITIC, HIGH RECRYSTALLIZATION
INTERVAL DEMONSTRATES ALTERING LEVELS OF DOLOMITIZATION

2547.3- 2554.2 PACKSTONE; LIGHT OLIVE GRAY
08% POROSITY: INTERGRANULAR, PIN POINT VUGS
GRAIN TYPE: CRYSTALS, CALCILUTITE
70% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: HIGH RECRYSTALLIZATION
2554.2' TOP OF THE CEDAR KEYS FORMATION

2554.2- 2561.1 ANHYDRITE; LIGHT BLUISH GRAY
ACCESSORY MINERALS: DOLOMITE-18%
FINE SUBHEDRAL DOLOMITE ARE IN VEIN LIKE PATTERNS; THE
VEINS OF DOLOMITE ARE THROUGHOUT THE ANHYDRITE MASS

2561.1- 2561.7 DOLOSTONE; MODERATE GRAY
08% POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2561.7- 2561.8 ANHYDRITE; LIGHT BLUISH GRAY

2561.8- 2563 DOLOSTONE; MODERATE GRAY
08% POROSITY: INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-50%
DOLOMITE/ANHYDRITE ARE INTERBEDDED OVER THE INTERVAL

2563 - 2569 MUDSTONE; YELLOWISH GRAY TO MODERATE GRAY
05% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
OTHER FEATURES: DOLOMITIC

2569 - 2569.7 MUDSTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE

10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-30%, DOLOMITE-15%
OTHER FEATURES: DOLOMITIC, MEDIUM RECRYSTALLIZATION

2569.7- 2576.1 MUDSTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-03%

2576.1- 2581.1 MUDSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-05%, ORGANICS-02%
OTHER FEATURES: DOLOMITIC, MEDIUM RECRYSTALLIZATION

2581.1- 2584.5 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT
ACCESSORY MINERALS: GYPSUM-03%

2584.5- 2587.4 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY
08% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE
RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ANHYDRITE-01%
OTHER FEATURES: CALCAREOUS

2587.4- 2592.2 ANHYDRITE; LIGHT BLUISH GRAY TO GRAYISH BROWN
ACCESSORY MINERALS: DOLOMITE-20%, ORGANICS-03%
DOLOMITE VEINS THROUGHOUT ANHYDRITE

2592.2- 2592.7 DOLOSTONE; LIGHT OLIVE GRAY
07% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2592.7- 2593.1 ANHYDRITE; LIGHT BLUISH GRAY
ACCESSORY MINERALS: DOLOMITE-05%, ORGANICS-01%

2593.1- 2593.9 DOLOSTONE; LIGHT OLIVE GRAY TO LIGHT BLUISH GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, ANHYDRITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-07%, ORGANICS-02%

2593.9- 2601 DOLOSTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-04%, ORGANICS-02%

2601 - 2604.7 ANHYDRITE; LIGHT BLUISH GRAY TO YELLOWISH GRAY
ACCESSORY MINERALS: DOLOMITE-10%, CALCILUTITE-01%

2604.7- 2606.8 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-01%, ORGANICS-01%

2606.8- 2608.3 ANHYDRITE; LIGHT BLUISH GRAY TO LIGHT OLIVE GRAY
ACCESSORY MINERALS: DOLOMITE-05%

2608.3- 2608.7 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2608.7- 2609.4 ANHYDRITE; LIGHT BLUISH GRAY TO LIGHT OLIVE GRAY
ACCESSORY MINERALS: DOLOMITE-07%, CALCILUTITE-01%

2609.4- 2614.2 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%, ORGANICS-01%

2614.2- 2615 DOLOSTONE; LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-06%, ORGANICS-01%

2615 - 2616.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
08% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-03%

2616.5- 2620.8 DOLOSTONE; VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-08%, CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2620.8- 2622.3 DOLOSTONE; VERY LIGHT ORANGE
08% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-09%, CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2622.3- 2624.6 DOLOSTONE; VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-01%, CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2624.6- 2627.1 ANHYDRITE; LIGHT BLUISH GRAY

2627.1- 2627.7 DOLOSTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%

2627.7- 2635.7 ANHYDRITE; LIGHT GRAY TO GRAYISH BROWN
ACCESSORY MINERALS: DOLOMITE-07%, CALCILUTITE-01%

2635.7- 2636.5 DOLOSTONE; VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2636.5- 2641.8 ANHYDRITE; LIGHT GRAY TO LIGHT OLIVE GRAY
ACCESSORY MINERALS: DOLOMITE-07%, CALCILUTITE-01%

2641.8- 2642.7 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2642.7- 2657 ANHYDRITE; MODERATE LIGHT GRAY TO LIGHT OLIVE GRAY
ACCESSORY MINERALS: DOLOMITE-05%, CALCILUTITE-01%

2657 - 2657.4 DOLOSTONE; YELLOWISH GRAY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2657.4- 2658.1 ANHYDRITE; MODERATE GRAY TO LIGHT BLUISH GRAY
ACCESSORY MINERALS: DOLOMITE-15%

2658.1- 2658.4 DOLOSTONE; YELLOWISH GRAY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE

GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%

2658.4- 2660.5 ANHYDRITE; LIGHT BLUISH GRAY TO YELLOWISH GRAY
02% POROSITY: INTERGRANULAR
ACCESSORY MINERALS: DOLOMITE-15%
DOLOMITE BEDS APROXIMATELY 1CM WIDE PROVIDE NOTED POROSITY

2660.5- 2665.8 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
03% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-05%, CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2665.8- 2667.4 ANHYDRITE; LIGHT BLUISH GRAY TO LIGHT OLIVE GRAY
ACCESSORY MINERALS: DOLOMITE-08%

2667.4- 2668.2 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
03% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%, ANHYDRITE-01%
OTHER FEATURES: CALCAREOUS

2668.2- 2668.8 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-10%, CALCILUTITE-01%
OTHER FEATURES: CALCAREOUS

2668.8- 2669.8 DOLOSTONE; VERY LIGHT ORANGE
08% POROSITY: INTERGRANULAR, PIN POINT VUGS
90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2669.8- 2673.6 ANHYDRITE; MODERATE LIGHT GRAY TO YELLOWISH GRAY
ACCESSORY MINERALS: DOLOMITE-10%

2673.6- 2674.4 DOLOSTONE; YELLOWISH GRAY
04% POROSITY: INTERGRANULAR; 90-100% ALTERED; SUBHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2674.4- 2686.8 ANHYDRITE; LIGHT GRAY TO LIGHT OLIVE GRAY
ACCESSORY MINERALS: DOLOMITE-02%

2686.8- 2692.3 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE

PIN POINT VUGS; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ANHYDRITE-02%
ORGANICS-02%
OTHER FEATURES: CALCAREOUS

2692.3- 2696.7 ANHYDRITE; MODERATE LIGHT GRAY TO YELLOWISH GRAY
ACCESSORY MINERALS: DOLOMITE-05%

2696.7- 2697 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%
OTHER FEATURES: CALCAREOUS

2697 - 2768.3 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
09% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%
OTHER FEATURES: CALCAREOUS

2768.3- 2700.3 ANHYDRITE; MODERATE LIGHT GRAY TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
PIN POINT VUGS
ACCESSORY MINERALS: DOLOMITE-30%
INTERBEDDED DOLOMITE RESPONSIBLE FOR THE NOTED POROSITY

2700.3- 2730 ANHYDRITE; MODERATE LIGHT GRAY TO YELLOWISH GRAY

2730 - 2730.2 DOLOSTONE; LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2730.2- 2731.2 ANHYDRITE; LIGHT BLUISH GRAY TO MODERATE LIGHT GRAY
ACCESSORY MINERALS: DOLOMITE-03%

2731.2- 2732.4 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT BLUISH GRAY
90-100% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-07%

2732.4- 2736.6 ANHYDRITE; MODERATE LIGHT GRAY TO VERY LIGHT ORANGE
ACCESSORY MINERALS: DOLOMITE-05%

2736.6- 2738.6 DOLOSTONE; VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2738.6- 2738.6 DOLOSTONE; VERY LIGHT ORANGE
06% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-02%

2738.6- 2742.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT GRAY
04% POROSITY: INTERGRANULAR; 90-100% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: ANHYDRITE-05%

2742.5- 2744.3 DOLOSTONE; YELLOWISH GRAY
04% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CALCILUTITE-02%, ORGANICS-02%

2744.3- 2744.4 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN
10% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
POOR INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
ACCESSORY MINERALS: CLAY-12%, ORGANICS-03%, IRON STAIN-03%

2744.4- 2746.4 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
06% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2746.4- 2747.5 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
04% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT

2747.5- 2758.9 ANHYDRITE; LIGHT GRAY TO YELLOWISH GRAY
ACCESSORY MINERALS: CALCILUTITE-05%, DOLOMITE-05%
OTHER FEATURES: CALCAREOUS
VERY FINE MICRITIC DOLOSTONE INTERBEDDED OVER INTERVAL

2758.9- 2759.5 DOLOSTONE; VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2759.5- 2760.4 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
04% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: ANHYDRITE-08%, CALCILUTITE-03%

ORGANICS-01%
OTHER FEATURES: CALCAREOUS

2760.4- 2762.1 DOLOSTONE; VERY LIGHT ORANGE
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%
OTHER FEATURES: CALCAREOUS

2762.1- 2763 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
03% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%

2763 - 2764.8 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-05%, ORGANICS-02%
OTHER FEATURES: CALCAREOUS

2764.8- 2766.3 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO VERY COARSE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ORGANICS-03%
OTHER FEATURES: CALCAREOUS

2766.3- 2769.9 DOLOSTONE; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ORGANICS-02%
OTHER FEATURES: CALCAREOUS

2769.9- 2771 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
09% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%, ORGANICS-01%
ANHYDRITE-02%
OTHER FEATURES: CALCAREOUS

2771 - 2771.7 DOLOSTONE; LIGHT OLIVE GRAY
08% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-02%, ANHYDRITE-02%
OTHER FEATURES: CALCAREOUS

2771.7- 2772.8 DOLOSTONE; YELLOWISH GRAY
06% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2772.8- 2773.5 DOLOSTONE; LIGHT OLIVE GRAY
04% POROSITY: INTERGRANULAR; 50-90% ALTERED; ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2773.5- 2774.7 DOLOSTONE; YELLOWISH GRAY
05% POROSITY: INTERGRANULAR, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-02%
OTHER FEATURES: CALCAREOUS

2774.7- 2774.8 ANHYDRITE; LIGHT BLUISH GRAY TO YELLOWISH GRAY
05% POROSITY: INTERGRANULAR
ACCESSORY MINERALS: DOLOMITE-09%

2774.8- 2777 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
08% POROSITY: INTERGRANULAR, MOLDIC, PIN POINT VUGS
50-90% ALTERED; ANHEDRAL
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-03%
OTHER FEATURES: CALCAREOUS

2777 TOTAL DEPTH

Appendix D. Geophysical Logs

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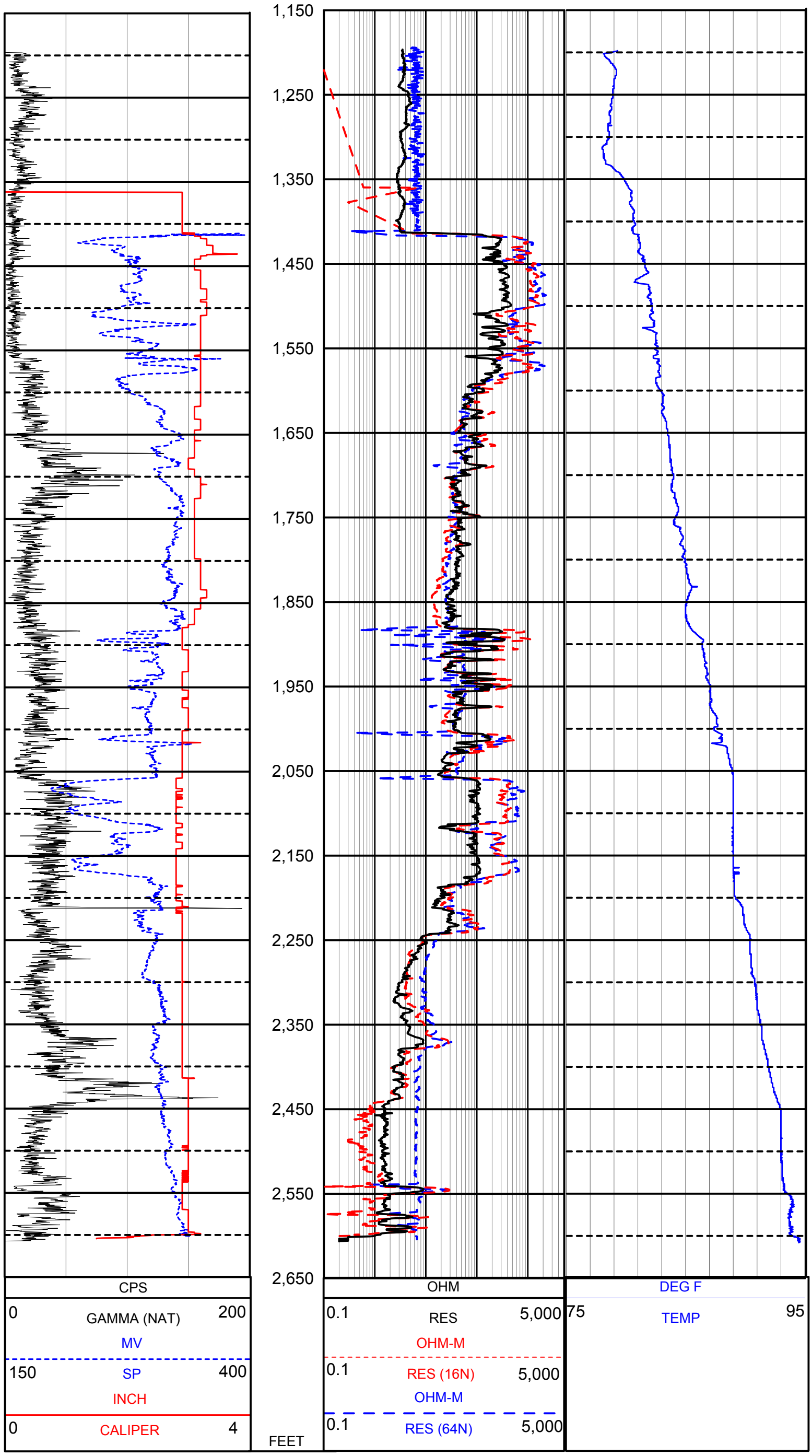

Figure D-1. Geophysical log suite run from 1,200 to 2,600 feet below land surface (bls) in the 3-inch exploratory core hole at the ROMP 74X - Davenport well site in Polk County, Florida. The logs were run on March 10, 2011 using the 9064A (caliper/gamma-ray), and 8044C (multifunction) tools. HWT steel casing was at 1,362 feet bls when the 9065A tool was run. The HWT steel casing was at 1,190 feet bls when the 8044C tool was run. The vertical log scale is 1 inch per 100 feet. Tracks 1 and 3 are in linear scale and track 2 is in logarithmic scale.

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Appendix E. Hydrogeological Correlation Charts

A

WYRICK 1960	LICHTLER 1960	CLARKE 1964	LEVE 1966	WOLANSKY 1978	MILLER 1980	BOGGESS 1986 & ARTHUR AND OTHERS 2008	SWFWMD NOMENCLATURE
nonartesian aquifer	Shallow aquifer	water-table aquifer	shallow aquifer system	unconfined aquifer	surficial aquifer	surficial aquifer system	surficial aquifer
confining unit	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*

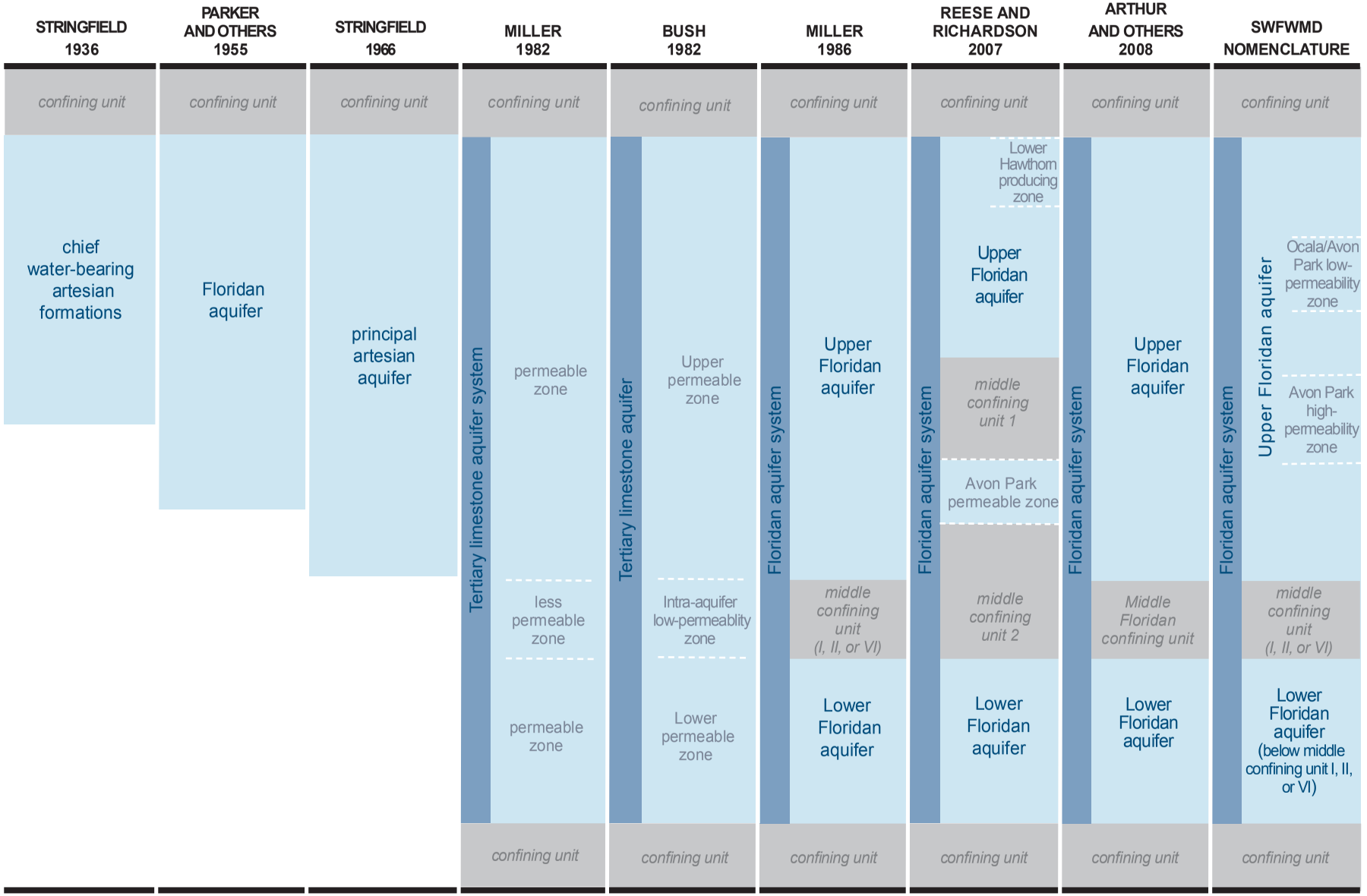
B

SPROUL AND OTHERS 1972	JOYNER, SUTCLIFFE 1976	WEDDERBURN AND OTHERS 1982	WOLANSKY 1983	BARR 1996	TORRES AND OTHERS 2001	KNOCHENMUS 2006	ARTHUR AND OTHERS 2008	SWFWMD NOMENCLATURE
confining unit	*confining unit*	Hawthorn Aquifer System: *confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*
sandstone aquifer	Zone 1	Sandstone aquifer	Intermediate aquifers: Tamiami - upper Hawthorn aquifer	Intermediate aquifer system: Permeable Zone 1	Intermediate aquifer system: Tamiami/ Peace River zone (PZ1)	Intermediate aquifer system: Zone 1	Intermediate aquifer system / intermediate confining unit: zones/ aquifers were not delineated	Hawthorn aquifer system: Peace River aquifer
confining unit	*confining unit*	*confining unit*		*confining unit*	*confining unit*	*confining unit*		*confining unit*
upper Hawthorn aquifer	Zone 2	mid-Hawthorn aquifer		Permeable Zone 2	Upper Arcadia zone (PZ2)	Zone 2		upper Arcadia aquifer
confining unit	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*		*confining unit*
lower Hawthorn aquifer	Zone 3	FAS: lower Hawthorn / Tampa producing zone	Lower Hawthorn - upper Tampa aquifer	Permeable Zone 3	Lower Arcadia zone (PZ3)	Zone 3		lower Arcadia aquifer
confining unit	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*

[FAS, Floridan aquifer system; PZ, permeable zone]

Figure E-1. Nomenclature of (A), the surficial aquifer, (B), the Hawthorn aquifer system, and (C), the Floridan aquifer system used for the ROMP 74X - Davenport well site compared to names in previous reports.

C



[Terms shown are for hydrogeologic units present within the Southwest Florida Water Management District]

Figure E-1 (Continued). Nomenclature of (A), the surficial aquifer, (B), the Hawthorn aquifer system, and (C), the Floridan aquifer system used for the ROMP 74X - Davenport well site compared to names in previous reports.

Surficial Aquifer References (in chronological order):

Wyrick, G.G., 1960, Ground-water resources of Volusia County, Florida: Florida Geological Survey Report of Investigations 22, 65 p.

Lichtler, W.F., 1960, Geology and ground-water resources of Martin County, Florida: Florida Geological Survey Report of Investigations 23, 149 p.

Clarke, WE., Musgrove, R.M., Menke, G.C., and Cagle, J.W., Jr., 1964, Water resources of Alachua, Bradford, Clay, and Union Counties, Florida: Florida Geological Survey Report of Investigations 35, 170 p.

Leve, G.L., 1966, Ground water in Duval and Nassau Counties, Florida: Florida Geological Survey Report of Investigations 43, 91 p.

Wolansky, R.M., 1978, Feasibility of water-supply development from the unconfined aquifer in Charlotte County, Florida: U.S. Geological Survey Water-Resources Investigations Report 78-26, 34 p.

Miller, W.L., 1980, Geologic aspects of the surficial aquifer in the Upper East Coast planning area, southeast Florida: U.S. Geological Survey Water-Resources Investigations Report 80-586, scale 1:62,500, 2 sheets.

Boggess, D.M., and Watkins, F.A., Jr., 1986, Surficial aquifer system in eastern Lee County, Florida: U.S. Geological Survey Water-Resources Investigations Report 85-4161, 59 p.

Arthur, J.D., Fischler, C., Kromhout, C., Clayton, J.M., Kelley, M., Lee, R.A., O'Sullivan, M., Green, R.C., and Werner, C.L., 2008, Hydrogeologic Framework of the Southwest Florida Water Management District: Florida Geological Survey Bulletin No. 68, 104 p.

Hawthorn Aquifer System References (in chronological order):

Sproul, C.R., Boggess, D.H., and Woodward, H.J., 1972, Saline-water intrusion from deep artesian sources in the McGregor Isles area of Lee County, Florida: Florida Bureau of Geology Information Circular 75, 30 p.

Joyner, B.F., and Sutcliffe, H. Jr., 1976, Water Resources of the Myakka River Basin Area, SouthwestFlorida: U.S. Geological Survey Water-Resources Investigation 76-58, 87 p.

Wedderburn, L.A., Knapp, M.S., Waltz, D.P., and Burns, W.S., 1982, Hydrogeologic Reconnaissance of Lee County, Florida: South Florida Water Management District Technical Publication 82-1, pts. 1, 2, and 3, 192 p.

Wolansky, R.M., 1983, Hydrogeology of the Sarasota-Port Charlotte Area, Florida: U.S. Geological Survey Water-Resources Investigations Report 82-4089, 54 p.

Barr, G.L., 1996, Hydrogeology of the Surficial and Intermediate Aquifer Systems in Sarasota and Adjacent Counties, Florida: U.S. Geological Survey Water-Resources Investigations Report 96-4063, 87 p.

Torres, A.E., Sacks, L.A., Yobbi, D.K., Knochenmus, L.A., and Katz, B.G., 2001, Hydrogeological Framework and Geochemistry of the Intermediate Aquifer System in Parts of Charlotte, De Soto, and Sarasota Counties, Florida: U.S. Geological Survey Water-Resources Investigations Report 01-4015, 81 p.

Knochenmus, L.A., 2006, Regional Evaluation of the Hydrogeologic Framework, Hydraulic Properties, and Chemical Characteristics of the Intermediate Aquifer System Underlying Southern West-Central Florida: U.S. Geological Survey Scientific Investigations Report 2006-5013, 40 p.

Arthur, J.D., Fischler, C., Kromhout, C., Clayton, J.M., Kelley, M., Lee, R.A., O'Sullivan, M., Green, R.C., and Werner, C.L., 2008, Hydrogeologic Framework of the Southwest Florida Water Management District: Florida Geological Survey Bulletin No. 68, 104 p.

Floridan Aquifer System References (in chronological order):

Stringfield, V.T., 1936, Artesian water in the Floridan peninsula: U.S. Geological Survey Water-Supply Paper 773-C, p. C115-C195.

Parker, G.G., and others, 1955, Water resources of southeastern Florida: U.S. Geological Survey Water-Supply Paper 1255, 965 p.

Stringfield, V. T., 1966, Artesian water in Tertiary limestone in the Southeastern States: U.S. Geological Survey Professional Paper 517, 226 p.

Miller, J. A., 1982, Geology and configuration of the base of the Tertiary limestone aquifer system, southeastern United States: U.S. Geological Survey Water-Resources Investigations 81-1176, 1 map sheet.

Bush, P. W., 1982, Predevelopment Flow in the Tertiary limestone aquifer, southeastern United States; A Regional Analysis from Digital Modeling: U.S. Geological Survey Water-Resources Investigations Report 82-905, 56 p.

Miller, J. A., 1986, Hydrogeologic Framework of the Floridan Aquifer System in Florida and in Parts of Georgia, Alabama, and South Carolina: U.S. Geological Survey Professional Paper 1403-B., 91 p.

Reese, R.S., and Richardson, Emily, 2008, Synthesis of the Hydrogeologic Framework of the Floridan Aquifer System and Delineation of a Major Avon Park Permeable Zone in Central and Southern Florida: U.S. Geological Survey Scientific Investigations Report 2007-5207, 60 p., 4 pls., plus apps. (on CD).

Arthur, J.D., Fischler, C., Kromhout, C., Clayton, J.M., Kelley, M., Lee, R.A., O'Sullivan, M., Green, R.C., and Werner, C.L., 2008, Hydrogeologic Framework of the Southwest Florida Water Management District: Florida Geological Survey Bulletin No. 68, 104 p.

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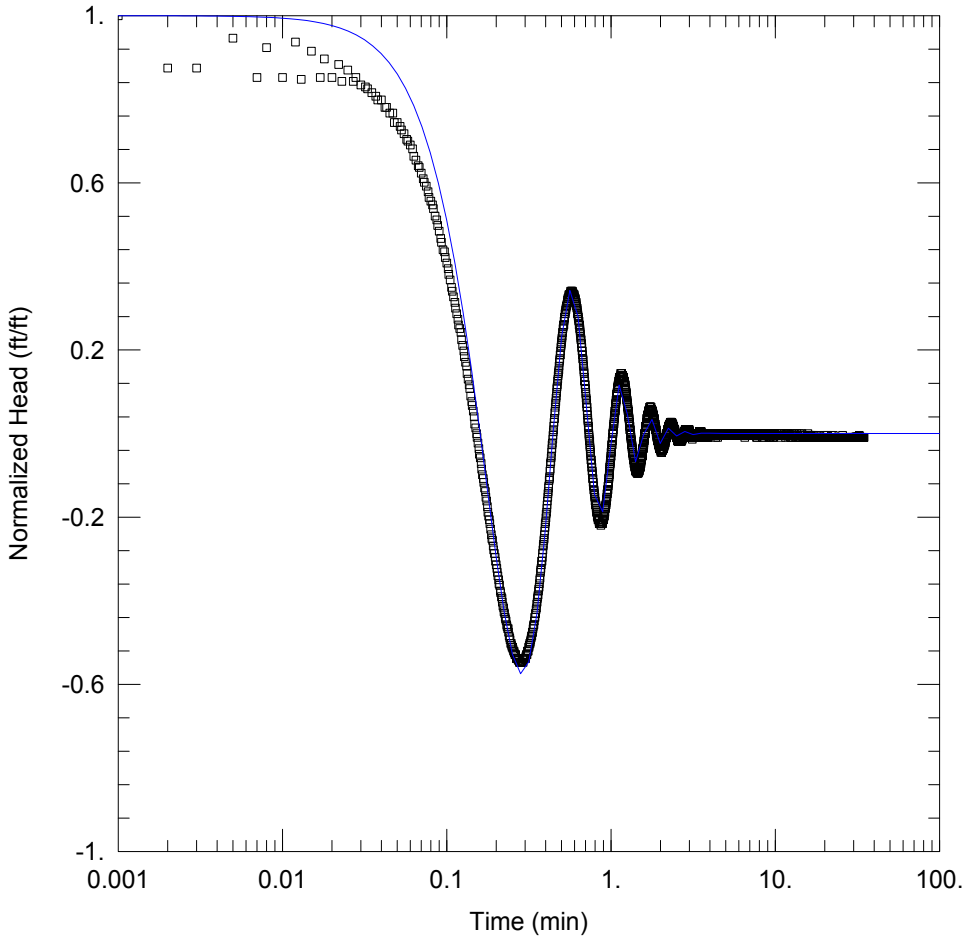
Appendix F. Slug Test Curves



SLUG TEST ANALYSIS

Data Set: D:\...\R74X_ST2A_1717-1818_Butler-Zhan_jason.aqt
Date: 06/17/14 Time: 15:13:37

PROJECT INFORMATION

Company: SWFWMD
Project: ROMP 74X
Location: Polk County
Test Well: CH 3
Test Date: 11/10/2010

AQUIFER DATA

Saturated Thickness: 100. ft Anisotropy Ratio (Kz/Kr): 0.1

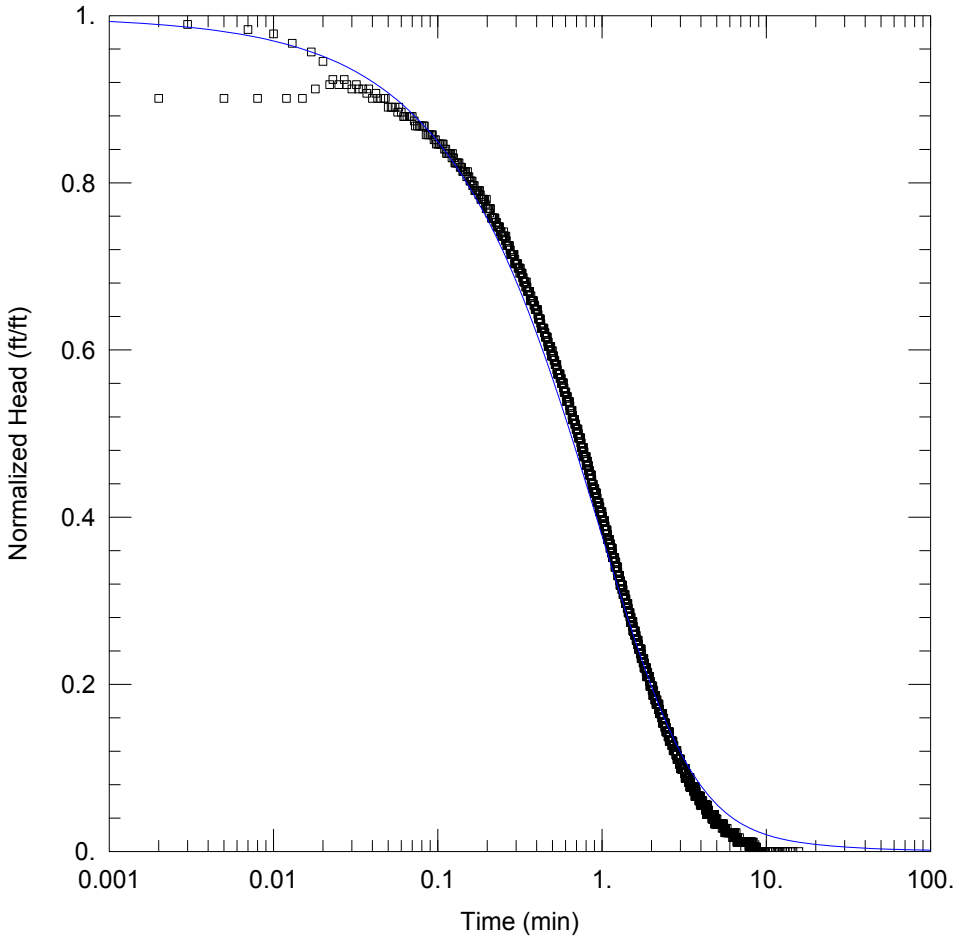
WELL DATA (ST2A_1717-1817)

Initial Displacement: -1.635 ft
Total Well Penetration Depth: 1817. ft
Casing Radius: 0.06838 ft
Static Water Column Height: 1777. ft
Screen Length: 100. ft
Well Radius: 0.1263 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Butler-Zhan

Kr = 11.74 ft/day
Kz/Kr = 0.1
Ss = 1.002E-6 ft^{-1}
Le = 958.6 ft



SLUG TEST ANALYSIS

Data Set: D:\...\R74X_ST3A_1917-1977_kgs.aqt
Date: 06/17/14 Time: 16:15:28

PROJECT INFORMATION

Company: SWFWMD
Project: ROMP 74X
Location: Polk County
Test Well: CH 3
Test Date: 11/22/2010

AQUIFER DATA

Saturated Thickness: 60. ft

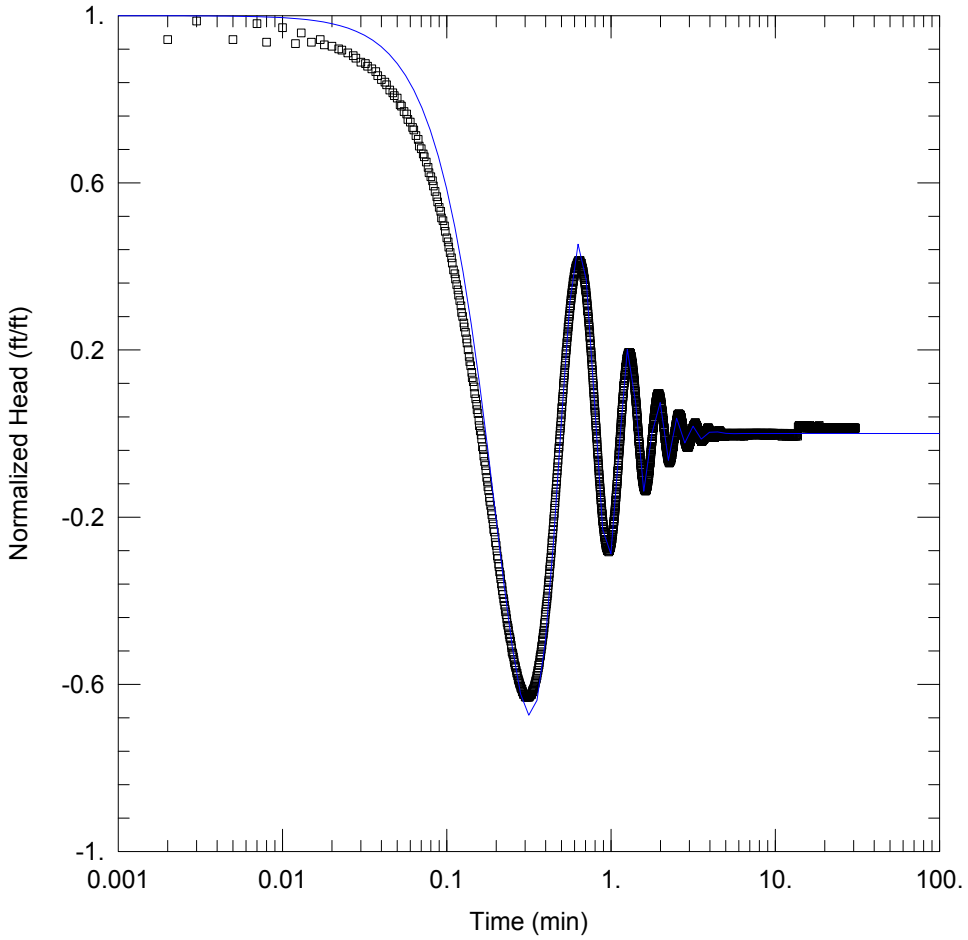
WELL DATA (ST3A_1917-19777)

Initial Displacement: -1.334 ft
Total Well Penetration Depth: 1977. ft
Casing Radius: 0.06838 ft
Static Water Column Height: 1937. ft
Screen Length: 60. ft
Well Radius: 0.1263 ft

SOLUTION

Aquifer Model: Confined
Solution Method: KGS Model

Kr = 0.1999 ft/day
Kz/Kr = 0.1
Ss = 2.0E-5 ft^{-1}



SLUG TEST ANALYSIS

Data Set: D:\...\R74X_ST4D_2195-2237_butler-Zhan.aqt
Date: 06/17/14 Time: 16:17:53

PROJECT INFORMATION

Company: SWFWMD
Project: ROMP 74X
Location: Polk County
Test Well: CH 3
Test Date: 1/20/2011

AQUIFER DATA

Saturated Thickness: 2197. ft Anisotropy Ratio (Kz/Kr): 0.1

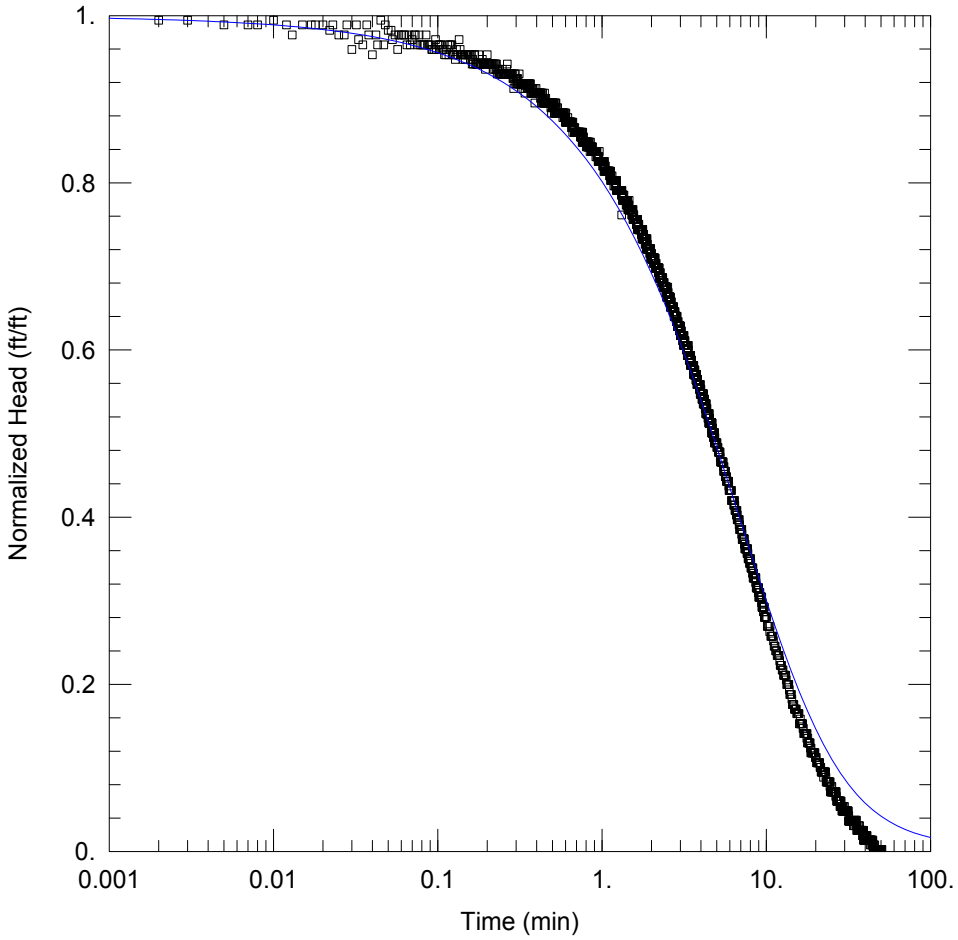
WELL DATA (ST4D_2195-2237)

Initial Displacement: -2.302 ft
Total Well Penetration Depth: 2197. ft
Casing Radius: 0.06838 ft
Static Water Column Height: 2197. ft
Screen Length: 42. ft
Well Radius: 0.1263 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Butler-Zhan

Kr = 82.53 ft/day
Kz/Kr = 0.1
Ss = 1.0E-7 ft^{-1}
Le = 1192.6 ft



SLUG TEST ANALYSIS

Data Set: D:\...\R74X_ST6A_2437-2587_KGS.aqt
Date: 06/17/14 Time: 16:35:25

PROJECT INFORMATION

Company: SWFWMD
Project: ROMP 100
Location: Pasco County
Test Well: CH
Test Date: 9/19/2007

AQUIFER DATA

Saturated Thickness: 2547. ft

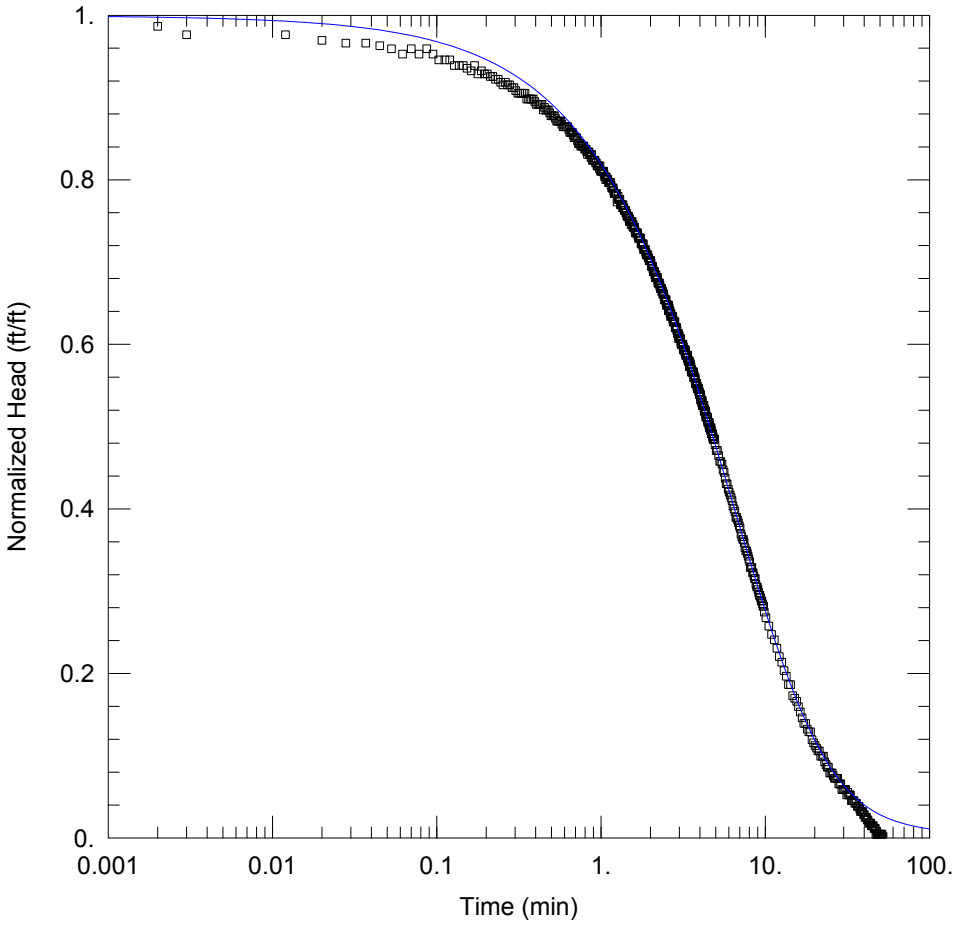
WELL DATA (ST6A_2437-2587)

Initial Displacement: 1.262 ft
Total Well Penetration Depth: 2547. ft
Casing Radius: 0.09652 ft
Static Water Column Height: 2547. ft
Screen Length: 150. ft
Well Radius: 0.1263 ft

SOLUTION

Aquifer Model: Confined
Solution Method: KGS Model

Kr = 0.01655 ft/day
Kz/Kr = 0.1
Ss = 3.521E-5 ft^{-1}



SLUG TEST ANALYSIS

Data Set: D:\...\R74X_ST7A_2437-2587_KGS.aqt
Date: 03/26/15 Time: 14:58:02

PROJECT INFORMATION

Company: SWFWMD
Project: ROMP 100
Location: Pasco County
Test Well: CH
Test Date: 9/19/2007

AQUIFER DATA

Saturated Thickness: 150. ft

WELL DATA (ST7A_2437-25877)

Initial Displacement: 2.163 ft
Total Well Penetration Depth: 150. ft
Casing Radius: 0.09652 ft
Well Skin Radius: 0.1263 ft
Static Water Column Height: 2547. ft
Screen Length: 150. ft
Well Radius: 0.1263 ft

SOLUTION

Aquifer Model: Confined
Solution Method: KGS Model w/skin

Kr = 0.02488 ft/day
Kz/Kr = 0.1
Ss' = 1.0E-10 ft^{-1}
Ss = 4.449E-6 ft^{-1}
Kr' = 0.002047 ft/day
Kz/Kr' = 1.

Appendix G. Water Level Data

Table G - 1. Daily water levels recorded while core drilling in the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida

[bls, below land surface; btoc, below top of casing; ft, feet; MM, month; DD, day; YYYY, year; NA, not applicable]

Date (MM/DD/YYYY)	Time (HH:MM)	Temporary Casing Static Water Level (ft btoc)	Temporary Casing Static Water Level (ft bls)	Core Hole Total Depth (ft bls)	Core Hole Static Water Level (ft btoc)	Core Hole Static Water Level (ft bls)
10/21/2010	9:00	41.47	39.57	1,507	45.20	42.31
10/25/2010	8:00	41.75	39.85	1,567	45.62	42.44
10/26/2010	8:00	42.42	40.52	1,607	46.80	43.67
10/27/2010	9:30	42.6	40.7	1,667	45.16	41.78
11/1/2010	9:00	42.45	40.55	1,667	45.50	42.13
11/2/2010	9:00	42.89	40.99	1,697	46.11	42.89
11/3/2010	9:00	43.1	41.2	1,727	46.14	43.02
11/8/2010	10:00	42.19	40.29	1,727	45.87	42.86
11/9/2010	9:30	41.94	40.04	1,777	47.16	43.78
11/10/2010	8:00	41.56	39.66	1,817	47.07	43.82
11/15/2010	9:30	41.71	39.81	1,817	49.61	43.83
11/16/2010	8:45	41.56	39.66	1,857	47.27	43.7
11/17/2010	9:00	41.74	39.84	1,897	45.89	42.92
11/18/2010	9:30	41.84	39.94	1,937	45.88	42.71
11/22/2010	9:50	42.17	40.27	1,977	45.47	41.9
11/29/2010	15:00	42.07	40.17	1,977	48.91	46.04
11/30/2010	10:06	42.09	40.19	1,987	46.51	43.2
12/1/2010	8:19	41.89	39.99	1,987	48.48	44.91
12/2/2010	9:15	42.11	40.21	2,027	47.41	43.92
12/7/2010	10:11	42.18	40.28	2,067	47.02	44.26
12/9/2010	8:45	42.19	40.29	2,086	51.09	45.54
12/13/2010	9:52	NM	NM	2,107	47.24	43.76
12/14/2010	9:05	NM	NM	2,126	47.55	43.66
12/16/2010	8:30	NM	NM	2,136	47.29	44.26
12/28/2010	11:30	44.88	42.98	2,136	47.73	44.49
12/29/2010	9:30	44.81	42.91	2,136	48.45	45.09
1/4/2011	8:44	43.34	41.44	2,136	49.21	46.27
1/5/2011	9:23	42.68	40.78	2,145	49.16	45.44
1/10/2011	10:00	43.08	41.18	2,167	49.59	45.54
1/11/2011	9:30	43.07	41.17	2,167	48.44	45.08
1/12/2011	8:20	42.77	40.87	2,187	46.59	43.2
1/13/2011	9:30	42.69	40.79	2,197	48.41	45.32
1/17/2011	9:00	42.19	40.29	2,117	48.66	45.59
1/18/2011	12:50	42.08	40.18	2,227	48.76	45.84
1/19/2011	9:30	42.01	40.11	2,237	49.01	46
1/21/2011	9:00	41.85	39.95	2,237	48.68	45.81
1/24/2011	9:30	41.97	40.07	2,257	50.55	47.79
1/25/2011	10:00	41.75	39.85	2,307	48.44	45.77

Table G - 1 (continued). Daily water levels recorded while core drilling in the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida

[bls, below land surface; btoc, below top of casing; ft, feet; MM, month; DD, day; YYYY, year; NA, not applicable]

Date (MM/DD/YYYY)	Time (HH:MM)	Temporary Casing Static Water Level (ft btoc)	Temporary Casing Static Water Level (ft bls)	Core Hole Total Depth (ft bls)	Core Hole Static Water Level (ft btoc)	Core Hole Static Water Level (ft bls)
1/26/2011	8:30	41.46	39.56	2,327	49.29	46.27
1/27/2011	8:30	41.57	39.67	2,367	49.01	45.88
1/31/2011	9:00	41.5	39.6	2,382	49.55	46.66
2/1/2011	8:30	41.4	39.5	2,387	52.57	46.65
2/2/2011	9:00	41.3	39.4	2,427	49.20	46.11
2/3/2011	10:00	41.38	39.48	2,467	48.61	45.33
2/7/2011	10:23	41.08	39.18	2,507	50.24	46.53
2/8/2011	8:40	47.16	45.26	2,527	52.47	45.26
2/9/2011	9:50	41.28	39.38	2,547	51.02	47.5
2/10/2011	9:00	41.15	39.25	2,567	48.53	45.4
2/16/2011	9:50	NM	NM	2,587	56.27	49.27
2/18/2011	10:00	41.54	39.64	2,617	46.87	43.85
2/21/2011	9:30	41.14	39.24	2,637	48.39	45.44
2/22/2011	9:00	41.36	39.46	2,677	42.96	39.84
2/23/2011	9:30	NM	NM	2,717	36.39	33.3
2/24/2011	9:30	NM	NM	2,737	45.30	42.14

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Appendix H. Water Quality Data

Table H - 1. Field analyses of water quality samples collected while core drilling in the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida

[bls, below land surface; °C, degrees celsius; Cl^{1-}, chloride ion; HH, hour; MM, minutes; mg/L, milligrams per liter; MM, month; DD, day; YYYY, year; No., nmber; pH, hydrogen ion; NA, not applicable; SO_4^{2-}, sulfate ion; SU, standard units; umhos/cm, micromohs per centimeter]

Water Quality Sample No.	Date MM/DD/YYYY	Time (HH:MM)	Sample Interval (feet bls)	Temperature (°C)	pH (SU)	Specific Conductance (umhos/cm)	MAJOR ANIONS	
							Cl^{1-} (mg/L)	SO_4^{2-} (mg/L)
1	11/10/2010	16:10	1,717-1,817	28.05	7.65	3,166	<10	>2000
2	11/23/2010	15:35	1,917-1,977	23.11	7.38	6,702	40	>2000
3	1/20/2011	15:30	2,195-2,237	25.3	7.31	5,149	>500	>2000

Table H - 2. The equivalent weight and percent equivalent weight for select ions and the water type for groundwater samples collected while core drilling in the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida

[bls, below land surface; Ca^{2+}, calcium ion; Cl^{1-}, chloride ion; HCO_3^{1-}, carbonate ion; K^{+}, potassium ion; Mg^{2+}, magnesium ion; MM, month; DD, day; YYYY, year; Na^{1+}, sodium ion; meq/L, milliequivalents per liter; No., number; %, percent; total alkalinity is used as HCO_3^{1-} becaused it is assumed $CO3^{2-}$ and $H2CO_3$ are negligible based on groundwater pH at this site because hydroxyl ions are insignificant in groundwater and carbonate ions are typcially not present if pH is less than 8.3 standard units (SU)]

Sample No.	Date MM/DD/ YYYY	Sample Interval (feet bls)	CATIONS								ANIONS						Water Type
			Ca^{2+}		Mg^{2+}		Na^{1+}		K^{+}		HCO_3^{1-}		Cl^{1-}		SO_4^{2-}		
			meq/L	%	meq/L	%	meq/L	%	meq/L	%	meq/L	%	meq/L	%	meq/L	%	
1	5/12/2003	1,256-1,286	6.44	73.8	2.04	23.4	0.21	2.4	0.03	0.4	1.39	16.8	0.20	2.4	6.66	80.8	Calcium Sulfate
2	5/21/2003	1,351-1,381	23.35	75.6	7.17	23.2	0.33	1.1	0.05	0.2	1.69	5.7	0.25	0.9	27.90	93.5	Calcium Sulfate
3	5/30/2003	1,456-1,486	30.59	61.3	18.17	36.4	0.89	1.8	0.25	0.5	1.95	4.0	0.39	0.8	46.01	95.2	Calcium Sulfate
4	11/10/2010	1,717-1,817	27.25	59.2	16.78	36.5	1.76	3.8	0.2	0.4	1.76	3.9	1.05	2.3	42.47	93.8	Calcium Sulfate
5	11/23/2010	1,917-1,977	32.73	37.6	30.02	34.5	23.63	27.1	0.7	0.8	1.86	2.1	23.33	26.8	61.84	71.1	Mixed-Cation Sulfate
6	1/20/2011	2,195-2,237	34.48	56.1	10.20	16.6	16.14	26.3	0.7	1.1	1.91	3.1	18.79	30.3	41.22	66.6	Calcium Sulfate
7	3/23/2011	2,207-2,777	37.62	41.4	12.99	14.3	39.16	43.1	1.0	1.1	1.18	1.2	52.18	52.8	45.39	46.0	Mixed-Cation Chloride

Table H - 3. Select molar ratios of the groundwater samples collected while core drilling in the Lower Floridan aquifer at the ROMP 74X – Davenport well site in Polk County, Florida

[bls, below land surface; Ca^{2+}, calcium ion; Cl^{1-}, chloride ion; HCO_3^{1-}, carbonate ion; Mg^{2+}, magnesium ion; MM, month; DD, day; YYYY, year; Na^{1+}, sodium ion; No., number; %, percent; total alkalinity is used as HCO_3^{1-} becaused it is assumed $CO3^{2-}$ and $H2CO_3$ are negligible based on groundwater pH at this site because hydroxyl ions are insignificant in groundwater and carbonate ions are typcially not present if pH is less than 8.3 standard units (SU)]

Sample No.	Open Interval (feet bls)	Cl^{1-}:SO_4^{2-}	Ca^{2+}:HCO_3^{1-}	Ca^{2+}:Mg^{2+}	Cl^{1-}:HCO_3^{1-}	Na^{1+}:HCO_3^{1-}	Na^{1+}:Cl^{1-}	SO_4^{2-}:HCO_3^{1-}
1	1,256-1,286	0.06	2.32	3.15	0.14	0.15	1.06	2.40
2	1,351-1,381	0.02	6.92	3.25	0.15	0.20	1.30	8.26
3	1,456-1,486	0.02	7.84	1.68	0.20	0.46	2.25	11.80
4	1,717-1,817	0.05	7.75	1.62	0.60	1.00	1.68	12.08
5	1,917-1,977	0.75	8.79	1.09	12.53	12.69	1.01	16.61
6	2,195-2,237	0.91	9.02	3.38	9.83	8.45	0.86	10.79
7	2,207-2,777	2.30	15.92	2.89	44.16	33.13	0.75	19.21

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