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HYDROGEOLOGY REPORT FOR COREHOLE P-0304 LOCATED AT VULCAN MATERIALS SAND MINE, PUTNAM COUNTY, FLORIDA

by

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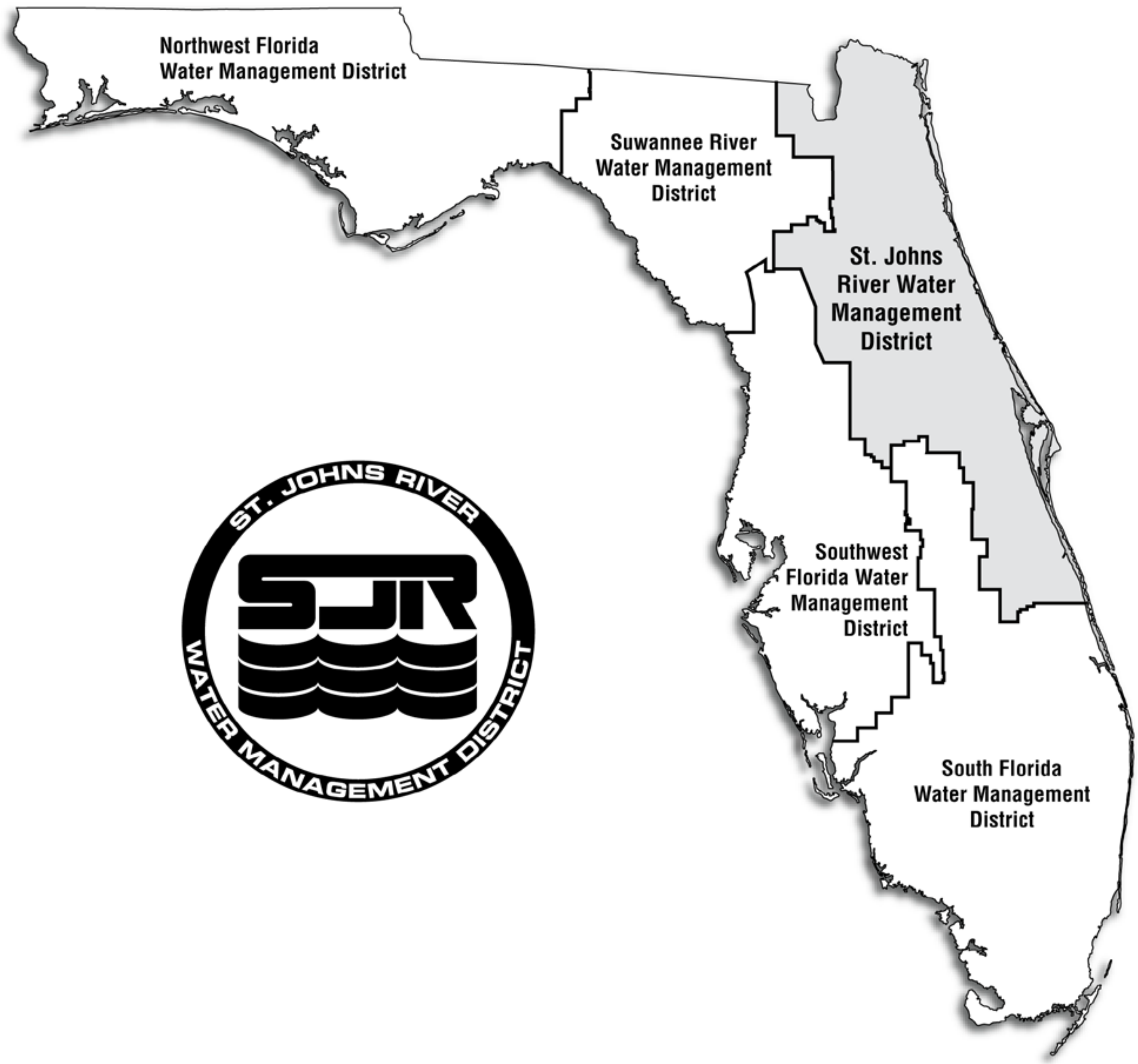

The St. Johns River Water Management District was created in 1972 by passage of the Florida Water Resources Act, which created five regional water management districts. The St. Johns District includes all or part of 18 counties in northeast and east-central Florida. Its mission is to preserve and manage the region's water resources, focusing on core missions of water supply, flood protection, water quality and natural systems protection and improvement. In its daily operations, the district conducts research, collects data, manages land, restores and protects water above and below the ground, and preserves natural areas.

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Executive Summary

This report presents the results of drilling and testing of a 1,500-foot deep corehole at the Vulcan Sand Mine on State Road 100 West in Putnam County, Florida and relates these results to the regional hydrogeology. The St. Johns River Water Management District (District) implemented a project to drill the corehole as part of an ongoing investigation of the Floridan aquifer system (FAS) with a special focus on characterizing the confining units and aquifer of the Floridan aquifer system. Similar sites throughout the District have been identified to drill a pilot or test corehole, and then construct a monitor well cluster to monitor water levels in targeted intervals of the system. A monitor well cluster was not proposed for this site, however. Because an aquifer performance test was being considered, efforts were focused on identifying specific zones for testing and design of a Lower Floridan aquifer production well as an alternative to an Upper Floridan aquifer production well.

The Florida Geological Survey (FGS) provided an opportunity to run a specialty log to obtain high-resolution imagery of the corehole using its Optical Borehole Imagery (OBI) probe. The OBI logs help identify potential pathways for flow and the existence of fracture zones, bedding plane high conductivity zones, and low conductivity potential confining zones.

The hydrogeologic data collected during this project have been used in regional mapping and characterization of the primary hydrostratigraphic units for this region. Targeted geophysical well logging techniques proved useful to maximize the data obtained from the corehole. Electrical resistivity and natural gamma logs from this corehole can be correlated to similar logs in other boreholes to supplement hydrostratigraphic unit mapping.

Specific capacity testing at 30 foot intervals, water level measurements during testing, geophysical logs, and borehole video provide sufficient data to characterize the hydraulic properties of the units identified, thereby making this a suitable reference site for correlation to other boreholes. The specific capacity tests are a good indication of horizontal hydraulic conductivity (Kh), but may or may not be representative of the vertical hydraulic conductivity (Kv), which has the dominant influence on confining properties. Specific capacity values were relatively low between 390 feet below land surface (bls) to 750 feet bls, with some intermittent high zones.

Water quality remained relatively consistent throughout the corehole, with chloride values ranging from a minimum of 8.07 mg L^{-1} to a maximum of 11.95 mg L^{-1}. The value at the deepest sample taken in the well at 1,380 feet was 10.87 mg L^{-1}. This indicates freshwater throughout the entire depth of the corehole. Conductivity values range from a low of 182.9

µmhos cm^{-1} to a high of 329 µmhos cm^{-1}. Conductivity for the deepest sample was 234 µmhos cm^{-1}, again indicating freshwater throughout the entire corehole depth.
The surficial aquifer material is comprised of the sand that is being mined at this site. It extends from land surface to a depth of 49 feet bls where the top of the intermmediate confining unit (ICU) occurs. The ICU is present from 49 feet bls to 159 feet bls. The interval from 159 feet bls to 180 feet bls is somewhat transitional in nature and may be connected hydraulically to the FAS below. The FAS begins at 159 feet bls and was not fully penetrated, though the original plan was to drill to 1,500 feet bls. Problems with the rock breaking and not being recovered in the core barrel prevented this.

The top of the middle confining unit I (MCU I) is identified in corehole P-0304 at 375 feet bls near the top of the distinctive high resistivity zone that starts around 320 feet bls. Typically this boundary is not sharp and well-defined, since it represents a top of a sequence of rocks where the cumulative effect of the entire thickness creates the confining conditions between the Upper Floridan aquifer and the Lower Floridan aquifer. The confidence in the boundary pick is supported by geophysical logs run under specific borehole conditions, hydraulic test data such as can be obtained from packer testing, and correlation to the regional hydrostratigraphy.

The Lower Floridan aquifer is identified around 750 feet bls depth. This is based on the increase in specific capacity, an abrupt change in water level during packer testing, flow gradient, correlation of electric log signature to other boreholes with similar hydraulic testing data, and other geophysical logs such as the Optical Borehole Televiewer image and the flowmeter that were run in this borehole.

Flow logging showed that water began moving downhole at 290 feet bls with a gradual increase until 315 feet bls where it stabilized. Additional increases in flow occured between 375 feet bls–400 feet bls, around 580 feet bls, and between 675 feet bls–700 feet bls. This downward flow was observed going into the formation below 750 feet bls indicating permeable zones occur below 750 feet bls. An abrupt water level change occurs in the packer test data starting at 750 feet bls. The downward gradient that drives this flow and the abrupt water level change are very strong evidence of confinement between the Upper Floridan aquifer and the Lower Floridan aquifer.

Testing to determine leakance for specific intervals would be helpful to assess the top, bottom, and thickess of the MCU I. Production rates can only be inferred from results of nearby wells that are open to similar intervals where flow zones in this borehole were identified.

The logging and drilling techniques utilized at this site provided more useful data than is normally obtained in a corehole. Pumping from a borehole cased to 750 feet bls and open to at least 1,200 feet bls has the potential for water production. Further testing would be required to assess impact on the UFA above 300 feet bls and to estimate a sustainable withdrawal rate. This was beyond the scope of this project.

The objectives of the project were successfully completed and provided supporting data for regional hydrogeologic mapping. These data provide criteria that can be used to identify confining units and permeable zones representative of the upper section of the Lower Floridan aquifer system.

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INTRODUCTION

The St. Johns River Water Management District (District) implemented a project to drill a 1,500-foot deep corehole at the Vulcan Sand Mine on State Road 100 West in Putnam County, Florida (Figure 1). This effort is part of an ongoing investigation of the Floridan aquifer system (FAS) with a special focus on characterizing the confining unit between the Upper Floridan aquifer (UFA) and the Lower Floridan aquifer (LFA) and the carbonates comprising the LFA. Similar sites throughout the District have been identified to drill a pilot, test corehole and then construct a monitor well cluster to monitor water levels in targeted intervals of the system.

The Florida Geological Survey (FGS) provided an opportunity to run a specialty log to obtain high-resolution imagery of the borehole using their Optical Borehole Imagery (OBI) probe. The OBI logs provided an important contribution to the project by helping to identify the existence of fracture zones, bedding plane high conductivity zones, and low conductivity potential confining zones.

OBJECTIVES

The objectives of the project included:

1. Collect high quality lithologic samples (core) so detailed descriptions could be made and rock types could be photographically documented.
2. Perform single packer specific capacity tests to obtain a continuous record of horizontal hydraulic conductivity and water level for 30 foot intervals for the entire depth of the corehole.
3. Obtain geophysical logs through the entire cored section to support regional hydrostratigraphic mapping.
4. Identify zones of relatively higher and lower hydraulic conductivity within the Floridan aquifer system that could indicate potential for water production or confinement between the UFA and the LFA.
5. Obtain water quality data to develop a vertical water quality profile.
6. Identify specific characteristics that can be used to recognize the boundaries of the UFA, middle confining unit I (MCU I) and LFA.

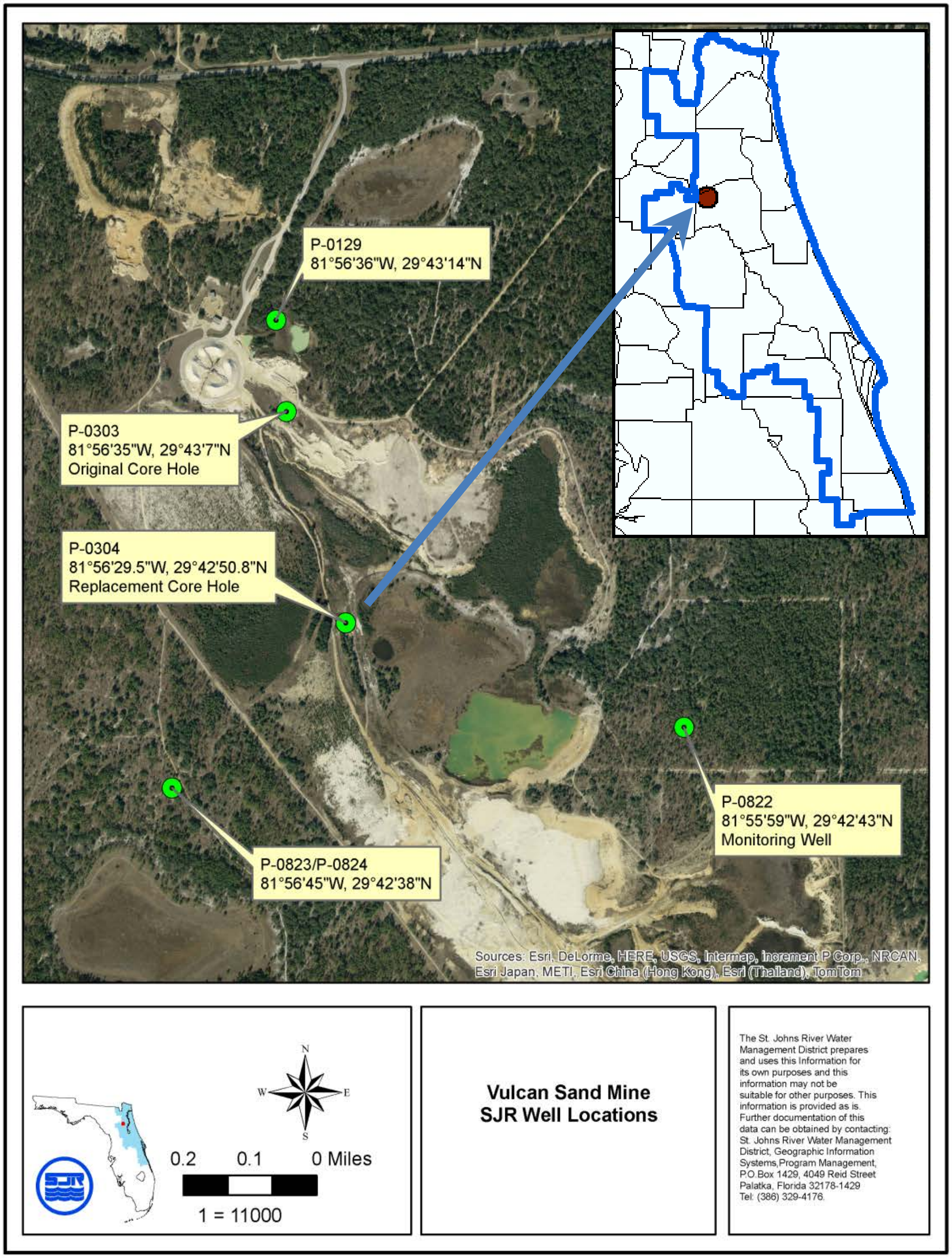


Figure 1. Location of test holes and monitor wells at the Vulcan Sand Mine near Grandin, Florida.

HYDROGEOLOGIC FRAMEWORK

A hydrogeologic framework is used to delineate and group units of similar hydraulic characteristics. The Floridan aquifer system (FAS) is a complex system of carbonates, sands, and organic material with intervals that have sufficient hydraulic conductivity to be an aquifer and other intervals that act as aquitards and provide a degree of confinement between zones. An aquifer unit is a body of rock or sediments that contains sufficient saturated permeable material to conduct groundwater and to yield significant quantities of water to wells and springs. A confining unit is a body of relatively impermeable or significantly less permeable material stratigraphically (vertically) adjacent to one or more aquifer units (Bates et al., 1980). The framework illustrate the vertical and can show the horizontal relationship between units.

Nomenclature for the units within the FAS has not been formally adopted but efforts are underway to resolve this. The FGS published Special Publication (SP) 28 Revised (Copeland and others, 2009) but acknowledged there is still much work to be done. This report attempts to follow guidelines set forth in SP 28 for nomenclature and capitalization protocol for hydrostratigraphic units. To that end, the capitalization protocol for hydrostratigraphic units discussed in this report are as follows: the surficial aquifer system (SAS), the intermediate aquifer system or intermediate confining unit (ICU), the Floridan aquifer system (FAS), the Upper Floridan aquifer (UFA), and the Lower Floridan aquifer (LFA). This report deviates from SP28 (Revised) in that the Middle Floridan confining unit (MFCU) at this site is comprised of Middle Confining Unit I (MCU I) of Miller (1986). At the Vulcan site, the District has identified units based on the framework in Figure 2, which is used for both groundwater flow modeling and regional hydrostratigraphic mapping by the District. Not all units depicted in this framework were present or identified at this site. Specifically, there is no Ocala Avon Park low permeable zone, Avon Park high permeable zone, middle confining unit II (MCU II), or differentiation of any subunits of the Lower Floridan aquifer system. The District framework maintains hydrostratigraphic consistency with Millers’ MCU I and MCU II (Miller, 1986); whereas, the Copeland report presumably consolidates these into the Middle Floridan confining unit but does not provide sufficient detail to distinguish between MCU I or MCU II. The US Geological Surevey recently published an updated Hydrogeologic framework report (Williams and Kunianski, 2015) but an attempt to correlate to that framework was not attempted for this report.

The District identifies the various units based on correlation of a borehole to the regional District hydrostratigraphic mapping of boreholes where intervals of similar hydraulic characteristics have a regional lateral extent. The evaluation includes identifying mappable rock units, flow zones, head difference between units, and any other relevant hydrogeologic data that is available. Specific criteria to define units are subject to interpretation but the District strives to follow guidelines set forth in a variety of USGS, FGS, and Water Management District (WMD) publications (Miller, 1986; Copeland and others, 2009) and has tried to update them as new data such as this core hole becomes available. A discussion of the hydrostratigraphic units identified at this site follows below. In this report, references to depth are feet below land surface bls unless otherwise designated.

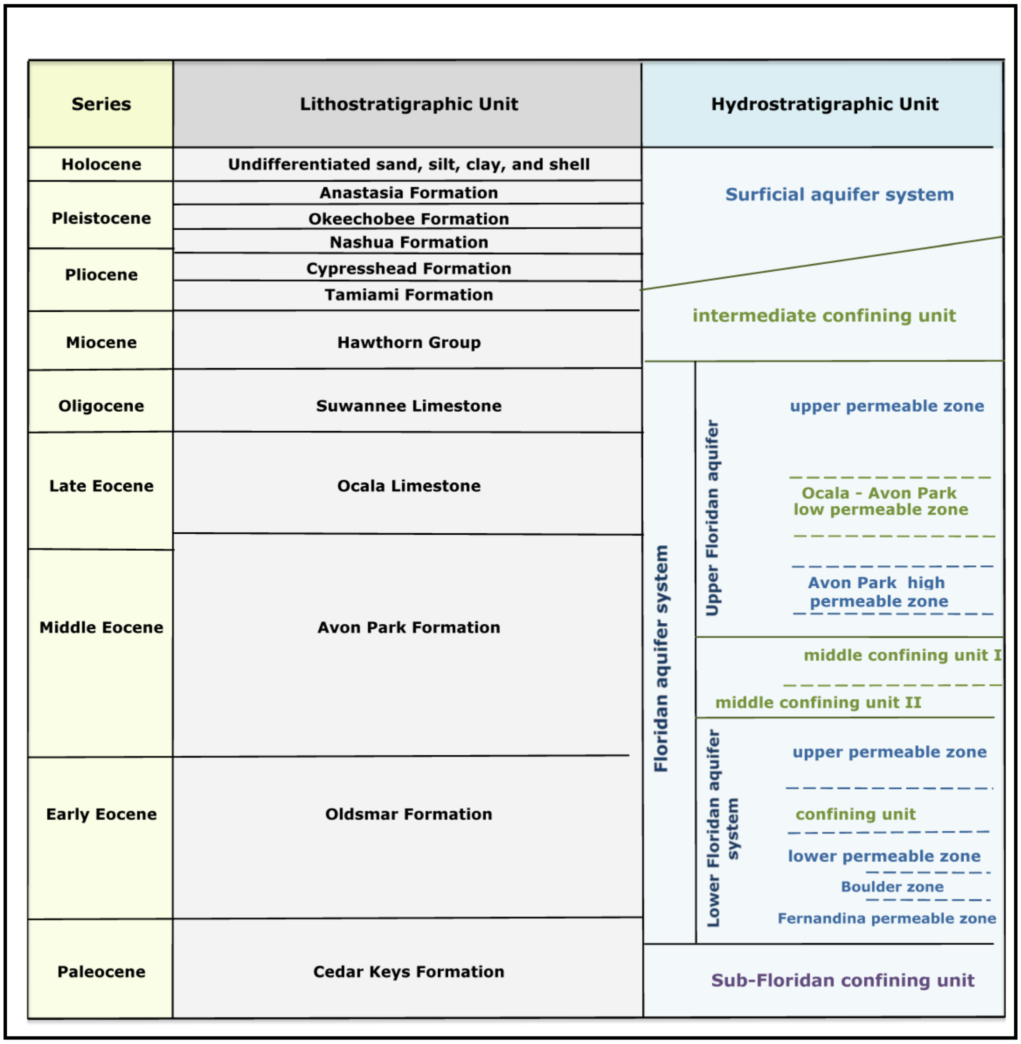


Figure 2. Hydrogeologic framework used by the St. Johns River Water Management District. Not all units are present at this site.

Surficial Aquifer System

The surficial aquifer system (SAS) consists of the permeable sediments that extend from land surface downward to the top of the uppermost intermediate confining unit. At this site, the SAS is primarily an aquifer rather than a system of low and high permeable units. In the District, the surficial aquifer is composed of the Holocene undifferentiated sediments and the Pliocene to Pleistocene formations (post-Hawthorn Group sediments). The sediments are primarily composed of clean sands and intermittent clay beds occurring mostly as discontinuous lenses. The lithology of the surficial sediments can vary significantly both vertically and laterally across short distances. Surficial sediments may be missing in some areas of the District, having been eroded away and exposing intermediate confining units or Floridan limestones at land surface. In contrast, surficial sediments can be greater than 100 feet thick in upland ridge areas where recent terrace deposits are present. Water levels in the SAS typically fluctuate with rainfall. Where the

SAS directly overlies the FAS, the water level will be the same as the FAS. The SAS was encountered from land surface to a depth of 49 feet bls.

Intermediate Aquifer System or Intermediate Confining Unit

In this area, the intermediate aquifer system or intermediate confining unit (IAS/ICU) is primarily comprised of confining units. It is therefore referred to as intermediate confining unit (ICU) in this report. The ICU includes the low permeability clastic sediments that lie between and that collectively retard the movement of water between the overlying surficial aquifer and the underlying FAS. The ICU is the uppermost, laterally extensive, and vertically persistent sediments of lower permeability below the surficial aquifer. Within the District, the ICU is generally comprised of Hawthorn Group sediments. The ICU was encountered between 49 feet bls and 15 feet bls.

Floridan Aquifer System

The Floridan aquifer system (FAS) consists of a thick sequence of permeable to highly permeable carbonate rocks separated by lower permeability carbonate zones that act as semi-confining units. The carbonates (limestones, dolomitic limestones, dolostones, and evaporites) were deposited in variable marine carbonate shelf environments, resulting in variable mineralogy, physical appearance, and character of the sediments. Diagenesis subsequently altered the original sediments and karst processes have further dissolved the limestones and dolostones. These depositional, diagenetic, and dissolution processes, as well as geologic structural features, have resulted in highly variable lithology and permeability characteristics within the FAS.

The FAS sequence of carbonate rocks includes the upper Cedar Keys Formation, Oldsmar Formation, Avon Park Formation, Ocala Limestone, and Suwannee Limestone. The top of the FAS generally coincides with the top of the vertically persistent permeable carbonate section. In most areas of the District, the top of the FAS coincides with the top of the Ocala Limestone. In some areas where the Ocala Limestone is not present, the top of the Suwannee Limestone or Avon Park Formation forms the top of the FAS. The Ocala Limestone corresponds to the top of the FAS at this site.

The regionally extensive permeable zones and semi-confining units within the FAS at this site include the UFA, MCU I, and the LFA system (undifferentiated).

Upper Floridan Aquifer

The Upper Floridan aquifer (UFA) is a highly productive zone at the top of the FAS. The top of the FAS ranges from a high of approximately 150 feet (NAVD88) in west-central peninsular Florida to more than -1,050 feet NAVD 88 in the Okeechobee Basin (Boniol et al., 2014). This hydrostratigraphic unit consists of permeable intervals of Ocala Limestone or the Suwannee Limestone where present. Where the Ocala and Suwannee Limestone are missing, the unit consists of the upper part of the Avon Park Formation. The porosity and permeability of the soft limestones and dolomitic limestones that comprise the UFA can vary widely. Porosity can be intergranular, moldic, and vuggy. Large-scale porosity created by karst process can include cavities, caves, and solution enlarged fractures. Karst processes have greatly enhanced permeability both during recent time in areas where the sediment cover over the limestone is thin or absent, and during historic times during major sea level fluctuations. A high degree of intergranular and moldic primary porosity and well-developed secondary porosity from dissolution cavities permits locally vigorous circulation of water in the UFA. The UFA was encountered between 159 feet bls and 375 feet bls in core hole P-0304.

The configuration, dip, and thickness of the UFA are influenced by regional and local structural features, as well as karst and erosional processes. The configuration of the top of the UFA depicts the regional trends of higher elevations on positive structural highs and deposition into the negative structural lows. The sub-regional to local highs and lows on the UFA surface in central SJRWMD is a reflection of carbonate exposure to erosion and to the karst topography that developed due to dissolution of the carbonates. The base of the UFA occurs at the top of the regionally extensive semi-confining unit of lower permeability, which corresponds to the top of the MCU I at this site.

MIDDLE CONFINING UNIT I

The middle confining unit I (MCU I) was identified by Miller (1986) and is the stratigraphically highest, low-permeability unit that separates the upper and Lower Floridan aquifers. The MCU I may consist of dolostone, micritic limestone, and dolomitic limestone, locally containing some gypsum and chert, within the upper Avon Park Formation or parts of the lower Ocala Limestone. Identification of the top of the MCU I is more of a challenge than the units above. Criteria for identification by Miller (1986) were related to relative hydraulic conductivity and earlier mapping based on limited hydraulic testing and electric logs from oil test wells. A confounding issue with identifying a sharp boundary for the top of the MCU I is that confinement (or rather low leakance) is a weighted average of a combination of vertical hydrualic conductivity (Kv) and thickness for multiple intervals. Thin intervals could have higher Kv relative to the underlying units but the leakance of a single thin high Kv unit interval may not substantially affect the weighted average of the entire package of multiple intervals. Conversely, a thin, very low Kv unit could substantially effect the Kv of an entire package of intervals. Unfortunately, it is impractical to measure Kv for each distinct interval so other indicators used. Nearby pumping test data is only relevant based on well construction of the pumping and observation wells so correlation between wells is less precise. It can be somewhat subjective about which intervals to include in the total unit when identifying boundaries for regional mapping. The District has approached this problem by using marker beds and log signatures of zones with demonstrated hydraulic properties and correlating these to similar marker beds or log signatures in boreholes where less hydraulic data is available. By doing this, a more accurate surface estimation can be made between boreholes that are more rigourously tested. This is an iterative process that involves updating the surfaces as new testholes are drilled to fill in the areas of less certainty. The MCU I was identified between 375 feet bls and 750 feet bls at this site.

LOWER FLORIDAN AQUIFER SYSTEM (UNDIFFERENTIATED)

The Lower Floridan aquifer (LFA) upper permeable zone can be a highly productive unit consisting of dolostone and dolomitic limestone, with abundant fractures or bedding-plane permeable zones, in the lower part of the Avon Park Formation and the upper part of the Oldsmar Formation. As with the MCU I, the boundary may not be sharp or clearly recognizable during drilling. Hydraulic testing, geophysical logging, and continuous measurements of water level may provide evidence. Lithology is variable and may be the same as the overlying MCU I unit. A contrast in horizontal hydraulic conductivity (Kh) may be seen in flow logs, caliper enlargements, fractures in an OBI log, abrupt head change, and flow seen in video log. Water quality changes can be useful but are not a defining characteristic. Generally, a combination of indicators is needed to increase the confidence of a boundary pick. The LFA was identified at 750 bls.

STRUCTURAL GEOLOGICAL FEATURES

There are two major structural features that have an influence on the site, the Ocala Platform (Hopkins, 1920) and the Jacksonville Basin (Goodell and Yon, 1960). The corehole is located in a transition area between these two regional features. The Ocala Platform is a positive feature that has been attributed to both structural processes and depositional process and runs northwest to southeast in western Florida. The Jacksonville Basin is a negative erosional sub-feature of the southeast Georgia Embayment separated by the positive Nassau Nose (Scott, 1983) resulting in a depression of over 600 feet bls in the FAS surface. The features have affected the depositional environment, erosional processes, and both primary and secondary hydraulic conductivity at the site.

METHODS

An initial attempt was made to drill the corehole at the site labeled P-0303 (Figure 1) but it was aborted due to caving problems. A nearby alternative site (P-0304) was chosen and equipment was moved there (Figure 1). A water supply well was drilled next to the corehole. Split spoon samples were collected at the water supply well using Standard Penetration Test drilling to 170 feet bls. Casing was set to 170 feet bls and then the borehole was reamed out to 200 feet bls. Once the water supply well was established, a Versa drill was brought in for the corehole. A 16" bit was used to drill to 80 feet bls and 12" PVC casing was installed. The hole was then drilled with an 8" bit and 4" temporary casing was installed. Coring began at 180 feet bls followed by packer testing at 30 feet bls intervals. Continuous cores were collected from the top of the FAS to total depth drilled of 1,400 feet. Cores were sent to the FGS for description, photo-documentation, and permanent storage.

Samples from the cores were sent to an independent laboratory for permeameter testing. Samples collected for permeameter testing were chosen to be representative of much larger intervals based on visual observation of the cores and geophysical log response. The sample results are indicative of the primary permeability of the rock and are not reflective of enhanced permeability from fractures or bedding plane discontinuities.

Specific capacity testing was done at 30-foot intervals. As the hole was advanced 30 feet, a packer was lowered to the top of the interval and inflated. Water was pumped at a maximum of 30 gallons per minute (gpm) until water levels stabilized. If the interval could not produce 30 gpm then the pumping was reduced to meet production capabilities. The value of specific capacity in gallons per minute per foot was then calculated by dividing the pumping rate by the drawdown (drawdown is the difference between the starting water level and the stabilized water level while pumping). Water levels before, during, and at stabilization were manually taken to record the response. Packer tests began at 240 feet bls and performed every 30 foot intervals below that.

At the completion of the drilling, geophysical logs were run using both District and FGS equipment. The water level and packer testing provide information used to develop a strategy for geophysical logging. This is especially useful for coreholes where pumping flow logs are not an option. Borehole conditions may provide constraints on which intervals can be logged. Ideally logs would be run with the interval open to the entire section of the FAS penetrated by the borehole. If there are intervals with different head pressure and heterogeneous conditions then water should flow from intervals of higher head and high Kh to intervals of lower head and high Kh. The geophysical logging strategy tries to capitalize on the different conditions by logging with specific open hole intervals to allow water to flow without being pumped. With this strategy, more information is gained with less cost because there is no need to having to drill and pump a much larger diameter borehole to capture the same data. There are limitations to consider such as water quality and borehole conditions, but the District has succesfully used this method in multiple coreholes.

Depending on the velocity, flow may be observed in the borehole video and flow logs response. The small diameter of the corehole presents challenges for logging since there is limited space between the probe and the borehole wall. Small rocks or ledges can obstruct the probe or lock it in place. The probes can knock rocks loose and cause problems for cementing the borehole below. To minimize these risks and maximize data collection, under conditions that allow unpumped flow, the District had multiple logging runs with core casing set at different depths to keep the borehole open. Though there is no data lost by logging most probes in multiple runs and merging them after all intervals are completed, the flow log and video log may have different responses based on specific intervals being sealed. The changes in water level seen in the packer tests and variability of the specific capacity tests indicated there could be downward flow from above 390 feet bls that could flow into one or more zones of higher Kh. In order to document this in flow and video logs it was necessary to allow this water a flow pathway. This was accomplished by setting the core barrel to 600 feet bls which would allow water to flow downward along the annulus. The well could then be logged below the casing. With this information the District could also develop a grouting plan for the lower section that would still provide a flow path when the casing was raised and the bottom of the hole was cemented.

HYDRAULIC TESTING

SPECIFIC CAPACITY

Specific Capacity test provide an indication of the horizontal hydraulic conductivity (Kh) of the test interval. The relative differences in Specific Capacity are more meaningful than the absolute values for identifying the hydrogeologic unit boundaries. A vertical grouping of relatively low values may indicate a confining unit and an increase can indicate a productive aquifer unit. It is more probable that low values calculated from specific capacity tests may imply low Kv values rather than high Kh implies high Kv. For this reason, the low values have more weight when assessing a composite interval of specific capacity data. Enhanced conductivity along bedding planes can greatly affect Kh but minimally affect Kv.

The specific capacity data (Figure 3) provides an indication of unit characteristics. When considering leakance, a cumulative effect of the multiple tested intervals should be considered. The values of specific capacity between 240 feet bls-390 feet bls were relatively high, between 390 feet bls-990 feet bls were highly variable but had multiple very low intervals, and below 990 feet bls, they were medium to high. To identify what interval provides the most likely vertical confinement between the UFA and the LFA one consideration is to identify a composite interval with the most low specific capacity tested intervals. The interval between 390 feet bls-990 feet bls is therefore most likely to provide the most confinement. Clearly, there are individual 30 foot intervals identified from the specific capacity testing that have a higher Kh however, the entire package will likely have a low leakance if tested properly.

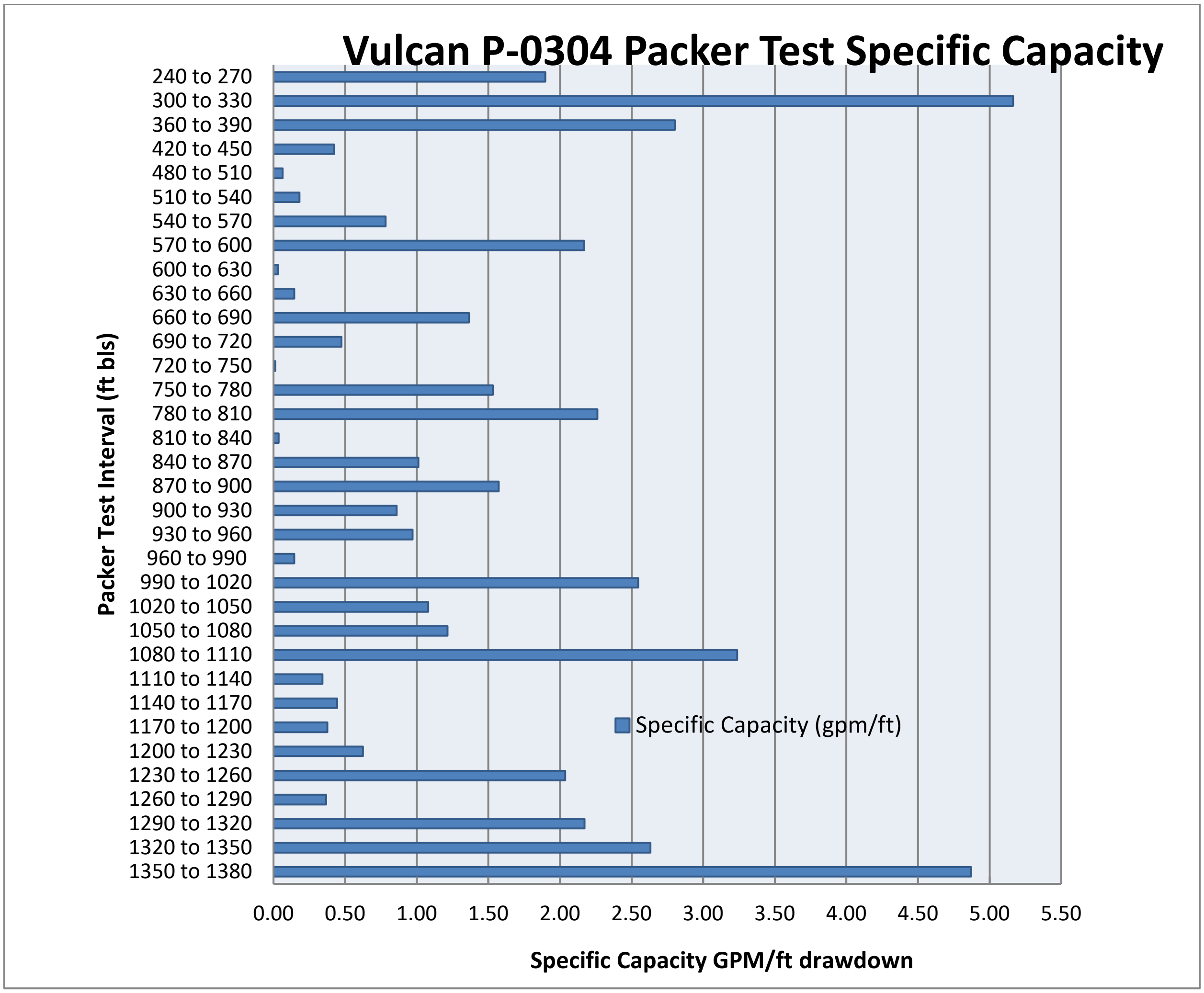


Figure 3. Packer test specific capacity results for 30 foot tested intervals.

At each 30-foot packer interval, a water level was recorded after the packers were inflated. These data provide additional refinement to identification of a confining unit. The packer testing provides an opportunity to assess potentiometric head elevation (head) at discrete intervals. In a completely isotropic, homogeneous aquifer, the head will have a linear gradient with depth. If the system is heterogeneous, the head can vary since different pressure conditions may exist for specific intervals. This may be observed in packer tests which mimic wells constructed to different intervals at the same site. Figure 4 shows water level inside the packer column and in the borehole prior to packer inflation. The water levels are measured from a common reference datum and represent depth to water from that point. The intervals between 250 feet bls to 400 feet bls and 700 feet bls to 800 feet bls exhibit distinct water level changes. Below 800 feet bls, there is a more gradual increase to 1,020 feet bls. Below 1,020 feet bls, the water level remains relatively stable until a depth of 1,320 feet bls where there is a drop then a return to the trend above. This may be due to other factors however. The interval between 250 feet bls to 400 feet bls shows a distinct difference between the level in the tested interval and the open borehole before packer inflation. This is probably related to the flow regime in the open hole identified by geophysical logging.

The major abrupt water level change beginning at 760 feet bls is important for identification of the LFA. This identifies a sharp boundary of head difference between the rocks above and below. This may be an indication that the water in the rocks above has limited hydraulic connection to the water in the rocks below. It could also indicative of the point where the upward pressure of the LFA head has equalized with the downward pressure of the UFA.

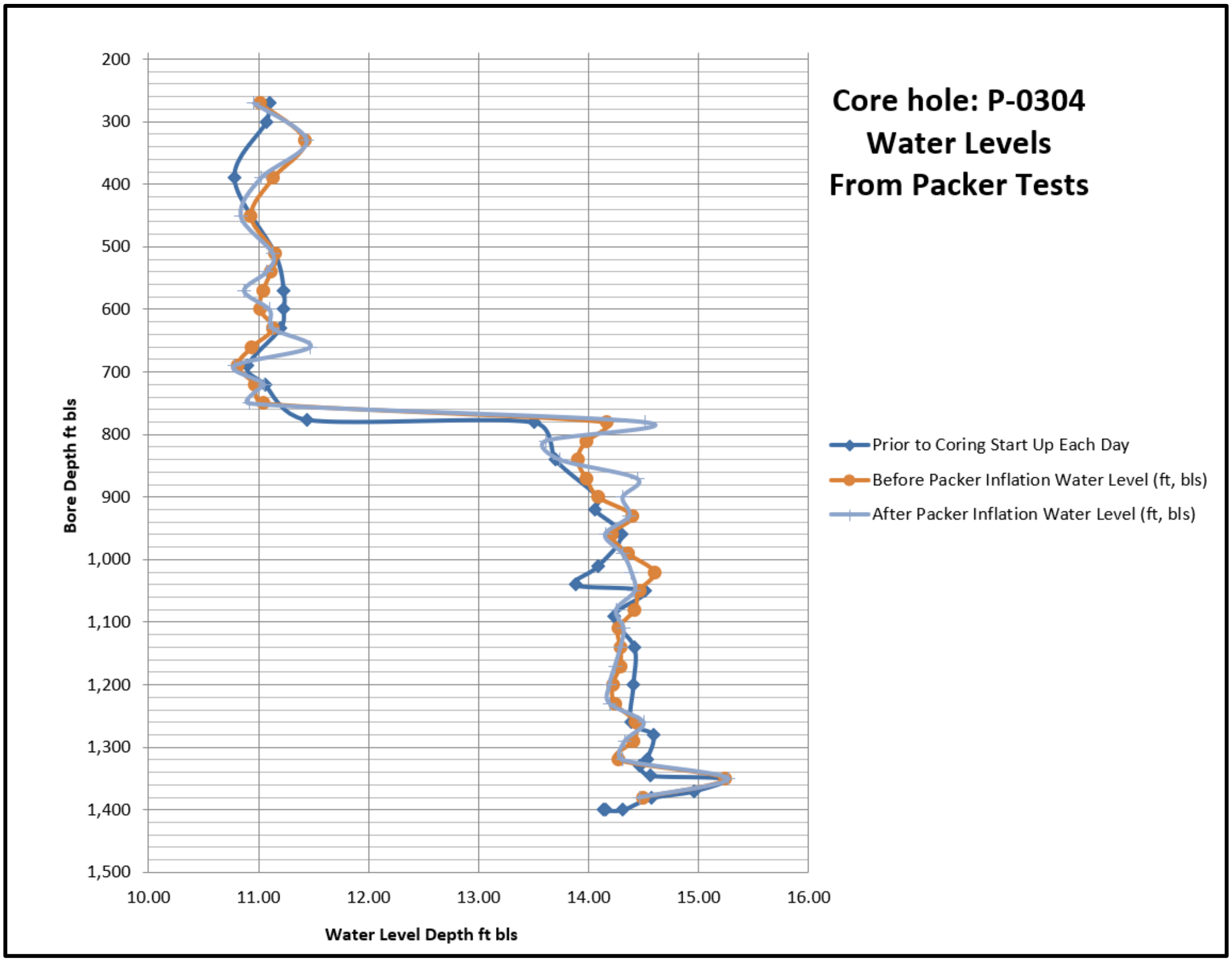


Figure 4. Water levels recorded during packer testing.

CORE AND PERMEAMETER TEST RESULTS

Permeameter tests provide information of the Kv of the rock material that is representative of the sample interval (less than 6 inches) tested and is an indication of the primary permeability. Though the samples are small, the results from these tests may be utilized to assess the properties of similar core sections within the borehole at least on an order of magnitude basis. This is the only measured Kv data available to assess a cumulative Kv for multiple intervals.

In Table 1 below the samples from the UFA are colored blue, the MCU I are colored brown, and the LFA are colored green. Photos of the core that were tested can be found in Appendix B. The UFA samples ranged from $1.40E^{-03}$ to $5.2E^{-07}$ cm sec^{-1}, the MCUI samples ranged form $1.1E^{-03}$ to $2.1E^{-09}$ cm sec^{-1}, and the LFA samples ranged from $3.4E^{-05}$ to $9.3E^{-09}$ cm sec^{-1}. Many samples that would exhibit a high Kv could not be tested since the core was broken or too unconsolidated to test. Core that was extremely dense and brittle, with likely very low Kv, also were not tested since the pieces were too small. A direct comparison to Specific Capacity is not possible since samples with extrememly low Kv may be within a fractured interval that exhibited high specific capacity. In general the LFA samples were less than $1E^{-05}$ cm sec^{-1}, whereas the UFA tended to be above $1E^{-05}$ cm sec^{-1}Kv. Of the sample tested, the rocks in the LFA exhibited low Kv and production is more dependent on storage and flow from fractures, isolated beds with high Kh, and horizontal permeable zones between beds. The UFA rocks have higher intergranular porosity and permeability and therefore more storage capacity. The MCU I rocks are highly variable. The dominant confining effect comes from the cumulative thickness of the low KV rocks as there is no evidence of vertical fractures or zones that penetrate more than a few feet much less through the entire MCU I unit. Recrystallizations and pore infilling cause the low Kv values and prevent much vertical movement of water. Appearance of cores may be decieving as ones that have moldic porosity or large intergranular spaces (depth 616 feet bls, 674 feet bls, 824 feet bls, or 1,104 feet bls Appendix B) have extremely low Kv when tested.

Table 1. Results of permeameter testing of selected six inch samples.

6" Sample depth	Kv cm/sec	6" Sample depth	Kv cm/sec
184	$4.00E^{-04}$	578	$1.90E^{-03}$
233	$1.63E^{-03}$	616	$2.10E^{-09}$
248	$1.40E^{-03}$	674	$3.40E^{-05}$
276	$4.80E^{-07}$	744	$2.00E^{-08}$
286	$2.10E^{-06}$	824	$3.40E^{-05}$
316	$3.40E^{-04}$	836	$6.80E^{-05}$
336	$5.20E^{-07}$	865	$2.80E^{-08}$
346	$1.00E^{-06}$	908	$3.00E^{-06}$
356	$2.00E^{-04}$	922	$2.00E^{-09}$
376	$4.80E^{-05}$	1064	$6.50E^{-06}$
385	$2.00E^{-04}$	1104	$9.30E^{-09}$
406	$3.70E^{-04}$	1118	$3.30E^{-07}$
418	$1.70E^{-04}$	1128	$3.40E^{-06}$
456	$3.30E^{-03}$	1136	$3.00E^{-07}$
468	$1.10E^{-05}$	1266	$7.10E^{-07}$
484	$2.20E^{-08}$	1316	$7.10E^{-10}$
506	$4.80E^{-08}$		
548	$1.10E^{-08}$		
558	$5.10E^{-05}$		

GEOPHYSICAL LOGGING

A suite of geophysical logs were run in the corehole. Probes were lowered into the core barrel and logged in the open hole sections. The Natural Gamma log was recorded for the entire borehole length since it can respond even where there is casing or core barrel. Since the hole diameter was too small to run dynamic (pumped) logs, the logging strategy focused on maintaining borehole conditions that took advantage of head differences between zones. By doing this, water can flow from areas of high head and high Kh to areas of lower head and high Kh. Water quality was consistent enough and of high quality that there were no issues with cross contamination between aquifers. Though not every log was run for the entire length of the open hole interval due to borehole conditions, sufficient sections were completed to delineate units within the FAS. Unless otherwise specifed, intervals or boundaries are reported as depth below land surface bls. A copy of selected logs are included in Appendix A and later in this report (Figure 13).

Borehole Video log - The first set of logs were run with the core casing lowered to 600 feet bls. Water could still flow in the annulus between the core casing and the open hole. The borehole video log was run first to verify hole conditions and that the casing was set at a proper place for flow logging. An section of orange survey tape was attached to the base of a flat piece of metal located in the camera's field of view. With this arrangement, the tape will move with the direction of flow similar to a tell-tale on a sailboat mast. It may even flap to give an idea of how fast water is moving. Movement of particles or suspended sediments in the water column are also useful for identifying flow speed and direction. Typically the camera is stopped periodically to allow the tape to orient with the flow but if the flow is greater than the camera trolling speed it may hang downward as the camera moves downward. The borehole video showed evidence of flow moving downward from casing bottom.

Screen shots from the video are presented below to show the general characteristics of the MCU I (between 350 feet bls and 750 feet bls) and the LFA below 750 feet bls. It is obvious that the borehole characteristics vary with depth however there are features that are more prevalent within the aquifer and confining units that are used to help identify the particular unit.

Example video screen clips from selected depths in the interval from 430.1 feet bls to 736.3 feet bls are shown in Figure 5 to demonstrate the dominant characteristics that comprise that interval. The rock types are interbeds of limestone and dolostone of varying Kh but the cumulative Kv for that entire interval appears to be very low.

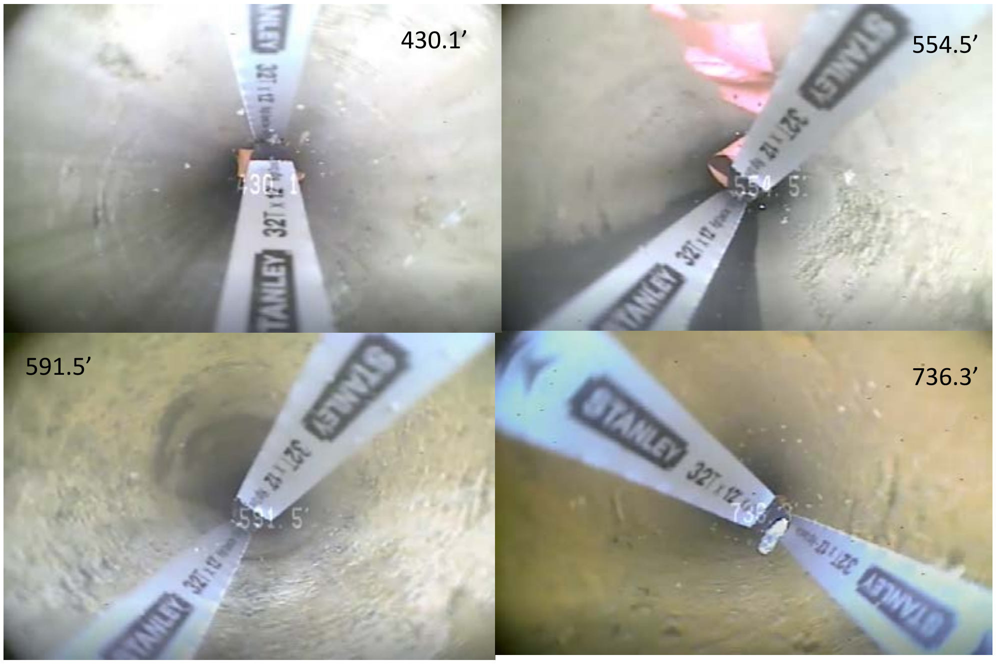


Figure 5. Borehole video at 430.1 feet bls, 554.5 feet bls, 591.5 feet bls, and 736.3 feet bls showing confining material typical of the interval from 375 feet bls to 750 feet bls.

The video clips shown in Figure 6 illustrate how there are potentially high permeable zones within the interval from 375 feet bls to 750 feet bls. Though the thickness of these intervals may only be a couple of feet, these features can greatly affect the Specific Capacity results for a 30 foot interval.

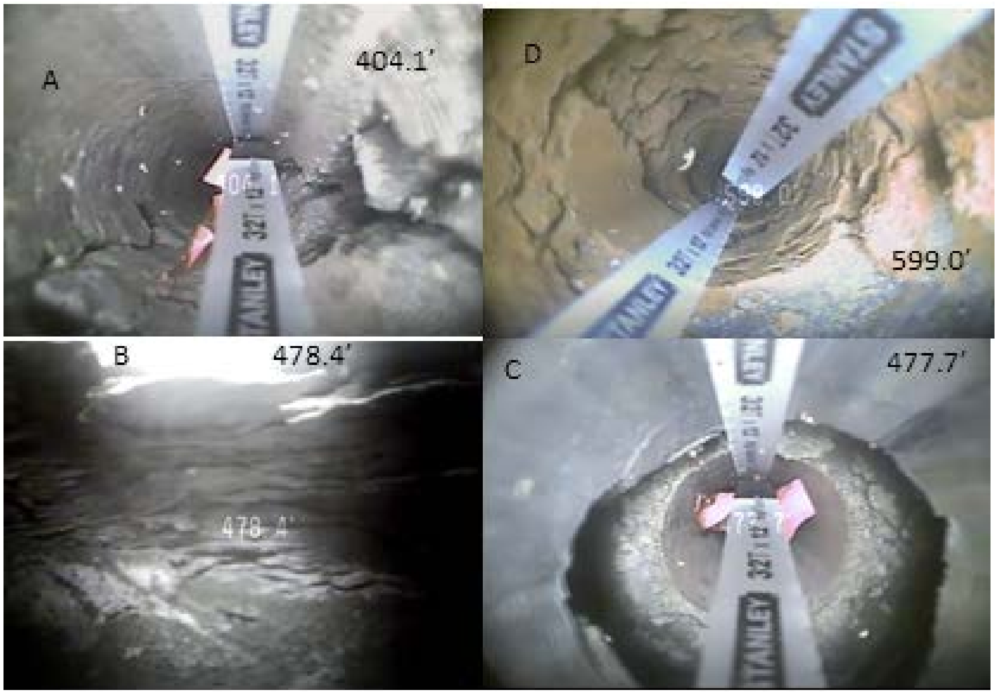


Figure 6. Video screen clips to demonstrate potentially permeable zones within the interval 375 feet bls to 750 feet bls. These are sporadically located in the interval and generally less than a few feet thick. Panel C is looking down into what appears to be a cavity however when viewed directly from the side as in panel B, this is really and enlargement that is not a cavity or extensive bedding plane permeable zone.

The example shown in Figure 7 is characteristic of the interval from 683 feet bls to 710 feet bls and shows evidence of fractures and potentially, high permeable bedding plane features. This is the thickest apparently high conductivity zone between 375 feet bls and 750 feet bls. Turbulent flow, from water moving both laterally and vertically downward, could be recognized by partical movement. Cavities appeared to be breakout zones rather than dissolution enlargments. Below 710 feet bls, the borehole became more in-gage with occasional breakout zones and few fractures. This 27 foot interval appears to be producing water at this low flow rate, however it is unknown if this would be a sustainable yield if it was pumped on a regular basis.

Below 750 feet bls, the borehole shows more signs of fractured dolostone and permeable limestones. At 780 feet bls (Figure 8) fractured dolostone overlies a much softer limestone interval. Interbedding of limestone and dolostone is common below 750 feet bls. There are more areas that are fractured, enlarged, or have horizontal permeable zones below 750 feet bls.

Figure 7. Borehole video example showing fractures and a bedding plane breakout feature at 687 feet bls.

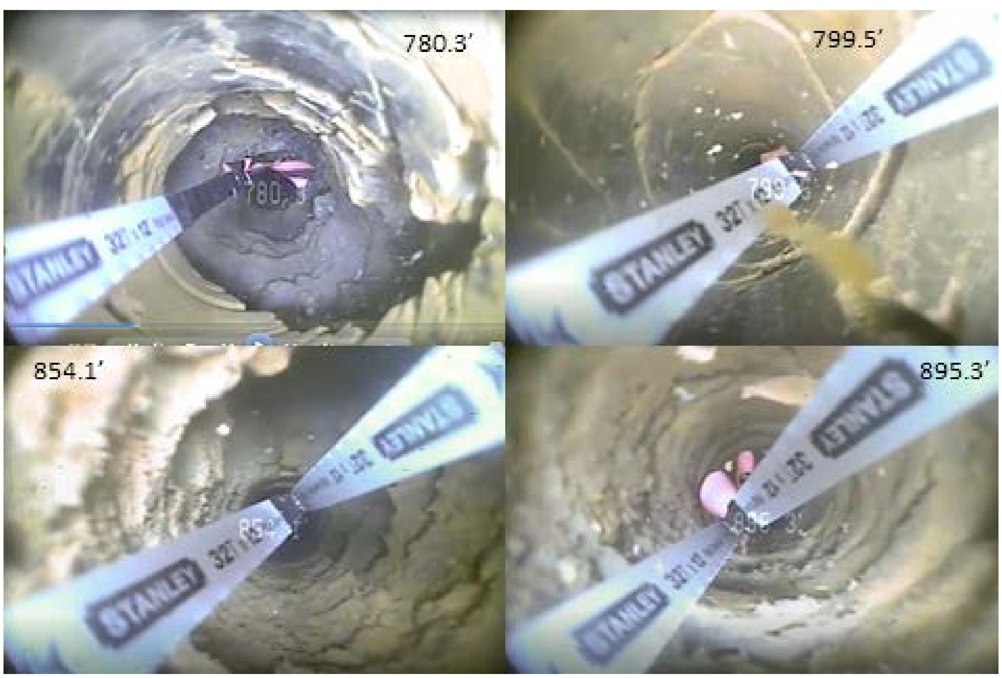


Figure 8. Borehole video screen clips from 780.3 feet bls, 799.5 feet bls, 854.1 feet bls, and 895.3 feet bls. Typical change between dense fracture dolostone and softer enlarged limestone

(780.3 feet bls) in upper left. Oblique fractures intersect the corehole at 799.5 feet bls (upper right). The drilling process has enlarged the softer limestone.

An example of the relatively lower permeable zone at 872 feet bls is shown in Figure 9. This appears as a fairly homogeneous carbonate section with occasional organic stringers and flow moving downward. Intervals containing over 80% organic materials around 759 feet bls and from 764 feet bls- 766 feet bls had an enlarged borehole due to the softer material being wallowed out by the drilling process.

Figure 9. Borehole video view of in-gage section at 872 feet bls with no fractures and minor dissolution features.

From 813 feet bls to 875 feet bls (Figure 9) the hole is relatively in-gage with some occasional breakout features. At 889 feet bls there is a breakout with evidence of turbulent flow as if water was entering the borehole and mixing with the downward flow. From 890 feet bls to 1,021 feet bls the hole is relatively in-gage with some very smooth areas and one big enlargement at 925 feet bls. At 1,021 feet bls, 1,024 feet bls, 1,037 feet bls fractured zones are present with some evidence of turbulent flow in the 1,037 feet bls zone but still dominated by downward flow. Hole continues in-gage from 1,038 feet bls with fractured zones at 1,078 feet bls to 1,081 feet bls, 1,084 feet bls to 1,087 feet bls, 1,089 feet bls, and 1,091 feet bls to 1,099 feet bls. An example of difficulties encountered while logging can be seen at 1,098 feet bls (Figure 10) a rock is balanced

balanced between the camera and the borehole wall. Sometimes the rock can be knocked loose with the camera and it will fall to the bottom of the hole. Other times, everything has to be pulled out of the hole and the rock shoved to the bottom with the core barrel or wireline apparatus.

Figure 10. Fracture zone at 1,098 feet bls with rock balancing on camera**.**

Figure 11. Breakout zone at 1,103 feet bls with pieces of very hard dolostone that have broken off the borehole wall during the drilling process.

A borehole breakout can be seen at 1,103 feet bls in Figure 11. These features are common in the crystalline dolostone intervals but do not appear to represent flow zones from a fractured formation. They represent enlarged zones caused by brittle rock breaking out from the borehole wall caused by the drilling process. From 1,100 feet bls to total depth logged of 1,326 feet bls the borehole is extremely in gage interupted only by breakout zones and a rare fracture. At 1,320 feet bls the rocks are fractured.

At 1,325 feet bls multiple rocks were blocking the camera from going deeper (Figure 12). There was evidence of strong downward flow from partical and tell-tale movement so the obstruction would allow water flow.

Figure 12. Borehole video showing rocks obstructing the borehole at 1,325 feet. White particles are moving rapidly down through the rocks indicating strong downward flow.

After the video was completed other logs were deemed safe to run. This included natural gamma, normal electrics (8”, 16”, 32”, 64”, single point resistivity), gradient temperature, fluid conductivity, flowmeter, and optical borehole imagery. A caliper was not run in this section to minimize the risk of the arms knocking a rock loose and obstructing the hole for grouting. Logging was done in two events. First event was performed with 600 feet bls of core barrel in place and the second event was done when the core barrel had been pulled up to 280 feet bls and the hole cemented from the original total depth to 950 feet bls. The flow regime for each event was therefore different since the permeable intervals below 950 feet bls were sealed off during the second stage of logging. The set of logs presented in Figure 15 are a combination of logs from both events. Relevant comments about specific logs are included in the figure and discussed in greater detail below.

Natural Gamma log – The gamma log in Figure 15 was recorded in a single run during the first logging event since it can log through steel casing. It records natural gamma activity produced from Potassium, Uranium, or Thorium that is included in the sediments. The gamma log can be seen in Figure 15 as the light blue filled log on the left side. From this log and drill samples the top of the intermediate confinining unit is identified at 49 feet bls and continues to 180 feet bls where the counts per second (cps) drop indicating the pure carbonates of the FAS are encountered. The top of the Ocala Limestone was identified by the FGS (Appendix B) in the core at 159 feet bls. The top of the FAS is picked at 159 feet bls since the core is sufficiently permeable to be hydraulically connected to the more pure carbonates encountered at 180 feet bls. The high gamma peaks above 159 feet bls represent intervals of clay or phoshphate rich sediments. The Hawthorn Group sediements which correspond to the ICU at this site from 49 feet bls to159 feet bls produce a higher gamma response in the log. At 275 feet bls the counts increase where the dolostone units occur. From 275 feet bls to 935 feet bls, there are interbeds of high and low peaks depending whether limestone or dolostone are present. Very high peaks occur where organic material such as peat or lignite were encountered.

Caliper log – The caliper log in Figure 15 was recorded during the second event when the casing was pulled to 180 feet bls. The lower section of the corehole was not logged with a caliper since the risk of knocking loose rocks with the arms is increased. The probe records the borehole diameter calibrated in inches and can be useful for identifying fractures or borehole enlargements that could be related to high conductive zones. In Figure 10 the caliper log has a light brown right- fill in the left side near the gamma log. The intervals from 275 feet bls to 300 feet bls, 368 feet bls to 375 feet bls and 768 feet bls to 800 feet bls show the biggest borehole enlargement. Typically coreholes are more in-gage (smoother and closer to the size of the drill bit) than rotary drilled boreholes. A big advantage of logging the in-gage corehole is that effects to various log response is minimized due to changes in diameter. Minimizing diameter effects is most important in gamma and flow logging.

Normal electric logs – The electric logs presented in Figure 15 logs were merged from the first and second logging events. The high resistivity zones typically indicate very tight, low hydraulic conductivity (Kh and Kv) rock matrix however there may be secondary features such as fractures or bedding planes that increase the K. Electric logs (Normal, Induction, Lateral) can be the most important log for identifying the units within the FAS and correlation to other boreholes. The electric log response to changes in lithology is significantly more pronounced in the carbonate intervals of the FAS than log repsonse in a Natural Gamma log. The electric log response is sufficiently consistent between boreholes to be recognized visually as a log signature when comparing sites.

The example electric log shown in Figure 13 provides guidance for one option to help identify the MCU I and LFA units. The figure shows an electric log “signature” pattern that can visually be recognized in many north and central Florida boreholes. Similarily, the natural gamma log may have a recognizable “signature” to aid in correlation but it may not be as obvious. Site specific data is used to refine picks and as can be seen in the cross sections later in the report, there are variations and exceptions. This signature can be seen in the logs from the corehole.

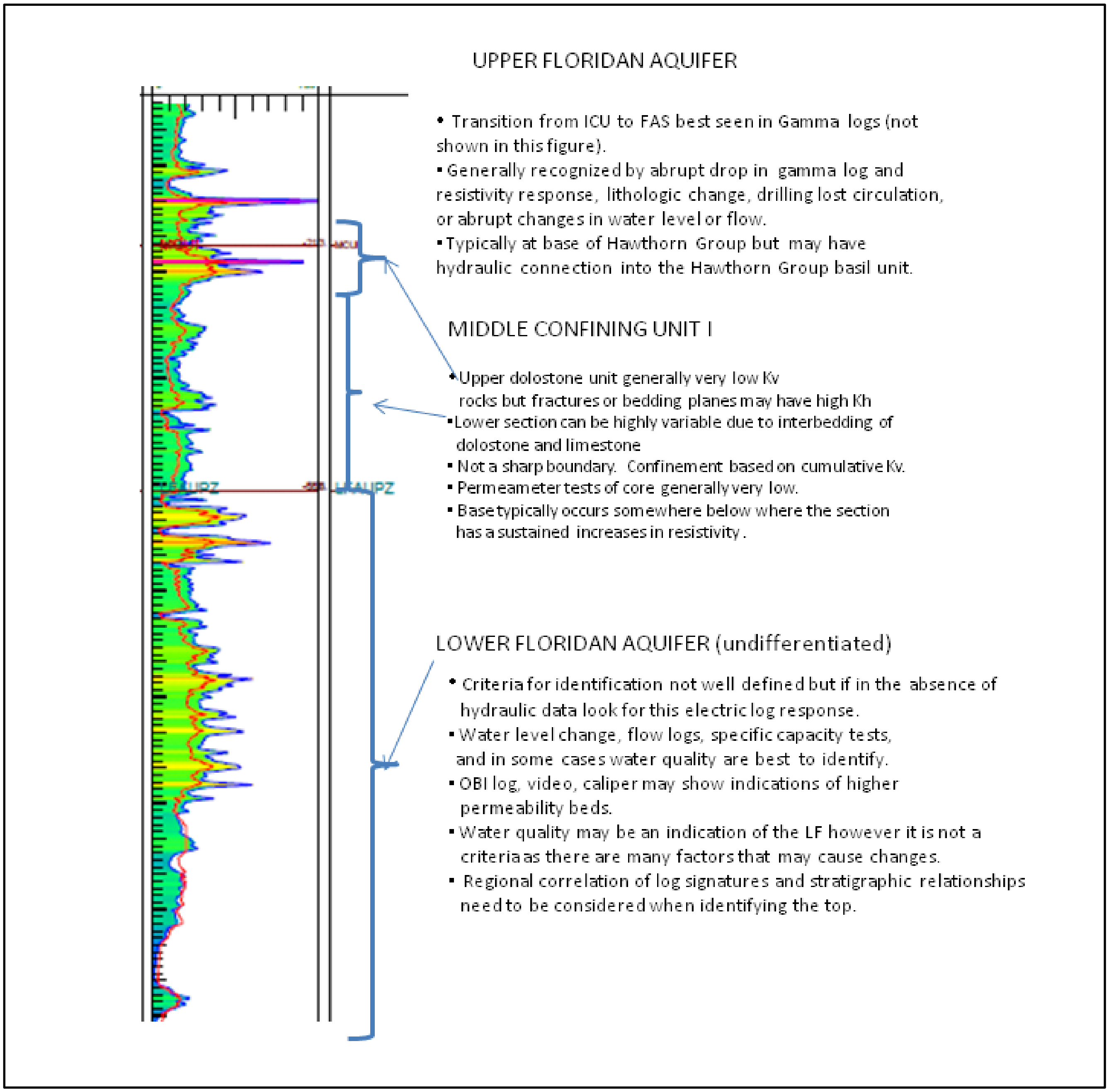


Figure 13. A generic electric log that shows a typical signature pattern from normal electric logs that can be identified in many wells across north and central Florida. Similar peaks and valleys can help provide an expected range of depths for main hydrostratigraphic units.

Alternatively a more quantitative approach can be used to identify a log signature using a zonation process (Davis, 2002). Patterns of high and low peaks can be divided into zones using a heirarchical cluster analysis with software used for well log analysis (WellCad V5.1). The WellCad software uses a standardization process first, then an iterative process that evaluates the difference between the values at different points and combines pairs with the least difference into composite zones until a specified number of zones has been reached. To be most effective for correlation between wells, the logs should include the same stratigraphic intervals. Depth shifting may be required to align the intervals to a common stratigraphic datum.

There are three zones of interest from the top of the MCU I to the LFA identified in Figure 13 so three zones are used in the following analysis. An example of zonation analysis using 16" Normal electric logs from P-0304 and U-0028 (corehole discussed in cross section later in this report) is included in Figure 14. In this example zone 1 identifies the marker dolostone where the top of the MCU I occurs in many north Florida boreholes. This zone may exhibit sufficient secondary permeability features so that the MCU I is identified lower near the top of zone 2. Zone 3 helps identify the top of the LFA. The zonation process is useful to help recognize a typical log signature of high resistivity (zone 1) part of which may be MCU I or UFA, lower or mixed resistivity in zone 2 (for MCU I), and high resistivity for zone 3 (LFA) if no other hydraulic data is available for identifying unit boundaries. This tool can be used as a guide to help correlate zones between boreholes, however all other data should be considered when making a boundary pick.

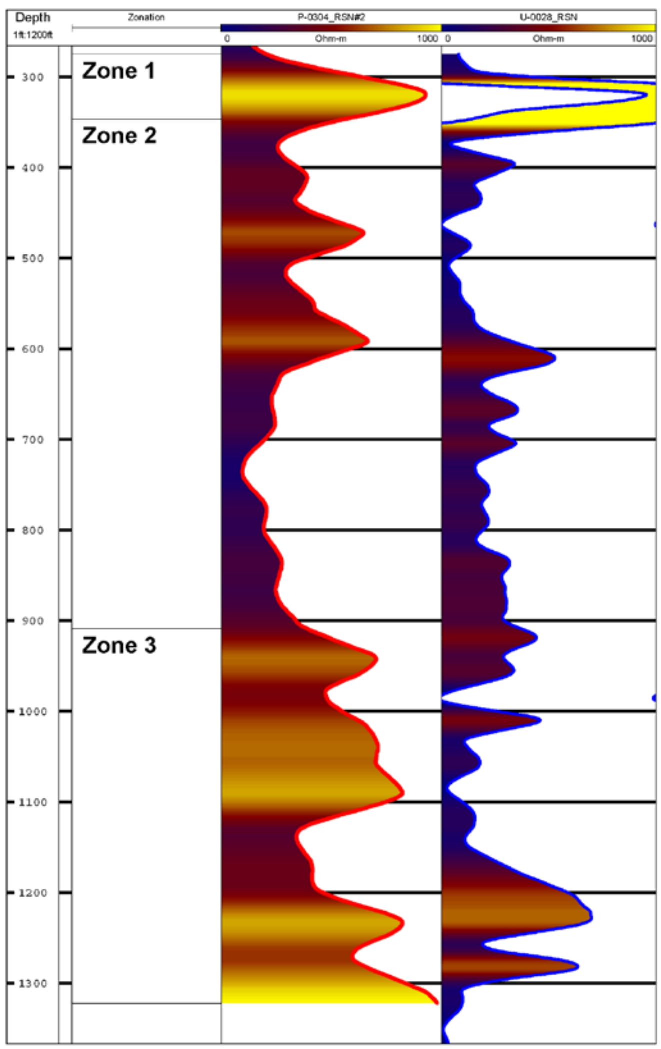


Figure 14. A zonation analysis of 16" Normal electric logs for coreholes P-0304 and U-0028.

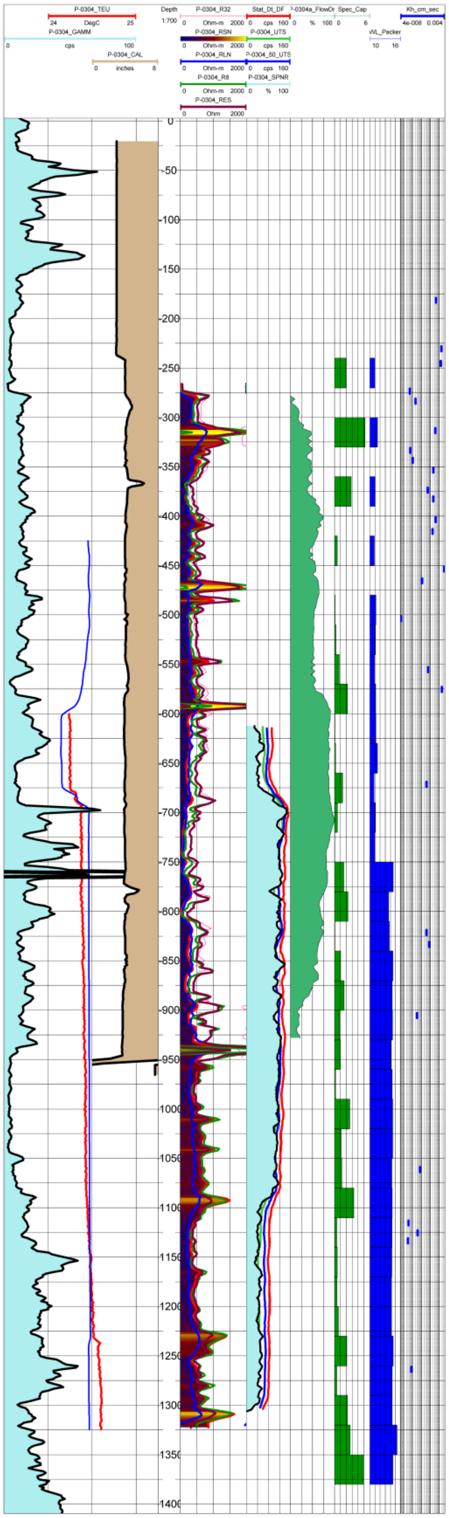
In P-0304 the high resistivity zone 1 is associated with a flow zone immediately above it. Water is flowing downhole from above it. It is a distinct lithologic change where the rocks can have orders of magnitude lower Kv than those above. At 233 feet bls in the UFA the Kh was 1.48 E^{-03} cm s^{-1} and at 333 feet bls in zone 1 the Kh was 5.2 E^{-07} cm s^{-1}. As mentioned earlier, the specific capacity was relatively high for the 30 foot intervals between 240 feet bls to 390 feet bls indicating there are high Kh zones within zone 1 and zone 2 however the Kv could be dominated by the cumulative effect of the low Kv rocks. There are other high resistivity zones centered around 475 feet bls, 550 feet bls, and 580 feet bls in zone 2. A large interval of high resistivity occurs from 950 feet bls to1,100 feet bls and is associated with a decrease in flow seen in the flow logs.

Impeller flowmeter logs – Ideally these logs would be run when the entire interval from the top of the FAS to total depth was open. It should be emphasized that the flow recorded under these conditions is an artificial flow regime and does not represent what is occuring in the natural aquifer system. The corehole has punctured any confining units and will allow water to flow from intervals of higher head to lower head based on the Kh of the individual intervals. This is somewhat of a substitute for pumping flow logs which are more costly, can only be done in larger diameter holes, and have their own set of limitations based on pumping rate and transmissivity of the upper aquifers. It is important to note that changes in flow log response with this method can indicate a high Kh zone that may not be able to actually produce water when pumped. The flow logs may indicate water moving from a higher to lower head when both zones have high Kh. However, the lower head-high Kh zone may not have a suffiecient storage to provide sustainable production. A comparison to the specific capacity test for an interval like this can help identifiy procuction versus higher Kh. The District has developed this method and found it to provide more results than wells that have cased off major sections of the aquifer. Individual borehole conditions may dictate if the technique is feasable however.

The flow logs were run in two separate logging events. An ideal flow logging event involves three logging runs up and down at different trolling speeds. This confirms the linearity of the probe response and can be used to correct for differences in line speed, if desired. Often, one pair of up and down logs will be better than the others depending on the relationship of the fluid velocity to the trolling speed of the probe. The probe can record impeller spin direction in a dual channel mode. Depending on flow velocity, station measurements will be made if the flow velocity is greater than the detection velocity of the probe. The filled blue log (Track 3, Percent Flow Run 1) in Figure 15 was calculated using the two passs overlay technique (Smolen, 1996) and converted to percent flow. It records flow coming down around the core casing below 600 feet bls, an increase in flow starting around 675 feet bls, a slight decrease in flow from 925 feet bls to 1,075 feet bls and an abrupt flow decrease at 1,075 feet bls. Flow continues moving downward to the bottom of the hole.

The green filled flow log in Figure 15 (Track 4) is the same type of log except it was run after the hole had been cemented from total depth to 950 feet bls and the core casing was pulled up to 280 feet bls. Flow begins moving downhole at 290 feet bls and increases until 315 feet bls. From 315 feet bls there is no additional flow until 380 feet bls. From 380 feet bls 500 feet bls there is some variable increase and then stays constant until 580 feet bls. Since the zone that was taking water below 1,100 feet bls was sealed, the downward flow is being diverted into the formation between 750 feet bls and 900 feet bls. This interval corresponds to the major water level change seen in Figure 4. In the first run of the flow logs this interval was bypassed since there is a higher K interval below for the water to flow into. Once the lower zone was cemented the path of least resistance was changed to the 750 feet bls to 900 feet bls interval. In terms of flow volume, there appeared to be less flow movement in the second run than in the first run. The two logs are scaled in percent of the total flow occuring during each individual run so they cannot be directly compared. A constraint on downward flow is the Kh of either the producing or the receiving intervals so it appears that the 750 feet bls to 900 feet bls interval may have a lower Kh than the interval below 1,075 feet bls. Diminished flow volume was also observed in a video log that was run for this second log event.

Gradient Temperature – A temperature log for the 600 feet bls to 1,300 feet bls interval was recorded and displayed as a solid red line in Track 1 of Figure 15. Typically temperature will increase linearly with depth unless there are fluid dynamics that change this. Borehole fluid is moving down the hole so therecan be masking of the temperature of the formation water since the temperature of the borehole fluid is primarily being measured. Borehole fluid can be influenced by zones of inflow or static flow interfaces where pressure is in equilibrium or water is layered due to density stratification. A distinct temperature change occurs at 700 feet bls where water was detected flowing into the borehole. A slight increase occurs from 700 feet bls to 1,075 feet bls where the temperature gradient increases to 1,230 feet bls. Another abrupt increase occurs at 1,230 feet bls. These temperature changes indicate that even though water is moving downhole there is contribution to the flow where the interval changes occur. Though this does not indicate any differences from the flowmeter interpretation, it does provide additional confidence in interpretations.



GEOPHYSICAL LOG COMMENTS

- High resistivity interval at 310’ can be seen regionally in other boreholes and generally is associated with flow zones, water level changes, and rocks with very low Kv. Horizontal enhanced permeable zones may be contained within but do not necessarily imply high Kv.
- Electric log high and low peaks are indicative of interbeds of generally low K dolostone or crystalline limestone (high response intervals) with much less indurated, higher K limestone (low response intervals).
- Flow (blue and green shaded in middle tracks) is moving down from above 310’. It increases at 375’ and again at 565’. It moves into the formation starting at 700’ and decreases below detectable limits below 1,100’.
- Green bars represent specific capacity tests for 30’ intervals and are indicative of Kh primarily controlled by bedding planes and fractures. Lowest values occur below 390’.
- Temperature (red line left track) and minor fluid conductivity (blue line left track) changes can be seen where the flow zone at 700’ occurs. (Change at 600’ related to position of core casing).
- There is some variation in water level (blue bars) between 310’ to 390’ and it remains relatively constant to 750’ where a significant decrease (depth to water below measure point) occurs.
- Permeameter test values (blue points on logarithmic scale right track) are highly variable and not well correlated with specific capacity. All values below 456’ are orders of magnitude less than above that and lower than $1.0E^{-05}$ cm s^{-1}.

Figure 15. Borehole geophysical logs from P-0304. Some logs are merged from multiple runs. An enlarged version of this is included in Appendix A for better viewing.

Optical Borehole Televiewer – The Florida Geological Survey provided equipment and staff to run an OBI-40 Optical Borehole Televiewer Image (OBI) probe in the corehole. This records a continuous, magnetically oriented, digital, 360 degree high resolution image of the borehole wall. The resulting image is as if a cylinder was vertically sliced at 0 degrees and flattened so each side of the image is at 0 degrees. Scale marks typically are at 0, 90, 180, and 270, and back to 0 degrees. Horizontal fractures show as darkend straight bands, whereas fractures that intersect the borehole obliquely show as a sinusoidal curve from which dip and strike can be calculated. Other features such as laminations, vugs, certain lithology, cavities, and even lithologic contacts can be discerned. A copy of this log is included in the Appendix A. The log was not run above 248 feet bls due to adverse borehole conditions so images of much of the Upper Floridan aquifer were not obtained. Clips of some specific intervals of interest are included below however. All but one of these clips are from intervals within the MCU I to demonstrate specific characteristics of that unit.

In the figures below, an example of the core associated with the clip of the OBI is included to show how critical an OBI log is to interpreting hydraulics from core samples. Cores may be misinterpreted as representing high permeability fracture zones when sections are missing or broken up. The OBI log shows the actual in situ conditions often revealing a smooth low permeable zone where the core were was merely broken during drilling and does not represent a high Kh zone. The OBI also provides a better understanding of the scale and frequency of fractures so that a better understanding of the vertical extent of these features can be realized. The OBI log is also important for interpretation of Specific Capacity testing since one small fracture can bias the entire 30 foot test towards a significantly higher Kh. It is also useful to evaluate if the packers were set in a zone that would provide an effective seal to the borehole wall.

The depth interval 315 feet bls-324 feet bls (Figure 16) was identified in the flow logs as a permeable zone. The OBI log indicates an oblique fracture intersecting the borehole between 316 feet bls and 318 feet bls. A bedding plane cavity between 320 feet bls and 321 feet bls may be a fracture or a thin soft material bed that provides a pathway for water flow. Figure 16 indicates fractures of higher Kh while the core suggests there is lower Kv depending on how deep the fractures penetrate. A larger interval of the OBI log that includes 315 feet bls to 324 feet bls is shown on the right of the figure with a short normal electrical resistivity log. The interval identified as zone 1 (Figure 14) in the earlier discussion of log signatures corresponds to the zoomed in section on the left. This is an example of how the high resistivity zone 1 peak was used to estimate an initial depth to the top of the MCU I but additional data such as the fractures seen in the OBI and flow seen in the flow logs was also considered to refine the pick. The fractures and horizontal permeable zones above 325 feet bls are sufficiently close to each other to suggest hydraulic connectivity to the UFA above 300 feet bls. From 325 feet bls to 375 feet bls the high Kh zones are less frequent and may not be connected. Below 375 feet bls all indications from the OBI logs are that the secondary features that create high Kh potential are minimal, implying that Kv is also minimal.

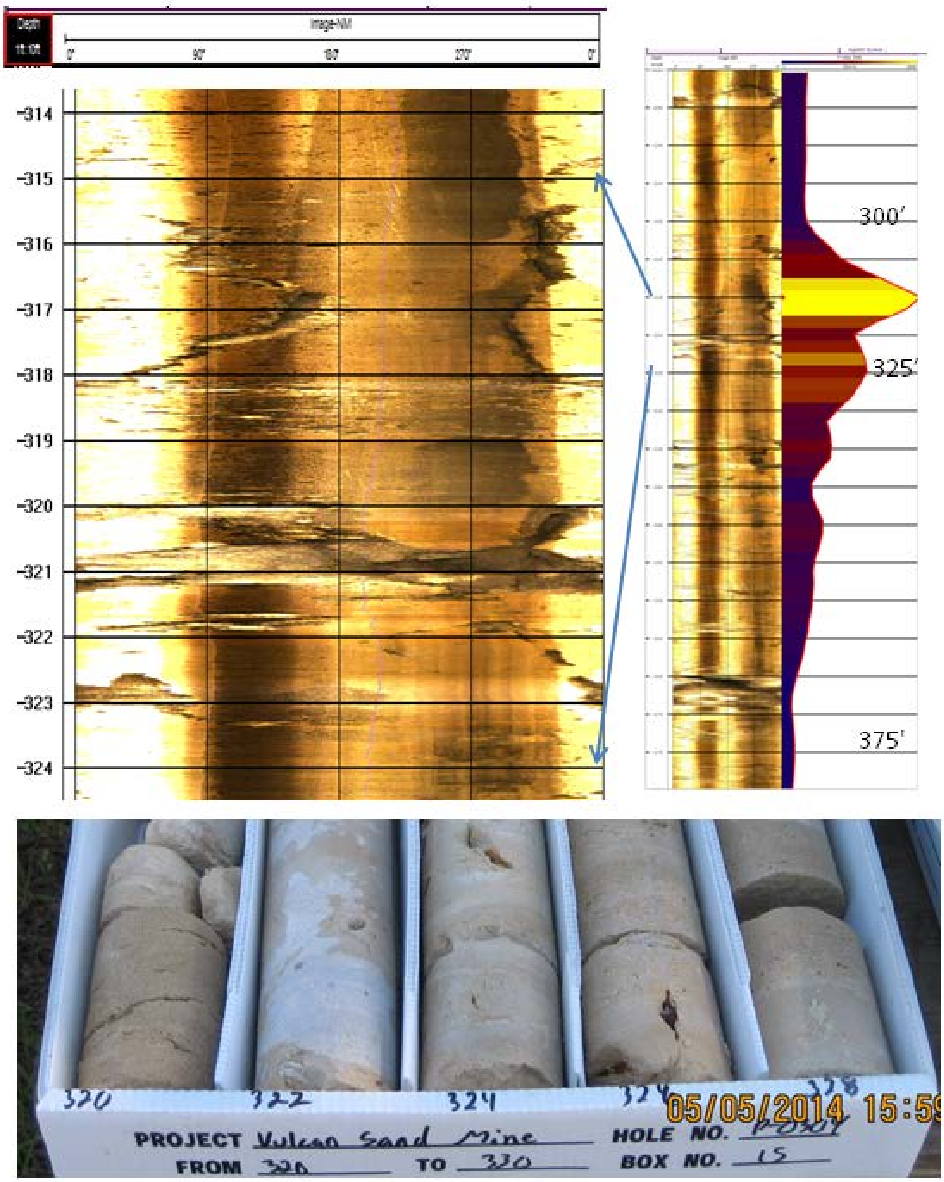


Figure 16. Optical Borehole Televiewer Image log section from 315 feet bls-324 feet bls showing obliquely intersecting fracture at 317 feet bls and bedding plane fracture at 321 feet bls. Short normal resistivity log is shown from 280 feet bls – 380 feet bls next to OBI. Sections of core indicates crystaline dolostone with very low Kv. Specific capacity test from this interval is relatively high but is more representative of high Kh from the fracture rather than high Kv through the vertical section.

The example shown in Figure 17 indicates a fracture the intersects the corehole obliquely between 353 feet bls and 354 feet bls. Within this interval the core also shows a break. This is an example where the broken core actually is related to fractures in the rock.

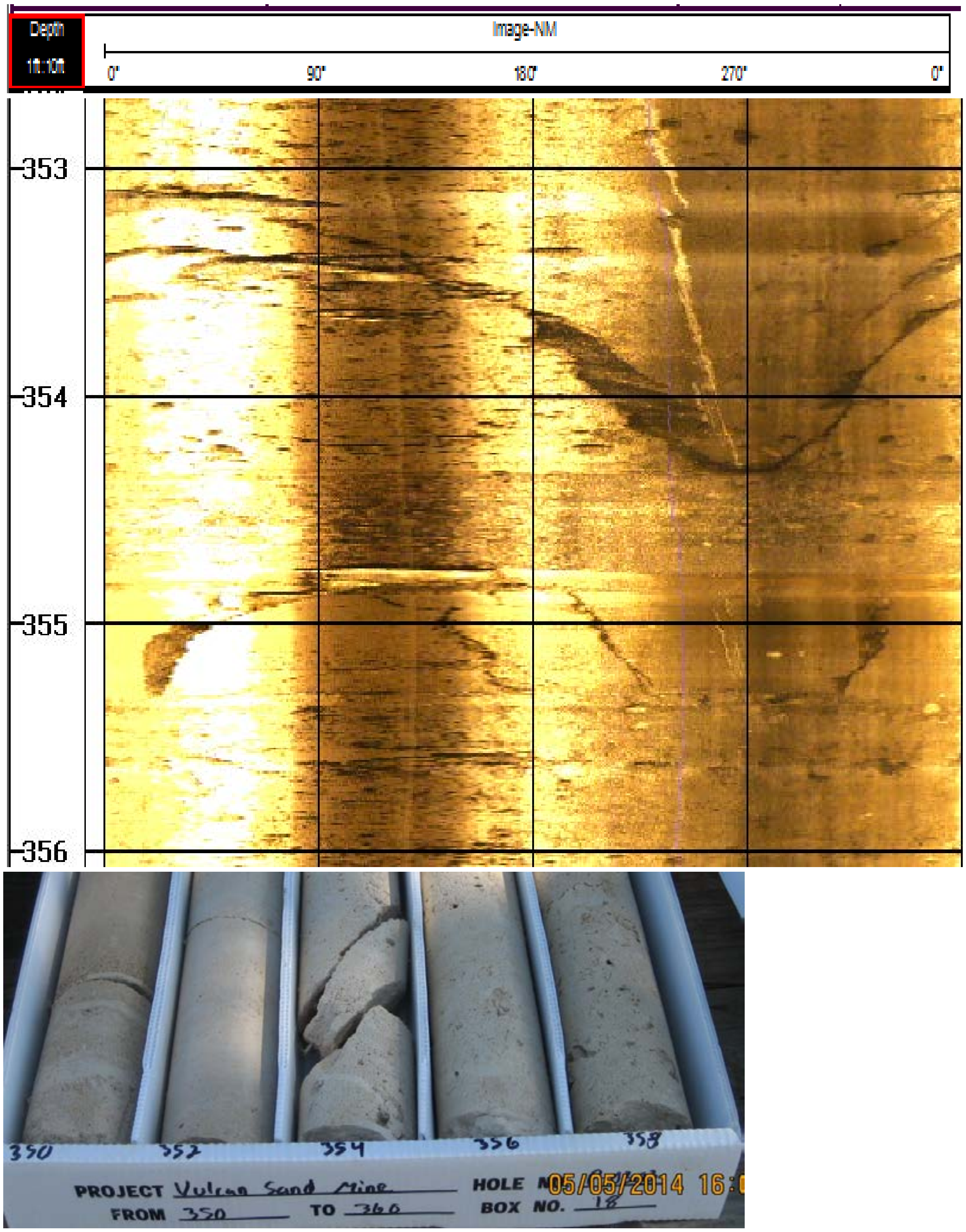


Figure 17. Optical Borehole Televiewer Image from 353 feet bls-356 feet bls corehole P-0304 showing a fracture that intersects the borehole at an oblique angle. The obliquely fractured core represents a true rock fracture rather than a piece of core broken by the drilling process.

The example shown in Figure 18 shows a horizontal bedding plane permeable zone from 364 feet bls- 370 feet bls. This corresponds with a flow zone where water is moving out of the formation and down the hole.

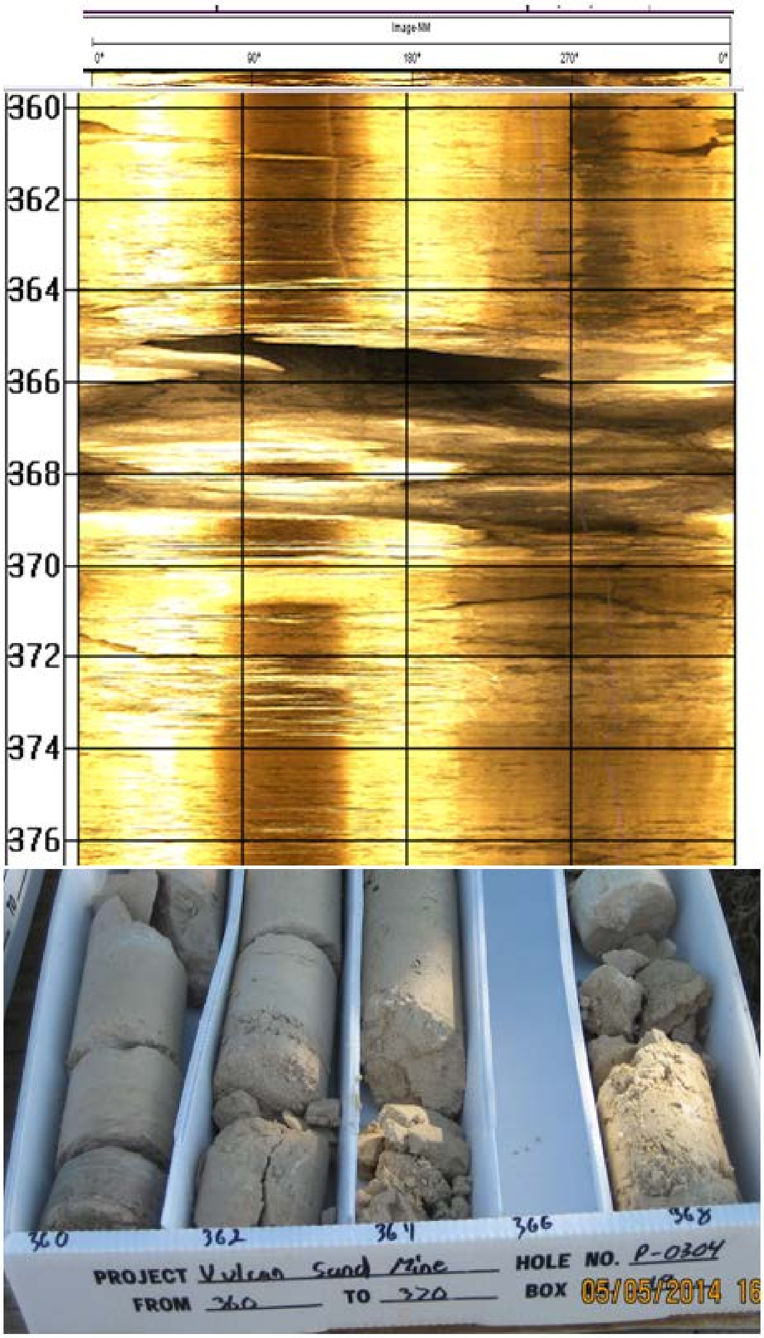


Figure 18. Optical Borehole Televiewer Image from 360 feet bls to 376 feet bls corehole P-0304. The missing core near 366 feet bls is truly related to a bedding plane void. The limestone is much less indurated than units above this interval.

The example in Figure 19 is from a section near the top of the MCU I from 397 feet bls to 408 feet bls. The rock is becoming more dolomitic and indurated with intergranular cement below 375 feet bls.

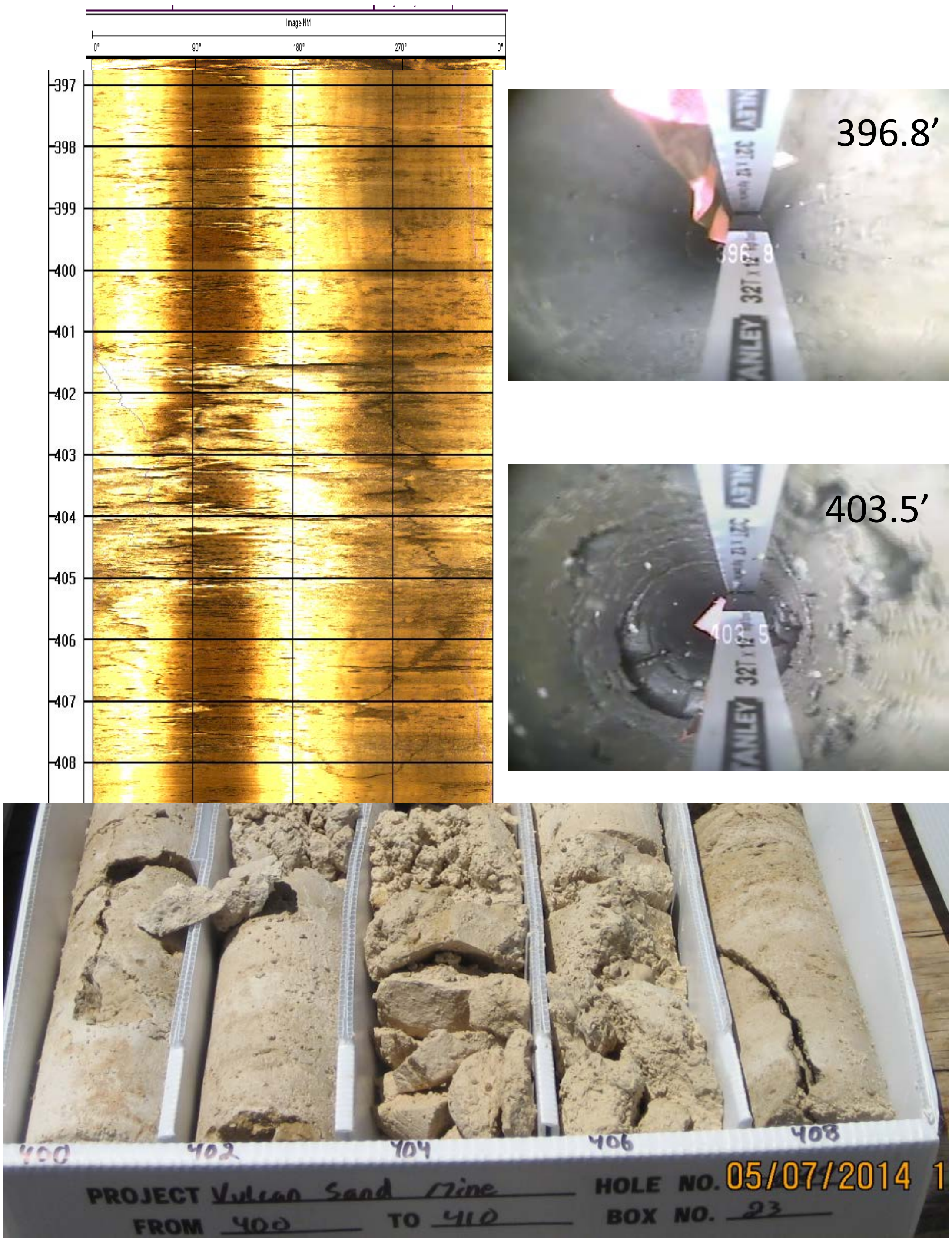


Figure 19. Optical Borehole Televiewer Image, Borehole Video, and core within 397'-408' corehole P-0304. The OBI log shows small bedding plane and vertical fractures between 401'-405' where the limestone is much less indurated than units above and below.

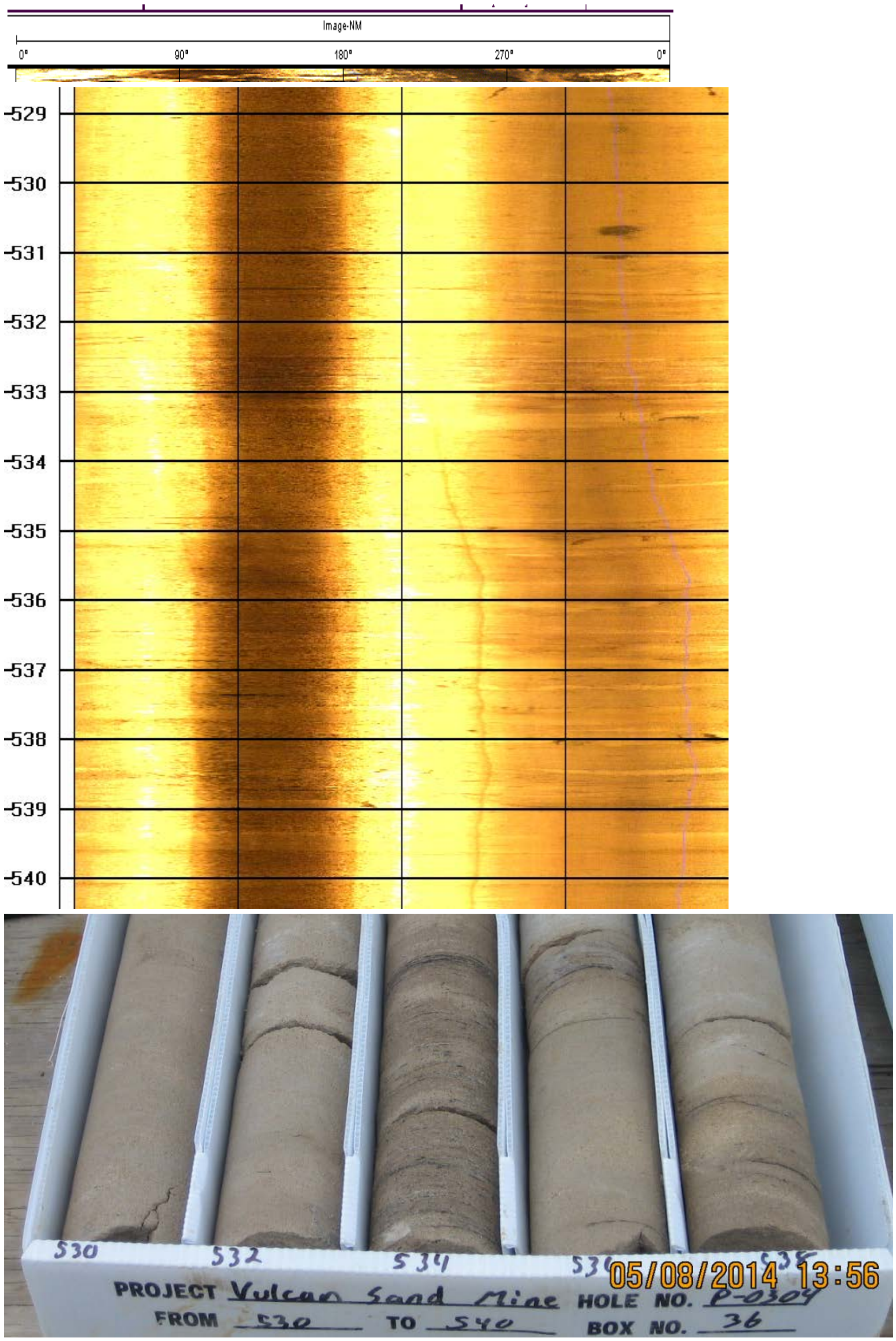


Figure 20. Optical Borehole Televiewer Image from 529 feet bls-540 feet bls corehole P-0304. Figure shows an example of a smooth borehole with no fractures or bedding plane voids. Cores from this zone also shows a homogeneous well-indurated rock.

The interval shown in Figure 20 is an example of the low permeability material found in the MCU I. None of the breaks seen in the core are indications of fractures as the OBI log indicates smooth undisturbed section. Significant portions of the interval from 375 feet bls to 750 feet bls have this characteristic and provide confinement between the UFA and LFA.

A review of the flow logs (green filled trace) shown in Figure 15 indicates an increase in flow starting around 580 feet bls. This zone can flow into the borehole since the corehole has connected it to zones of lower head. Water is not likely to be flowing through the rocks below under normal conditions. The OBI log in Figure 21 below shows a high Kh zone at 580 feet bls and the core indicates a grainstone and packstone with broken core and sections missing. A permeameter test from 578 feet bls (Table 1) shows Kv to be $1.90E^{-03}$ cm s^{-1}, which is orders of magnitude higher than the values obtained from samples above and below. This suggests this relatively thin interval has high Kh and has sufficient water to supply downward flow. The specific capacity for the 30 foot interval that included this zone also was higher than specific capacity from above and below. The sustainability of production from a zone such as this may not be sufficient for long-term use since the lower Kv zones surrounding it may not provide a continuous water supply.

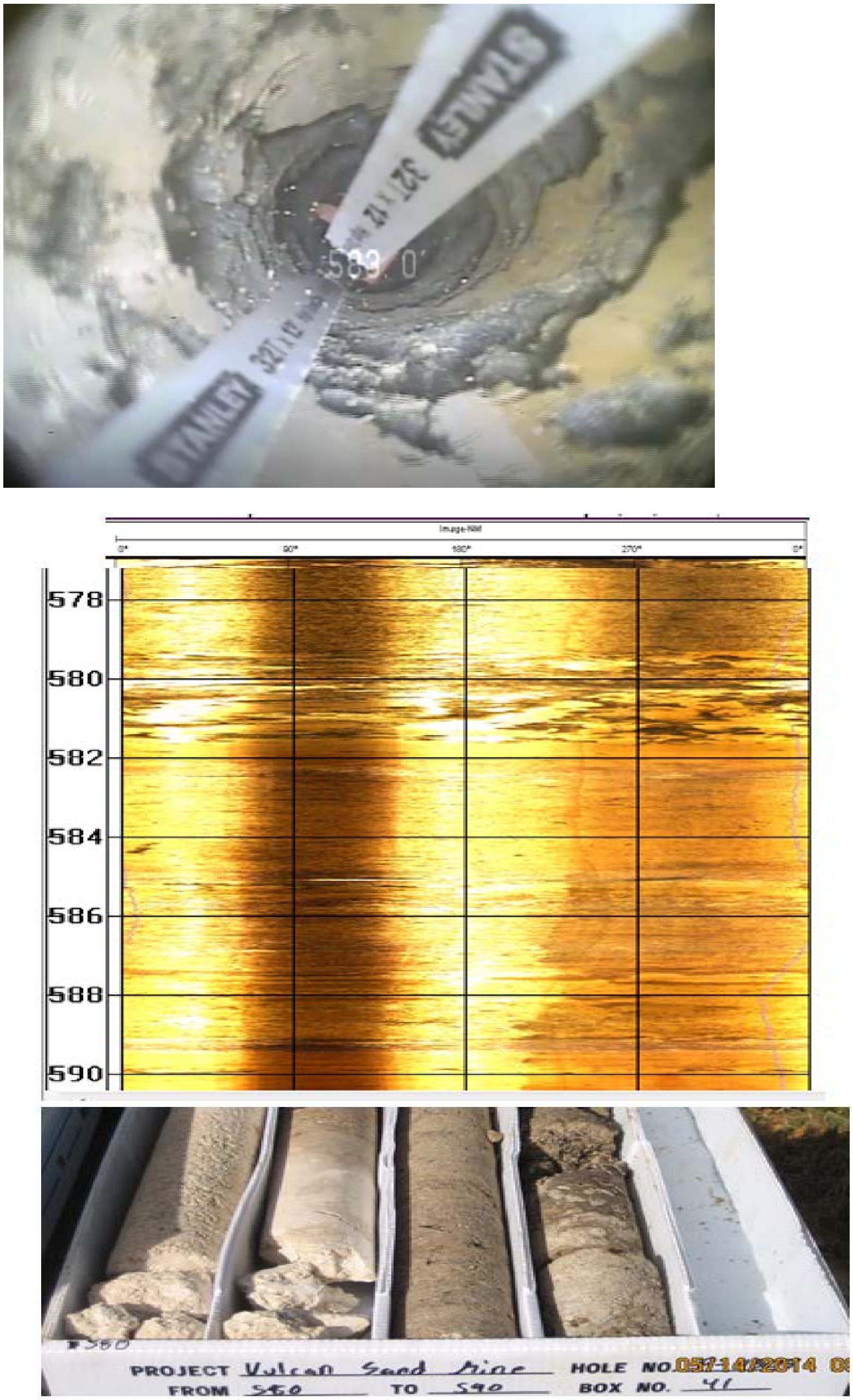


Figure 21. Optical Borehole Televiewer Image, Borehole Video, and core from 578 feet bls-590 feet bls corehole P-0304. The section shows small fractures or horizontal bedding plane voids that may be related to increased Kh. Specific capacity from the 570 feet bls-600 feet bls test interval is higher and influenced mostly by the 580 feet bls-585 feet bls interval.

The OBI log and core (Figure 22) from 700 feet bls to 750 feet bls shows a relatively thick section of low Kh rocks with no fractures. Specific Capacity is low and the one permeameter sample taken for this interval is 2.00 E^{-08} cm sec^{-1}. This is at the base of the MCU I.

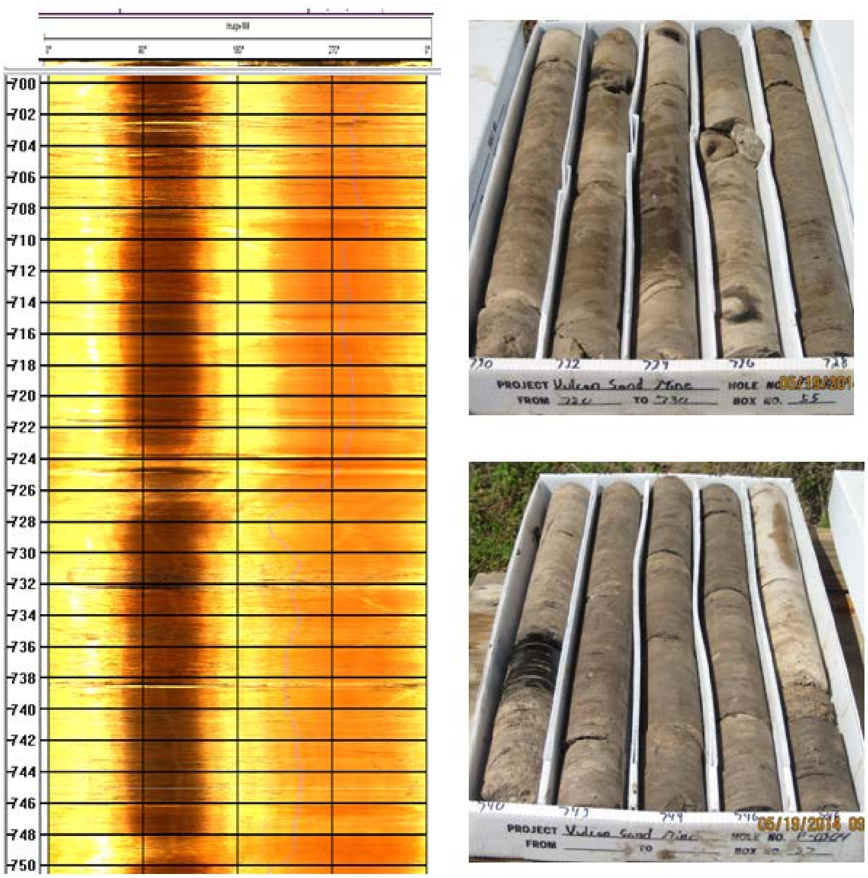


Figure 22. Optical Borehole Televiewer Image from 700 feet bls-750 feet bls from corehole P-0304. This shows low Kh rocks with few thin horizontal bedding plane features and potentially low Kv. There are other similar zones above this.

The OBI and core images shown in Figure 23 are from a section just below where a major water level change occurred during drilling and packer testing. Flow logs indicated increased flow while borehole video records fractures and cavities indicative of a high Kh interval. Obvious downward flow could be recognized in the borehole video as evidenced by the motion of the survey tape located in the downward field of view. The dolostone comprising this interval has extremely low permeability, but the fractures are the dominant feature effecting the Kh of the rocks. This zone marks the greatest departure from the units above and meets a primary criterion for identifying the LFA. These conditions prevail until 790’ where there is a change in lithology and the hole becomes in-gage.

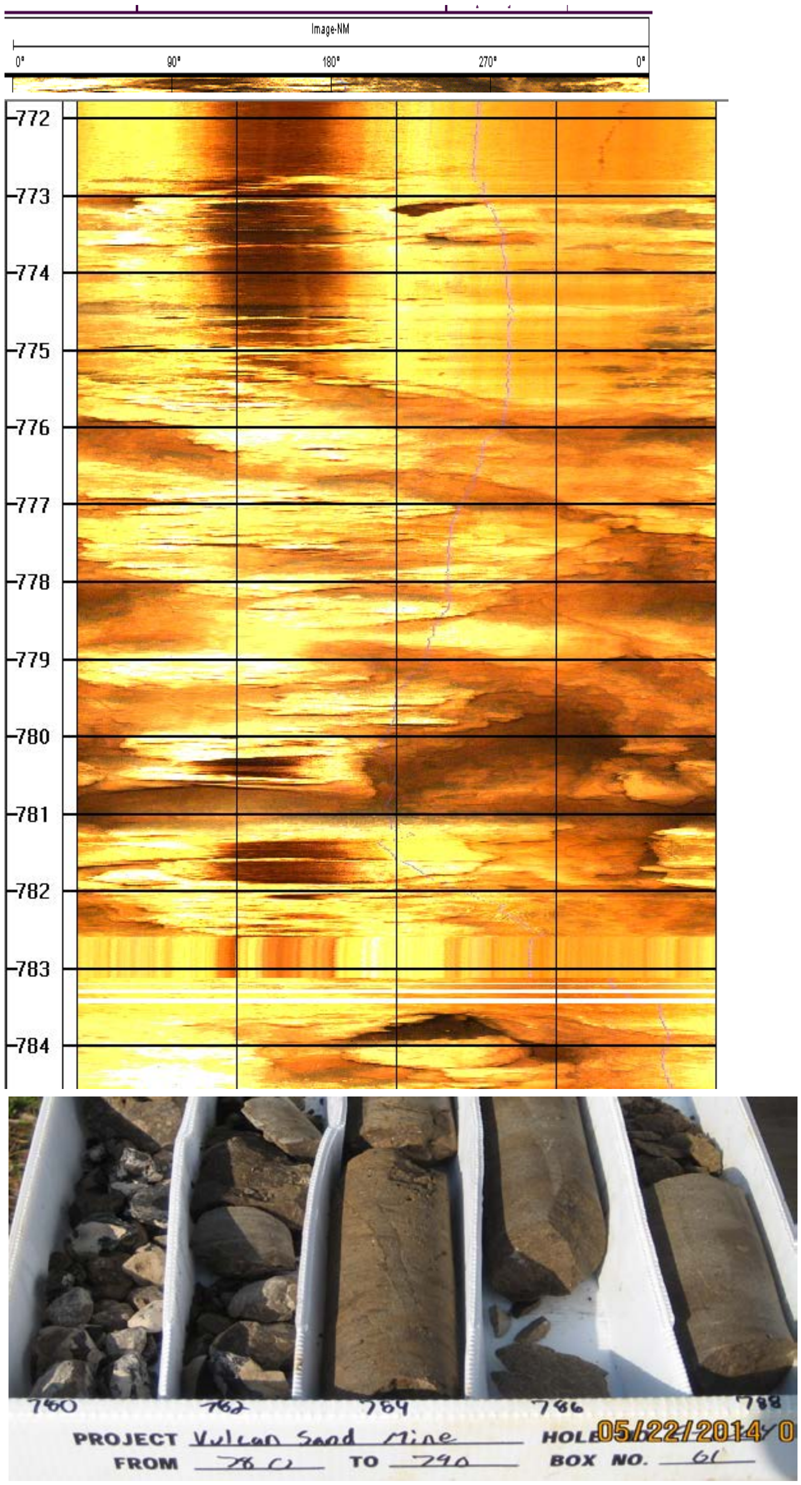


Figure 23. Optical Borehole Televiewer Image from 772 feet bls-784 feet bls corehole P-0304. Shows a twelve-foot section of fractures or bedding plane voids that may be related to decreased down-flow due to water going into the formation in the second logging event. Core is a brittle crystalline dolostone.

Decreased flow was detected in the flow logs near the interval depicted in Figure 23. The core suggests a high Kh material and the OBI log identifies bedding plane discontinuities that can be missed in the caliper or video log.

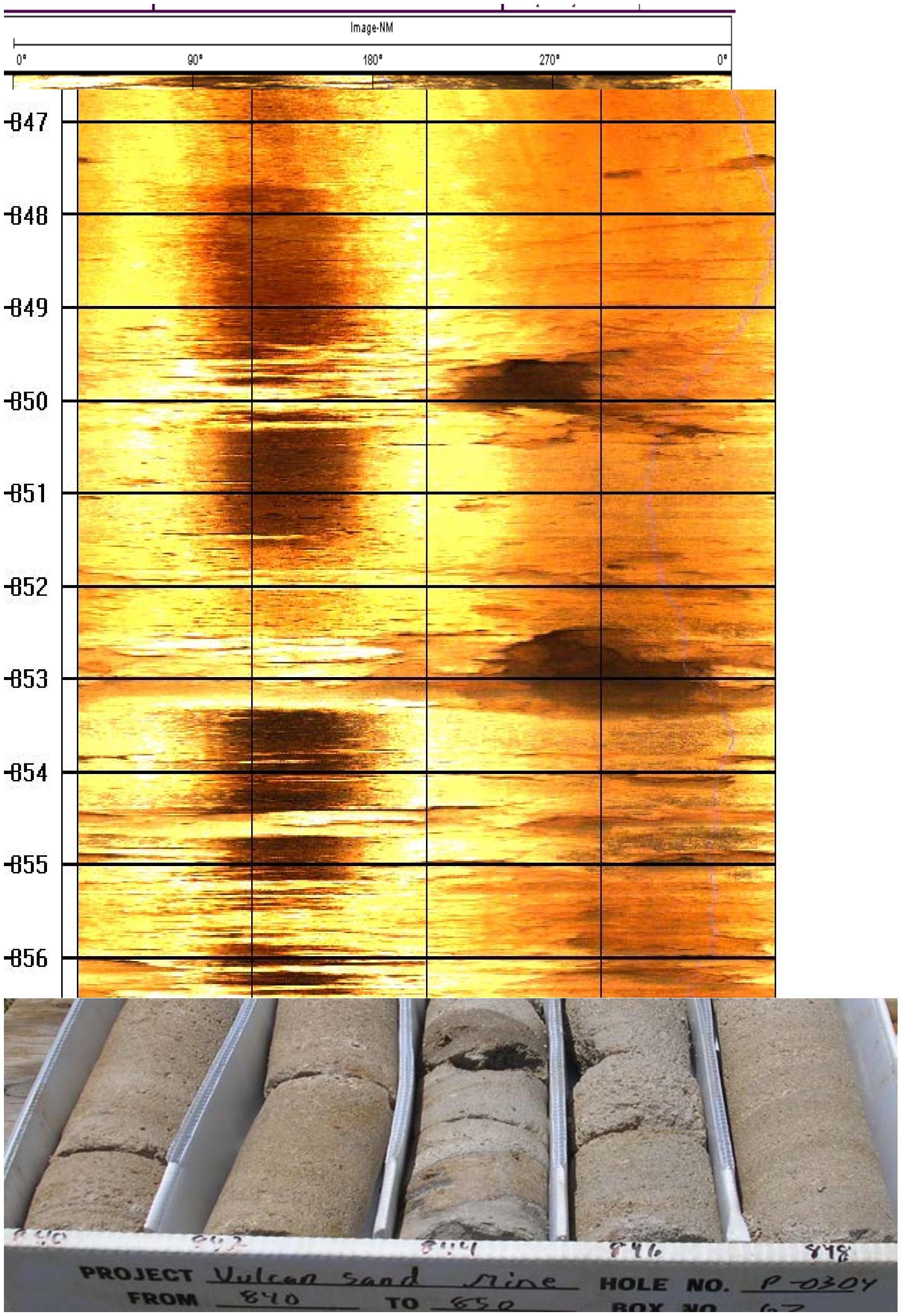


Figure 24. Optical Borehole Televiewer Image from 847 feet bls-856 feet bls corehole P-0304. The figure shows a ten-foot section of fractures or bedding plane voids that may be related to decreased flow in the second logging event. Core is a Packstone with intergranular porosity.

An OBI log was not obtained below 948 feet bls due to borehole conditions so much of the LFA high Kh zones could not be identified. The examples above show how important this log can be when identifying true fracture zones rather than interpreting missing or broken core samples as being representative of fracture zones. Assessment of actual fracture size, depth, and extent is significantly more accurate with this rather than estimations from viewing a video log. Comparisons with flow logs can demonstrate which zones that appear to have high Kh may actually be able to produce or take water into the formation.

CORE SAMPLE LITHOLOGY

Detailed descriptions of the cores were done by the Florida Geological Survey. A copy of the text description is included in Appendix B. A digital file of a graphic columnar section with geophysical logs is included in Appendix B as well. Examples of field core photos are shown below the OBI logs in the figures above and demonstrate the high variability of the lithology. The FGS photo-documented the core with high resolution images are also included in Appendix B. The FGS pick for top of the Oclala Limestone is 159 feet bls , for Avon Park Formation is 261 feet bls, and for the Oldsmar Limestone is 908 feet bls. The core is all dolostone from 1,320 feet bls to 1,400 feet bls

WATER QUALITY

Water quality samples were taken during each specific capacity test. A 30 foot interval was pumped until the conductivity values stabilized. The results for all parameters are included in Appendix C and plots of Chlorides and Conductivity are presented below. There was a downward flow of water in the open hole during drilling so there is the possibilty that water from above the tested interval had mixed with water from the tested interval before the packer was sealed though the intervals were thoroughly pumped to t to sample formation water only.

Chloride values ranged from a minimum of 8.07 mg L^{-1} to a maximum of 11.95 mg L^{-1}. The value at the deepest sample taken in the well at 1,380 feet was 10.87 mg L^{-1}. This indicates freshwater throughout the entire depth of the corehole.

Conductivity values range from a low of 182.9 µmhos cm^{-1} to a high of 329 µmhos cm^{-1}. Conductivity for the deepest sample was 234 µmhos cm^{-1}, again indicating freshwater throughout the entire corehole depth.

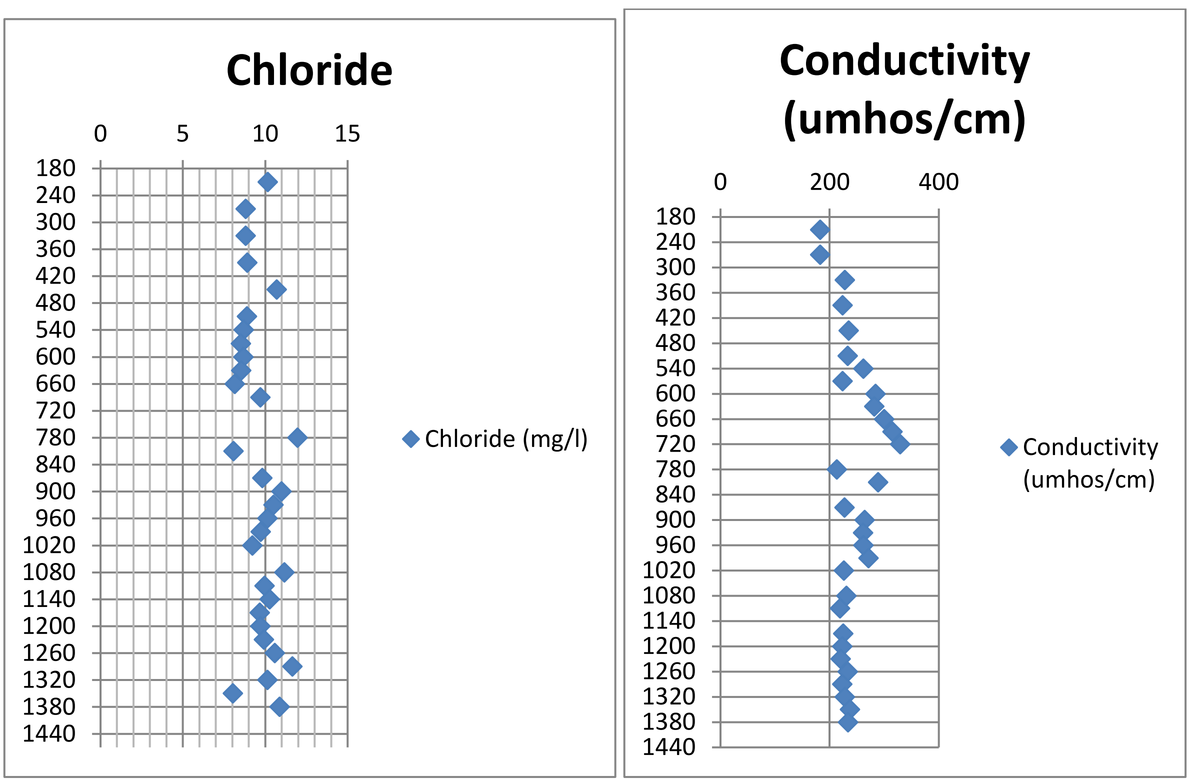


Figure 25. Plots of Chloride concentration and Conductivity from packer testing samples every 30 foot during drilling**.**

Other analytes also indicate a similarily consistent vertical profile. Total dissolved solids ranged from 101 to 187 mg L^{-1}. Total Iron ranged from 73.2 to 2,322 µg L^{-1} and exhibited high variability between 30 foot samples. It is not clear what caused this variability. Hardness (Calculated Ca+Mg) ranged from 91.7 to 305.5 mg L^{-1}. Sulfates ranged from 0.5 to 4.6 mg L^{-1}.

C-0679 – NEAREST BOREHOLE WITH AQUIFER PERFORMANCE TEST DATA

The nearest borehole where an aquifer performance test was conducted is located in Clay County at the Postmaster Village. A Lower Floridan production well was drilled and Connect Consulting (Eichler, 2009) identified the top of the MCU I at 480 feet bls (-392 feet NAVD88) and the bottom of the MCU I (top of LFA) at 640' bls (-512' NAVD88). The Postmaster village well is at an elevation of 157 feet NAVD88 and P-0304 is at an elevation of 88 feet NAVD88 and is located to the northwest (Figure 26) near Lake Geneva. The LFA pumping well was cased to 683 feet bls and the hole was open to 1040 feet bls. Background water level data before the APT indicated a downward gradient from the UFA to the LFA. A suite of geophysical logs were run and some are included in the cross section discussed later in this report.

Transmissivity calculated from their APT was 60,000 ft^2 d^{-1}. The drawdown in the pumped LFA well compared to drawdown in the Observation LFA wells was nearly 10 times more. This is an indication of possible heterogeneity within a very short distance. They pumped an average of 1,530 gpm for 72 hours and concluded that there was minimal effect on the UFA based on their testing. From a standpoint of production the interval between -483 feet NAVD88 and -883 feet NAVD88 the aquifer appears to be productive. It is interesting to note that the flow zone identified at -483 feet NAVD88 in C-0679 is about the same elevation as the zone at -512 feet NAVD88 at P-0304. This suggests the production interval may be a more regional feature and similar production may be possible. The heterogeneity between the two LFA wells at this site and the sustained drawdown of pumping for a longer period of time should be considered when basing decisions on the results of this testing for other sites.

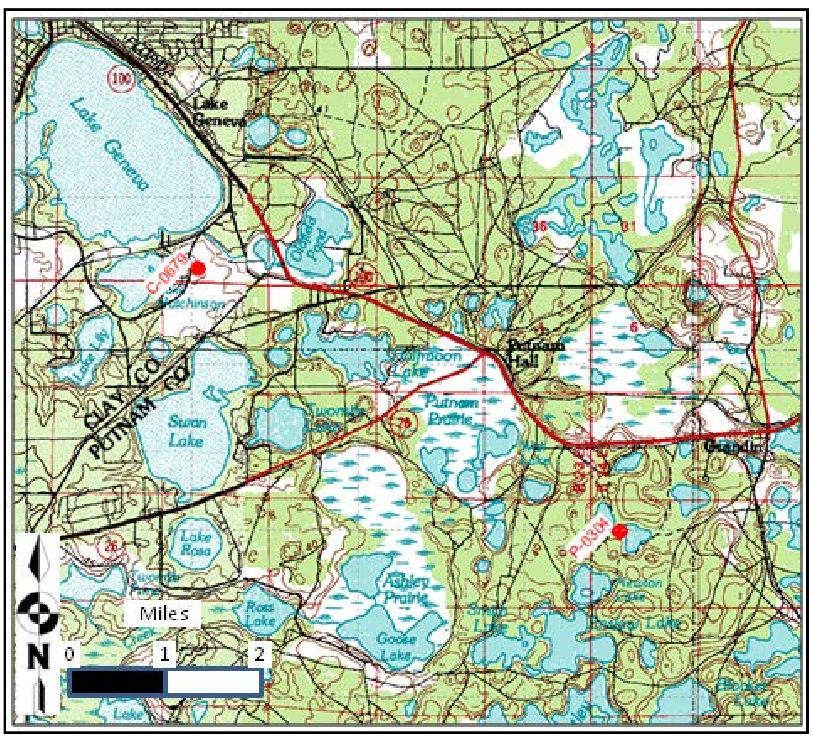


Figure 26. Location of Postmaster Village well C-0679 in relation to P-0304. The sites are approximately 4.6 miles apart.

HYDROSTRATIGRAPHIC CROSS SECTIONS

After the drilling, testing, and geophysical logging data have been reviewed to identify boundary picks for the hydrostratigraphic units. The data are correlated to other boreholes by constructing geophysical log cross sections (Appendix D). Geophysical logs in Florida may have a characteristic pattern that can be used to identify hydrogeologic units and correlate between boreholes (Davis and others, 2001). This direct comparison to other sites helps identify lateral consistencies and anomalies between sites. In addition, vertical anomalies from the regional trend can be identified as well. The elevation of the key hydrostratigraphic units are identified based on the borehole data collected and then evaluated in a regional context through a geostatistical analysis utilizing the software ISATIS in conjunction with the developer Geovariances (Geovariances, 2000) to generate a surface grid for each hydrostratigraphic unit. Cross sections of the surfaces generated are also constructed to get a better understanding of the relationship of the hydrostratigraphic picks at one site compared to the regional trend.

The two cross sections with geophysical logs in Appendix D are constructed to include boreholes that penetrate the LFA. The sections include District drilled coreholes or observation wells, the public utility well at Postmaster Village (C-0679) previously mentioned, and oil test boreholes that have electric logs. The sections are representative of the type of data used throughout the District. Some sites have multiple geophysical logs designed to detect flow or permeable zones and confining zones, packer tests, water quality, core, detailed lithologic descriptions whereas others, such as the oil test well data, may only have one type of an electric log digitized from hard copy plots that Miller (1986) had available when he did his FAS mapping. The digital format greatly enhances the utility of the older data in that logs can be scaled both vertically and horizontally to make a direct comparison to the newer log data more obvious. Even with the digital format, a comparison of electric logs between multiple sources can be difficult because of lack of consistency in probe response due to different equipment and borehole effects. There is generally sufficient consistency to identify the general log signature.

P-0304 was drilled to support this regional mapping effort. The level of detail and type of data acquired make this a key reference site to provide more confidence in the mapping. Nearby boreholes with a less complete data set but some similar geophysical logs can be correlated to this site to provide a better estimation where the more complete data set is unavailable.

SECTION A-A’ – U-0028 IN UNION COUNTY THROUGH P-0304 TO P-4043 IN PUTNAM COUNTY

Section A-A’ (Figure 27 hydrogeologic cross section and Appendix A geophysical cross section) and goes from a corehole U-0028 in Union County southeastward to corehole C-0682 in Clay County to observation well cluster site at the Gold Head State Park (C-0606) then turns southwest towards the Postmaster Village production well C-0679, then southeast to the Vulcan site P-0304, and continues southeast to a District Upper Floridan monitor well P-4043 (Buffalo Bluff site) that was drilled to 500 feet bls and then back-plugged to 273 feet bls for monitoring purposes. The section is west of the Jacksonville Basin and on the flank of the Ocala Platform.

Figure 27 is a slice through the hydrogeologic unit elevation grids developed from a geostatistical estimation of boundary picks of borehole data.

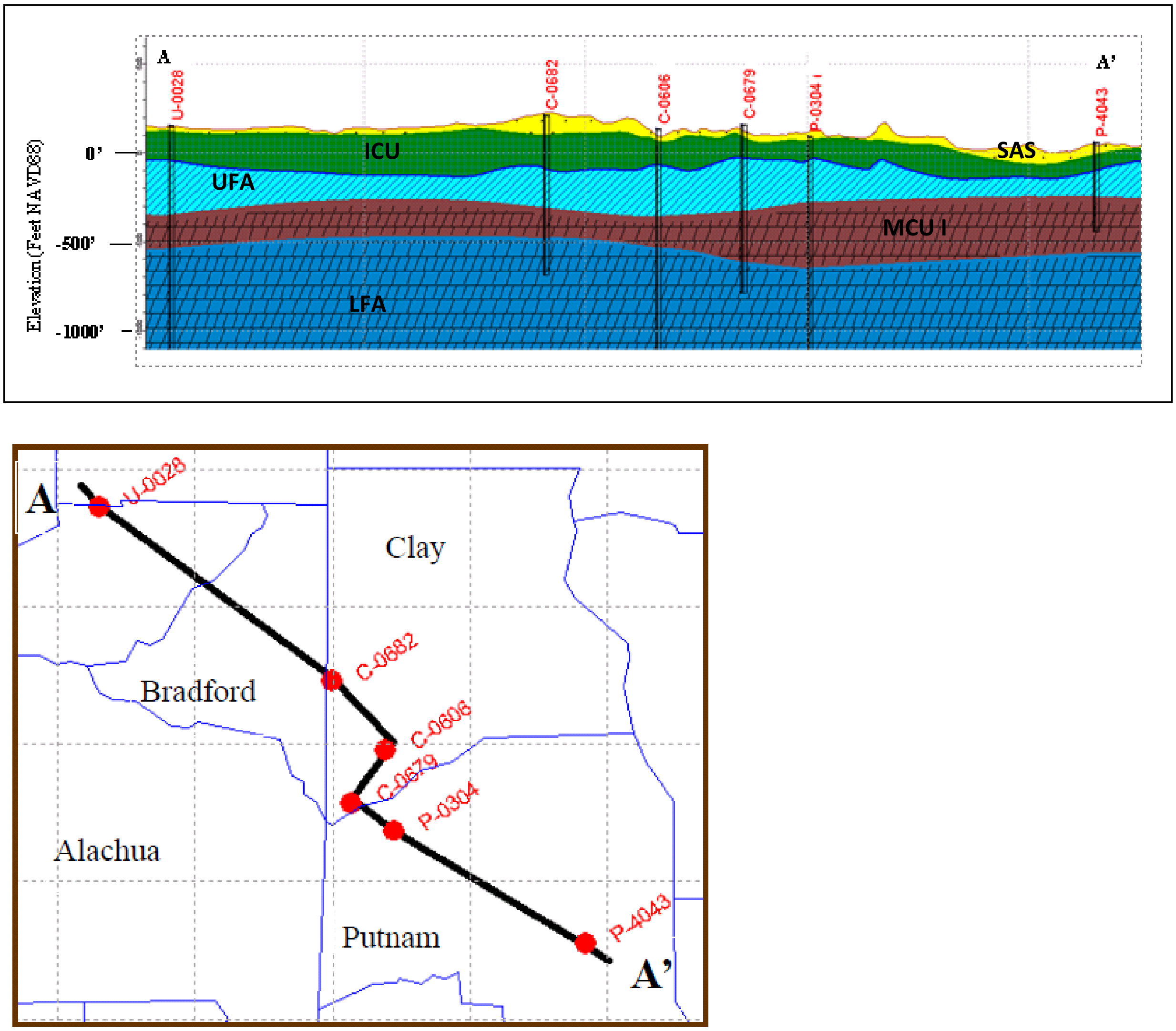


Figure 27 – Hydrogeologic cross section A-A’ from U-0028 in Union County through P-0304 to P-4043 in Putnam County. Geophysical logs for these boreholes are included in Appendix A.

Geophysical logs for the boreholes shown in Figure 23 are included in a geophysical log cross section in Appendix A. U-0028 is a corehole recently drilled as a pilot for construction of UFA and LFA observation wells. Again, the high resistivity zone can be seen from -260 feet NAVD88 to -350’ feet NAVD88 underlain by a lower resistivity interval to -550 feet NAVD88 where it again becomes relatively high resistivity. The top of the upper high resistivity unit may actually be the top of the MCU I however, there are multiple horizontal bedding features identified in the OBI logs and the specific capacity tests had higher Kh than the units below, so this upper zone is not included in the MCU I. The rocks comprising the interval appear to have extremely low Kv however. A slight temperature and fluid conductivity change occur around -580 feet NAVD88 and this is within a zone where the specific capacity increases. The electric logs exhibit a good example of the typical log signature for the MCU I and LFA.

Flow can be observed moving up hole in the borehole video log. Movement of water in an unpumped corehole is strong evidence of a confining unit. A borehole that is open to the UFA only, does not have a head gradient to drive internal flow; however, if the hole is open to the UFA, it penetrates the MCU I, and is completed in the LFA, a gradient would cause water to flow up or down depending on the direction of the gradient. It is important to note that there is an upward gradient from the LFA to the UFA in U-0028 whereas in P-0304 there is a downward gradient. This implies that somewhere along the cross section the gradient reverses. Where the gradient reverses, a UFA well and a LFA well would have the same water level and exhibit no flow.

The section continues southeast to C-0682 the same high resistivity marker can be seen from 260 feet NAVD88 to -330 feet NAVD88. Within this unit, the specific capacity drops and provides evidence of a low permeability-confining unit. Water level changes occur at -308 feet NAVD88 during packer testing. From -330 feet NAVD88 to -430 feet NAVD88 the resistivity drops and the temperature remains consistent down to -500’ NAVD88. The resistivity increases from -430 feet NAVD88 An increase in temperature gradient begins at -500 feet NAVD88 and marks the LFA.

Southeast of C-0682 is the District monitor well cluster at the Gold Head Branch Sand Mine. Electric logs from C-0606 indicate the upper high resistivity unit from -260 feet NAVD88 to -375 feet NAVD88. Electric logs are unavailable for the section from -500 feet NAVD88 to -750 feet NAVD88 to show where the lower high resistivity zone occurs at this site. The caliper and video logs indicates cavities and fractures and the dynamic flow logs indicate production zones in the upper part. The pick for the MCU I is identified lower than in nearby boreholes due to these specific hydraulic conditions. The picks for the top and bottom of the MCU I are shown with dashed lines in the cross section to indicate some uncertainty in the exact depths and acknowledge this may represent an area where the MCU I is leaky. This appears to be a unique site compared to the coreholes that have been drilled in the region. The rocks were highly fractured with cavities in places. Drilling and grouting the casing was difficult due to lost circulation zones. It is interesting to note that a comparison of long-term hydrographs of the UFA and the LFA monitor wells at this site, not only track each other, but are almost the same elevation. This could suggest a leaky MCU I. Alternatively, the site could be located in the transition area where the LFA potentiometric surface rises above the UFA potentiometric surface and has to be equal at some point. No flow was detected in the flow and video logs in the unpumped open hole section during drilling. Continuous packer test data for water level and specific capacity is not available for this site. There is downhole flow in the well south of this site in the cross section.

From C-0606 the section turns southwest to intersect production well C-0679 drilled for the Postmaster Village in Clay County (Eichler and Doyle, 2009). The induction logs from C-0679 do not indicate as many pronounced high resistivity peaks as P-0304 in the upper section and the upper part of the electric log signature is barely distinguishable. This could be more a function of differences between induction and normal electric log response, the probes sensor spacing, and borehole diameter effects. Induction logs from C-0606 for this interval are also relatively nondescript suggesting some continuity of the units. The flow regime in the open-hole interval during drilling is similar to P-0304 and indicates a degree of confinement with head differences to drive the flow.

P-0304 includes the upper high resistivity unit from -220 feet NAVD88 to -285 feet NAVD88 and below that the resistivity exhibits a general decrease with alternating low and high resistivity peaks. The high resistivity peaks correlate with low permeability rocks identified in core and permeameter tests and there are more of these units in P-0304 than what is typically seen in other boreholes. The MCU I thickens from northwest to southeast starting near P-0304. At -460 feet NAVD88 NAVD88 the resistivity again increases with interbeds of even higher resistivity. This matches a typical resistivity signature of high-low-high where the MCU I is either on top or within the first high and the LFA occurs within the deeper set of high-resistivity intervals. Specific hydraulic conditions as discussed earlier in the geophysical log section are used as a basis for making boundary picks for the MCU I and LFA.

The first high resistivity unit seen around -220 feet NAVD88 in P-0304 has similarities to the same unit in C-0606 at -260 feet NAVD88. Both have tight, low permeable rocks however there are interbeds and horizontal permeable zones included. Typically, the high resistivity unit may be the top of the MCU I; however, at these sites there are indications from the flow logs, OBI log, and packer tests that suggest the unit should not be included as part of the MCU I. Currently there is no data to quantify the Kv of this section of rock so even though Kh appears to be high from specific capacity testing, the Kv may be low based on core and permeameter testing.

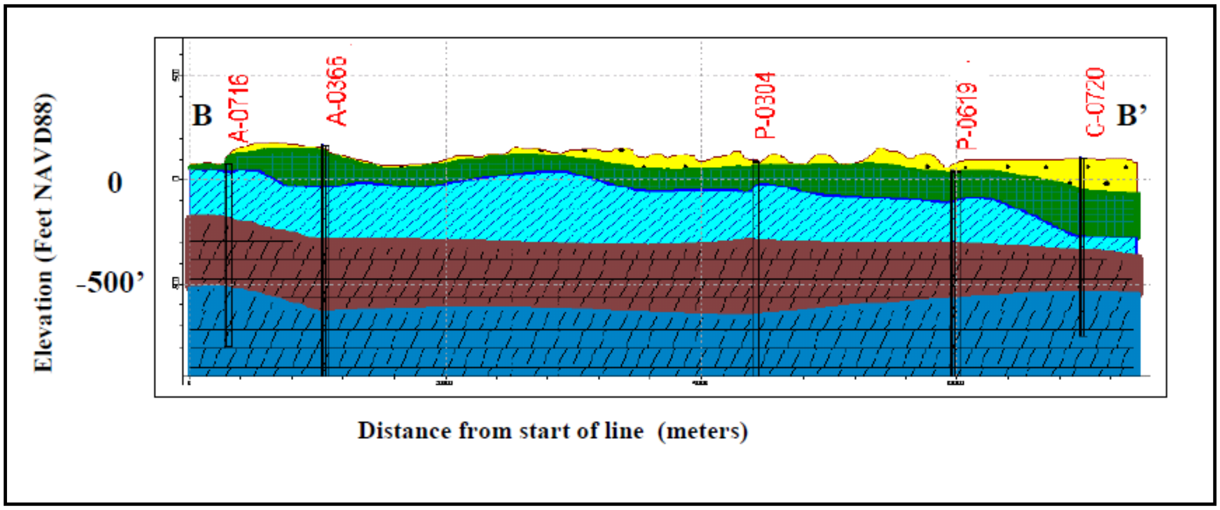
The section terminates at the District monitor well site P-4043 at Buffalo Bluff. This well was included in the Districts' mapping of the Avon Park high permeable zone and represents the current northern extent of that unit. The logs indicate a section from -275 feet NAVD88 to -340 feet NAVD88 where the resistivity is high and the caliper log indicates cavities and horizontal bedding plane permeable zones. This is an example of where the rocks that are typically considered part of the confining unit may actually be in a high permeable zone that is part of the UFA.

The cross section demonstrates the continuity of the units from the northwest to the southeast direction and provides a reasonable framework for other correlations. Well C-0606 has a comparable electric log signature however there appears to be more secondary permeability features at the site that may reflect some very localized conditions and/or a transition zone of equalized head difference between the UFA and the LFA. Flow regimes in the boreholes that penetrate the UFA and LFA reflect a downward gradient at P-0304 and an upward gradient in U-0028, suggesting a transition zone between these sites where the UFA and LFA must be equalized in order to cross over. Additional testing to determine MCU I leakance around the C-

0606 site would provide a better understanding of the conditions. A corehole with continuous specific capacity and water level packer tests may help refine boundary picks.

CROSS SECTION B-B' – A-0716 IN ALACHUA COUNTY THROUGH P-0304 TO C-0720 IN CLAY COUNTY

This section includes monitor well sites A-0366 at the Alachua County Fairgrounds in Gainesville, FL and the recently drilled Sungarden monitor site C-0720 in southern Clay County, a University of Florida utility well A-0716, an oil test well P-0619, and the Vulcan core site P-0304. The geophysical log cross section for B-B' is in Appendix D.



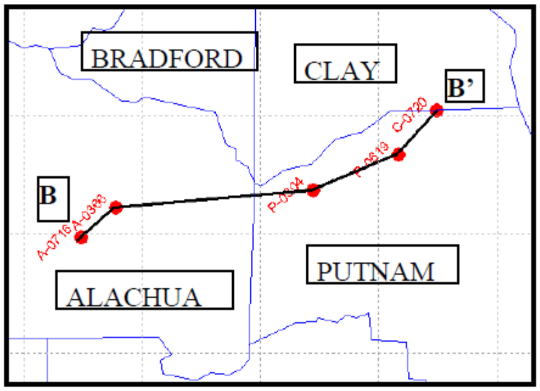


Figure 28 Cross section and location B-B' from western Alachua County through P-0304 to southeastern Clay County.

The section intersects the east flank of the Ocala Platform in Alachua County and a southwest area of the Jacksonville Basin in Clay County. In Alachua County between A-0716 and A-0366, the section indicates a thin ICU in A-0716 grading to a much thicker ICU in A-0366. Well A-0716 is in the transition area of the Cody Scarp where headward erosion has removed most of the ICU sediments to the west and left a thicker cover over the FAS to the east at A-0366. In addition, the top of the FAS drops in elevation as the section goes downdip on the flank of the Ocala Platform. The down dipping trend can also be seen in the deeper units indicating the possible structural versus erosional nature of the flank of the platform.

Between A-0366 and P-0304, the trend in the FAS and ICU is downward but the trend in the deeper units is slightly upward. The downward trend is again likely related to the location on the flank of the Ocala Platform but the trend in the deeper units may be more related to lithologic differences. Both A-0716 and A-0366 exhibit a typical high-low-high resistivity signature from the top of the MCU I to the top of the LFA. This signature can also be seen in P-0304 however there are significantly more intervals of high resistivity peaks in the middle low resistivity section of P-0304. P-0304 is off the flank of the Ocala Platform as can be seen in the consistent elevation of the FAS. Alternating high and low sea level stands could provide conditions to alternate between more dolomitic (high resistivity peaks) to more limestone (lower peaks) formation. The impact of the increased frequency of the high resistivity peaks is to lower the overall leakance of the MCU I since there are more low Kv intervals in the MCU I package of rocks. The OBI logging was useful to differentiate high resistivity intervals with fractures that may have a higher Kv from the high resistivity intervals without fractures that indicate a lower Kv.

Going east from P-0304 the section intersects oil test well P-0619 and then continues to the recently drilled District LFA monitor site C-0720 as the section goes into the Jacksonville Basin. The elevation drop in the FAS is clearly seen in the section. There is no hydraulic testing data available for P-0619 so the boundary picks are based on a correlation of the electric logs to P-0304 and C-0720 where more data is available. There is less of a distinction between the resistivity in the upper part of the MCU I and the lower MCU I where the log signature generally decreases. The lower section is more like the upper section suggesting a thicker section of lower Kv material. The FAS elevation trend east of P-0304 does not correlate with the deeper units since the FAS elevation is related to post or non-depositional processes that did not affect the deeper units. The resulting thicker ICU provides more confinement to the FAS.

Potentiometric Surface of The Floridan Aquifer System

A map of the September 2012 potentiometric surface of the FAS is shown in Figure 25 for the area where the cross sections are located. The site is located on a maximum high area of the surface indicating high recharge potential. The surface drops steeply radiating outward from the site in all directions. The high in the FAS surface provides the differential gradient identified to the LFA during drilling. There may be a relationship between the steep gradient of the potentiometric surface and the downdip of the Jacksonville Basin since the drop in the potentiometric surfaces occurs where C-0720 indicates a steep drop in the top of the FAS.

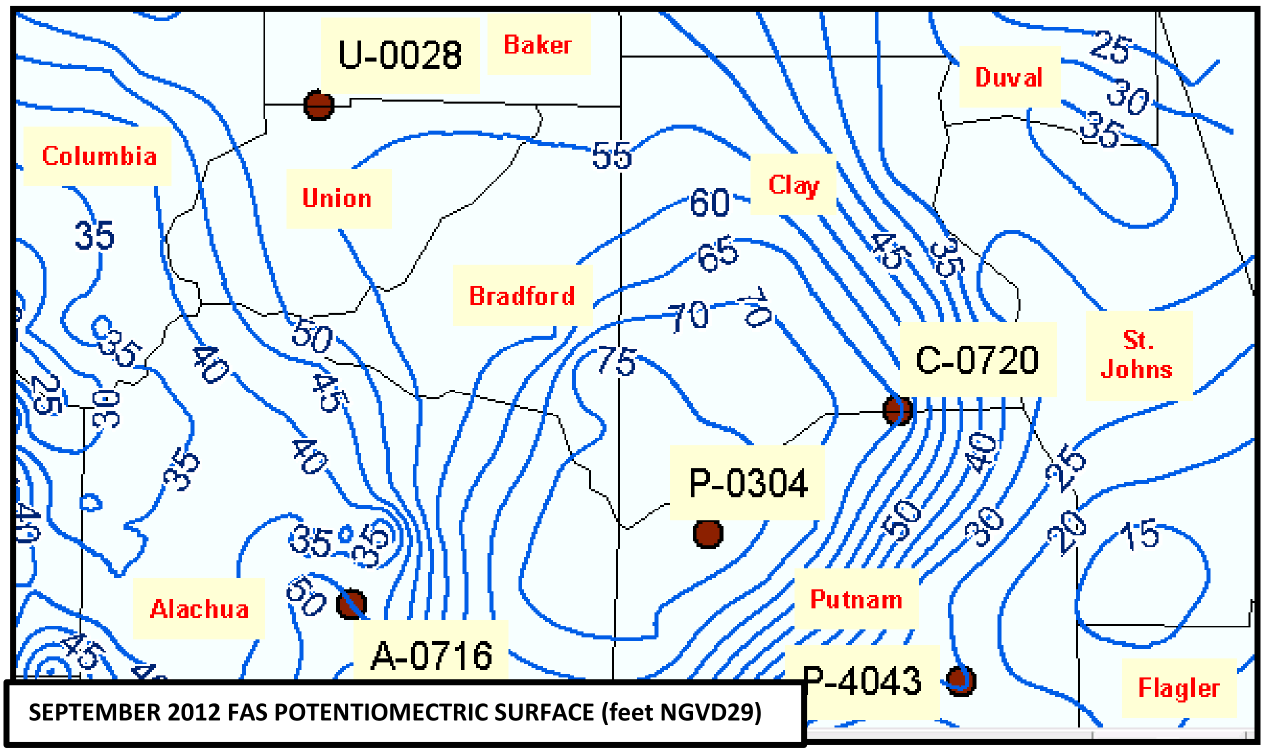


Figure 29. Potentionmetric surface for September 2012 of the Floridan Aquifer System for the location of the hydrostratigraphic cross sections. Water levels from most of the wells shown were not used for the surface since they were not available when the map was made.

Aquifer Performance Testing (APT)

After review of the data generated from the pilot corehole, Vulcan Materials, Inc. and the District initiated a public-private funded partnership to develop an alternative water supply for mining operations. Historically, the mine has relied on nine UFA wells for supply. An APT was designed to test if a LFA well could supply all of the needed water so the UFA wells could be put out of service. In addition, an assessment of the impacts to the UFA by pumping from the LFA was included. Drilling of production and monitor wells commenced in June 2016 and was completed in February 2017.

The LFA pumping well was cased with 18 inch diameter steel to 760 feet bls and open hole from 760 feet to 1,250 feet bls. The smaller diameter LFA monitor well was cased to 752 feet with 3" diameter casing and drilled to a total depth of 860 feet bls.

One existing UFA well was available for monitoring and the previously drilled corehole (P-0304) was constucted as an UFA monitor well.

A report submitted to the District (Kleinfelder, 2017) provides details of the drilling, construction, and testing along with the final results of the testing. A 72 hour APT was conducted between 2/07/2017 to 2/20/2017 by continuously pumping 3,000 gallons per minute (gpm) from the LFA production well and monitoring the water levesl in a LFA observation well and two UFA observation wells. Standard protocol was followed for collecting background water level data before testing and recovery water level data after pumping was terminated. Transmissivity was calculated for the LFA wells using several methods. They ranged from 4.43 x 10^5 feet^2 day^{-1} using the Theis method for analysis of recovery data to 3.9 x 10^4 feet^2 d^{-1} using the Hantush-Jacob method for analysis of drawdown data. They reported no impact on the UFA water levels during the test.

Data from the monitor wells that were constructed for the UFA (P-0304 and MW-1) and the LFA (LF-MW) provide good evidence of the presence of the MCU I and that is sufficiently confining to minimize impacts to the UFA due to LF pumping. In the graph below the LF monitor well data is shown in green whereas the UFA wells are red and blue. Water levels were taken weekly at all sites. From the green line it is obvious where there are periods of pumping from the sites LFA production well and recovery based on the abrupt dips and rises in the lines. At this sampling frequency there is no discernable change in the UFA water levels. The head difference between the UFA and LFA are also good evidence of confinement.

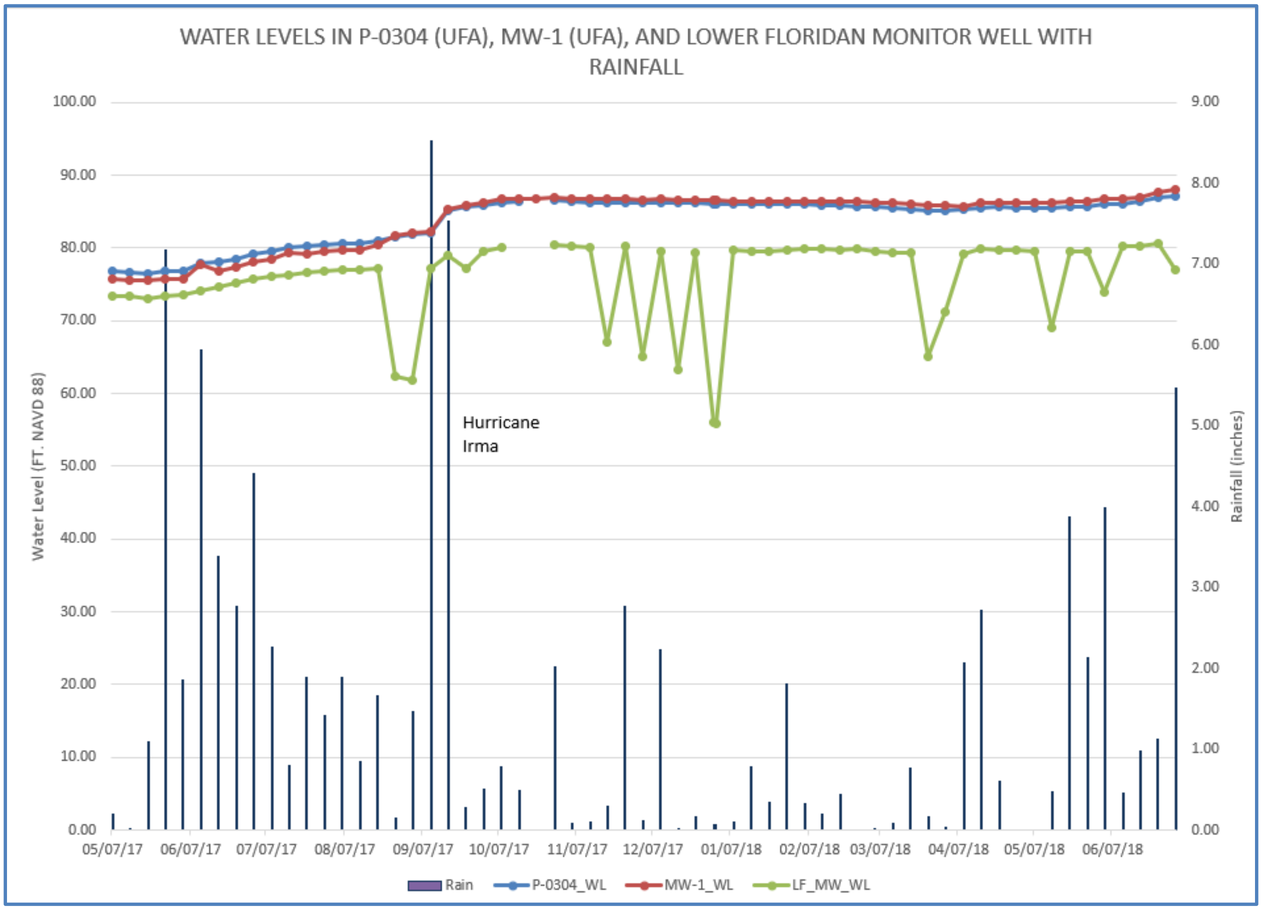


Figure 30. Water levels in Upper and Lower Floridan monitor wells from May 2017 to September 2018. Rainfall is shown on the right axis and Hurricane Irma caused an upswing in both the Upper and Lower Floridan.

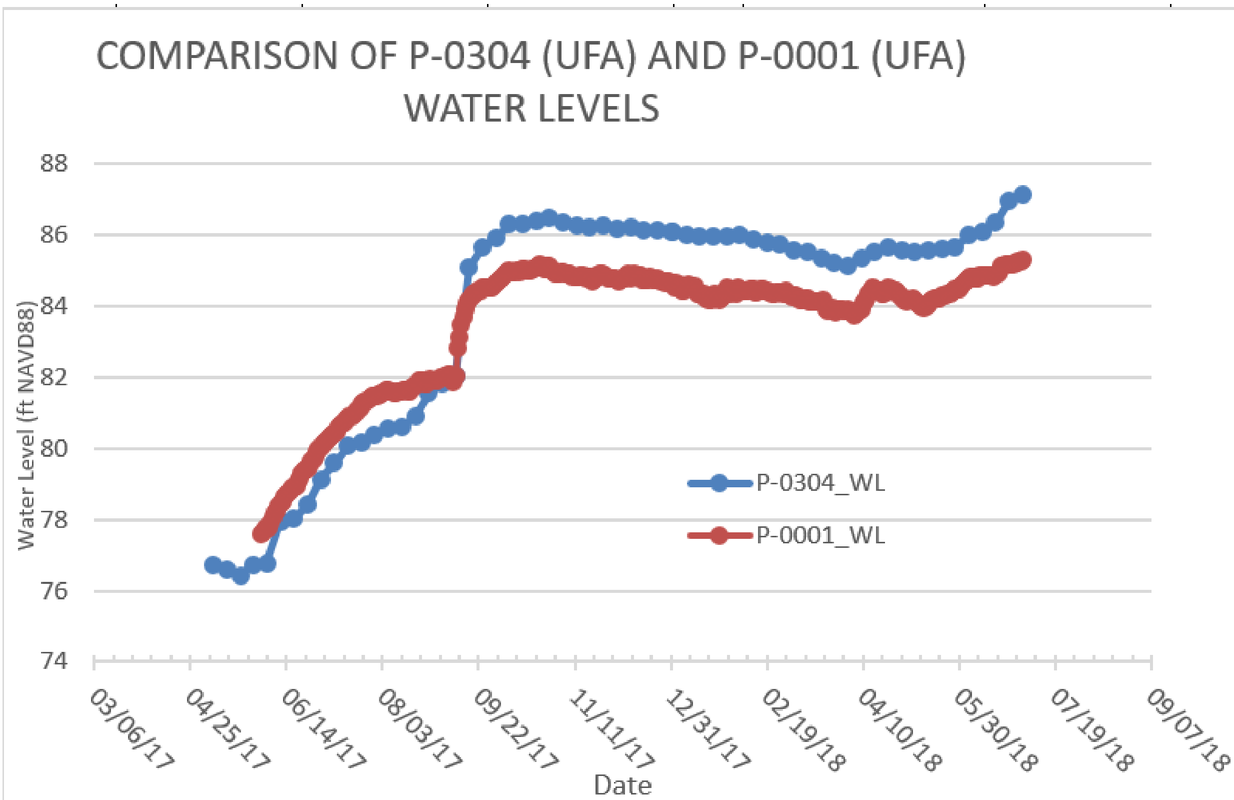


Figure 31. Comparison of the Upper Floridan aquifer monitor well P-0304 and another Upper Floridan aquifer monitor well (P-0001) about 4.4 miles to the west. The trends in both wells reflect similar regional climatic effects.

DISCUSSION

The hydrogeologic data collected during this project provided much information to help with regional mapping and characterization of the primary hydrostratigraphic units for this region. Targeted logging techniques proved useful to maximize the data obtained from the corehole. Electrical resistivity and natural gamma logs from this corehole can be correlated to similar logs in other boreholes to supplement hydrostratigraphic unit mapping. Specific capacity testing, water level measurements during testing, geophysical logs, and borehole video provide sufficient data to help characterize the units encountered. These data can be used to help guide the design of a testing program to calculate leakance of confining material and transmissivity of the aquifers.

The SAS material is comprised of the sand that is being mined at this site. It extends from land surface to a depth of 49 feet bls where the top of the ICU occurs. This boundary is generally easy to identify both from lithology and natural gamma logs. The change in gamma log repsonse from a package of low gamma count intervals in the clean sands to a package of intervals with high counts where the clay and phosphatic material occur at the base is usually distinct. The ICU is present from 49 feet bls to 159 feet bls. The interval from 159 feet bls to 180 feet bls is somewhat lithologically transitional in nature and is considered as part of the FAS.

The FAS begins at 159 feet bls and was not fully penetrated. Though the original plan was to drill to 1,500 feet bls, problems with the rock breaking and not being recovered in the core barrel prevented this. The section penetrated did intersect the pertinent subunits of interest within the FAS.

The top of the MCU I is picked in P-0304 at 375 feet bls near the top of the high resistivity zone that starts around 320 feet bls. The cores show a distinct lithologic change within the FAS at a depth of 300 feet bls. The high resistivity peaks in the electric log between 300 feet bls and 350 feet bls provide a good log signature for regional correlation between wells. This signature can be traced throughout north Florida. Once this is identified in a set of well logs, the other data can be reviewed to determine if it is acting as part of the confining unit due to low primary matrix Kv or permeable due to the secondary features such as fractures hydraulically connecting it to the UFA. At this site, the rocks appear to be low permeability carbonates with horizontal bedding plane features that may provide a pathway for water flow. There may be vertical fractures that connect to the limestone above but there is no evidence that the vertical depth of fractures extends very far between individual beds. This peak correlates to other wells where the MCU I has been identified and meets the criteria and methodology that Miller (1986) used when mapping the MCU I originally. He looked for the first rock units with several orders of magnitude lower Kv than what he identified as Upper Floridan. When hydrologic testing was not available (which was very limited in most cases) he used electric logs for correlation The specific capacity data suggests the top of the MCU I may be at 375 feet bls where the values begin to stay low for most tests. The OBI log shows horizontal bedding plane features with apparent high Kh in discrete intervals within 300 feet bls to 390 feet bls that are separated by zones dominated by matrix permeability. The OBI log between 375 feet bls and 750 feet bls show thick sections where there are no fractures or horizontal permeable zones providing a good indication of low Kv.

Flow logging showed water began moving downhole at 290 feet bls with a gradual increase until 315 feet bls where it stabilized. Water levels taken in the 30 foot packer intervals were variable but there were no levels recorded in the Upper Floridan above to compare to since a temporary casing had been installed.

It is commonly accepted that the MCU I is a leaky unit with intervals of water production (Miller, 1986). This adds to the problem of identifying a base of the unit which would represent the top of the LFA. Ideally pumping tests would be done in multiple intervals to observe effects in the UFA. These tests were not done during the drilling program so the District is relying on the packer testing and geophysical logs to identify a base of the unit. At this site the LFA top is picked at 750 feet bls (-662 NAVD88) based on the abrupt water level change indicates a dramatic head difference, results from the temperature and flow logs, and how it correlates to data from other boreholes with similar properties. There is a permeable zone above this at 640 feet bls (-512 NAVD88) however the abrupt head difference at 750 feet bls provides more justification for picking the LFA at this depth. A permeable zone stratigraphically similar to the 640 feet bls has been observed in other boreholes but the regional extent has not been assessed.

The APT conducted by Kleinfelder, Inc. demonstrated a degree of confinement between the UFA and the LFA. Since this was only a 72 hour test it would be interesting to evaluate UFA impacts over time once the LFA well is in full production.

CONCLUSIONS

Updates from new drilling and more focus on drilling to specifically identify the units within the FAS are beginning to develop some consistent data sets to use for correlation purposes. As more coreholes are drilled and tested in a similar manner, a more consistent and comprehensive understanding of the subunits within the FAS can be developed.

The testing by the District in the corehole was limited to obtaining specific capacity for 30 foot intervals, geophysical logging, laboratory permeameter tests, and water quality. The specific capacity tests are a good indication of Kh but may or may not be representative of Kv. Testing to determine leakance for specific intervals would be helpful to assess the top, bottom, and thickess of the MCU I.

Though water quality samples appear to remain reasonably constant with depth, there could be mixing of waters from above due to the downward gradient within the well bore. Great care was taken to pump the wells during the specific capacity tests so indicator values could stabilize indicating that the borehole and formation were sufficiently purged so that samples should be representative of the intervals.

There is a downward gradient at this site which is strong evidence of some degree of confinement between the UFA and the LFA. No testing was done to quantify leakance between specific units of the FAS. Production rates may only be inferred from results of nearby wells that are open to similar intervals where flow zones in this borehole were identified.

Additional evidence of the presence of the MCU I was demonstrated during the APT phase of the project. The test results indicate that at a minimum, the interval of rocks from 292 feet bls to 750 feet bls are acting as a confining unit. The APT also demonstrated the LFA can be pumped at a production rate 3,000 gpm for at least a short duration. Long-term sustainability can be assesed over time.

The logging and drilling techniques utilized at the core site provided more useful data than is normally obtained in a corehole. The small diameter borehole increases the risk of probes being stuck in the hole or borehole collapse necessitating additional drilling or cleanout. Several factors contributed to the success of the logging. By first obtaining a natural gamma log through the core barrel when it was set at the bottom of the hole there is a gaurantee that at least one log is available for defining lithologic boundaries and possible correlation to other boreholes. The core barrel was then raised to what was considered a safe depth with specific intervals exposed so that the bottom portion of the hole could be logged. This setup allowed water to continue to move up or down the borehole since the core barrel annulus does not seal the units above or below the bottom of the barrel. This system necessitated the removal of the forward lamp on the video camera so it could fit in the core barrel but the other LED lights illuminated the borehole sufficiently to log.

The drilling of a core pilot hole provided critical information to develop drilling specifications and testing plans for the LFA wells. The corehole ensured success that the production well was open to the high K zones and that the casing was set so there was confinement between the UFA and LFA. Testing during drilling of the much larger diameter production well would have cost significantly more and likely would not have been done.

The top of the MCU I is picked within the high resistivity unit that starts at 320 feet bls below land surface. The electric log signature correlates with other boreholes where this has been picked to provide regional consistency. The flow logs and video indicate water is moving downward from the UFA and continues downward. The OBI log indicates thin, horizontal higher permeable zones but no evidence of vertical fractures or features that would indicate enhance vertical flow pathways. There is evidence of horizontal permeable zones below 310 feet bls where the top of the MCU I would be picked in the absense of the type of data collected at this site. The flow logs and video indicate that water enters the corehole at 365 feet bls and 575 feet bls and moves downward through the artificially created pathway. The OBI log indicates a three foot interval of a horizontal bedding plane permeable zone which is likely the source. It should be emphasized that water movement under the corehole environment is simply an indication of the potential for water movement within the formations so once a permeable interval is penetrated and a pathway is provided via the corehole, water will flow to the lower head permeable zones. In the ambient condition before drilling, the water will only flow if a vertical pathway is available. All indications are that the water is coming from horizontal higher Kh zones through bedding plane discontinuities caused by lithologic differences between beds or horizontal fractures that do not appear to have been dissolution enlarged. The electric log signature from P-0304 matches well with the general log signature shown in Figure 11, implying the hydraulic characteristics may correlate regionally.

The top of the LFA (base of the MCU I) is identified at 750 feet bls below land surface. This depth is based on results of flow logs, the sharp change in water level recorded during specific capacity testing, and lithologic changes. Flow logs were recorded under two different borehole environments. The first logging allowed water to flow down from above and follow the path of least resistance into the formation at 1,100 feet bls. Once the lower part of the corehole was sealed, the flow still moved down but the water flowed into a higher zone between 700 feet bls and 900 feet bls that was bypassed originally. These results indicate there is confinement above 750 feet bls. There are zones of higher and lower Kh below 750 feet bls and one zone below 1,100 feet bls was identified.

Pumping from a borehole cased to 750 feet bls and open to at least 1,200 feet bls has the potential for water production. Further testing is required to assess impact on the UFA above 300 feet bls and estimate a sustainable withdrawal rate. This was beyond the scope of this project.

Another key element was combining resources between agencies. The Florida Geological Survey provided staff and equipment to run the OBI probe thereby allowing collection of detailed information about the size and type of fractures or bedding plane features that result in higher permeability. Sharing resources and skills between agencies is a cost-effective approach where all parties benefit. The data from the OBI probe is invaluable to make more accurate qualitative assessments of interval Kh. With the OBI, highly fractured zones can be differentiated from tight homogeneous intervals more accurately than relying on core descriptions since the drilling process can damage the core and give a false impression of fractured rock.

The objectives of the project were successfully completed and provided a better understanding of the confining units and specific criteria that may be usefull for identifying the vertical extent of the UFA, MCU I, and the LFA.

GLOSSARY

Aquifer: an interval or layers of rock or material that collectively is sufficiently permeable to be capable of sustainable water production. The aquifer should have a lateral extent that is mappable on a regional scale such as county wide. It may contain low permeable units but the overall interval or package of rocks is permeable.

Aquifer System: A heterogeneous body of intercalated permeable and poorly permeable material that functions regionally as a water-yielding hydraulic unit and may be comprised of more than one aquifer separated at least locally by confining units that impede groundwater movement but do not greatly affect the hydraulic continuity of the system.

Confining unit: An interval or layers of rock or material that have sufficiently low hydraulic conductivity to retard the flow of water in the vertical direction. A confining unit may contain intervals of higher permeability but the overall interval or package of rocks restricts water movement.

Floridan Aquifer System (FAS): All hydrostratigraphic units between the base of the Intermediate Confining Unit and the base of the FAS as defined in Florida Geological Survey Special Publication 28 (Revised) (2010).

Hydraulic Conductivity (vertical and horizontal): The ability of porous rock to allow fluid to pass through it. Vertical hydraulic conductivity (Kv) refers to flow in the vertical dimension whereas horizontal hydraulic conductivity (Kh) refers to flow in the horizontal direction.

Hydrostratigraphic Unit: A body of rock distinguished and characterized by its porosity and permeability. It is identified and delimited on the basis of its observable hydrologic characteristics that relate to its vertical and horizontal hydraulic characteristics. These may have similar boundaries as Lithostratigraphic units but the lithologic boundaries are not a criteria. A unit may function as an aquifer or a confining unit. In Florida, not all hydrostratigraphic units have been formalized by a governing body such as the North American Commission on Stratigraphic Nomenclature so are not capitalized in this document.

Intercalated: Said of layered material that exists or is introduced between layers of a different character.

Intermediate aquifer system or intermediate confining units (IASICU): An informal hydrostratigraphic unit that overall serves as a confining unit to the FAS where it is present. Note that as the name implies, the aquifer system requires there be confining intervals above and below the interval(s) that act as an aquifer. The material that comprises this unit is highly variable and can be different from one region to the next. This includes both units of high and low permeability. In localized areas, intervals may produce enough water to be considered an aquifer. Refer to the Florida Geological Survey Special Publication 28 (Revised) (2010) for a more detailed discussion.

Intermediate confining unit (ICU): It is the same as the intermediate aquifer system or intermediate confining unit except that within the District it is primarily composed of low permeability material. This unit provides confinement between the surficial aquifer system and the Floridan Aquifer System.

Lithostratigraphic Unit: A body of rocks that is defined and recognized on the basis of its lithologic properties or combination of lithologic properties and stratigraphic relations.

Lower Floridan aquifer (LFA): The lower most part of the Floridan aquifer system as referenced in Florida Geological Survey Special Publication 28 (Revised) (2010) and Miller (1986). The top is delineated by the base of the middle confining unit I. This may not always be a well-defined or easily identified boundary and generally multiple data sources such as geophysical log response, evidence of fractures, hydraulic testing, lithology, and water level are be needed to identify it.

Middle Confining Unit I (MCU I): An informal sub-unit of the Middle Floridan confining unit as referenced in Florida Geological Survey Special Publication 28 (Revised) (2010) and Miller (1986).

Permeability: The property or capacity of a porous rock, sediment or soil for transmitting a fluid, it is a measure of the relative ease of fluid flow under unequal pressure and is a function only of the medium.

Pick: Term for the depth or elevation value where a boundary of a hydrogeologic unit is identified or interpreted to be.

Upper Floridan aquifer (UFA): The upper most part of the Floridan aquifer system as referenced in Florida Geological Survey Special Publication 28 (Revised) (2010) and Miller (1986). The base is delineated by the presence of the middle confining unit I as defined by a decrease in hydraulic conductivity by several orders of magnitude.

Conversion Factors

Inch/Pound to International System of Units

Multiply	By	To obtain
	Length	
inch (in)	2.54	centimeter (cm)
inch (in)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
inch (in)	2.54	centimeter (cm
mile (mi)	1.609	kilometer (km)
	Area	
square mile (mi^2)	2.590	Square kilometer (km^2)
	Volume	
cubic inch (in^2)	16.39	cubic centimeter
	Velocity	
Foot per second (ft/s)	0.3048	Meter per second (m/s)

Datum

Vertical coordinate information is referenced to the North American Vertical Datum of 1988 (NAVD 88).

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83).

Depth references refer to depth below land surface bls and are in feet.

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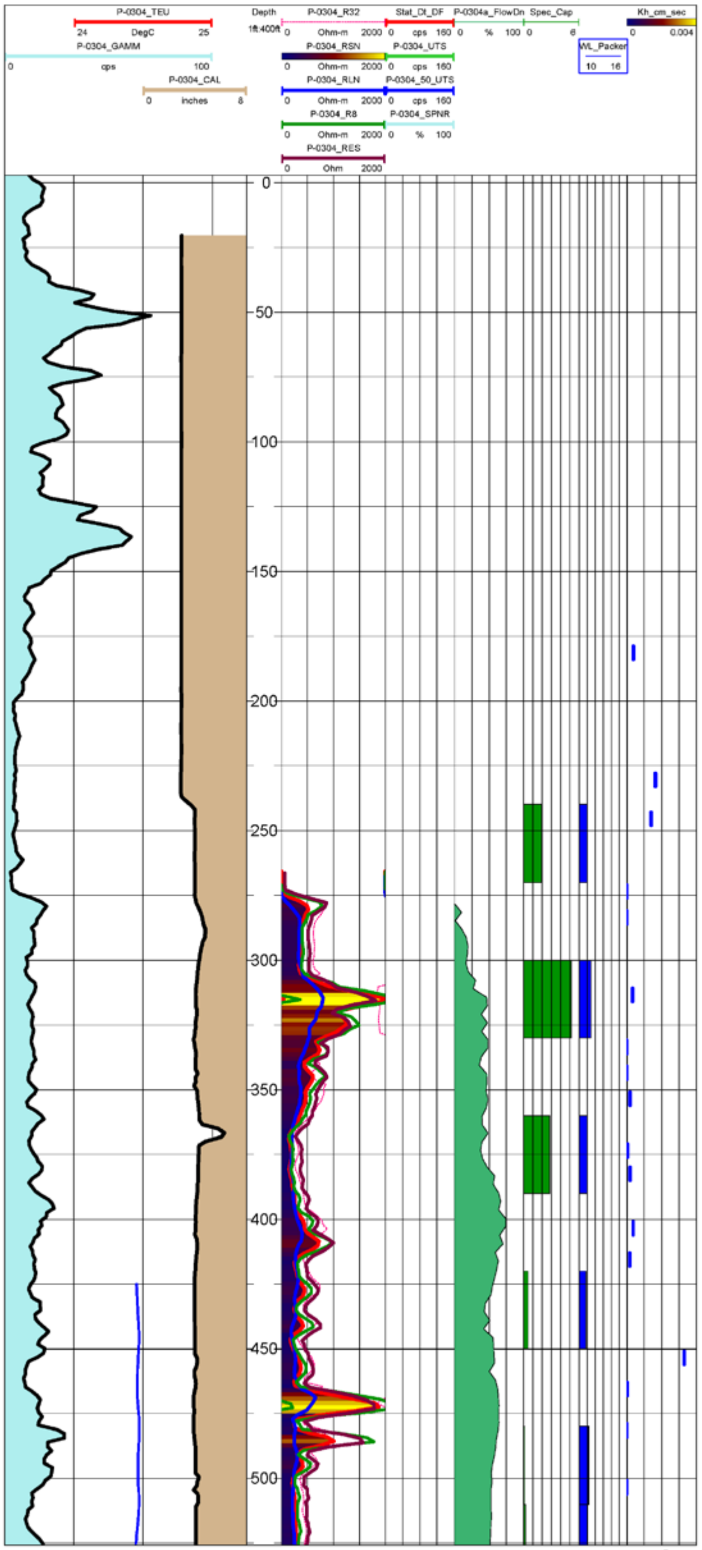
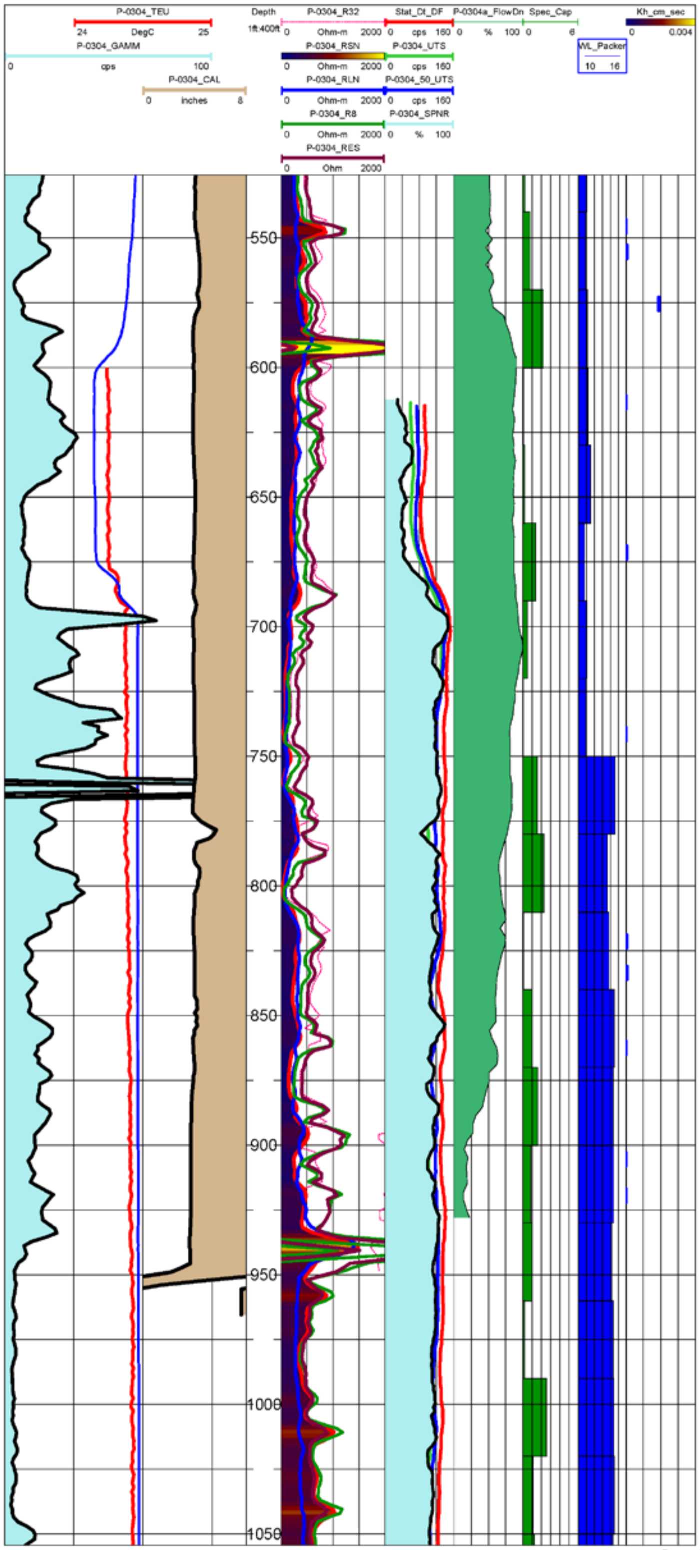
APPENDIX A

GEOPHYSICAL LOGS



Page 1 of 3 geophysical logs of P-0304 with specific capacity and water level from packer testing.



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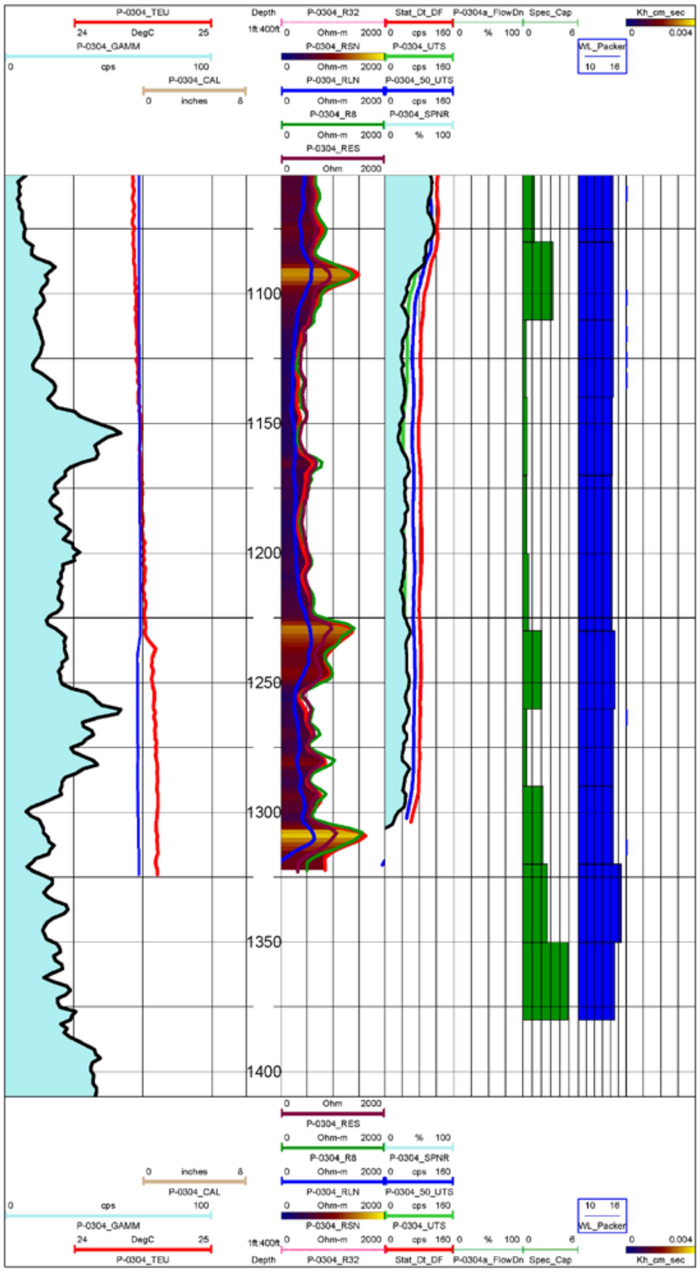
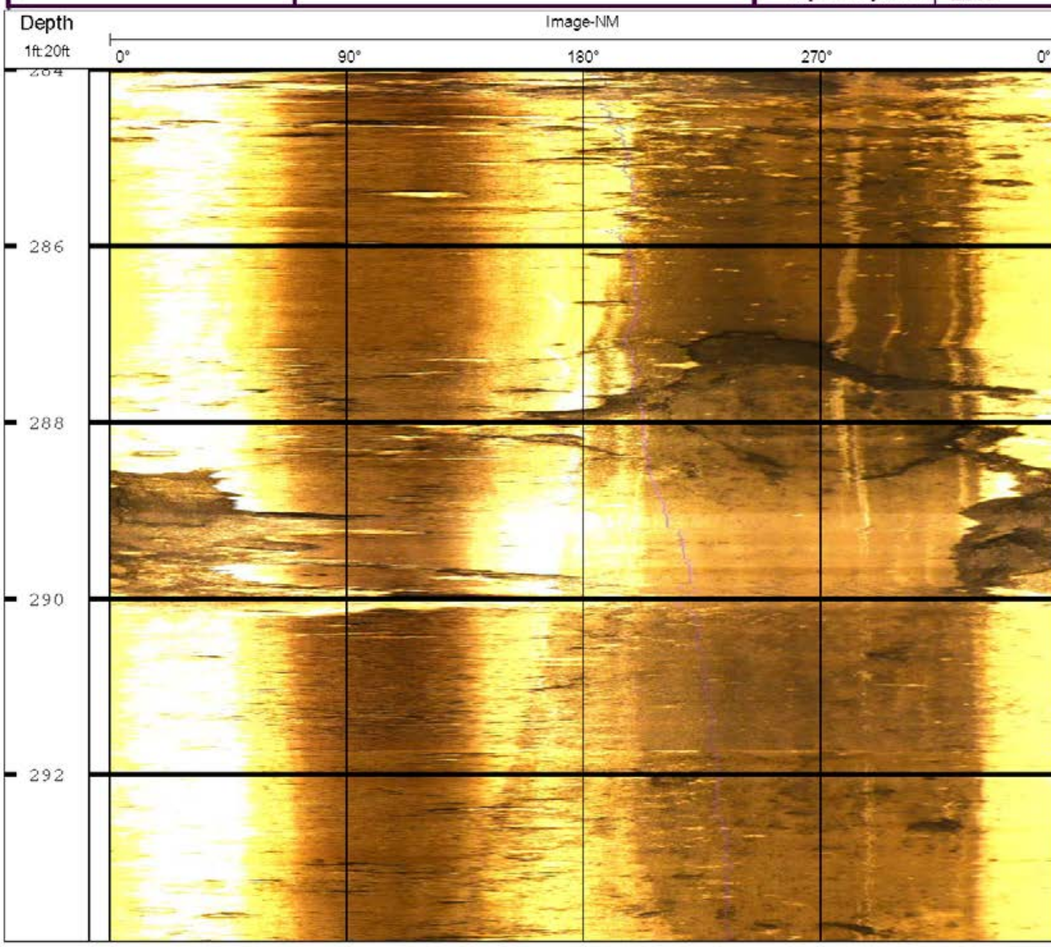


Page 3 of 3 geophysical logs of P-0304 with specific capacity and water level from packer testing.

Optical Borehole Imager log of P-0304

Geophysical Logs		Well ID	P-0304
Site :	Vulcan Sand Mine core hole	Lat / Long	294251/815630
		Elevation	90 ft NGVD
Date :	07/12/2014	Depth Logged	945 ft bls
Logger :	J Davis (SJRWMD) / D Phelps (FGS)	Casing Depth	ft bls
Comments :		Diameter	inches
Problems in borehole prevent reaching total depth		Flow Surface	above Casing
		Pumped	gpm
		Aquifer System	LFA

Division of Ground Water Programs
P.O. Box 1429
Palatka, Fl 32178-1429
(386) 329 - 4835



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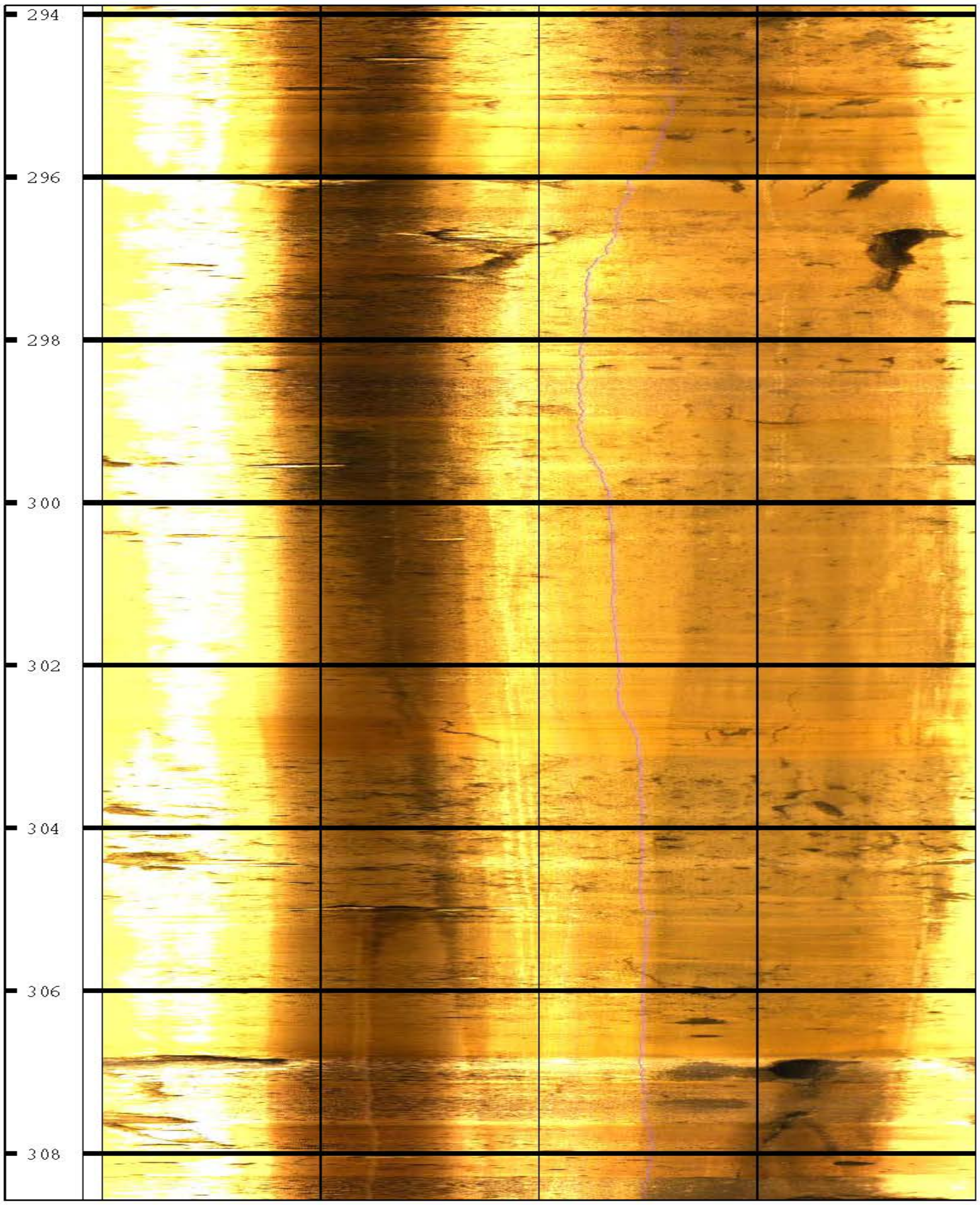

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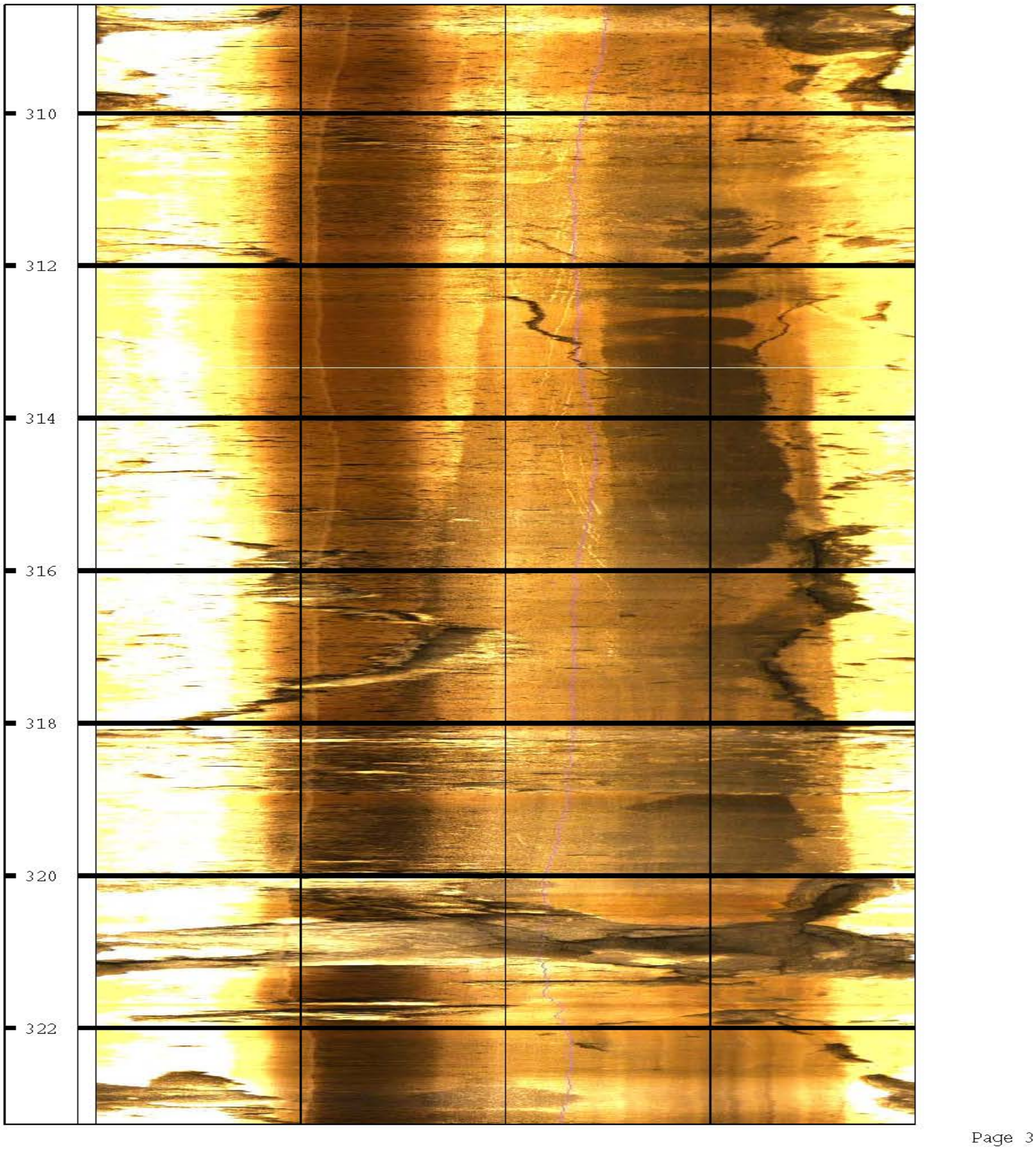
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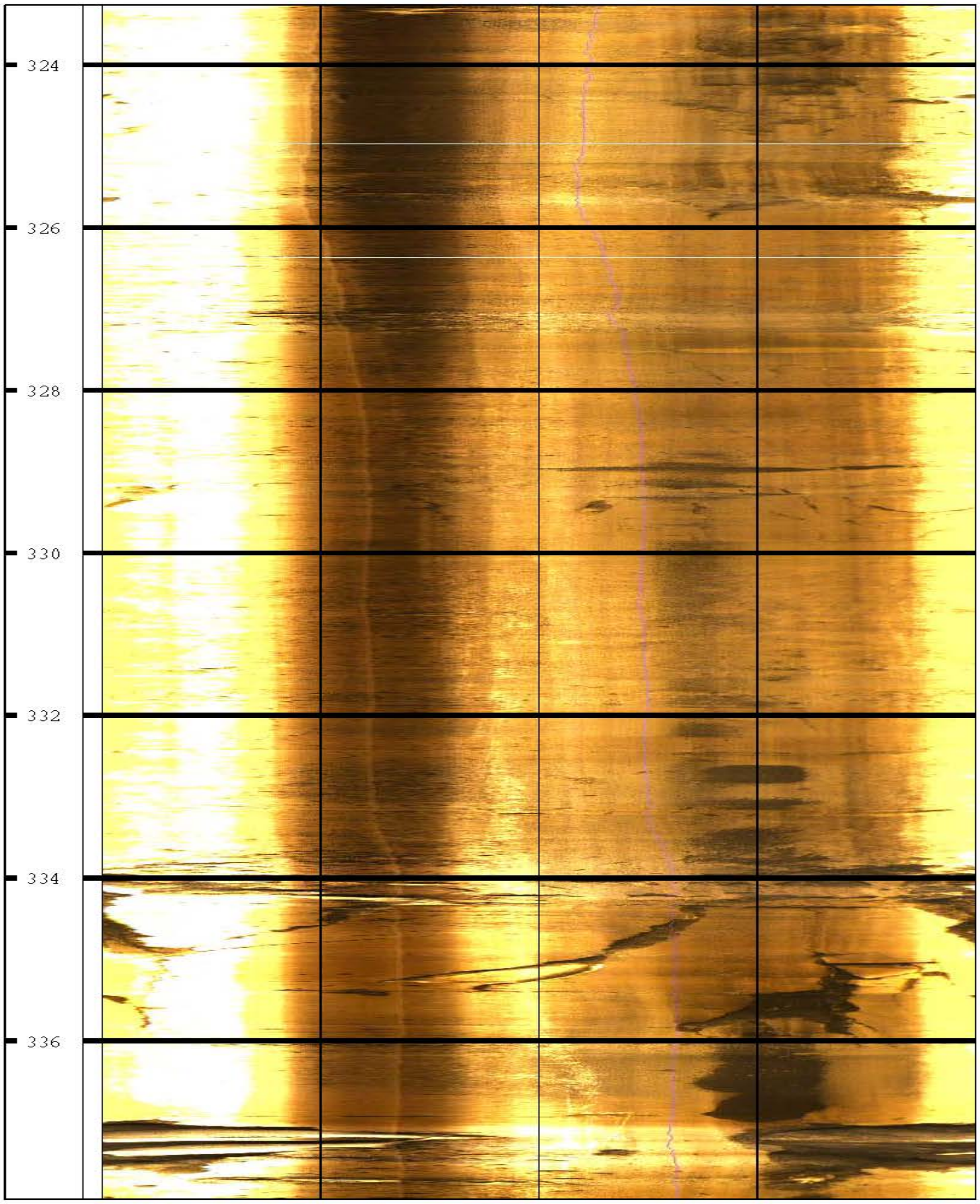

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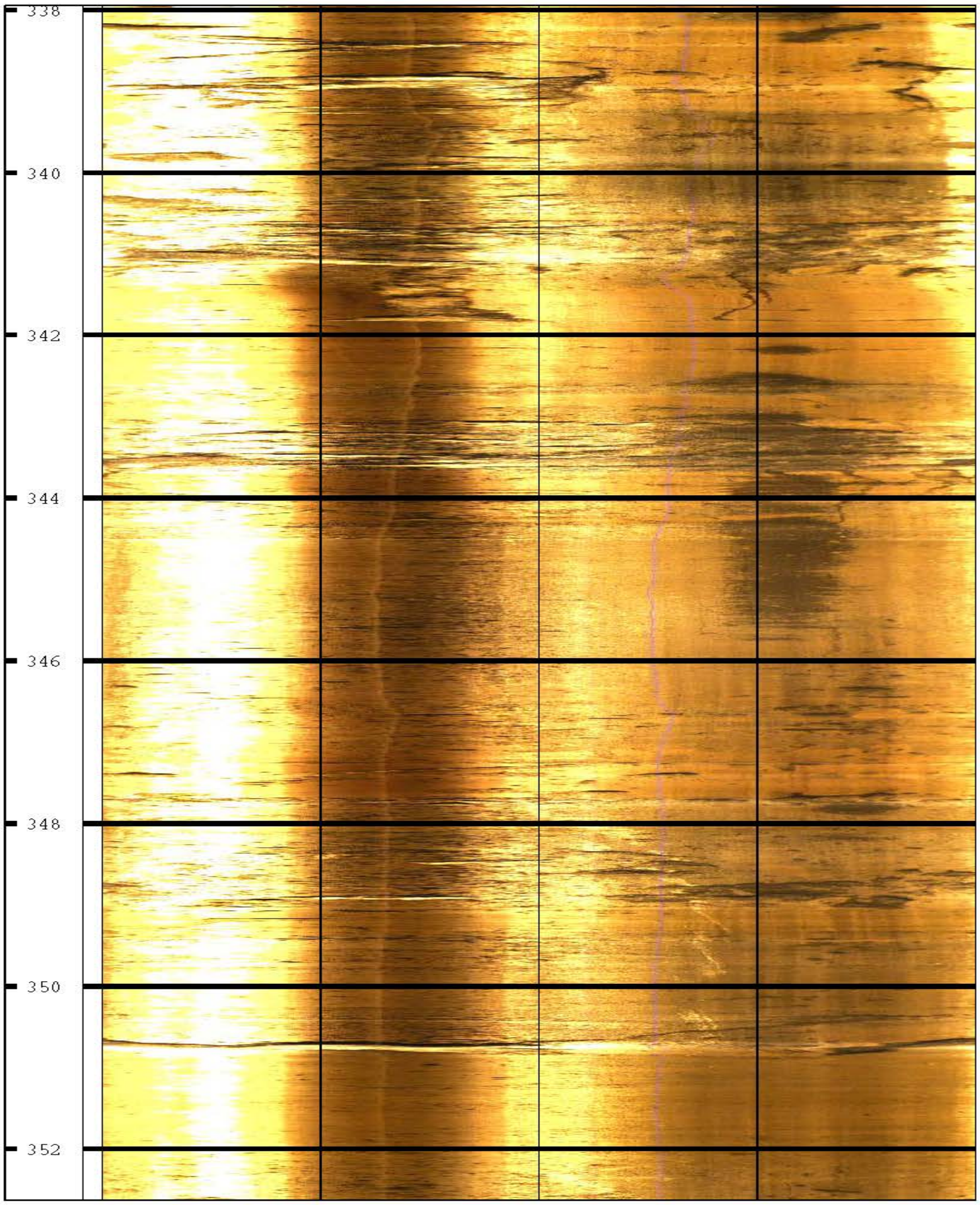

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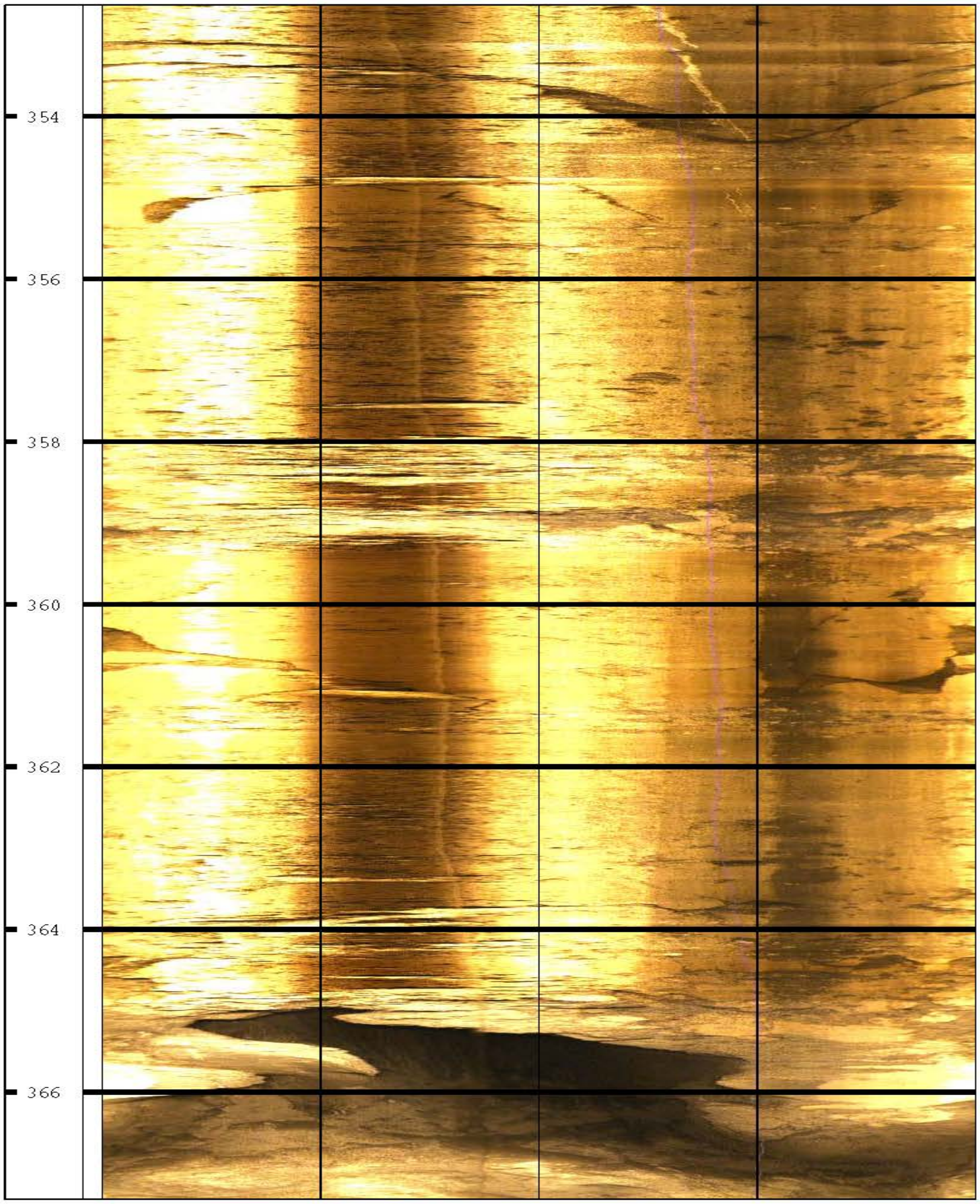

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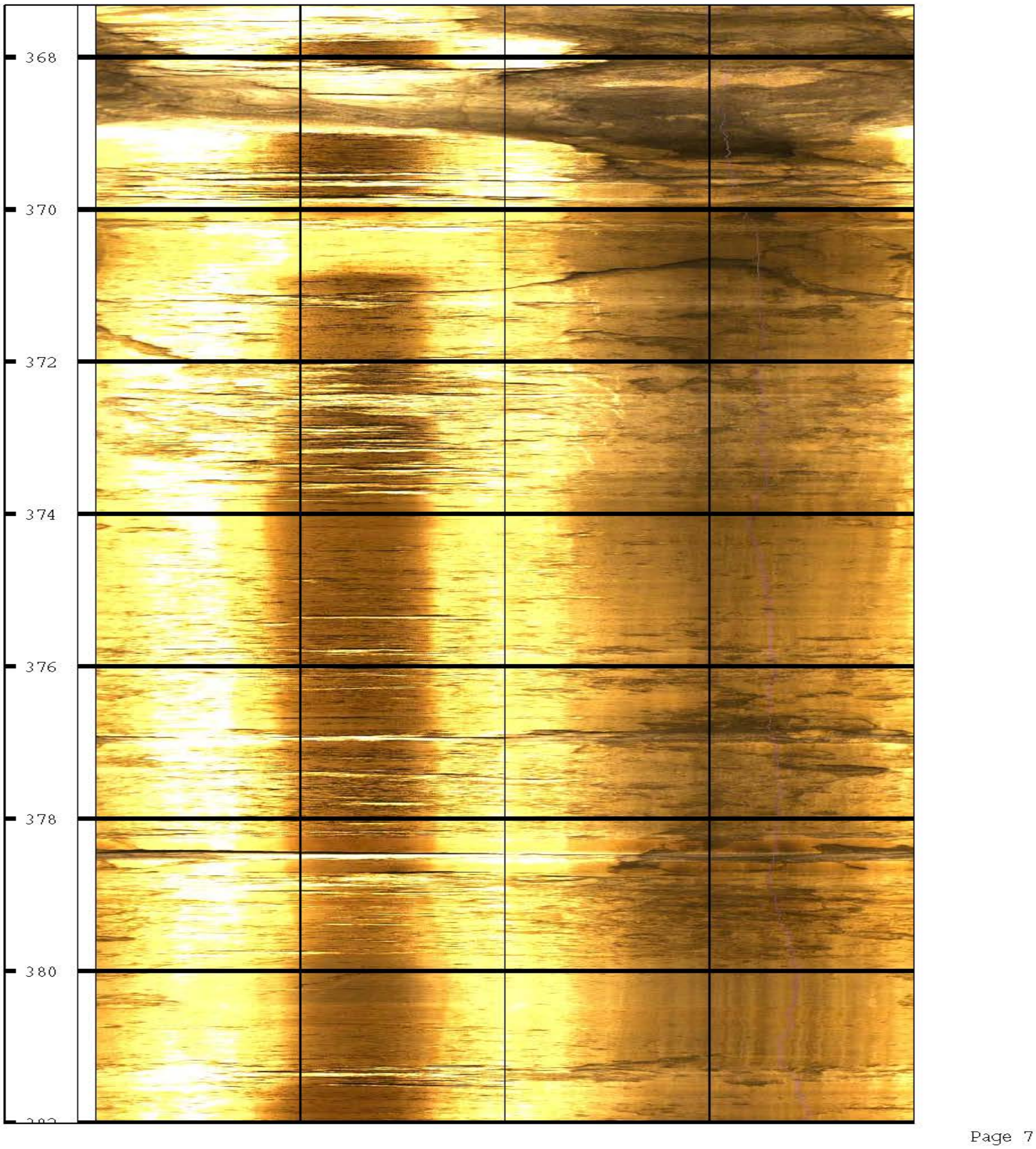
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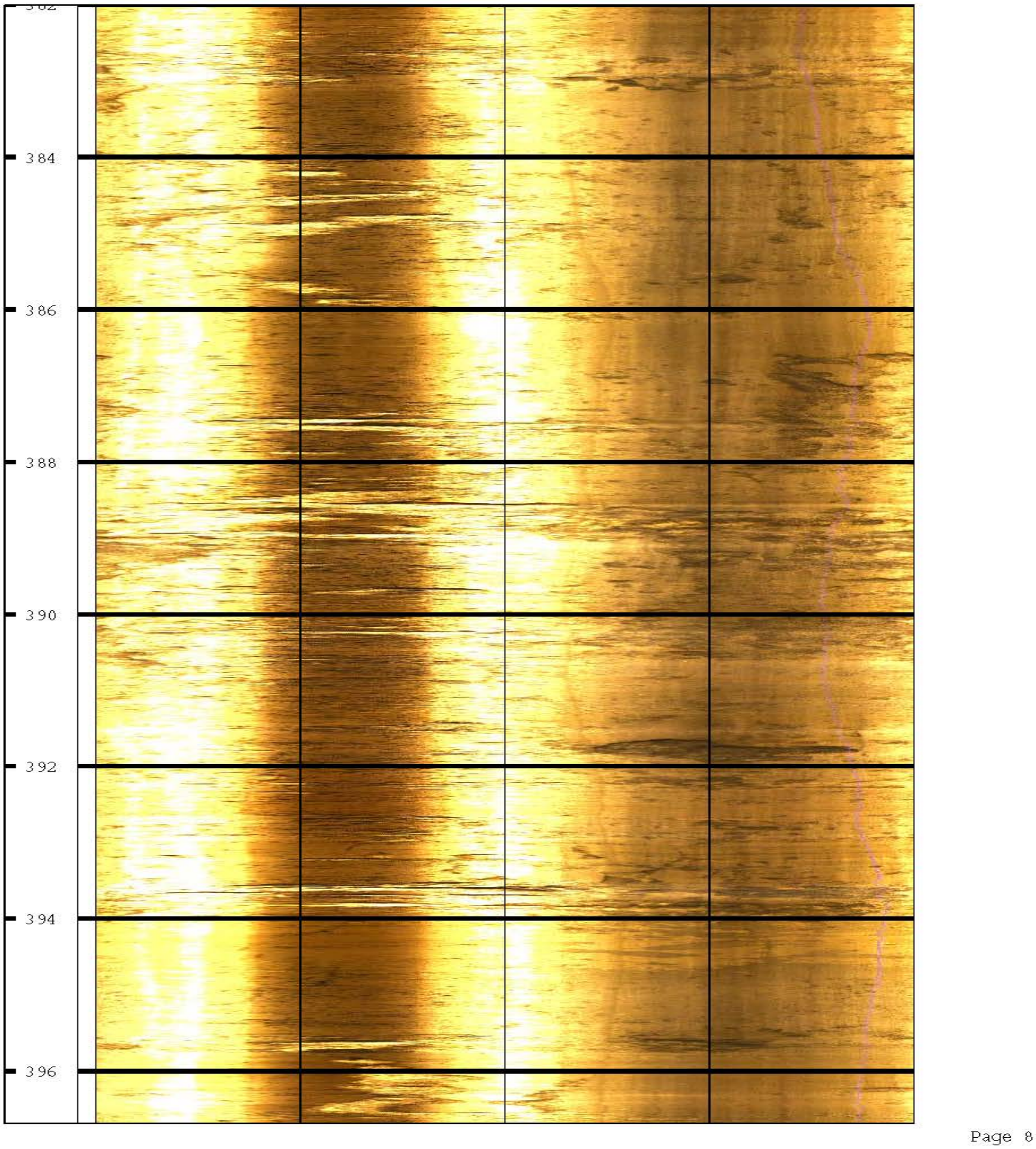
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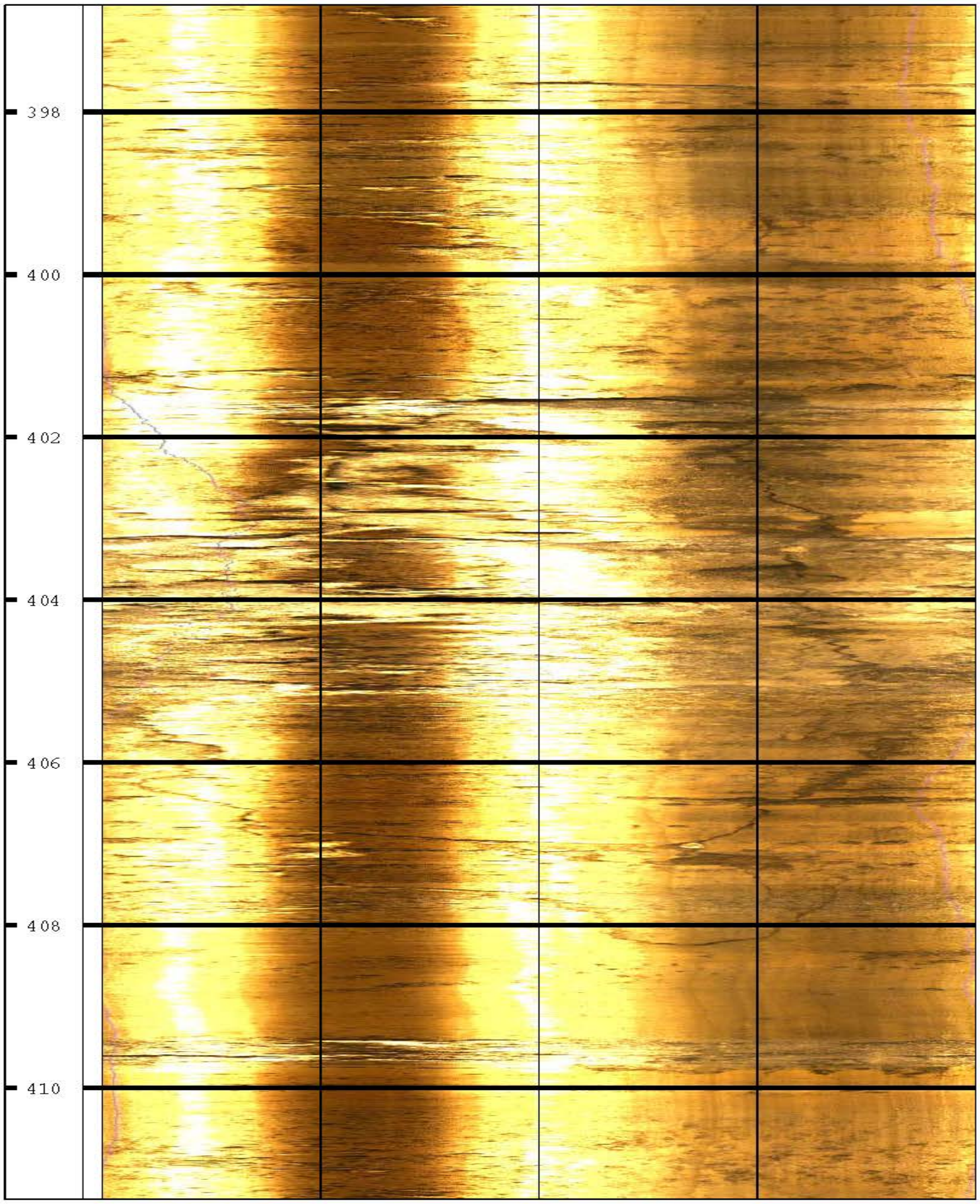

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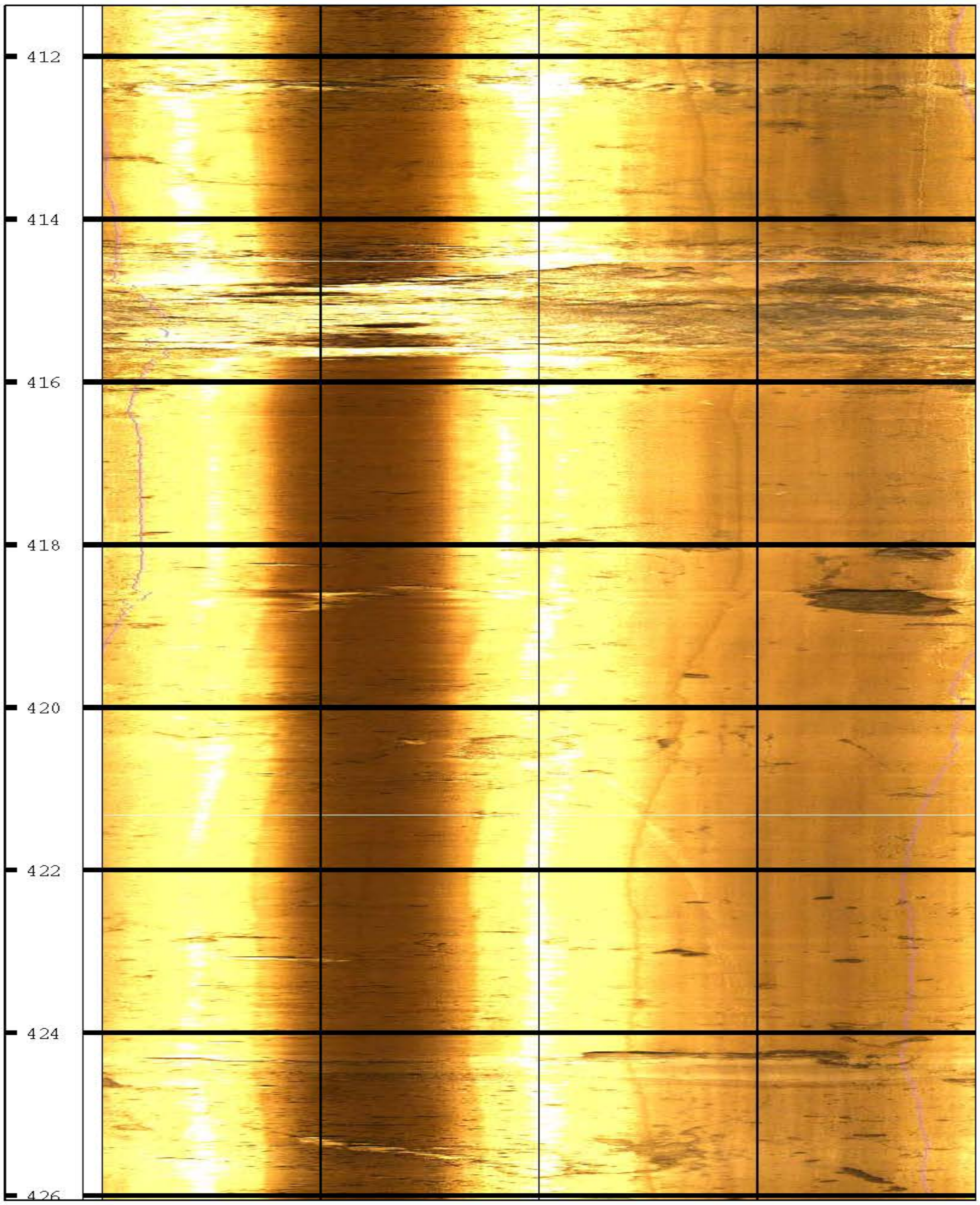

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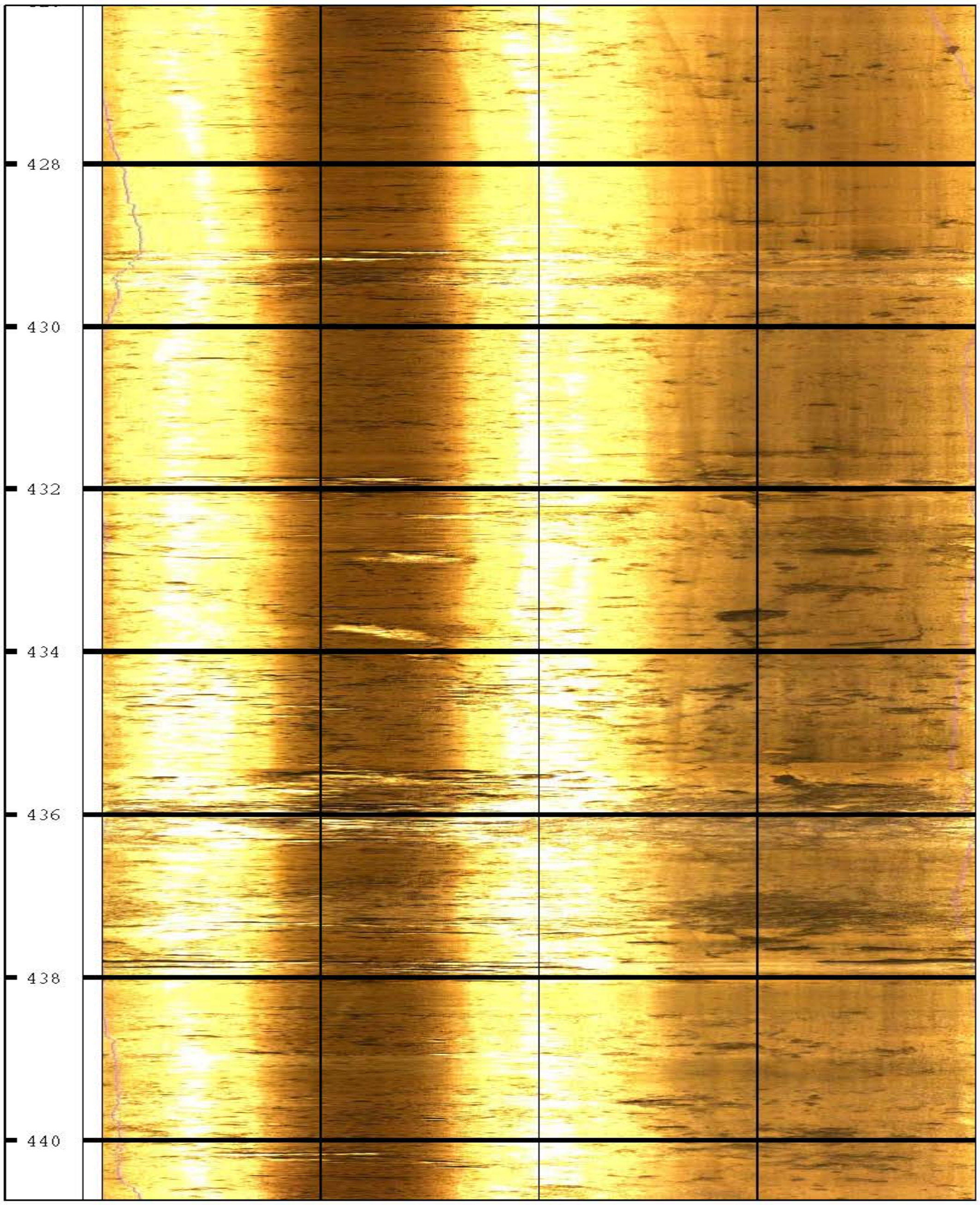

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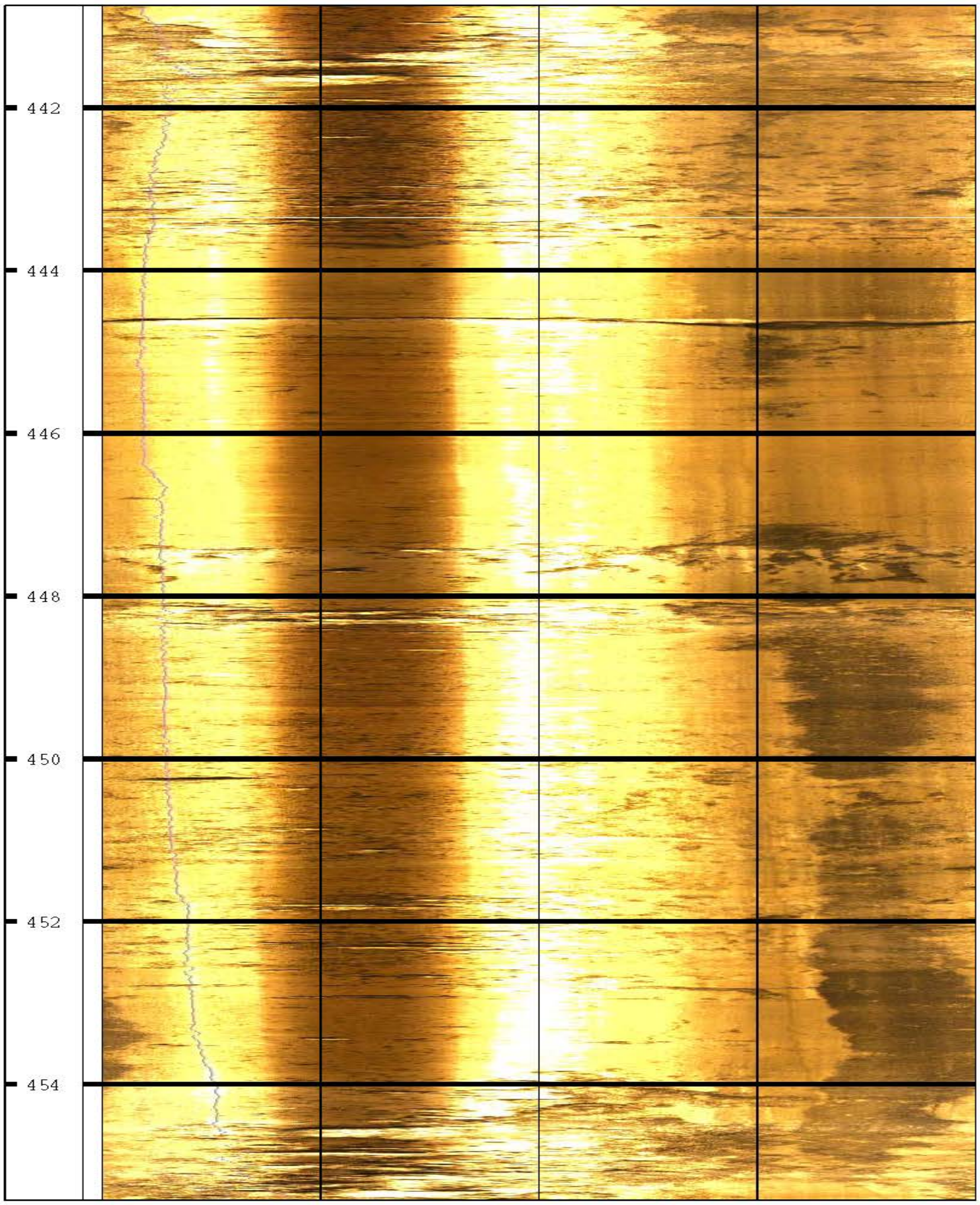

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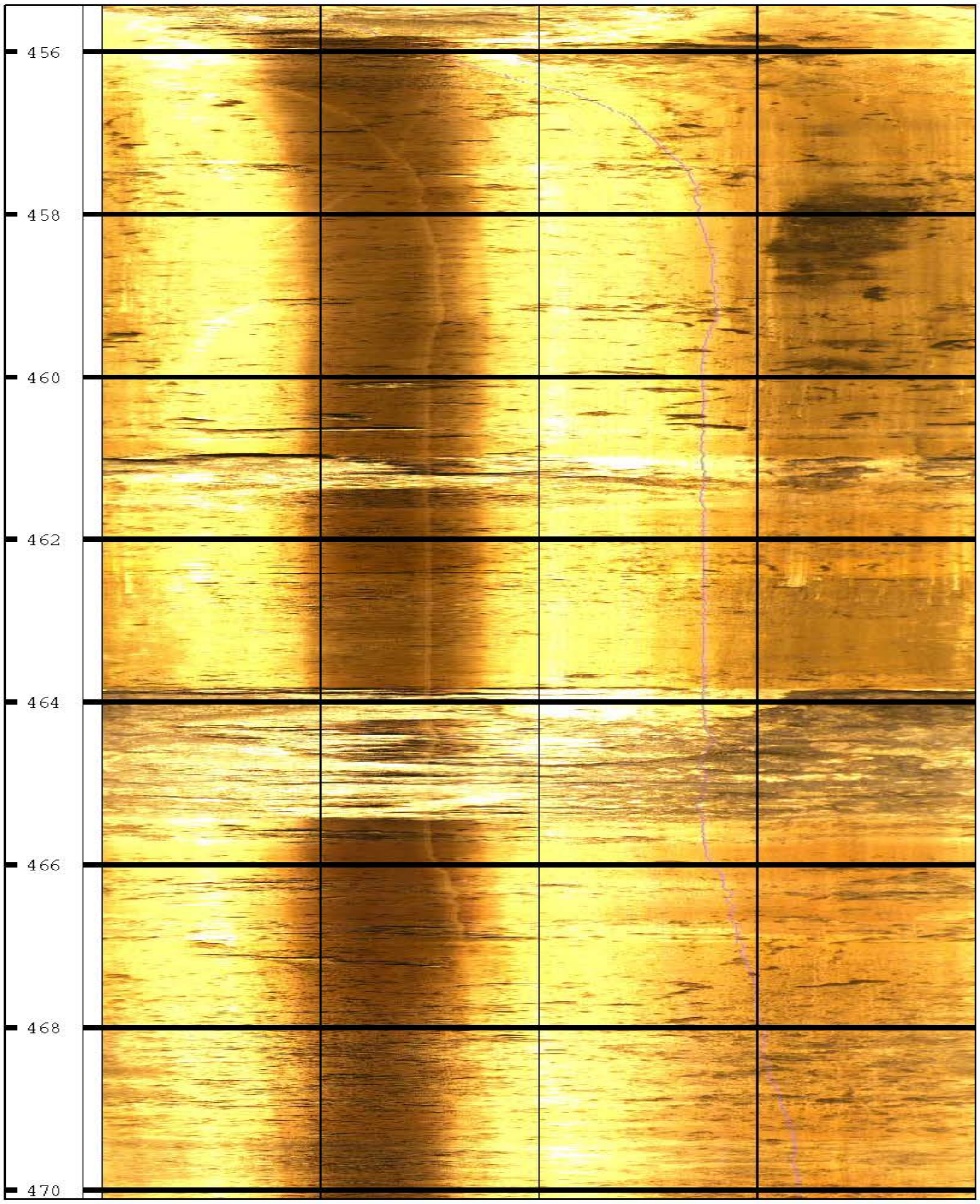

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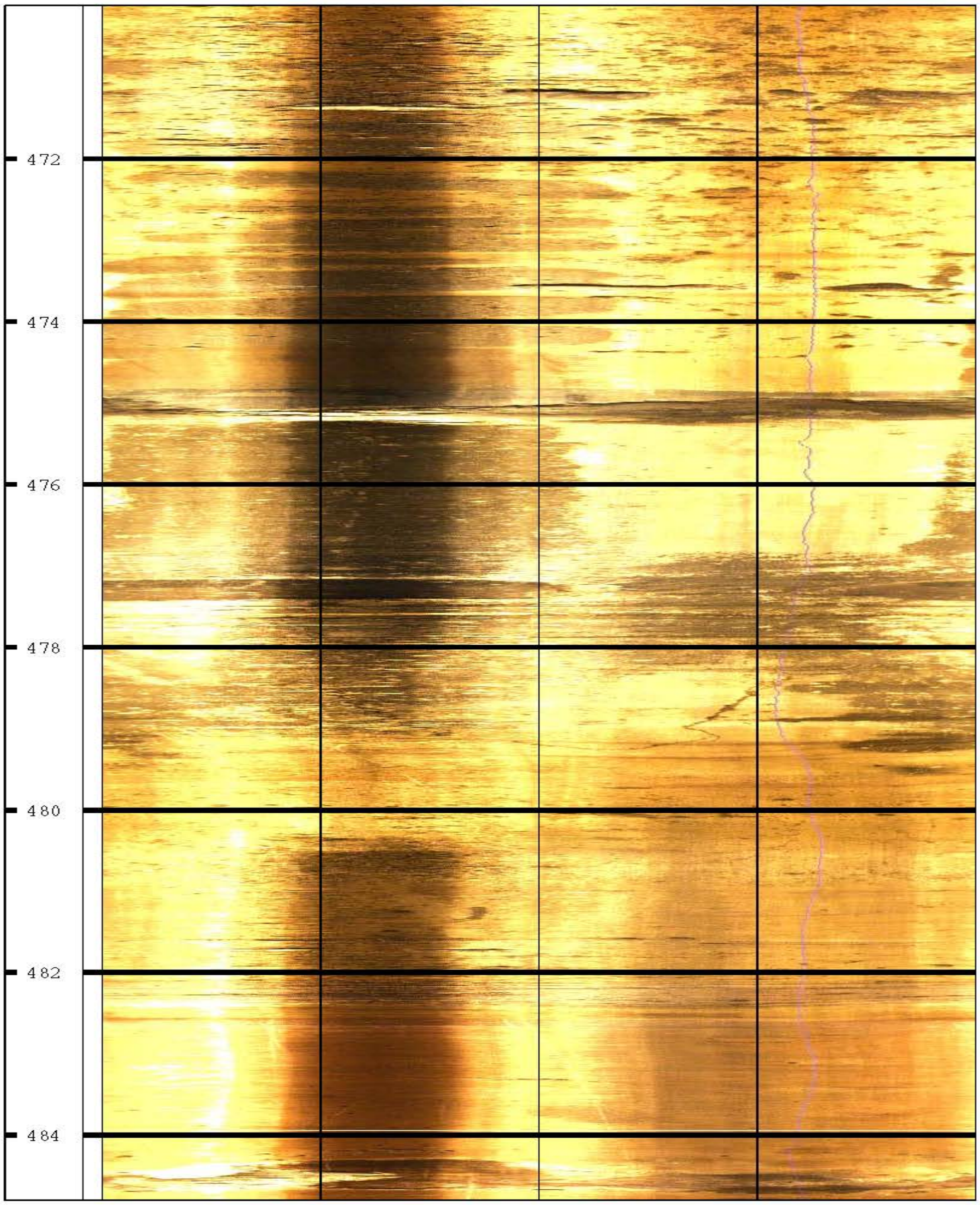

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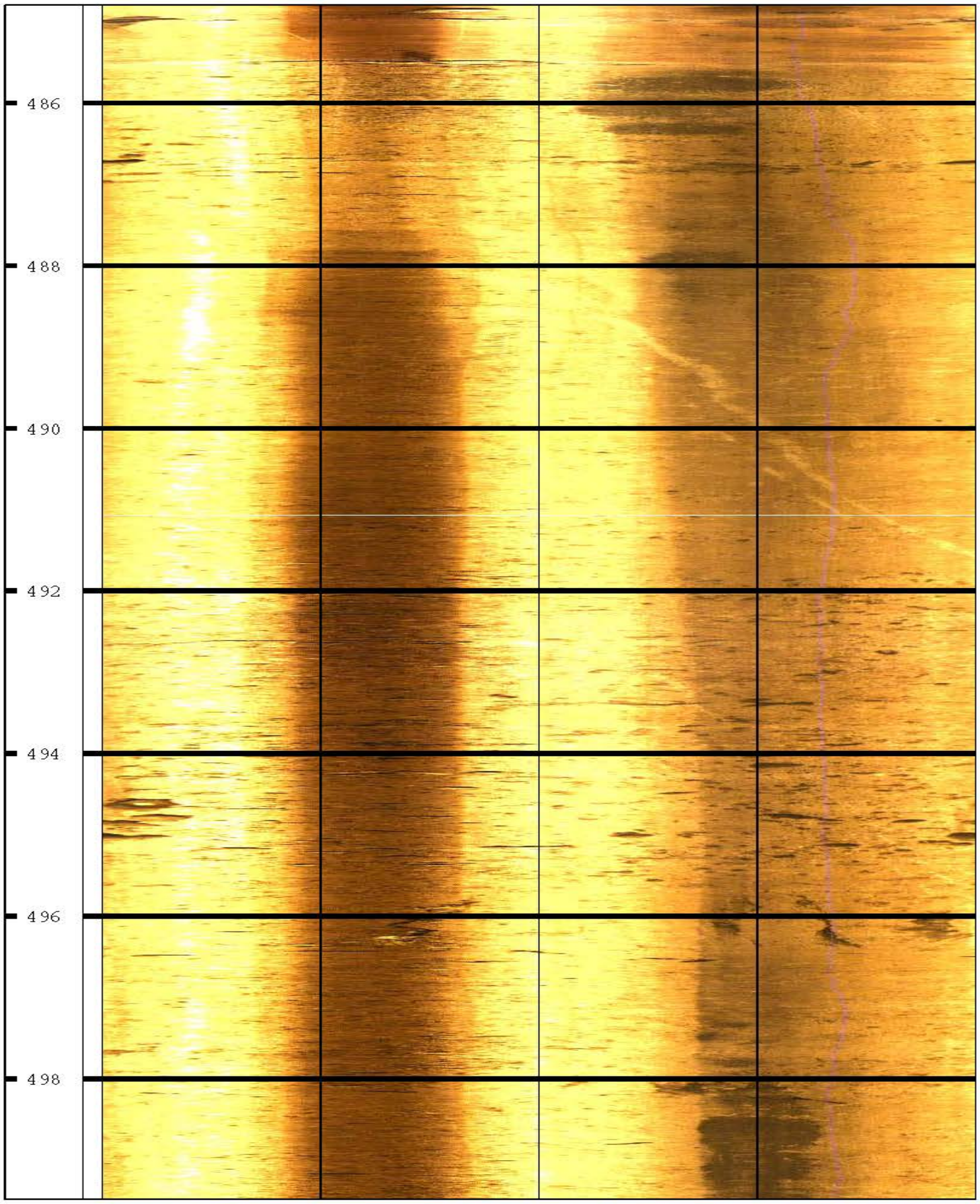

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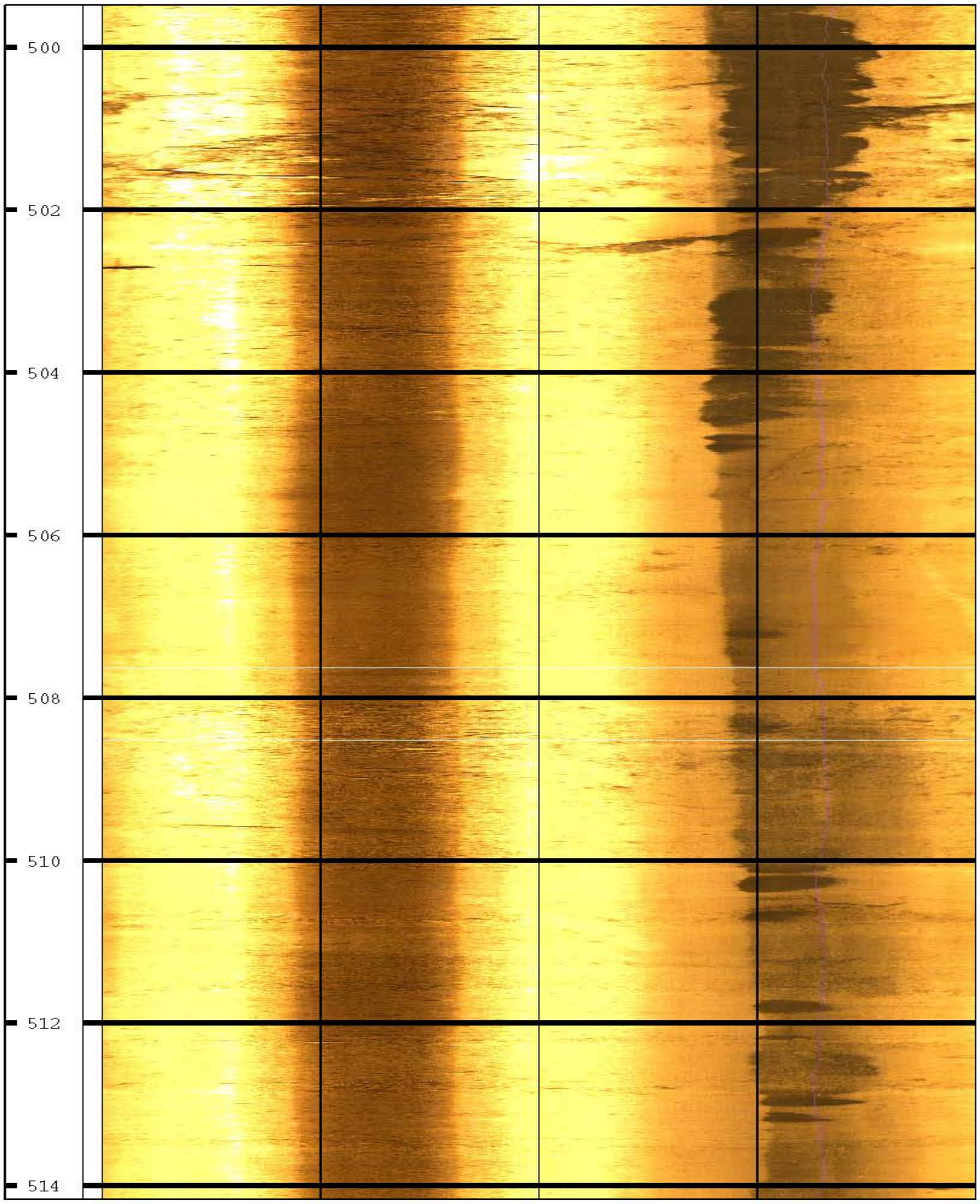

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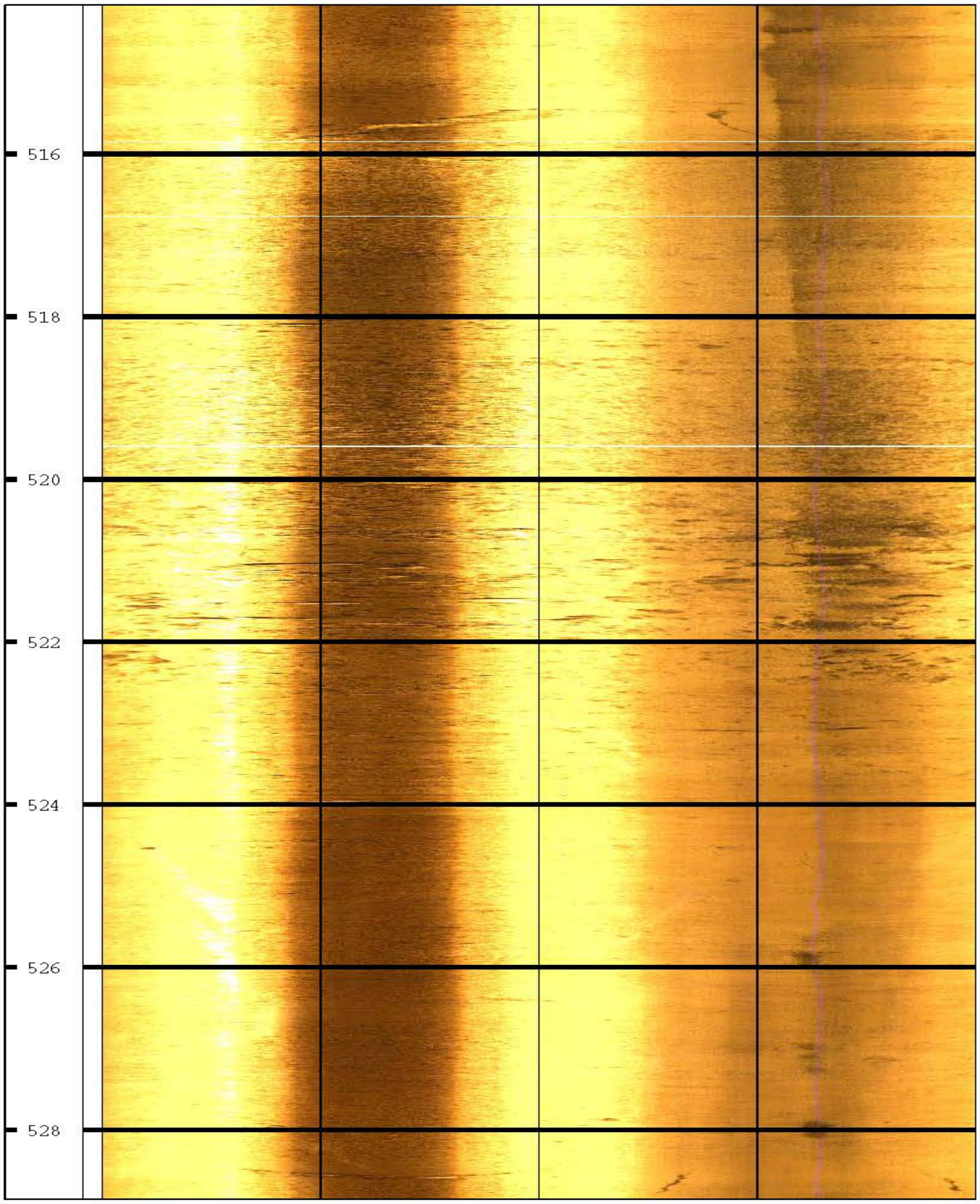

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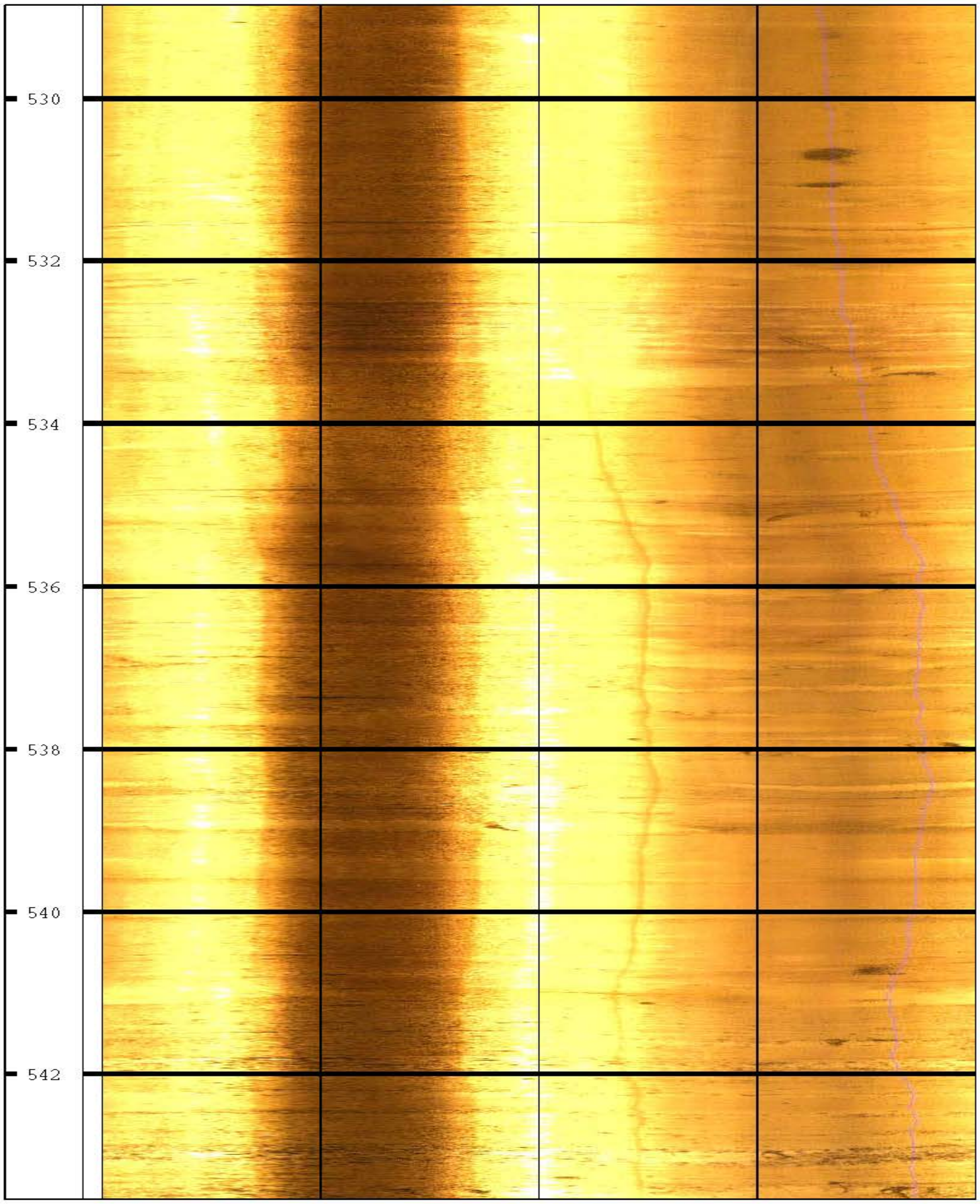

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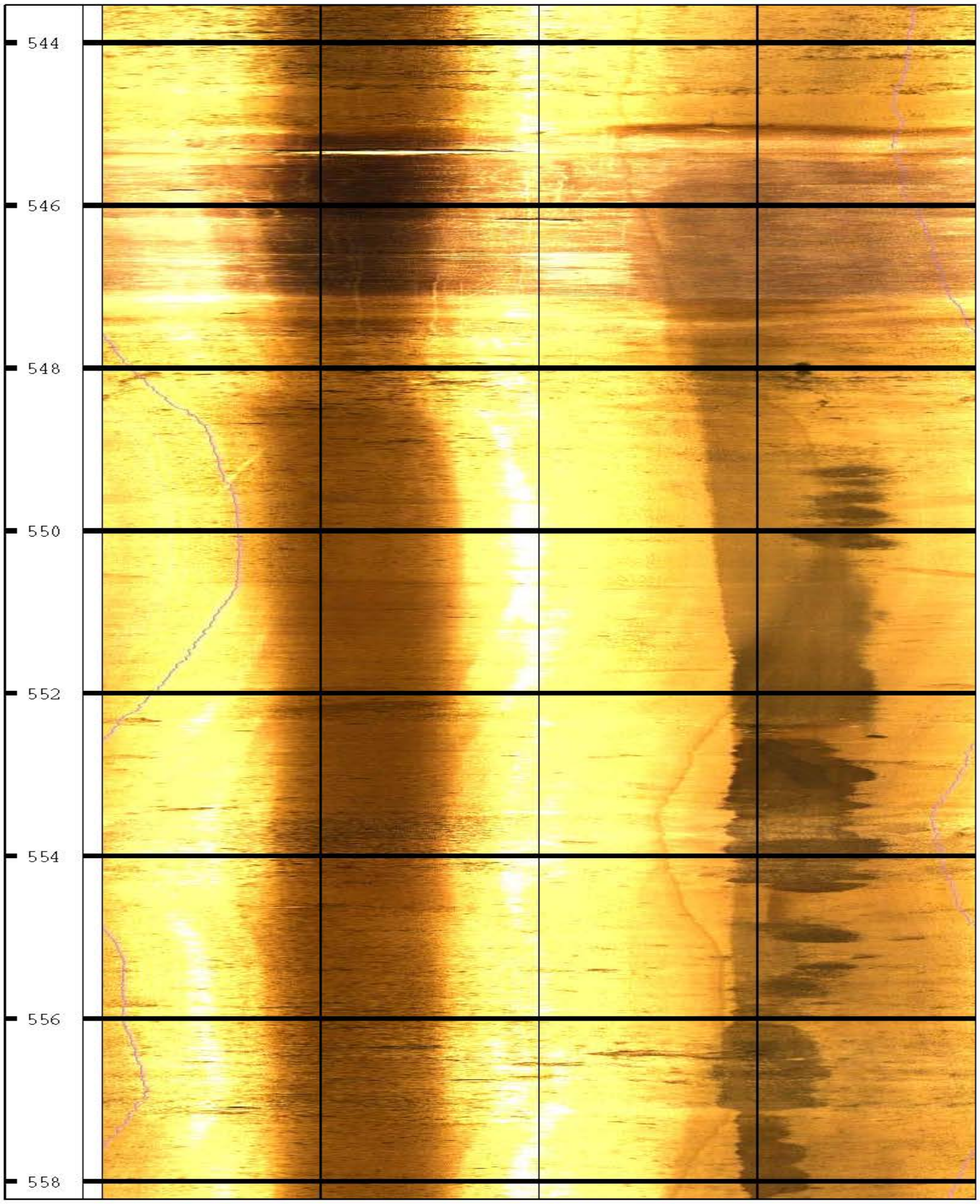

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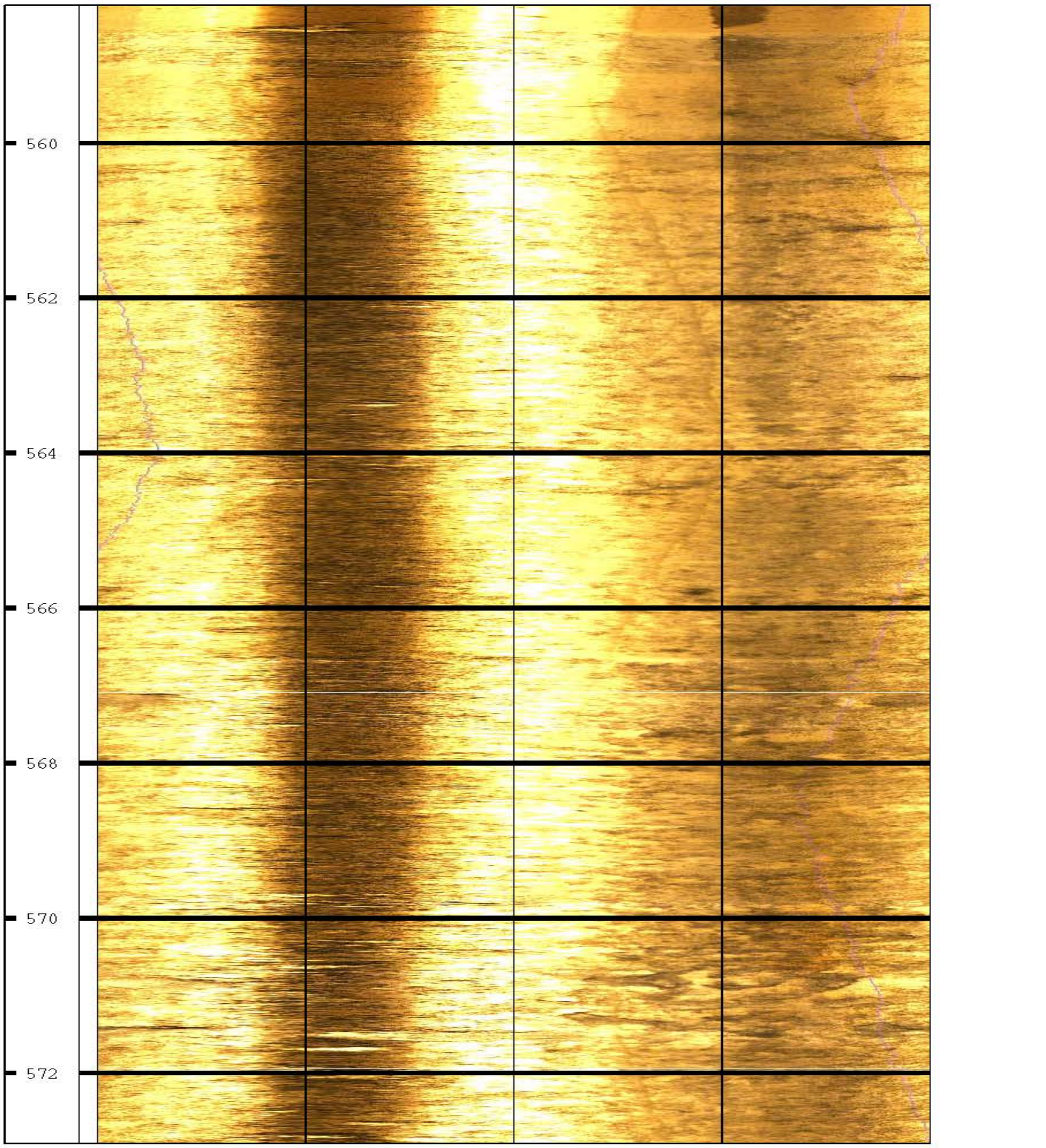
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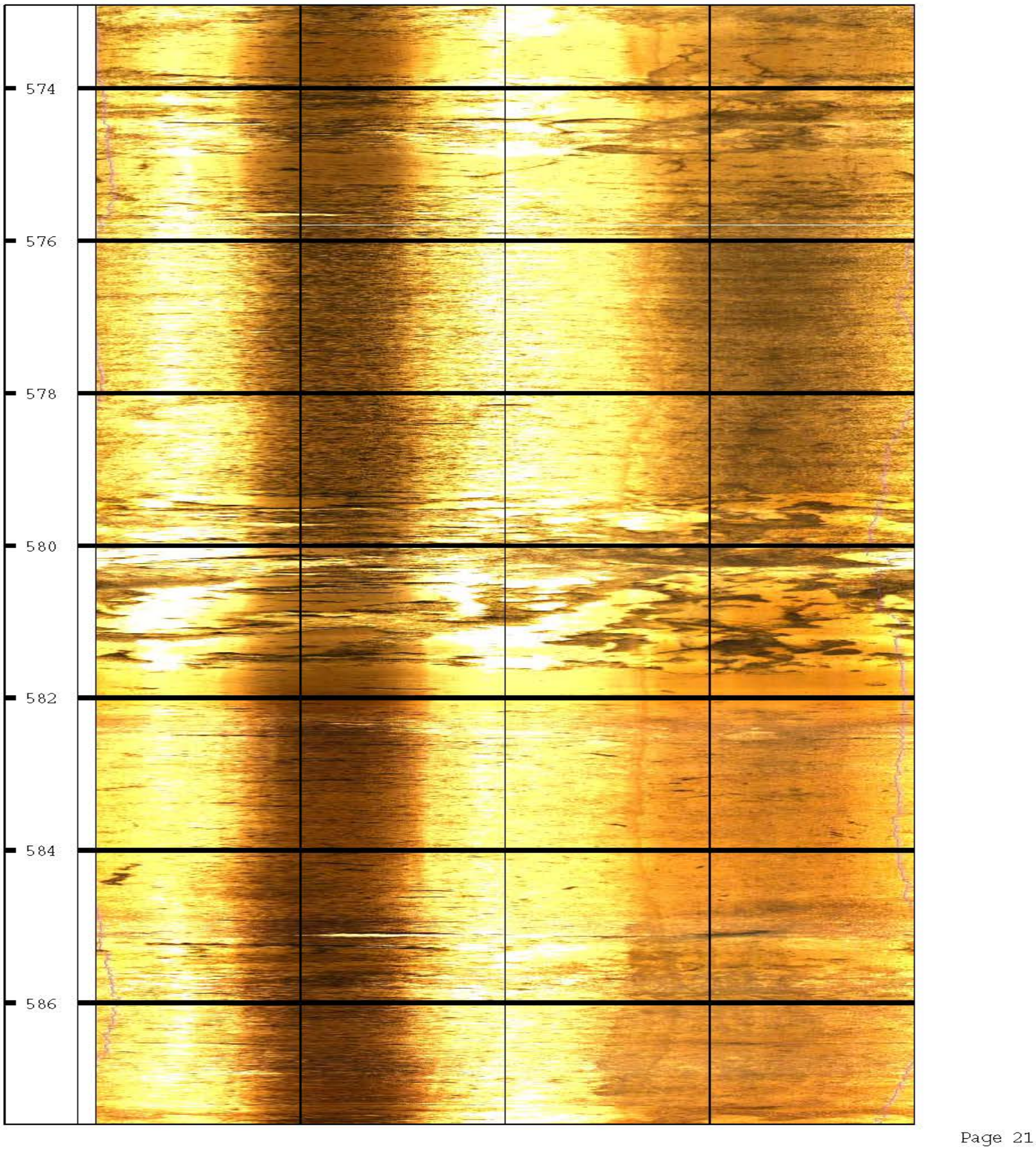
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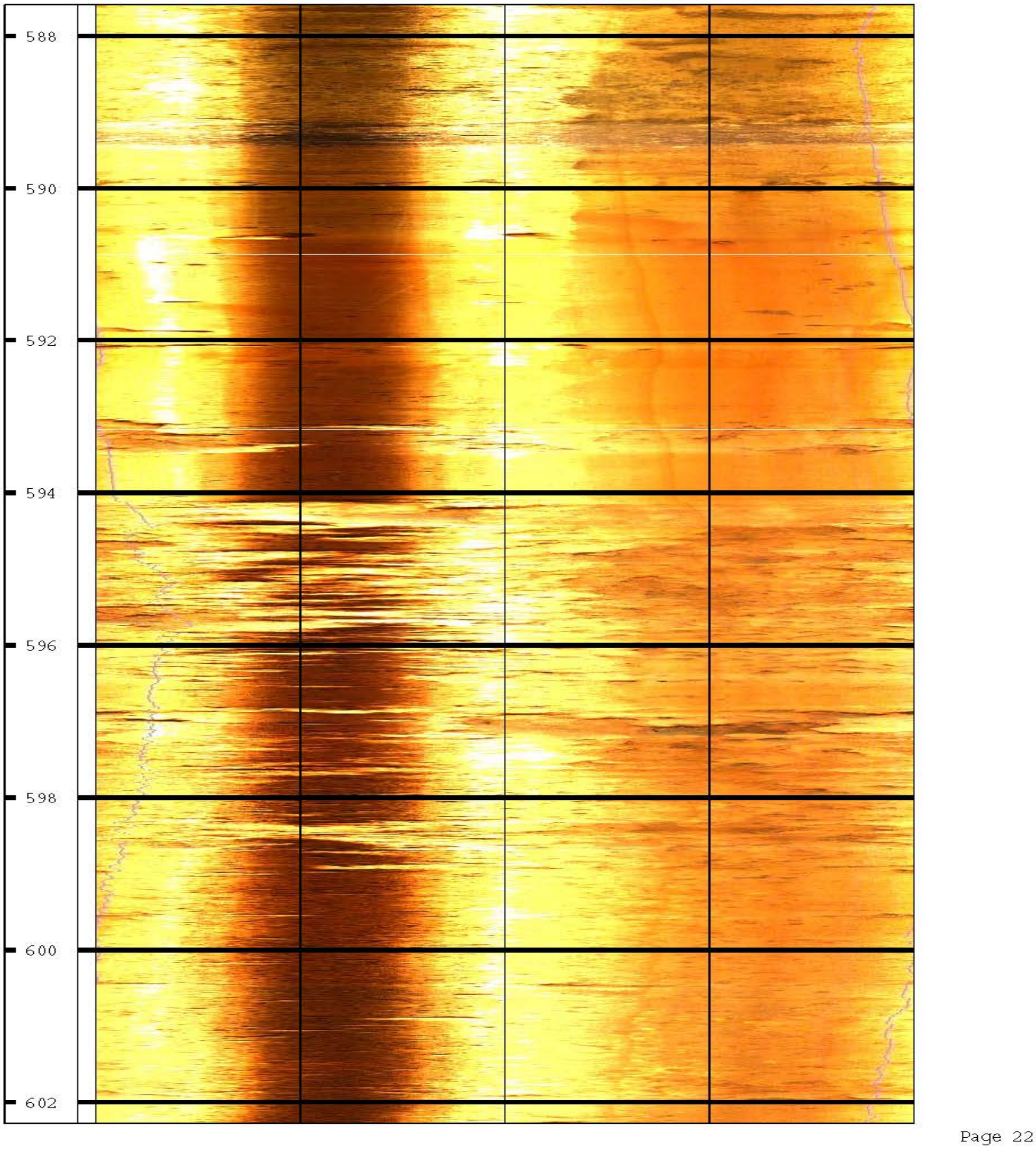
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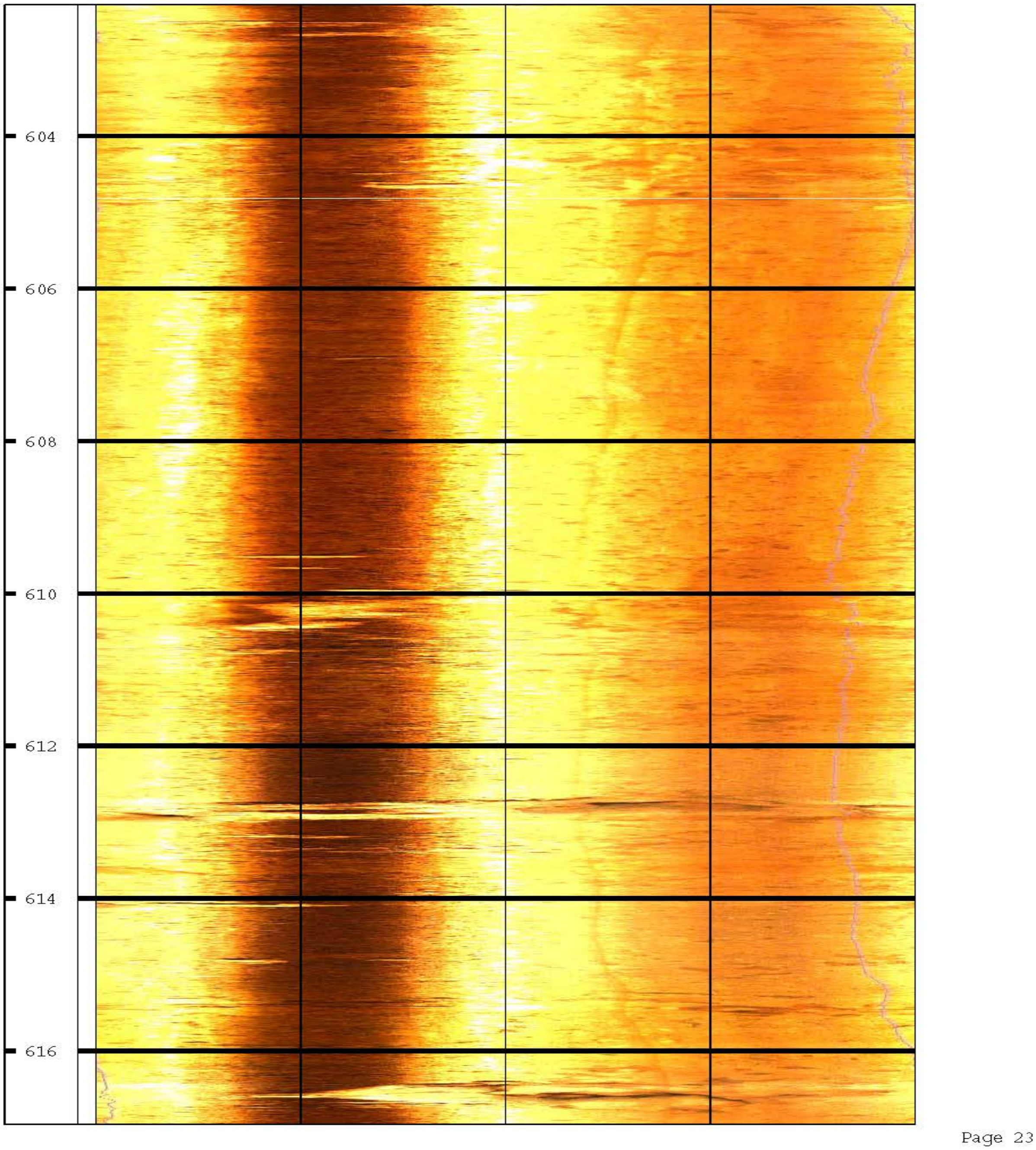
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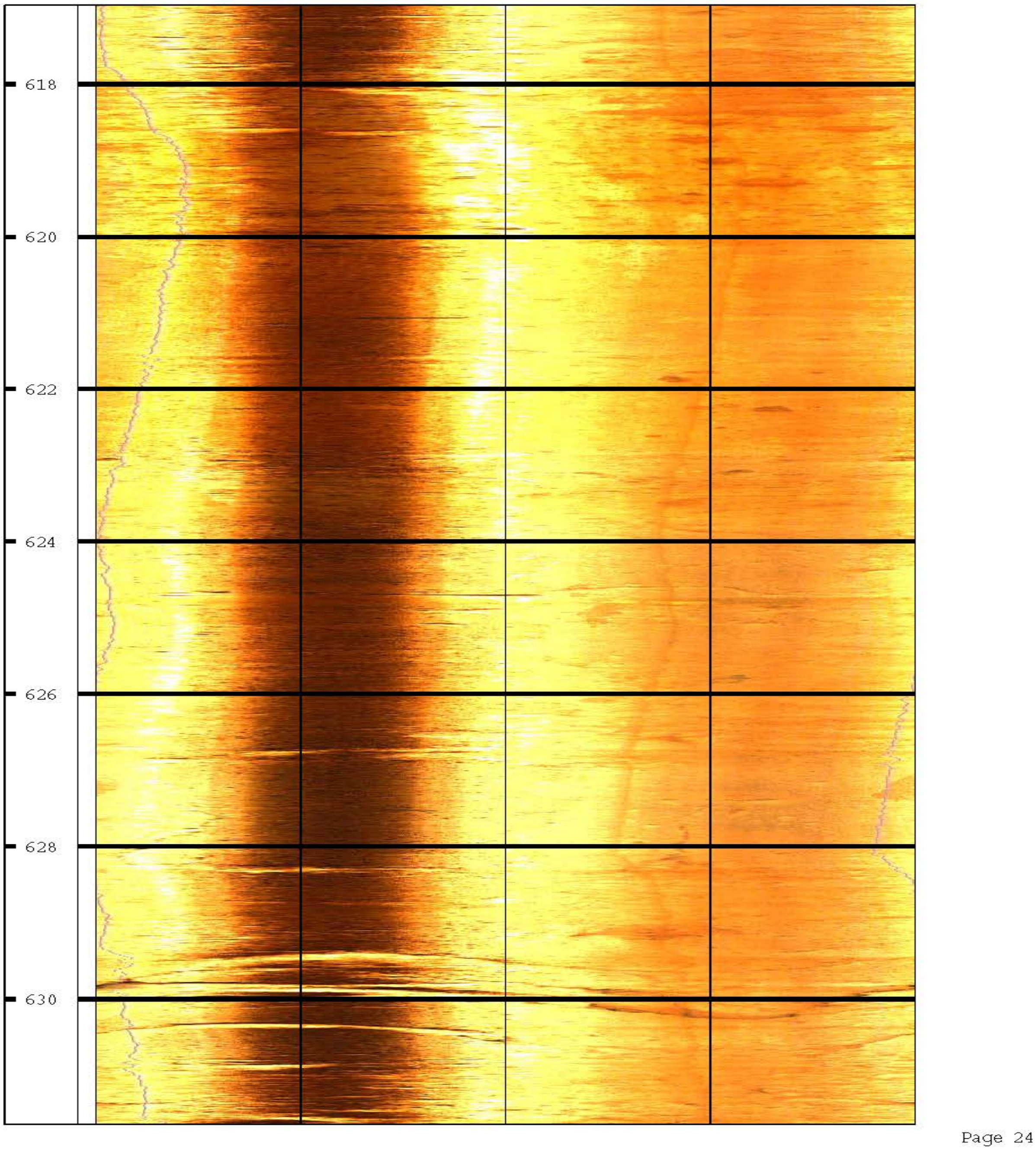
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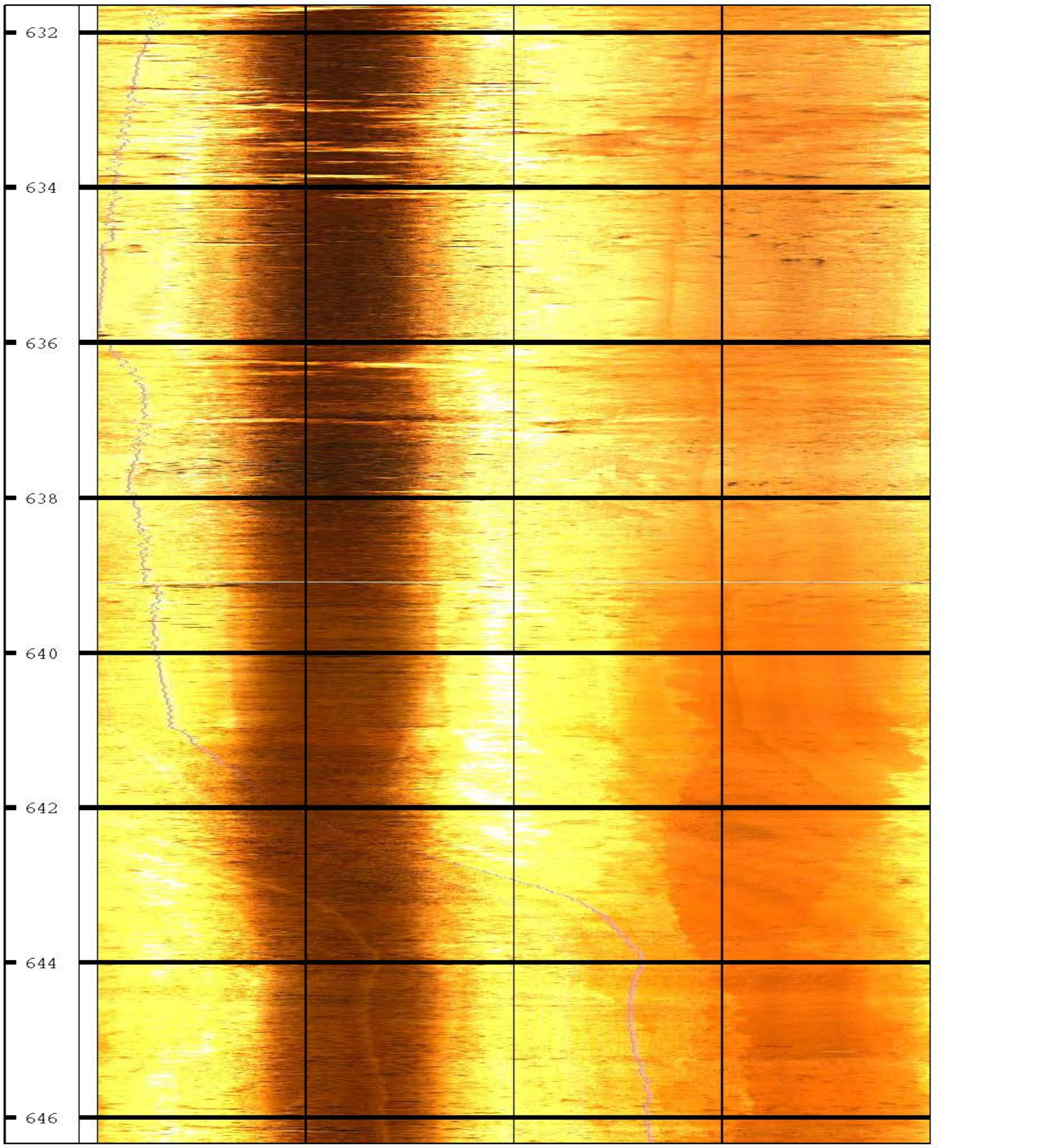
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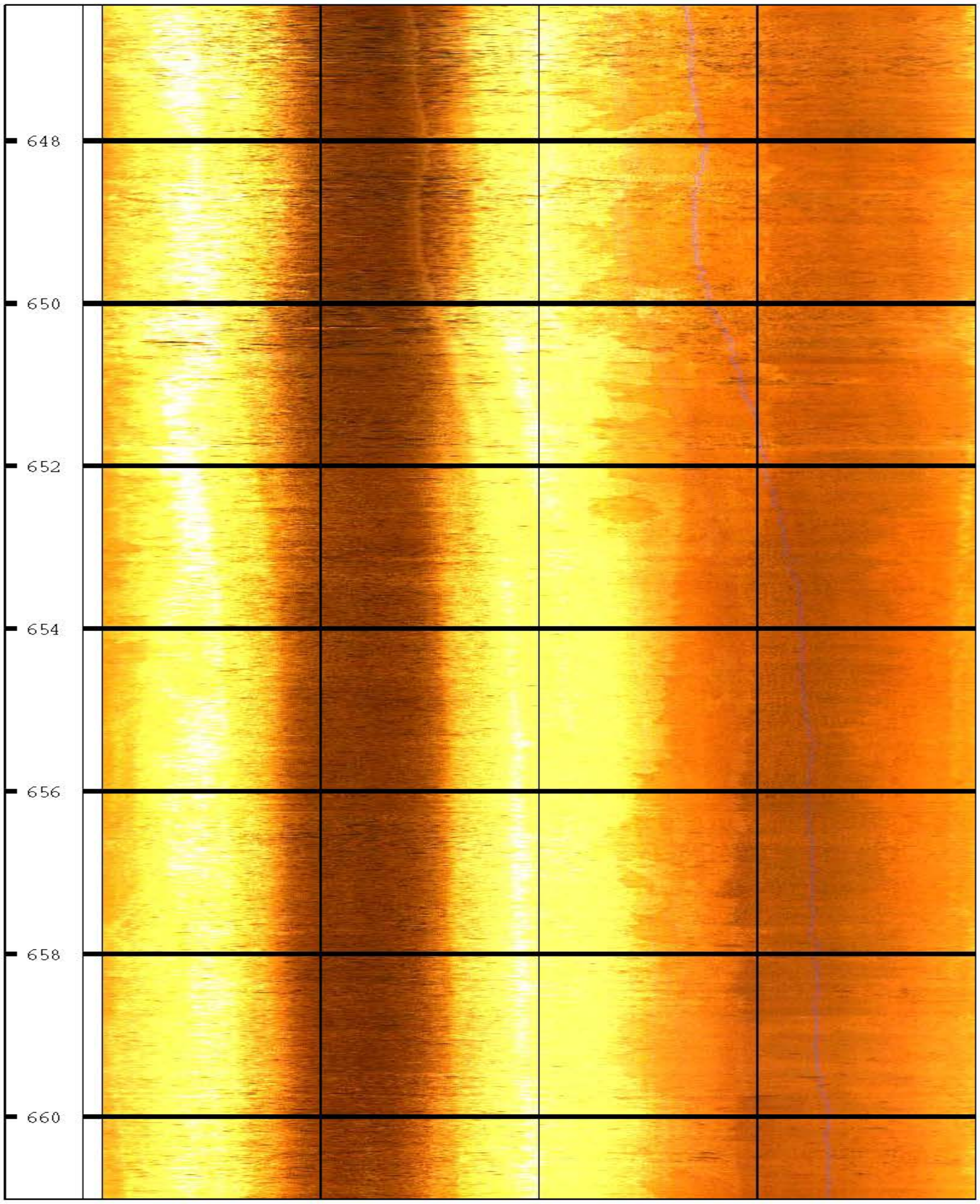

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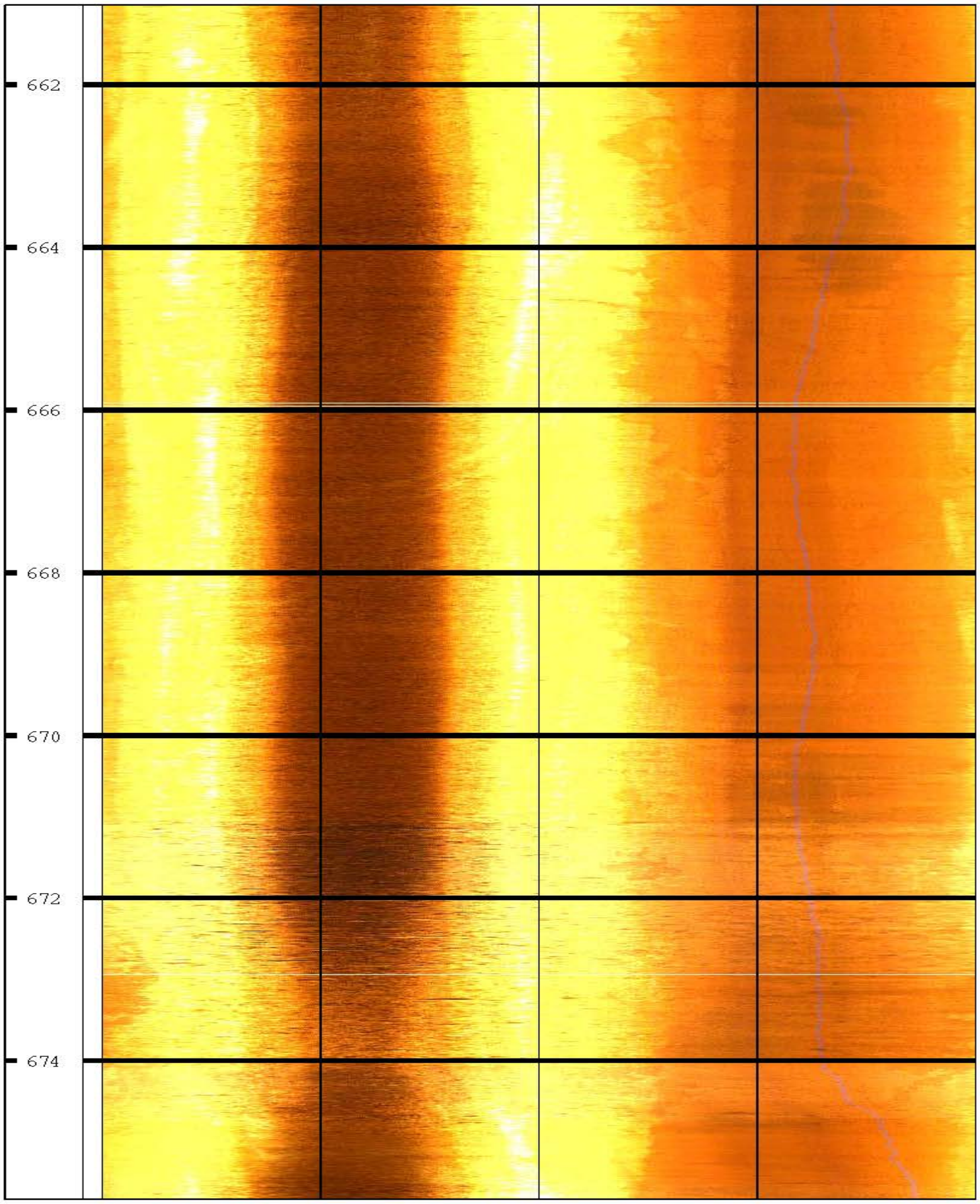

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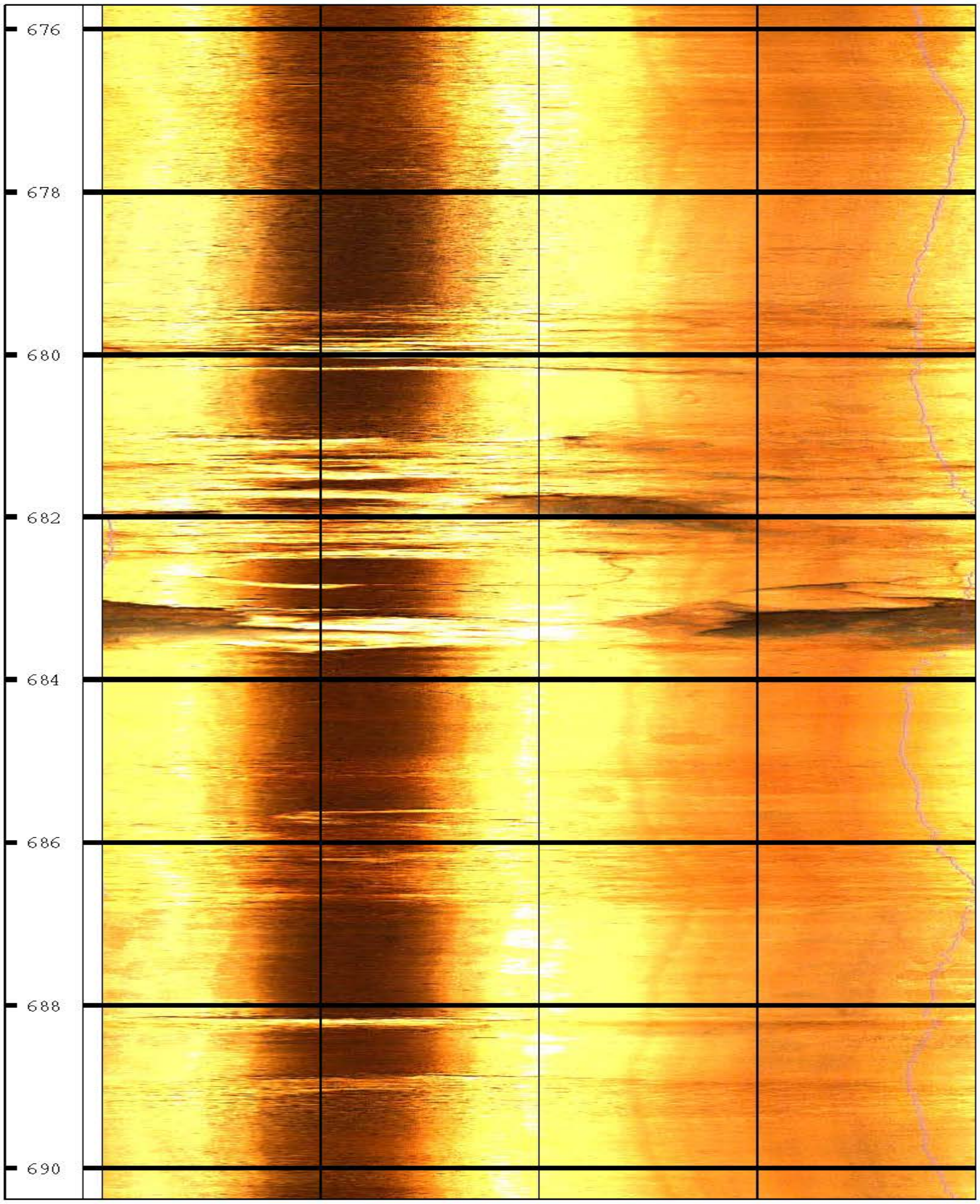

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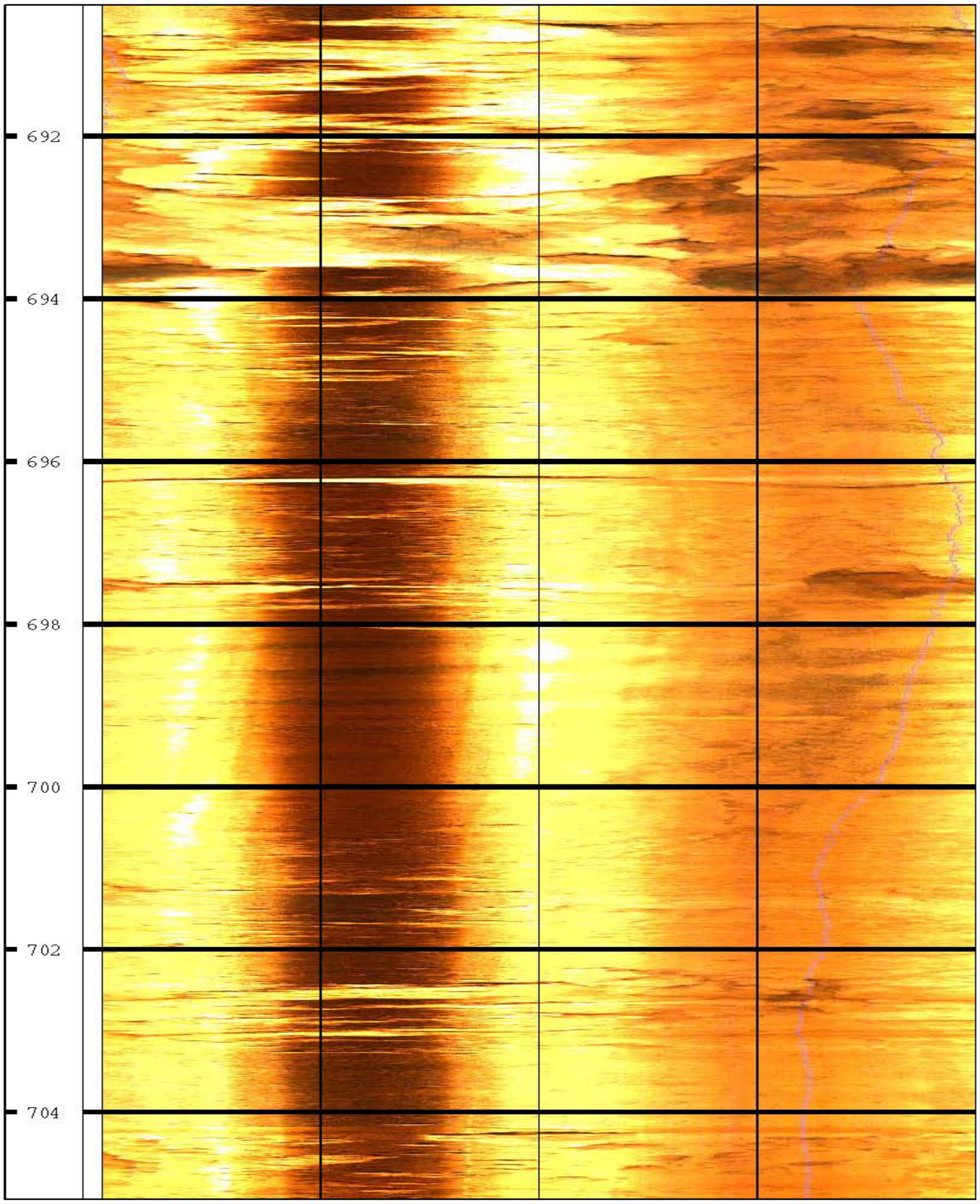

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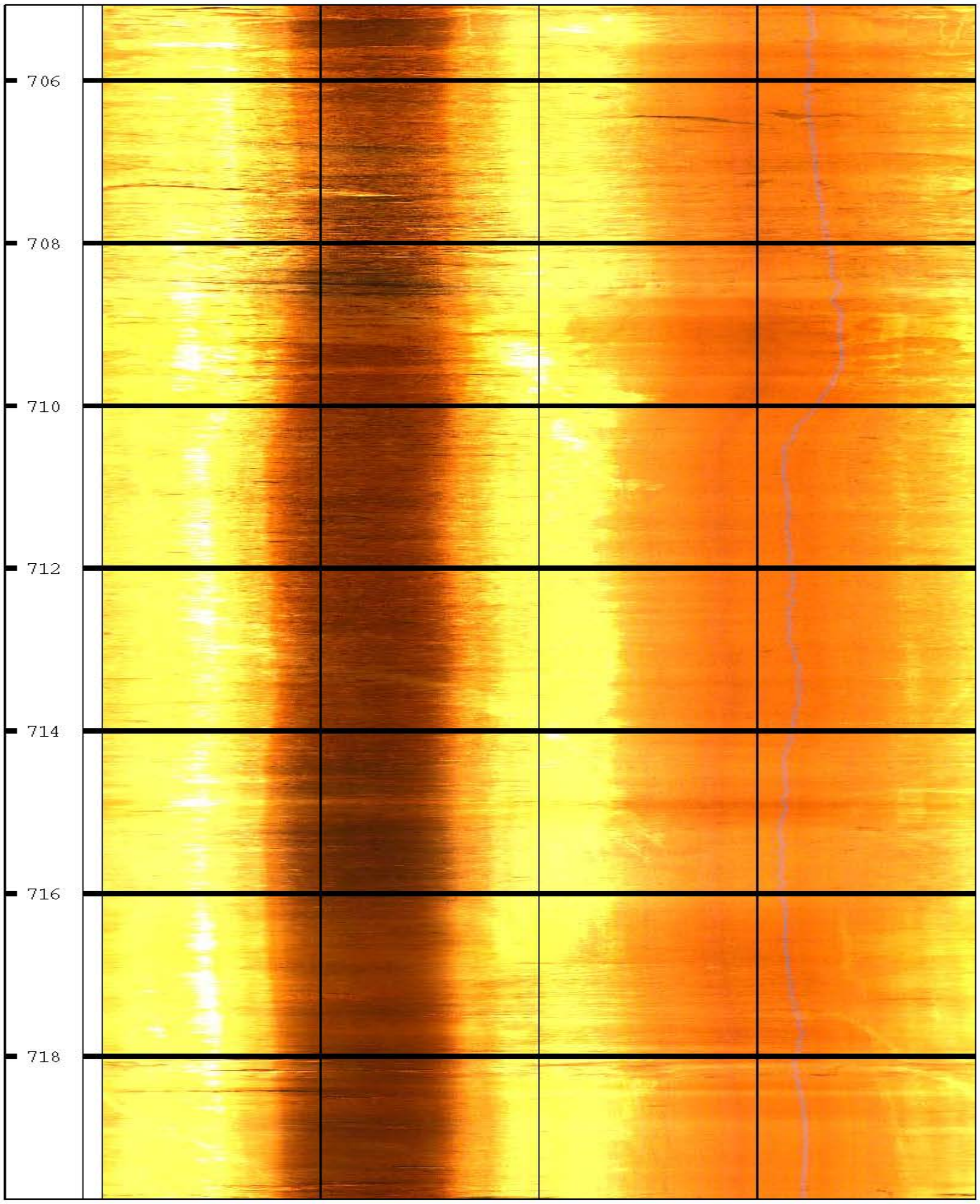

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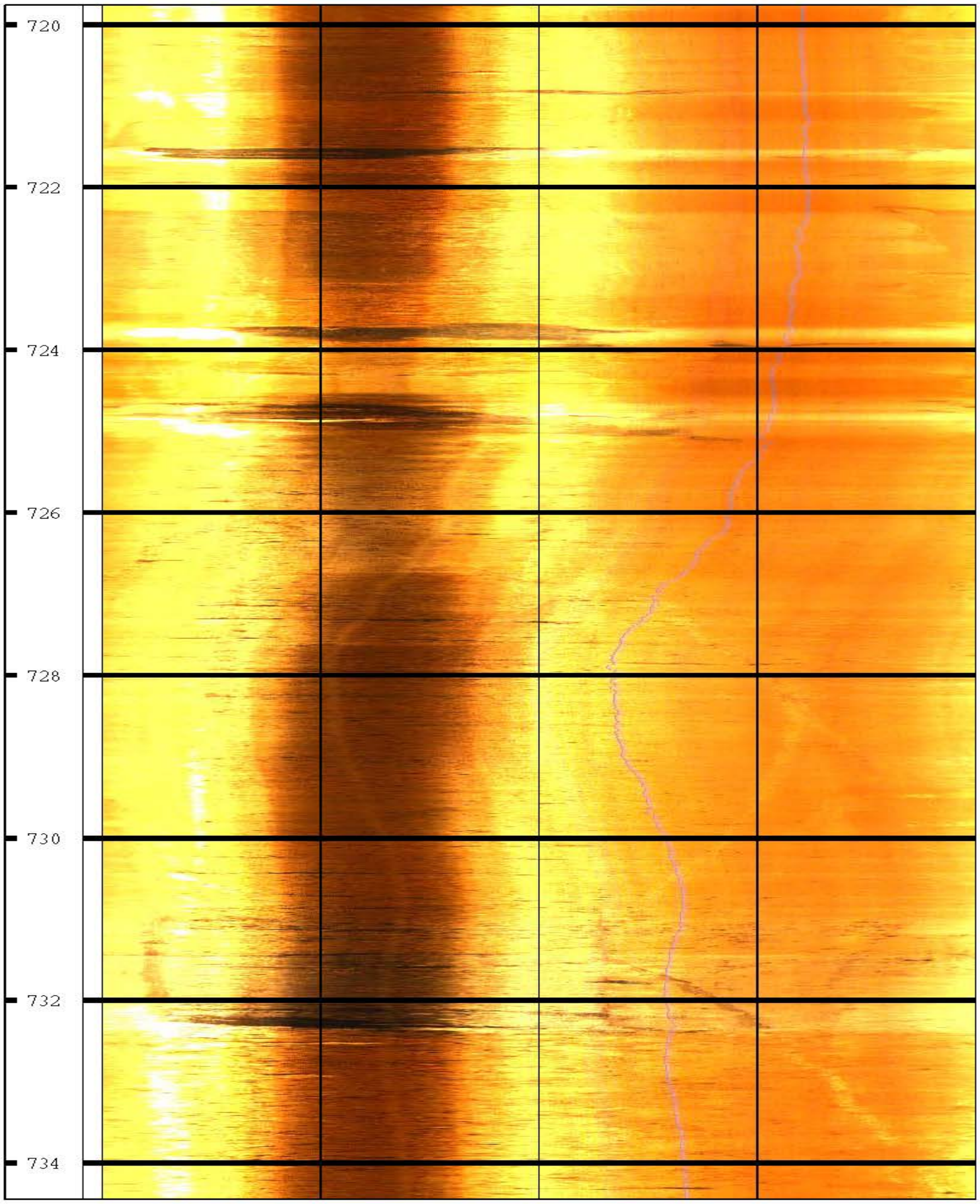

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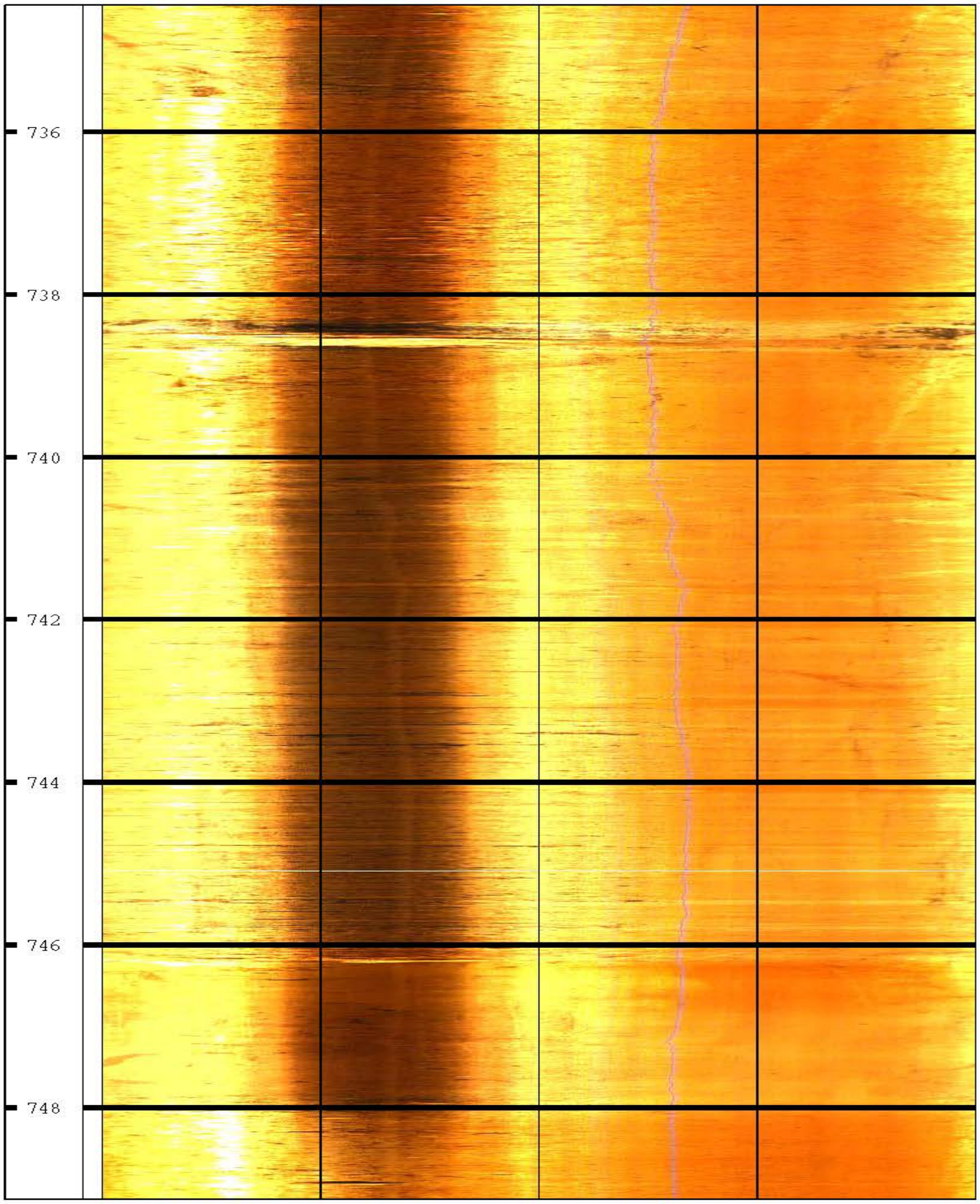

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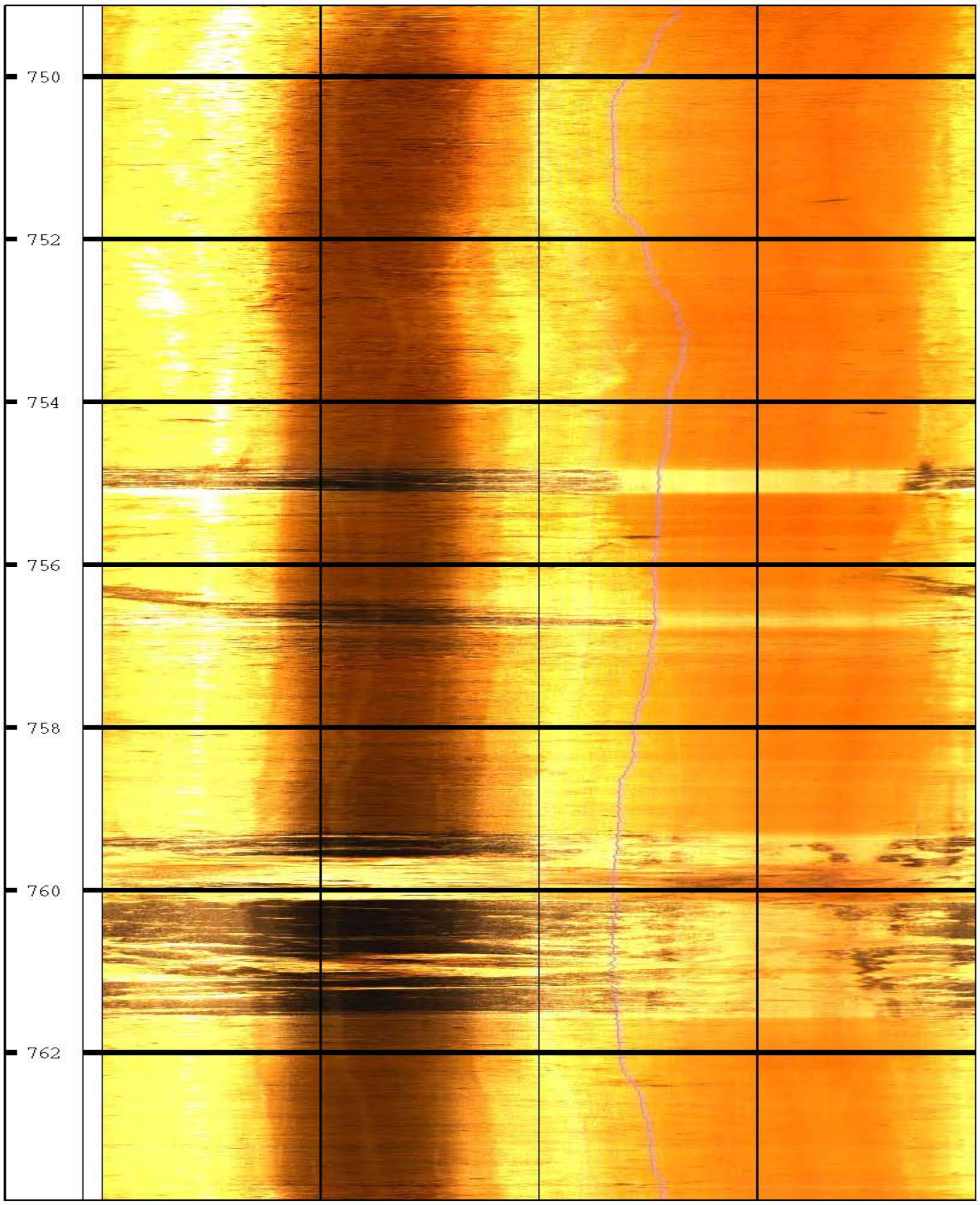

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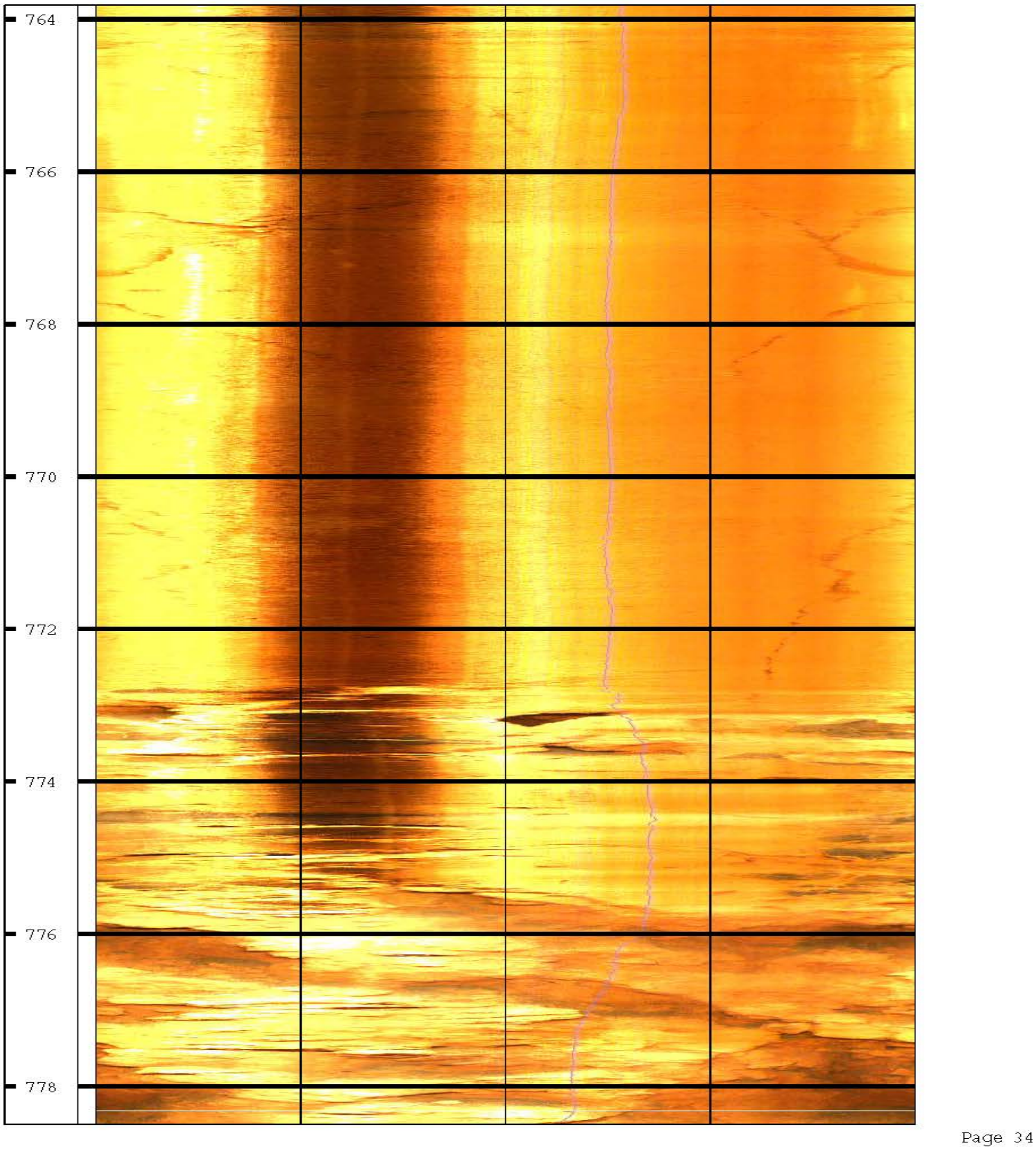
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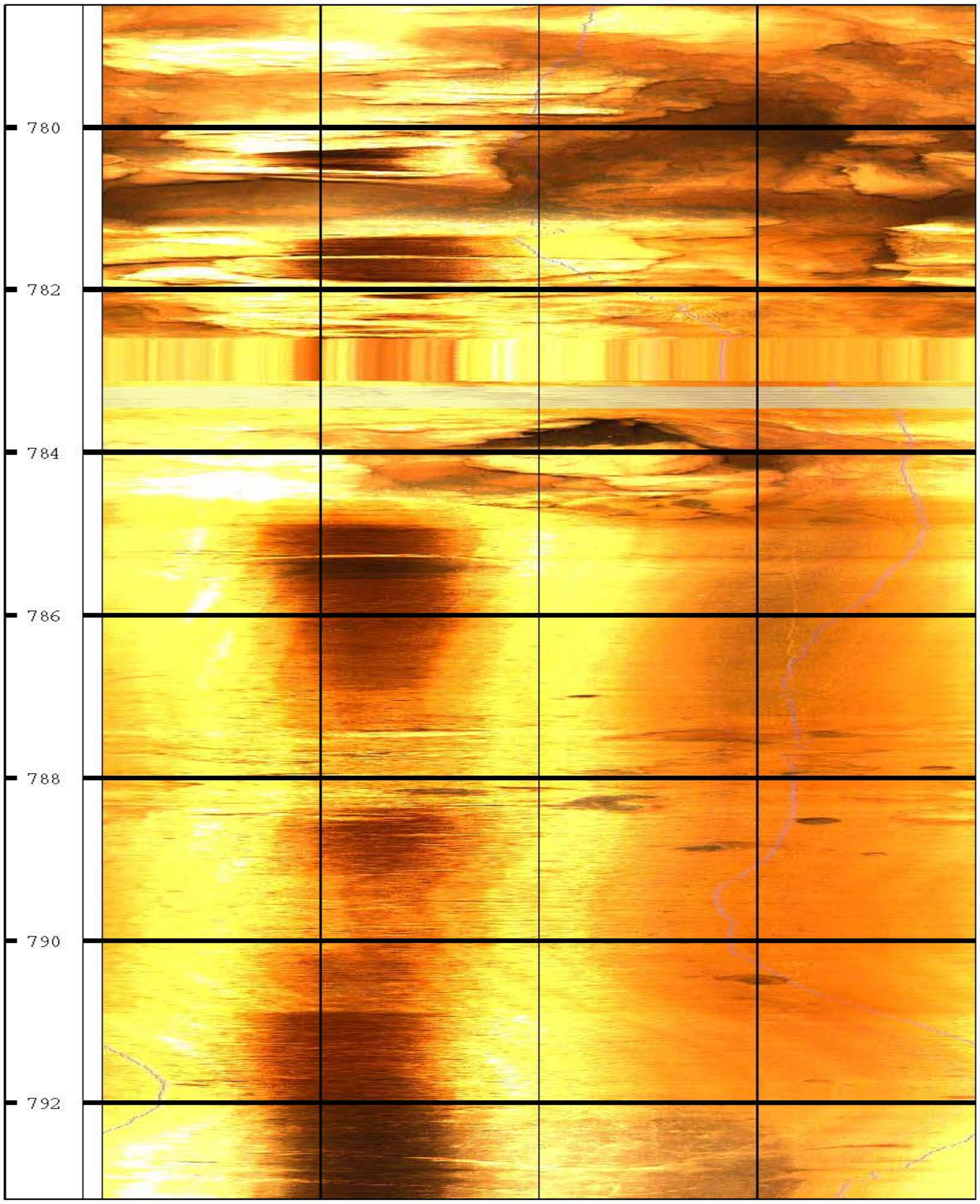

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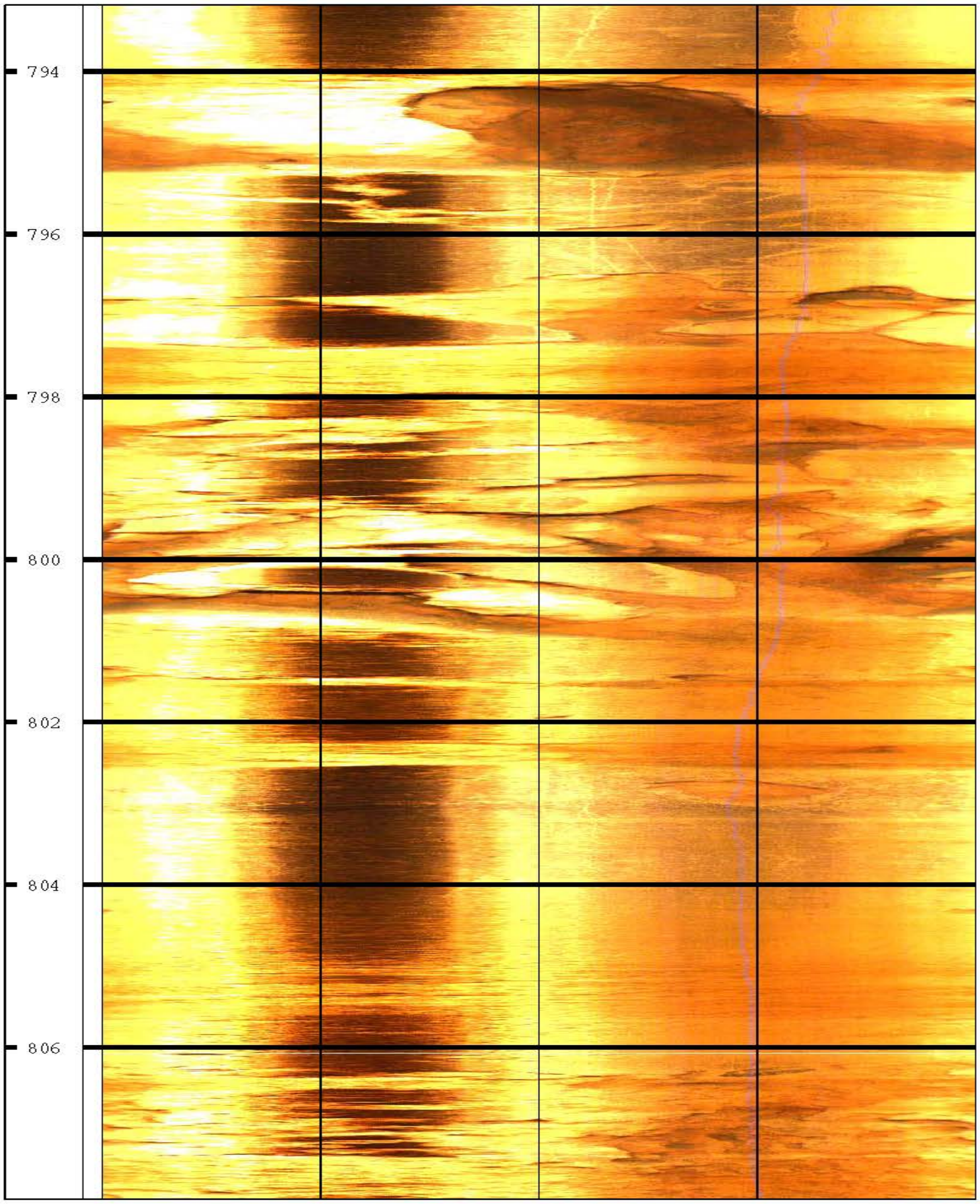

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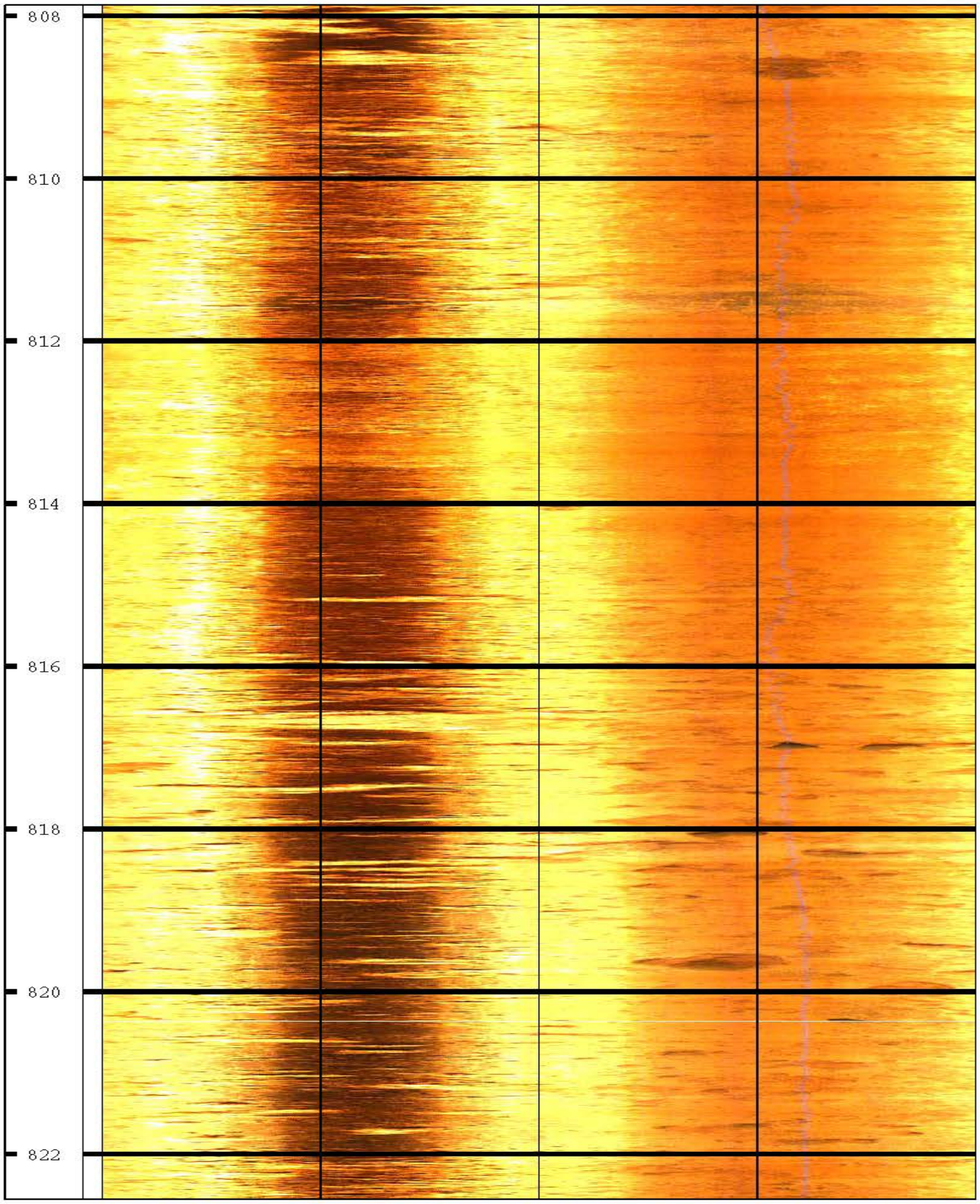

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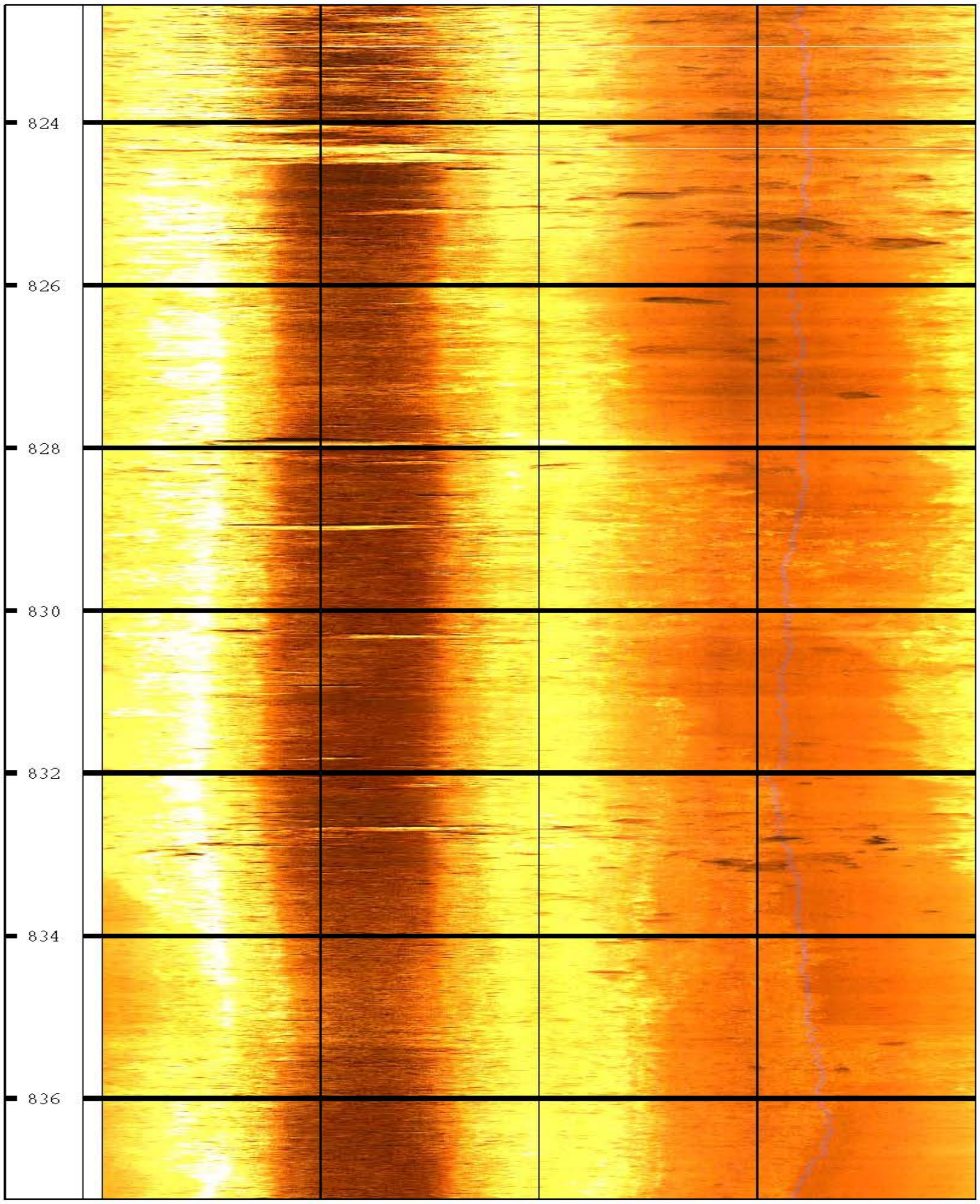

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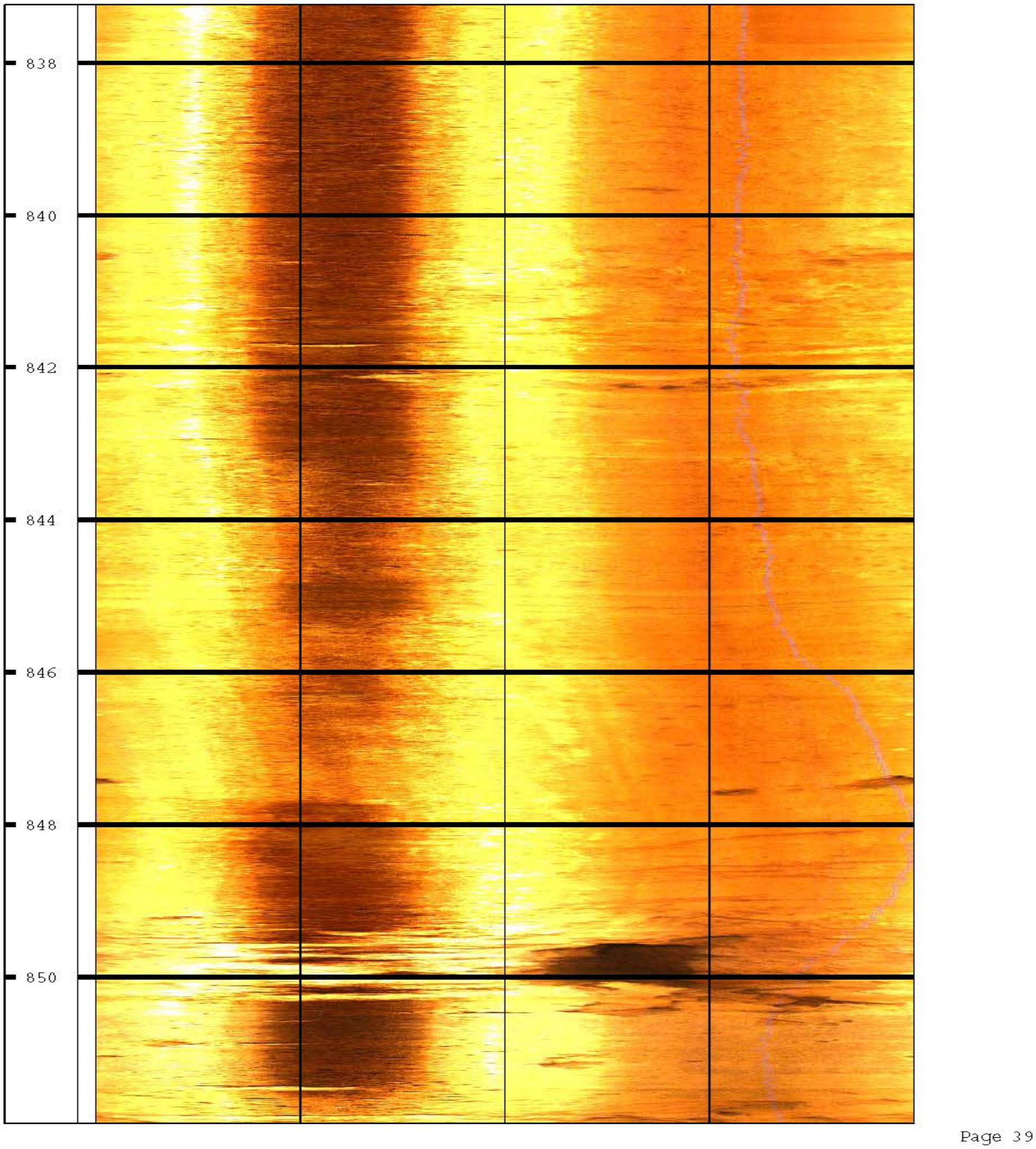
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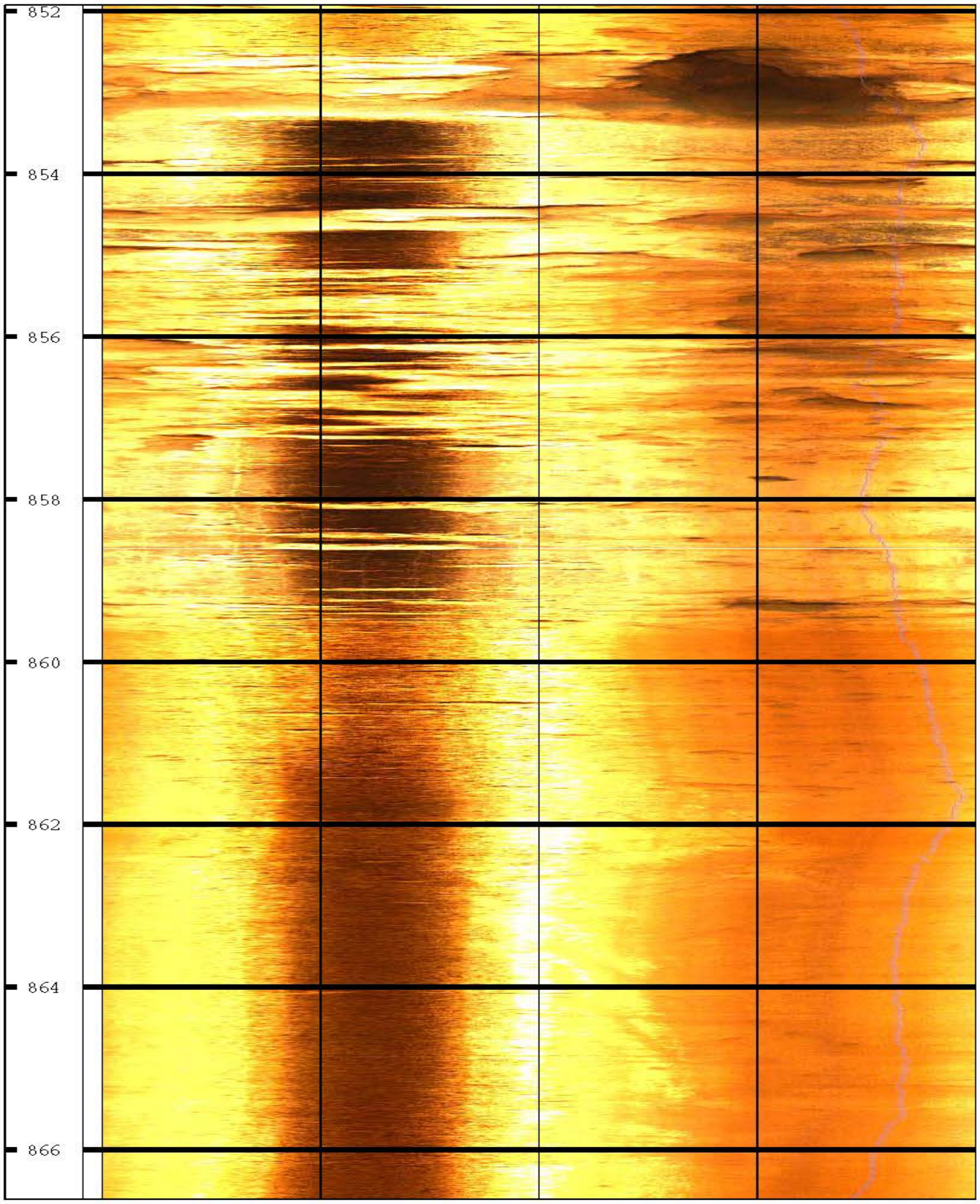

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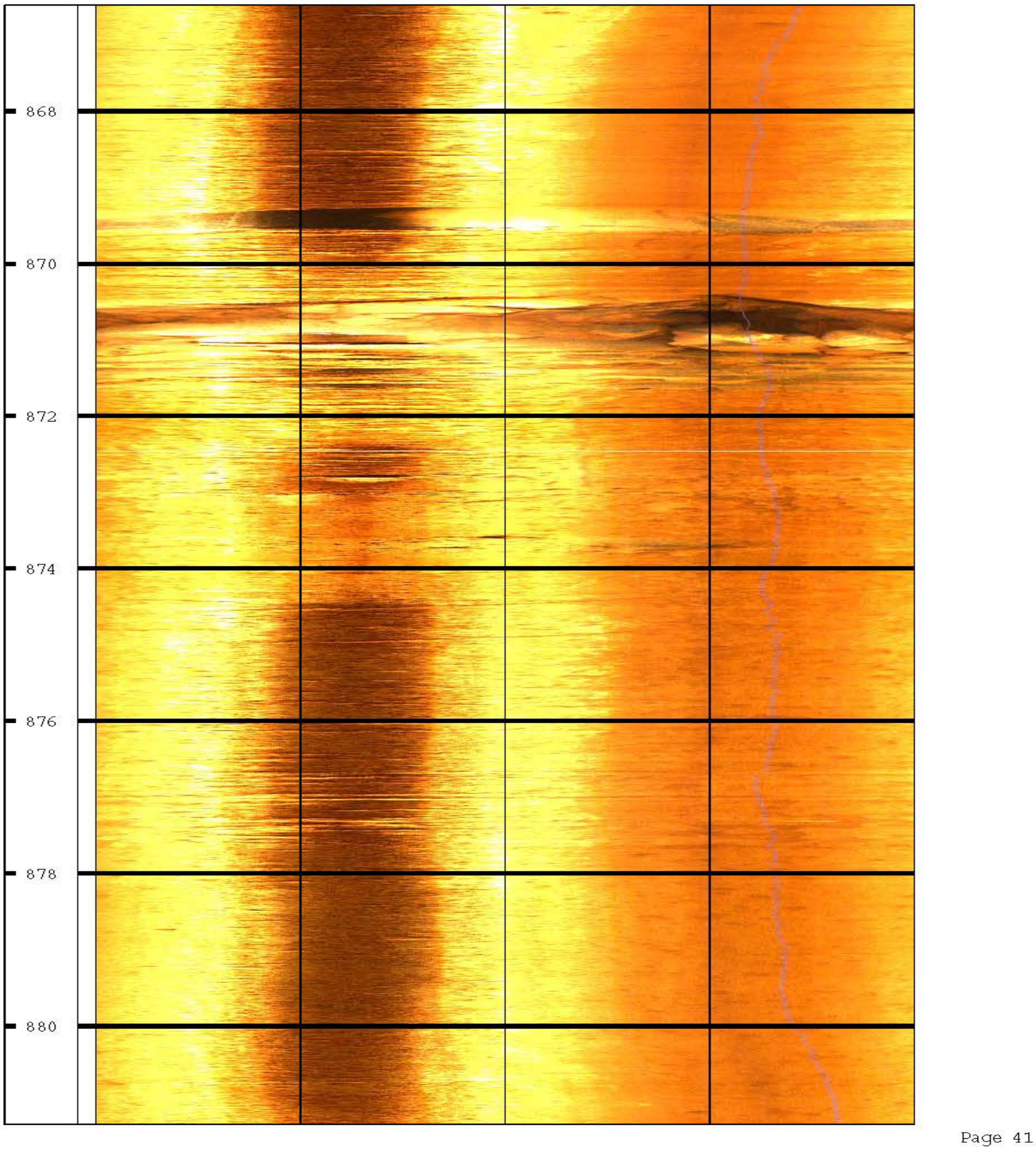
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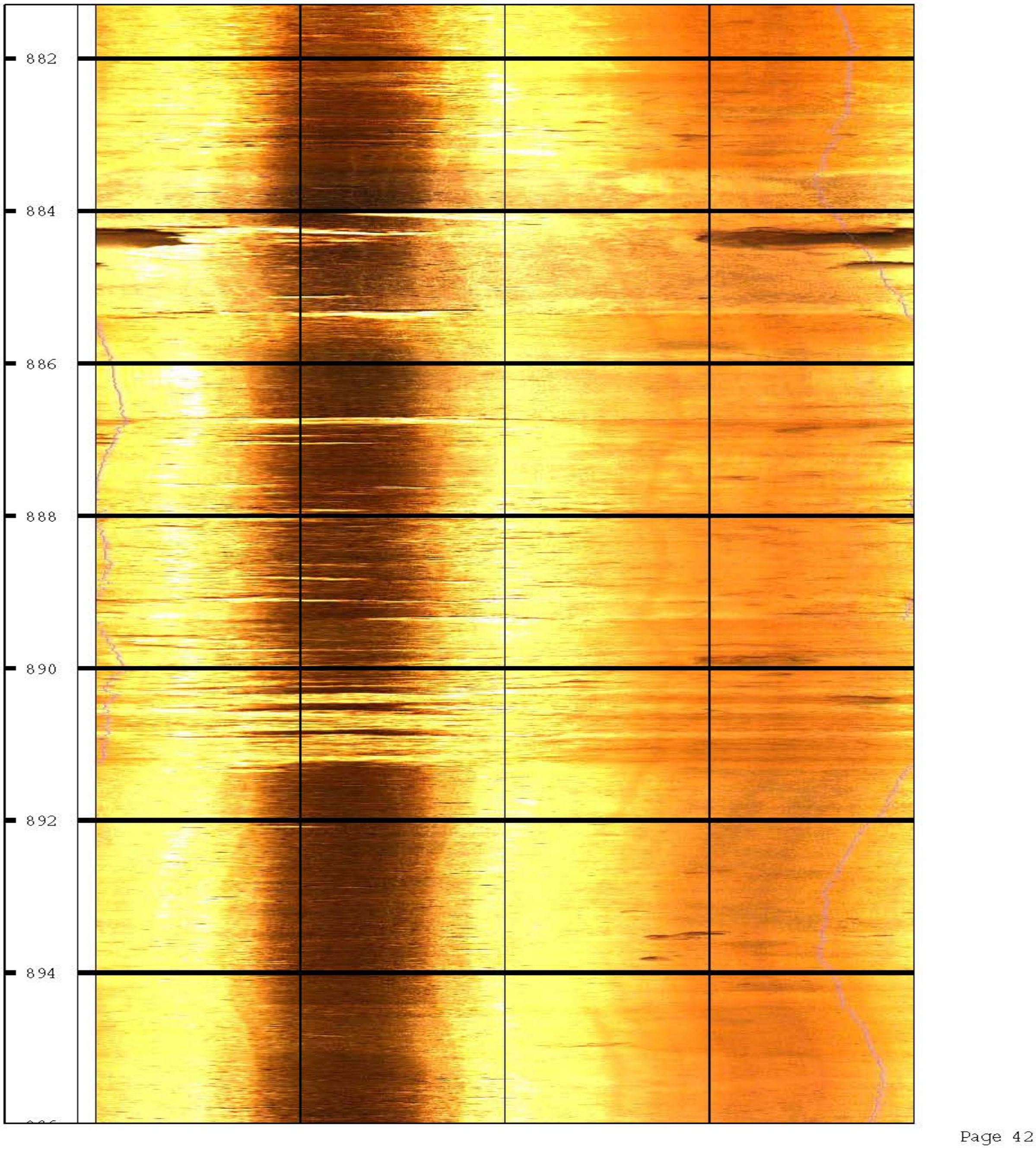
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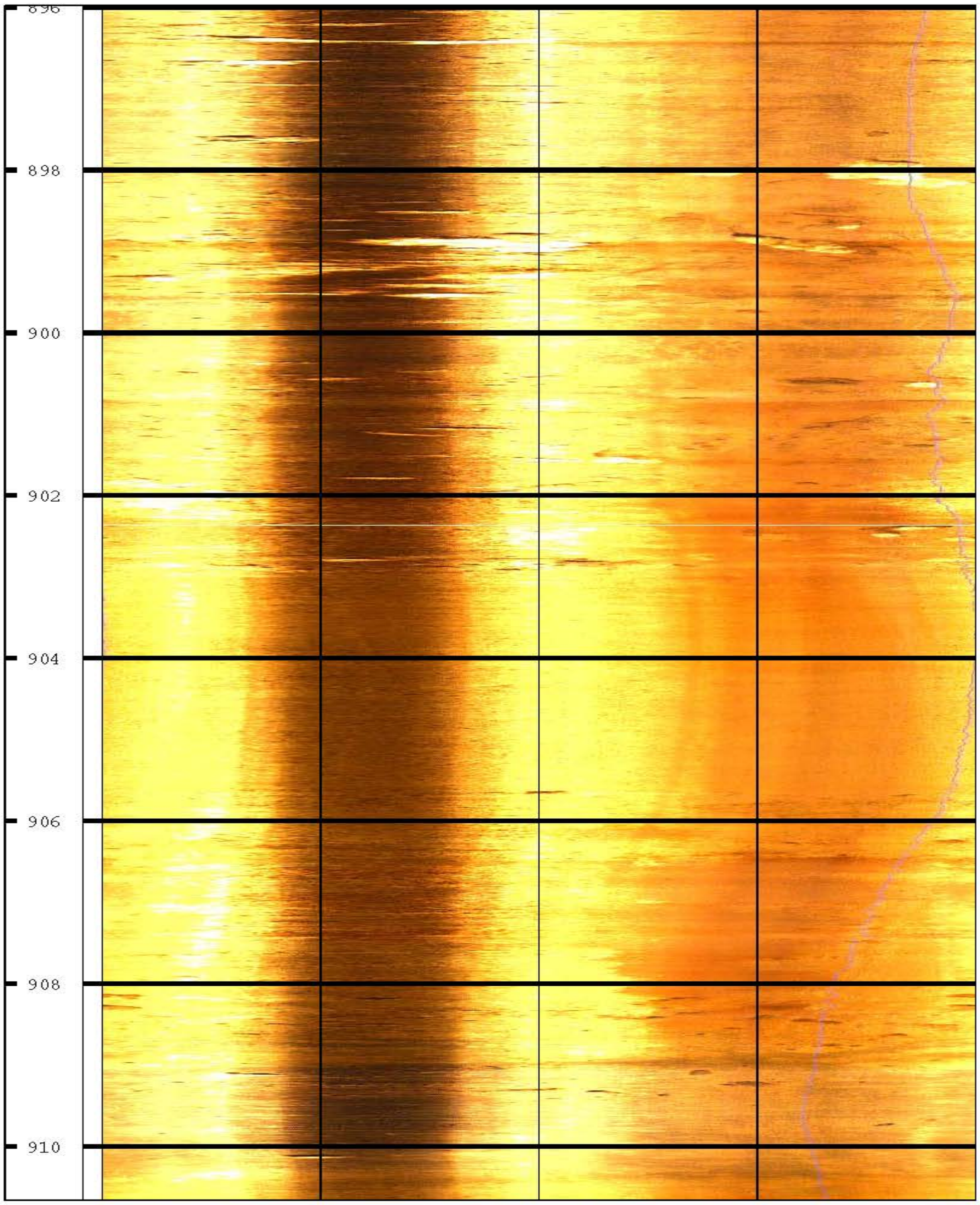

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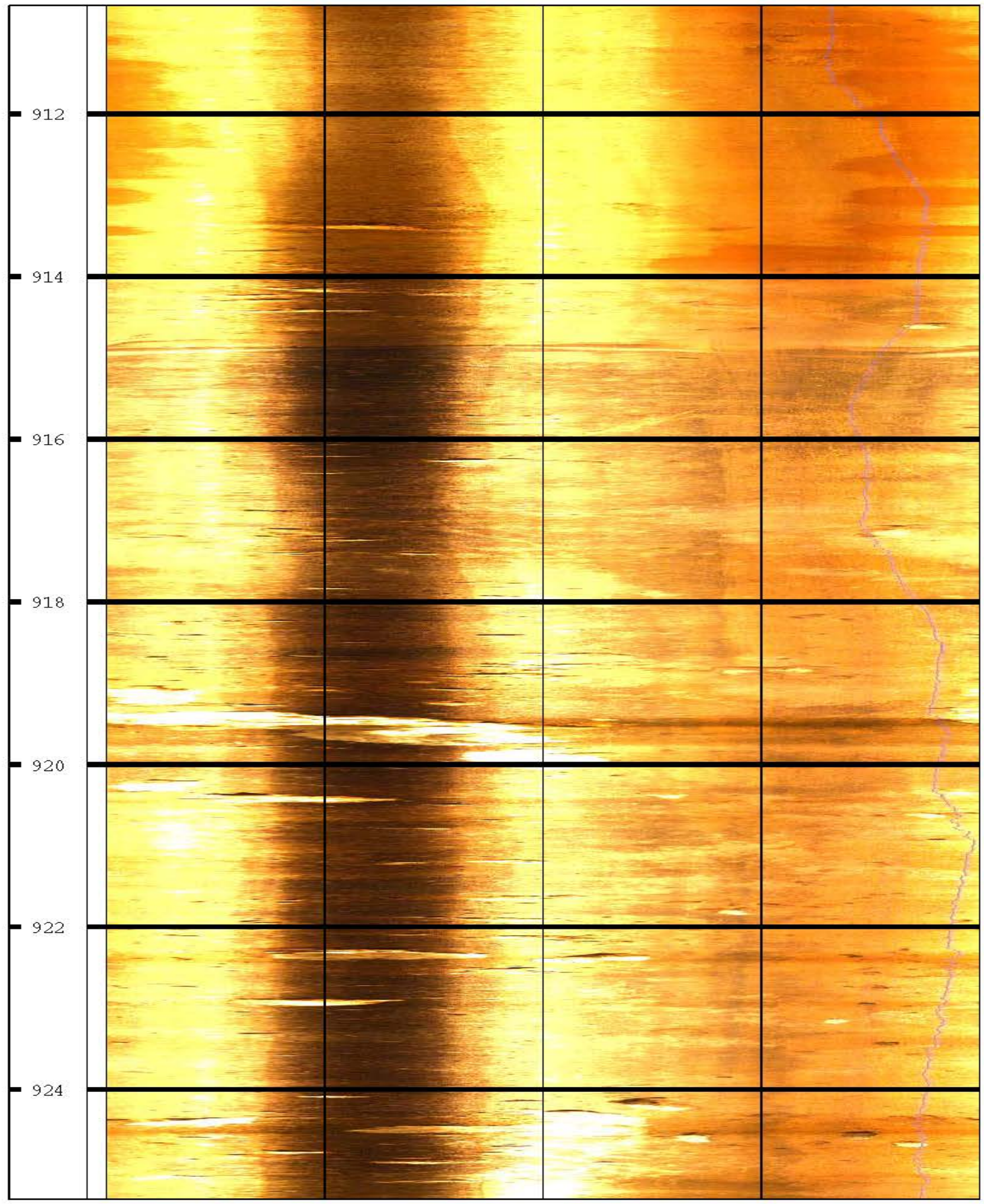

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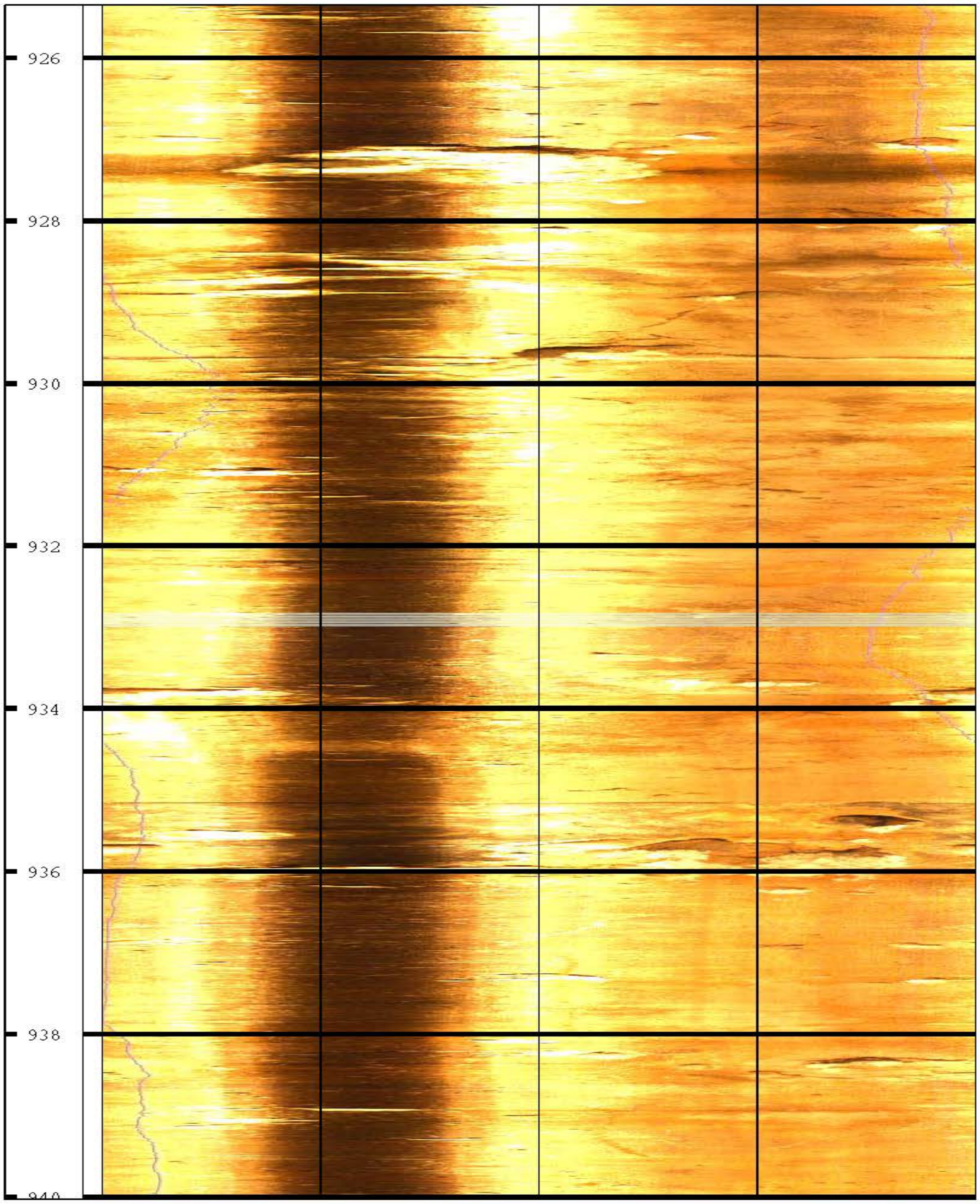

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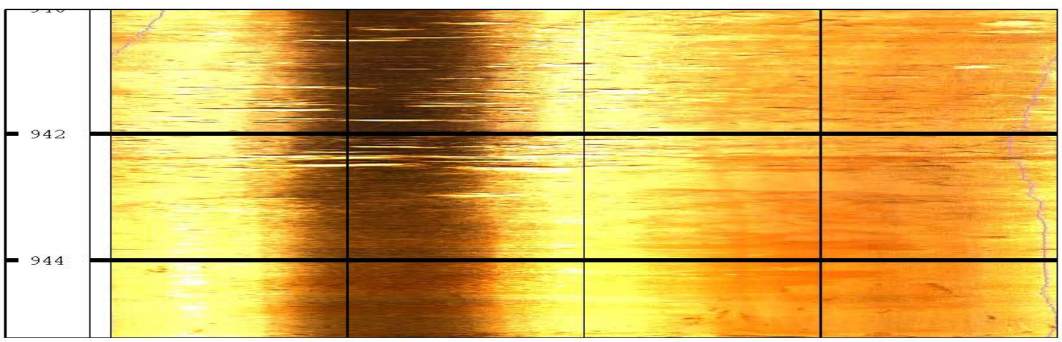

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APPENDIX B

LITHOLOGY AND GEOPHYSICAL LOGS

Station Info			
Well Number :	W-19496	Station Name : P-0304	Station Id : 444364
County :	Putnam	Location : T. 9S R.24E S.18	Elevation DEM : 88.698
Latitude :	29D 42M 50S	Longitude : 81D 56M 29S	Originator Elevation :
UTM (x, y):	408930.437, 3287478.149		No. of Samples : 155
Owner :	SJRWMD		
Driller :			
Total Depth :	1400	Sample Interval From : 4	Sample Interval To : 1400
Worked By:			Completion Date:

Litho Strata Details

Depth Value	Strata Code	StrataDetails
4	090UDSC	Undifferentiated Sand and Clay (Formation/Unit) -->Pliestocene (Series) -->Quaternary (System) -->Cenozoic (Erathem)
49	122HTRN	Hawthorn Gp. (Group) -->Oligocene-Miocene (Series) -->Tertiary (System) -->Cenozoic (Erathem)
159	124OCAL	Ocala Ls. (Group) -->Eocene (Series) -->Tertiary (System) -->Cenozoic (Erathem)
261	124AVPK	Avon Park Fm. (Formation/Unit) -->Eocene (Series) -->Tertiary (System) -->Cenozoic (Erathem)
908	124OLDM	Oldsmar Fm. (Formation/Unit) -->Eocene (Series) -->Tertiary (System) -->Cenozoic (Erathem)

	Bottom	Litho Data Description
4	6	Rock Type :Sand; To yellowish gray_5Y 8/1_86 Porosity :Intergranular Sand Properties :GRAIN SIZE: Medium RANGE:Medium To Very Coarse ROUNDNESS :Sub-Angular To Rounded; Medium SPHERICITY Induration:Unconsolidated Cement :Clay Matrix Accessory Minerals :Clay-3%, Heavy Minerals-1% Sample Type :Split Spoon
9	11	Rock Type :Sand;yellowish gray_5Y 8/1_86 Porosity :Intergranular Sand Properties :GRAIN SIZE: Medium RANGE:Medium To Very Coarse ROUNDNESS :Sub-Angular To Rounded; Medium SPHERICITY Induration:Unconsolidated Cement :Clay Matrix Accessory Minerals :Clay-5%, Heavy Minerals-1% Sample Type :Split Spoon
14	16	Rock Type :Sand;yellowish gray_5Y 8/1_86 To very light gray_N8_77 Porosity :Intergranular Sand Properties :GRAIN SIZE: Coarse RANGE:Medium To Granular ROUNDNESS :Sub-Angular To Rounded; Medium SPHERICITY Induration:Unconsolidated Cement :Clay Matrix Accessory Minerals :Clay-3%, Heavy Minerals-<1% Sample Type :Split Spoon
19	21	Rock Type :Sand;yellowish gray_5Y 8/1_86 To very light gray_N8_77 Porosity :Intergranular

Sand Properties :GRAIN SIZE: Coarse RANGE:Medium To Gravel ROUNDNESS :Sub-Angular To Rounded; Medium SPHERICITY

Induration:Unconsolidated

Cement :Clay Matrix

Accessory Minerals :Clay-3%, Heavy Minerals-<1%

Sample Type :Split Spoon

24 26 Rock Type :Sand;yellowish gray_5Y 8/1_86 To very light gray_N8_77

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Medium To Gravel ROUNDNESS :Sub-Angular To Rounded; Medium SPHERICITY

Induration:Unconsolidated

Cement :Clay Matrix

Accessory Minerals :Clay-3%, Heavy Minerals-1%

Sample Type :Split Spoon

29 31 Rock Type :Sand;yellowish gray_5Y 8/1_86 To very light gray_N8_77

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Coarse RANGE:Fine To Gravel ROUNDNESS :Sub-Angular To Well Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix

Accessory Minerals :Clay-7%, Heavy Minerals-<1%

Sample Type :Split Spoon

34 36 Rock Type :Sand;white_N9_76 To yellowish gray_5Y 8/1_86

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Gravel ROUNDNESS :Sub-Angular To Well Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix

Accessory Minerals :Clay-5%, Heavy Minerals-2%, Mica-1%

Sample Type :Split Spoon

39 41 Rock Type :Sand;white_N9_76 To yellowish gray_5Y 8/1_86

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Gravel ROUNDNESS :Sub-Angular To Well Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix

Accessory Minerals :Clay-5%, Heavy Minerals-2%, Mica-1%

Sample Type :Split Spoon

44 46 Rock Type :Sand;pale yellowish orange_10YR 8/6_35

Porosity :Intergranular
Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY
Induration:Poor
Cement :Clay Matrix
Accessory Minerals :Clay-10%, Phosphatic Sand-3%, Iron Stain-1%
General Fossils :Sharks Teeth
Sample Type :Split Spoon

49 51 Rock Type :Sand;yellowish gray_5Y 8/1_86
Porosity :Intergranular
Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY
Induration:Poor
Cement :Clay Matrix
Accessory Minerals :Clay-15%, Phosphatic Sand-7%, Phosphatic Gravel-3%, Silt Size Dolomite-5%
Sample Type :Split Spoon

54 56 Rock Type :Sand;yellowish gray_5Y 8/1_86
Porosity :Intergranular
Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Gravel ROUNDNESS :Sub-Angular To Well Rounded; Medium SPHERICITY
Induration:Poor
Cement :Clay Matrix
Accessory Minerals :Clay-15%, Phosphatic Sand-7%, Phosphatic Gravel-3%, Silt Size Dolomite-5%
Sample Type :Split Spoon

59 61 Rock Type :Sand;yellowish gray_5Y 8/1_86 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular
Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY
Induration:Poor
Cement :Clay Matrix
Accessory Minerals :Clay-15%, Phosphatic Sand-5%, Silt Size Dolomite-5%
Sample Type :Split Spoon

64 66 Rock Type :Sand;yellowish gray_5Y 8/1_86 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular
Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY
Induration:Poor
Cement :Clay Matrix
Accessory Minerals :Clay-15%, Phosphatic Sand-5%, Silt Size Dolomite-5%

Sample Type :Split Spoon

69	71	Rock Type :No Sample; Sample Type :Split Spoon
74	76	Rock Type :Clay;yellowish gray_5Y 7/2_37 To yellowish gray_5Y 8/1_86 Porosity :Intergranular Induration:Poor Cement :Clay Matrix, Dolomite Accessory Minerals :Quartz Sand-15%, Phosphatic Sand-10%, Silt Size Dolomite-15% Sample Type :Split Spoon
79	81	Rock Type :Sand;yellowish gray_5Y 8/1_86 To dark yellowish brown_10YR 4/2_31 Porosity :Intergranular Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY Induration:Poor Cement :Clay Matrix, Dolomite Accessory Minerals :Clay-15%, Silt Size Dolomite-20%, Phosphatic Sand-3% General Fossils :Fossil Fragments Sample Type :Split Spoon
84	86	Rock Type :Sand;yellowish gray_5Y 8/1_86 To dark yellowish brown_10YR 4/2_31 Porosity :Intergranular Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Rounded; Medium SPHERICITY Induration:Poor Cement :Clay Matrix, Dolomite Accessory Minerals :Clay-5%, Silt Size Dolomite-7%, Phosphatic Sand-3% Sample Type :Split Spoon
89	91	Rock Type :Sand;yellowish gray_5Y 8/1_86 To dark yellowish brown_10YR 4/2_31 Porosity :Intergranular Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY Induration:Poor Cement :Clay Matrix, Dolomite Accessory Minerals :Clay-7%, Silt Size Dolomite-10%, Phosphatic Sand-5% Sample Type :Split Spoon
94	96	Rock Type :Sand;yellowish gray_5Y 7/2_37 Porosity :Intergranular Sand Properties :GRAIN SIZE: Fine RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix, Dolomite

Accessory Minerals :Clay-5%, Silt Size Dolomite-7%, Phosphatic Sand-3%

Sample Type :Split Spoon

99 101 Rock Type :No Sample;

Sample Type :Split Spoon

104 106 Rock Type :Sand;yellowish gray_5Y 8/1_86

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix, Dolomite

Accessory Minerals :Clay-5%, Silt Size Dolomite-3%, Phosphatic Sand-3%, Phosphatic Gravel-1%

General Fossils :Fossil Fragments

Sample Type :Split Spoon

109 111 Rock Type :Sand;white_N9_76 To yellowish gray_5Y 8/1_86

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Unconsolidated

Cement :Clay Matrix

Accessory Minerals :Clay-3%, Heavy Minerals-1%

Sample Type :Split Spoon

114 116 Rock Type :Sand;white_N9_76 To yellowish gray_5Y 8/1_86

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Unconsolidated

Cement :Clay Matrix

Accessory Minerals :Clay-3%, Heavy Minerals-<1%

Sample Type :Split Spoon

119 121 Rock Type :Sand;yellowish gray_5Y 8/1_86 To white_N9_76

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix, Dolomite

Accessory Minerals :Clay-20%, Silt Size Dolomite-3%, Heavy Minerals-1%, Phosphatic Sand-<1%

Sample Type :Split Spoon

124 126 Rock Type :Sand;yellowish gray_5Y 8/1_86 To white_N9_76

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix, Dolomite

Accessory Minerals :Clay-20%, Silt Size Dolomite-3%, Heavy Minerals-1%, Phosphatic Sand-<1%

Sample Type :Split Spoon

129 131 Rock Type :Sand;yellowish gray_5Y 8/1_86 To white_N9_76

Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Poor

Cement :Clay Matrix, Dolomite

Accessory Minerals :Clay-20%, Silt Size Dolomite-3%, Heavy Minerals-1%, Phosphatic Sand-<1%

Sample Type :Split Spoon

134 136 Rock Type :Clay;dark yellowish orange_10YR 6/6_36 To white_N9_76

Porosity :Intergranular

Induration:Poor

Cement :Clay Matrix

Accessory Minerals :Phosphatic Gravel-15%, Quartz Sand-15%, Heavy Minerals-<1%

Other Features :Clay - Soft

Sample Type :Split Spoon

139 141 Rock Type :Phosphate;white_N9_76 To dark yellowish orange_10YR 6/6_36

Porosity :Intergranular

Accessory Minerals :Clay-30%, Quartz Sand-5%, Mica-<1%

Other Features :Clay - Soft

Sample Type :Split Spoon

144 146 Rock Type :Clay;white_N9_76

Porosity :Intergranular

Induration:Poor

Cement :Clay Matrix

Accessory Minerals :Quartz Sand-3%, Phosphatic Sand-3%, Phosphatic Gravel-10%, Mica-2%

Sample Type :Split Spoon

149 151 Rock Type :Phosphate;white_N9_76
Porosity :Intergranular
Induration:Poor
Cement :Clay Matrix
Accessory Minerals :Clay-15%, Mica-1%, Quartz Sand-2%, Phosphatic Sand-2%
Sample Type :Split Spoon

154 156 Rock Type :Sand;yellowish gray_5Y 8/1_86
Porosity :Intergranular
Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Very Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY
Induration:Unconsolidated
Cement :Clay Matrix
Accessory Minerals :Clay-5%, Phosphatic Gravel-5%, Phosphatic Sand-1%
Sample Type :Split Spoon

159 161 Rock Type :Packstone;white_N9_76
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Calcilutite , Skeletal GRAIN SIZE :Medium
Induration:Poor
Cement :Calcilutite Matrix, Phosphate
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Split Spoon

164 166 Rock Type :No Sample;
Sample Type :Split Spoon

169 171 Rock Type :Packstone;white_N9_76
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Calcilutite , Skeletal GRAIN SIZE :Medium
Induration:Poor
Cement :Calcilutite Matrix, Phosphate
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Split Spoon

180 183 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Low Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks, Fossil Molds
Index Fossils :Nummulites ocalanus (Ocala Ls.)
Sample Type :Core

183 186 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid
Sample Type :Core

186 190 Rock Type :Packstone;white_N9_76
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Coarse
Induration:Poor
Cement :Calcilutite Matrix, Phosphate
General Fossils :Fossil Fragments, Mollusks
Sample Type :Core

190 200 Rock Type :Packstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel
Induration:Poor
Cement :Sparry Calcite, Phosphate
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

200 205 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks
Sample Type :Core

205 210 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel

Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks
Sample Type :Core

210 215 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks
Sample Type :Core

215 217 Rock Type :Packstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Echinoid, Benthic Foraminifera
Sample Type :Core

217 220 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks
Sample Type :Core

220 226 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Gravel
Induration:Poor
Cement :Sparry Calcite, Phosphate, Calcilutite Matrix
Other Features :Low Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks
Index Fossils :Nummulites floridensis (Ocala Ls.)
Sample Type :Core

226 230 Rock Type :Packstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Phosphate, Calcilutite Matrix
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks
Sample Type :Core

230 235 Rock Type :Packstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%, Iron Stain-<1%
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Echinoid, Benthic Foraminifera, Mollusks
Index Fossils :Amphistegina pinarensis cosdeni (Ocala Ls.)
Sample Type :Core

235 240 Rock Type :Packstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%, Iron Stain-<1%
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Echinoid, Benthic Foraminifera, Mollusks
Index Fossils :Amphistegina pinarensis cosdeni (Ocala Ls.)
Sample Type :Core

240 245 Rock Type :Grainstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Peloids GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%, Iron Stain-<1%
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Echinoid, Benthic Foraminifera, Mollusks

Sample Type :Core

245 248 Rock Type :Packstone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Moldic
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Skeletal Cast GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Mollusks, Miliolids, Echinoid, Fossil Molds
Sample Type :Core

248 250 Rock Type :Grainstone;very pale orange_10YR 8/2_29 To white_N9_76
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Peloids GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Echinoid, Benthic Foraminifera, Bryozoa
Index Fossils :Amphistegina pinarensis cosdeni (Ocala Ls.) , Sphaerogypsina globulus (Ocala Ls.)
Sample Type :Core

250 255 Rock Type :Grainstone;very pale orange_10YR 8/2_29 To white_N9_76
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Peloids GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Mollusks, Benthic Foraminifera, Bryozoa
Index Fossils :Sphaerogypsina globulus (Ocala Ls.)
Sample Type :Core

255 258 Rock Type :Packstone;very pale orange_10YR 8/2_29 To white_N9_76
Porosity :Intergranular,Intragranular,Moldic
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Fossil Molds, Mollusks, Miliolids, Bryozoa
Sample Type :Core

258 261 Rock Type :Grainstone;very pale orange_10YR 8/2_29 To white_N9_76
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Peloids GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Phosphate
Accessory Minerals :Pyrite-<1%
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Mollusks, Fossil Molds
Sample Type :Core

261 265 Rock Type :Wackestone;very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Crystals GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite, Phosphate
Sediment Structures:Burrowed
Accessory Minerals :Pyrite-<1%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Gastropods, Mollusks
Sample Type :Core

265 270 Rock Type :Wackestone;very pale orange_10YR 8/2_29 To white_N9_76
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Calcilutite , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Burrowed
Accessory Minerals :Pyrite-<1%, Iron Stain-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Gastropods
Sample Type :Core

270 274 Rock Type :Wackestone;very pale orange_10YR 8/2_29 To white_N9_76
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Calcilutite , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Burrowed
Accessory Minerals :Pyrite-<1%, Iron Stain-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Gastropods

Sample Type :Core

274 276 Rock Type :Wackestone;very pale orange_10YR 8/2_29 To white_N9_76
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Calcilutite , Skeletal Cast GRAIN SIZE :Coarse
Induration:Poor
Cement :Calcilutite Matrix, Dolomite
Accessory Minerals :Dolomite-10%, Pyrite-<1%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Fossil Molds
Sample Type :Core

276 277 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sample Type :Core

277 278 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated, Bedded
Accessory Minerals :Calcite-2%
General Fossils :Fossil Molds
Sample Type :Core

278 280 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sample Type :Core

280 282 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sample Type :Core

282 285 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Sparry Calcite
Sample Type :Core

285 286 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Very Coarse
Accessory Minerals :Dolomite-5%
Other Features :Low Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Miliolids, Cones
Sample Type :Core

286 288 Rock Type :No Sample;
Sample Type :Core

288 290 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Very Fine
Induration:Moderate
Cement :Sparry Calcite
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Gastropods, Echinoid, Cones, Fossil Molds
Sample Type :Core

290 291 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Accessory Minerals :Limestone-15%
Other Features :Calcareous
General Fossils :Fossil Molds

Sample Type :Core

291 292 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Sample Type :Core

292 296 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Skeletal Cast GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-7%
Other Features :Low Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Echinoid, Miliolids
Sample Type :Core

296 297 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks, Gastropods
Sample Type :Core

297 297 Rock Type :No Sample;
Sample Type :Core

297 298 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

298 300 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Coarse
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds
Sample Type :Core

300 303 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Mollusks, Miliolids, Bryozoa
Sample Type :Core

303 303.5 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Pin Point Vugs,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Medium
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

303.5 304 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Intergranular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Laminated, Interbedded
Accessory Minerals :Limestone-10%
Other Features :Calcareous
General Fossils :Fossil Fragments
Sample Type :Core

304 306 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Gastropods, Echinoid, Fossil Molds

Sample Type :Core

306 306.5 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Crystals GRAIN SIZE :Medium
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Fossil Molds
Sample Type :Core

306.5 307 Rock Type :Limestone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Crystals GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix, Dolomite
Accessory Minerals :Dolomite-5%
Other Features :Low Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Fossil Molds, Echinoid, Gastropods
Sample Type :Core

307 308 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite, Sparry Calcite
Sediment Structures:Bioturbated
Accessory Minerals :Limestone-25%
Other Features :Low Recrystallization, Calcareous
General Fossils :Fossil Fragments, Echinoid
Sample Type :Core

308 308.5 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Medium
Induration:Moderate
Cement :Dolomite
General Fossils :Fossil Molds
Sample Type :Core

308.5 309 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Pin Point Vugs,Fracture
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

309 311 Rock Type :Dolostone;
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Very Coarse
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds, Gastropods, Mollusks
Sample Type :Core

311 314 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs,Fracture
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Limestone-2%
General Fossils :Fossil Fragments, Fossil Molds
Sample Type :Core

314 316 Rock Type :Dolostone;
Porosity :Moldic,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Iron Stain-<1%
General Fossils :Fossil Molds, Gastropods, Mollusks, Echinoid
Sample Type :Core

316 317 Rock Type :No Sample;
Sample Type :Core

317 319 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Fracture

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds, Gastropods, Mollusks

Sample Type :Core

319 320 Rock Type :Dolostone; To very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Coarse

Induration:Moderate

Cement :Dolomite

Sediment Structures:Interbedded

General Fossils :Fossil Molds

Sample Type :Core

320 322 Rock Type :Dolostone;pale yellowish orange_10YR 8/6_35 To very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Fracture,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds, Mollusks

Sample Type :Core

322 325 Rock Type :Dolostone; To very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds

Sample Type :Core

325 326 Rock Type :Dolostone; To white_N9_76

Porosity :Intercrystalline,Fracture,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Accessory Minerals :Gypsum-1%

General Fossils :Fossil Molds

Sample Type :Core

326 329 Rock Type :Dolostone;

Porosity :Intercrystalline,Fracture,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Interbedded

Accessory Minerals :Calcite-1%, Iron Stain-<1%

General Fossils :Fossil Molds

Sample Type :Core

329 330 Rock Type :Dolostone;

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Interbedded

General Fossils :Fossil Molds

Sample Type :Core

330 331 Rock Type :Dolostone;

Porosity :Intercrystalline,Pin Point Vugs,Fracture

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Streaked

General Fossils :Fossil Molds

Sample Type :Core

331 335 Rock Type :Dolostone; To very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Moderate

Cement :Dolomite

Sediment Structures:Interbedded

Accessory Minerals :Calcite-<1%

General Fossils :Fossil Molds

Sample Type :Core

335 339 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs,Fracture
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds
Sample Type :Core

339 340 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Mottled
Accessory Minerals :Limestone-15%, Calcite-2%
General Fossils :Fossil Molds, Mollusks, Gastropods
Sample Type :Core

340 341 Rock Type :Wackestone;white_N9_76 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Calcilutite,Skeletal Cast , Crystals GRAIN SIZE :Medium
Induration:Moderate
Cement :Calcilutite Matrix
Sediment Structures:Bioturbated
Accessory Minerals :Calcite-1%, Iron Stain-<1%
Other Features :Low Recrystallization
General Fossils :Fossil Molds
Sample Type :Core

341 342 Rock Type :Limestone;yellowish gray_5Y 8/1_86 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Pin Point Vugs,Moldic
LimeStone Properties :GRAIN TYPE : Calcilutite,Crystals , Biogenic GRAIN SIZE :Medium
Induration:Moderate
Cement :Calcilutite Matrix, Sparry Calcite
Accessory Minerals :Clay-1%, Calcite-3%, Iron Stain-<1%
Other Features :Medium Recrystallization, Weathered
General Fossils :Fossil Molds
Sample Type :Core

342 343 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds
Sample Type :Core

343 345 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Banded
General Fossils :Fossil Molds, Gastropods, Mollusks
Sample Type :Core

345 346 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

346 347 Rock Type :No Sample;
Sample Type :Core

347 349 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
Accessory Minerals :Calcite-1%
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

349 350 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Banded
General Fossils :Fossil Molds
Sample Type :Core

350	351	Rock Type :Dolostone; To very pale orange_10YR 8/2_29 Porosity :Intercrystalline,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Fine Induration:Moderate Cement :Dolomite General Fossils :Fossil Molds Sample Type :Core
351	355	Rock Type :Dolostone;very pale orange_10YR 8/2_29 Porosity :Intercrystalline,Moldic,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine Induration:Moderate Cement :Dolomite Accessory Minerals :Pyrite-<1% General Fossils :Fossil Molds, Mollusks, Gastropods Sample Type :Core
355	356	Rock Type :Dolostone; Porosity :Intercrystalline,Intergranular Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Coarse Induration:Moderate Cement :Dolomite General Fossils :Fossil Fragments Sample Type :Core
356	356	Rock Type :Dolostone;very pale orange_10YR 8/2_29 Porosity :Intercrystalline,Moldic,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine Induration:Moderate Cement :Dolomite Accessory Minerals :Pyrite-<1%

General Fossils :Fossil Molds, Mollusks, Gastropods
Sample Type :Core

356 357 Rock Type :No Sample;
Sample Type :Core

357 359 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Pyrite-<1%
General Fossils :Fossil Molds, Mollusks, Gastropods
Sample Type :Core

359 360 Rock Type :Dolostone; To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Laminated
Accessory Minerals :Organics-3%
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

360 363 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks, Echinoid
Sample Type :Core

363 366 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Calcite-<1%
General Fossils :Fossil Molds, Mollusks, Echinoid, Gastropods

Sample Type :Core

366 368 Rock Type :No Sample;

Sample Type :Core

368 369 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Pin Point Vugs,Moldic

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Calcite-<1%

General Fossils :Fossil Molds, Mollusks, Echinoid, Gastropods

Sample Type :Core

369 371 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To white_N9_76

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Clay-2%

General Fossils :Fossil Molds, Mollusks

Sample Type :Core

371 371.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Banded

General Fossils :Fossil Molds

Sample Type :Core

371.5 375 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Moldic

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite, Sparry Calcite

Other Features :Calcareous

General Fossils :Fossil Molds, Mollusks, Gastropods

Sample Type :Core

375 377 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Other Features :Calcareous
General Fossils :Fossil Molds
Sample Type :Core

377 378 Rock Type :No Sample;
Sample Type :Core

378 378.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Other Features :Calcareous
General Fossils :Fossil Molds
Sample Type :Core

378.5 380 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Other Features :Calcareous
General Fossils :Fossil Molds, Mollusks, Gastropods, Miliolids
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

380 380.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite, Sparry Calcite
Other Features :Calcareous
Sample Type :Core

380.5 382 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To light olive gray_5Y 6/1_87
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Mottled
Accessory Minerals :Organics-<1%
Sample Type :Core

382 383 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Banded, Laminated
Accessory Minerals :Organics-<1%
General Fossils :Fossil Molds
Sample Type :Core

383 388 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Other Features :Calcareous
General Fossils :Fossil Molds, Mollusks, Gastropods
Sample Type :Core

388 390 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Other Features :Calcareous
General Fossils :Fossil Molds, Mollusks, Gastropods
Sample Type :Core

390 391 Rock Type :Sand;yellowish gray_5Y 8/1_86 To pale greenish yellow_10Y 8/2_45
Porosity :Intergranular

Sand Properties :GRAIN SIZE: Medium RANGE:Fine To Coarse ROUNDNESS :Sub-Angular To Sub-Rounded; Medium SPHERICITY

Induration:Unconsolidated

Cement :Calcilutite Matrix, Calcarenite

Accessory Minerals :Limestone-30%, Clay-3%, Heavy Minerals-<1%

Other Features :Calcareous, High Recrystallization

General Fossils :Fossil Molds

Sample Type :Core

Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
391 393 6/2_30

Porosity :Intercrystalline,Moldic

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite, Sparry Calcite

Sediment Structures:Interbedded

Accessory Minerals :Quartz Sand-10%, Clay-1%, Heavy Minerals-<1%

Other Features :Calcareous, High Recrystallization

General Fossils :Fossil Molds, Mollusks, Echinoid

Sample Type :Core

Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
393 395 6/2_30

Porosity :Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite

Sediment Structures:Laminated

Accessory Minerals :Clay-5%

Other Features :Muddy

Sample Type :Core

395 399 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Pin Point Vugs,Moldic

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Moderate

Cement :Dolomite

Sediment Structures:Bedded

General Fossils :Fossil Molds, Mollusks, Miliolids

Sample Type :Core

399 400 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds
Sample Type :Core

400 405 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Mollusks, Miliolids, Gastropods
Sample Type :Core

405 407 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Mollusks, Miliolids, Gastropods
Sample Type :Core

407 408 Rock Type :No Sample;
Sample Type :Core

408 409 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

409 410 Rock Type :Dolostone; To very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds

Sample Type :Core

410 411 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Vugular,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite

Sediment Structures:Banded

Other Features :Weathered

General Fossils :Fossil Molds

Sample Type :Core

411 414 Rock Type :Dolostone;

Porosity :Intercrystalline,Moldic

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds, Mollusks

Sample Type :Core

414 416 Rock Type :Dolostone;

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds

Sample Type :Core

416 417 Rock Type :Dolostone;pale yellowish orange_10YR 8/6_35 To pale yellowish orange_10YR 8/6_35

Porosity :Intercrystalline,Vugular,Fracture

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Clay-5%, Glauconite-<1%

General Fossils :Fossil Molds

Sample Type :Core

417 418 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Moderate

Cement :Dolomite

Sample Type :Core

418 419 Rock Type :No Sample;

Sample Type :Core

419 424 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Pyrite-1%

General Fossils :Fossil Molds, Echinoid

Sample Type :Core

424 425 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Pyrite-1%

General Fossils :Fossil Molds, Echinoid

Sample Type :Core

425 428 Rock Type :Dolostone;pale yellowish orange_10YR 8/6_35

Porosity :Intercrystalline,Moldic

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bioturbated

Accessory Minerals :Pyrite-<1%
General Fossils :Fossil Molds, Mollusks, Echinoid, Miliolids, Plant Remains
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

428 430 Rock Type :Dolostone;pale yellowish orange_10YR 8/6_35 To yellowish gray_5Y 8/1_86
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Pyrite-<1%
General Fossils :Fossil Molds, Gastropods, Miliolids
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

430 430.5 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Banded, Bedded
Accessory Minerals :Clay-1%, Pyrite-<1%
General Fossils :Fossil Molds, Mollusks, Miliolids
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

430.5 433 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks, Echinoid
Sample Type :Core

433 433.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite

Sediment Structures:Bedded
Accessory Minerals :Clay-<1%
General Fossils :Fossil Molds
Sample Type :Core

433.5 434 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Poor
Cement :Dolomite
Sediment Structures:Laminated
Accessory Minerals :Silt-<1%
Sample Type :Core

434 436 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks, Miliolids, Echinoid
Sample Type :Core

436 437 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated
General Fossils :Fossil Molds, Mollusks, Plant Remains
Sample Type :Core

437 438 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

438 439 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Banded
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

439 440 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

440 440.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Mottled
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

440.5 443 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Clay-<1%
General Fossils :Fossil Molds, Mollusks, Miliolids
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

443 443.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Moderate
Cement :Dolomite
Sediment Structures:Laminated, Streaked
Accessory Minerals :Silt-<1%
General Fossils :Fossil Molds
Sample Type :Core

443.5 445 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Moldic,Fracture
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-<1%, Pyrite-<1%
General Fossils :Fossil Molds, Mollusks, Miliolids
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

445 446 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To medium light gray_N6_79
Porosity :Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Microcrystalline
Induration:Moderate
Cement :Dolomite
Sediment Structures:Streaked
Accessory Minerals :Organics-<1%, Pyrite-<1%, Clay-1%
Sample Type :Core

446 447 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Laminated
Accessory Minerals :Organics-1%, Clay-1%, Pyrite-<1%
General Fossils :Fossil Molds
Sample Type :Core

447 449 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate

Cement :Dolomite

Accessory Minerals :Organics-1%

General Fossils :Fossil Molds, Plant Remains

Sample Type :Core

450 450.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite

Sediment Structures:Burrowed, Streaked

Accessory Minerals :Organics-<1%, Clay-1%

Other Features :Variegated

General Fossils :Fossil Molds

Sample Type :Core

450.5 451 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Moldic

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Clay-<1%

General Fossils :Fossil Molds, Mollusks, Miliolids

Sample Type :Core

451 452 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Moldic,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Moderate

Cement :Dolomite

General Fossils :Fossil Molds, Mollusks, Gastropods, Echinoid, Miliolids

Index Fossils :Fabularia vaughani (Avon Park Fm.)

Sample Type :Core

452 452.5 Rock Type :Dolostone;very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Moldic,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Moderate

Cement :Dolomite

Sediment Structures:Bioturbated
Accessory Minerals :Pyrite-<1%
General Fossils :Fossil Molds, Miliolids, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

452.5 454 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Mollusks, Gastropods, Miliolids, Benthic Foraminifera
Sample Type :Core

454 458 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Miliolids, Mollusks, Benthic Foraminifera, Gastropods
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

458 460 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Vugular,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded, Bioturbated
General Fossils :Fossil Molds, Cones, Plant Remains
Sample Type :Core

460 462 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Vugular,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated

General Fossils :Fossil Molds, Mollusks, Plant Remains, Miliolids, Algae
Sample Type :Core

462 463 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Mollusks, Benthic Foraminifera, Miliolids
Sample Type :Core

463 465 Rock Type :Dolostone;very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Vugular,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded, Bioturbated
General Fossils :Fossil Molds, Plant Remains
Sample Type :Core

465 467 Rock Type :No Sample;
Sample Type :Core

467 468 Rock Type :Dolostone;
Porosity :Intercrystalline,Pin Point Vugs,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds, Benthic Foraminifera
Sample Type :Core

468 470 Rock Type :Dolostone; To dark yellowish orange_10YR 6/6_36
Porosity :Moldic,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated
Other Features :Fossilferous
General Fossils :Fossil Molds, Mollusks, Miliolids, Cones, Benthic Foraminifera

Index Fossils :Fabularia vaughani (Avon Park Fm.) , Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

470 471 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks, Miliolids
Sample Type :Core

471 473 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30
Porosity :Moldic,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Other Features :Fossilferous
General Fossils :Fossil Molds, Mollusks, Miliolids, Benthic Foraminifera, Gastropods
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

473 475 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Mottled, Bioturbated
General Fossils :Fossil Molds, Miliolids, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

475 476 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Low Permeability
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Microcrystalline
Induration:Good
Cement :Dolomite
Other Features :Crystalline
Sample Type :Core

476 477 Rock Type :Clay;dark yellowish brown_10YR 4/2_31 To dusky yellowish brown_10YR 2/2_32
Porosity :Intergranular,Low Permeability
Sediment Structures:Nodular
Accessory Minerals :Pyrite-1%, Gypsum-3%, Iron Stain, Dolomite-7%
Other Features :Partings, Dolomitic, Clay - Stiff
Sample Type :Core

477 478 Rock Type :Packstone;yellowish gray_5Y 8/1_86 To light olive gray_5Y 6/1_87
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Fine
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Mottled, Streaked
Accessory Minerals :Glauconite-1%, Pyrite-<1%, Clay-1%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

478 480 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Medium
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Streaked
Accessory Minerals :Chert-5%, Glauconite-1%, Pyrite-<1%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments
Sample Type :Core

480 481 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Medium
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Laminated
Accessory Minerals :Pyrite-<1%, Organics-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments
Sample Type :Core

481 482 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-<1%, Clay-<1%, Glauconite-<1%, Pyrite-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Mollusks, Benthic Foraminifera
Sample Type :Core

482 484 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To black_N1_83
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Streaked
Accessory Minerals :Organics-25%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Benthic Foraminifera, Plant Remains
Index Fossils :Fabularia vaughani (Avon Park Fm.) , Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

484 487 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To black_N1_83
Porosity :Intercrystalline,Low Permeability
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Microcrystalline
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
Accessory Minerals :Organics-15%
Other Features :Speckled, Crystalline
General Fossils :Plant Remains
Sample Type :Core

487 489 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To black_N1_83
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Organics-7%, Pyrite-1%

Other Features :High Recrystallization, Speckled
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Benthic Foraminifera, Plant Remains
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

489 490 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To black_N1_83
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Clay Matrix
Accessory Minerals :Organics-10%, Clay-5%
Other Features :Medium Recrystallization, Variegated, Fossilferous
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Bryozoa, Mollusks
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

490 493 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Clay Matrix
Accessory Minerals :Clay-5%, Organics-3%
Other Features :Medium Recrystallization, Variegated, Fossilferous
General Fossils :Fossil Fragments, Bryozoa, Miliolids, Mollusks, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

493 498 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Moldic
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Dolomite, Clay Matrix
Accessory Minerals :Clay-7%, Dolomite-10%, Organics-3%
Other Features :High Recrystallization, Variegated, Fossilferous, Dolomitic
General Fossils :Fossil Fragments, Bryozoa, Miliolids, Mollusks, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

498 502 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Moldic
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Gravel

Induration:Moderate
Cement :Sparry Calcite, Clay Matrix, Dolomite
Sediment Structures:Streaked
Accessory Minerals :Clay-10%, Organics-7%, Dolomite-7%
Other Features :High Recrystallization, Variegated, Fossilferous, Dolomitic
General Fossils :Fossil Fragments, Bryozoa, Miliolids, Mollusks, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

502 504 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Calcarenite
Sediment Structures:Mottled
Accessory Minerals :Organics-7%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Bryozoa, Mollusks, Benthic Foraminifera
Sample Type :Core

504 506 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Calcarenite
Sediment Structures:Burrowed, Graded Bedding
Accessory Minerals :Organics-5%
Other Features :High Recrystallization, Fossilferous, Variegated
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks, Bryozoa
Index Fossils :Fabularia vaughani (Avon Park Fm.) , Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

506 509 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Burrowed
Accessory Minerals :Organics-2%
Other Features :High Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Plant Remains
Sample Type :Core

509 514 Rock Type :Grainstone; To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Burrowed, Interbedded
Accessory Minerals :Organics-1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Bryozoa, Benthic Foraminifera
Sample Type :Core

514 517 Rock Type :Grainstone; To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Burrowed, Interbedded
Accessory Minerals :Organics-1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Bryozoa, Benthic Foraminifera
Sample Type :Core

517 520 Rock Type :Grainstone; To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-<1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

520 522 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Pin Point Vugs,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-<1%

Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid
Index Fossils :Fabularia vaughani (Avon Park Fm.) , Cushmania (Dictyoconus) americana (Avon Park Fm.) , Fabiania (Psuedorbitolina) cubensis (Avon Park Fm.)
Sample Type :Core

522 524 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Vugular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Organics-1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks, Echinoid
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

524 525 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Streaked
Accessory Minerals :Organics-3%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Bryozoa, Plant Remains
Sample Type :Core

525 530 Rock Type :Grainstone; To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Burrowed
Accessory Minerals :Organics-3%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Plant Remains
Sample Type :Core

530 534 Rock Type :Grainstone; To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Burrowed
Accessory Minerals :Organics-3%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Plant Remains
Sample Type :Core

534 535 Rock Type :Limestone;moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Sediment Structures:Laminated
Accessory Minerals :Organics-10%, Dolomite-15%, Pyrite-<1%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Plant Remains
Sample Type :Core

535 537 Rock Type :Grainstone; To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Accessory Minerals :Organics-2%, Dolomite-10%, Pyrite-<1%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

537 543 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Intergranular,Intragranular
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Medium
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Sediment Structures:Streaked, Interbedded
Accessory Minerals :Organics-7%, Limestone-25%
Other Features :Calcareous
General Fossils :Fossil Fragments, Miliolids, Plant Remains
Sample Type :Core

543 546 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Sediment Structures:Bedded
Accessory Minerals :Organics-2%, Dolomite-7%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Miliolids, Echinoid, Benthic Foraminifera, Bryozoa
Sample Type :Core

546 547 Rock Type :Grainstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Fragments
Sample Type :Core

547 548 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Intragranular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Massive
Accessory Minerals :Gypsum-<1%
Other Features :Crystalline
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

548 549 Rock Type :No Sample;
Sample Type :Core

549 550 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite

Accessory Minerals :Organics-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

550 552 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

552 554 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Organic Matrix
Sediment Structures:Burrowed
Accessory Minerals :Organics-7%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks, Bryozoa
Sample Type :Core

554 555 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Bioturbated, Burrowed
Accessory Minerals :Organics-5%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Bryozoa, Mollusks
Sample Type :Core

555 556 Rock Type :Grainstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate

Cement :Sparry Calcite
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

556 556.5 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Gastropods
Sample Type :Core

556.5 558 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Other Features :Medium Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

558 559 Rock Type :No Sample;
Sample Type :Core

559 560 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid
Sample Type :Core

560 565 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate

Cement :Sparry Calcite

Other Features :Medium Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid

Sample Type :Core

565 569 Rock Type :Grainstone;very pale orange_10YR 8/2_29

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Crystals GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Other Features :Medium Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid

Sample Type :Core

569 574 Rock Type :Grainstone;very pale orange_10YR 8/2_29

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Crystals GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite

Other Features :Medium Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks

Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)

Sample Type :Core

574 575 Rock Type :Grainstone;very pale orange_10YR 8/2_29

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Crystals GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite

Other Features :Medium Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid, Mollusks

Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)

Sample Type :Core

575 578 Rock Type :Grainstone;very pale orange_10YR 8/2_29

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Crystals GRAIN SIZE :Gravel

Induration:Good

Cement :Sparry Calcite

Sediment Structures:Interbedded

Accessory Minerals :Glauconite-<1%

Other Features :High Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Cones
Sample Type :Core

578 582 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Crystals GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Cones
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

582 583 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Vugular
LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Crystals GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Bedded
Accessory Minerals :Glauconite-1%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Cones, Mollusks
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

583 584 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Limestone-3%, Organics-<1%, Pyrite-<1%
General Fossils :Fossil Molds, Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

584 587 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Skeletal Cast GRAIN SIZE :Granular
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Accessory Minerals :Dolomite-15%, Organics-7%
Other Features :Dolomitic

General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Benthic Foraminifera, Gastropods
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

587 588 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intragranular,Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Dolomite-7%, Organics-3%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Cones, Miliolids, Benthic Foraminifera
Index Fossils :Fabularia vaughani (Avon Park Fm.)
Sample Type :Core

588 589 Rock Type :Limestone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Skeletal Cast GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite, Dolomite
Sediment Structures:Interbedded
Accessory Minerals :Dolomite-30%, Organics-2%
Other Features :Dolomitic, Variegated
General Fossils :Fossil Fragments, Benthic Foraminifera, Echinoid, Mollusks, Miliolids
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

589 590 Rock Type :Limestone;dark yellowish brown_10YR 4/2_31 To dusky yellowish brown_10YR 2/2_32
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Calcilutite GRAIN SIZE :Very Coarse
Induration:Poor
Cement :Sparry Calcite, Organic Matrix
Accessory Minerals :Organics-15%, Dolomite-7%
Other Features :Dolomitic, Muddy
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

590 592 Rock Type :Limestone;white_N9_76 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular

		LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal Cast , Calcilutite GRAIN SIZE :Very Coarse Induration:Moderate Cement :Calcilutite Matrix, Dolomite Sediment Structures:Bioturbated Accessory Minerals :Dolomite-15% Other Features :Dolomitic, Variegated General Fossils :Fossil Fragments, Benthic Foraminifera, Gastropods Sample Type :Core
592	592	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29 Porosity :Intercrystalline,Moldic Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine Induration:Good Cement :Dolomite Accessory Minerals :Limestone-15%, Organics-3% Other Features :Calcareous General Fossils :Fossil Fragments, Benthic Foraminifera Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.) Sample Type :Core
593	596	Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29 Porosity :Intercrystalline,Vugular,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium Induration:Good Cement :Dolomite Sediment Structures:Bioturbated, Bedded Other Features :Speckled General Fossils :Fossil Molds, Benthic Foraminifera Sample Type :Core
596	597	Rock Type :Dolostone;dark yellowish orange_10YR 6/6_36 Porosity :Intercrystalline,Moldic,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium Induration:Good Cement :Dolomite General Fossils :Fossil Molds, Benthic Foraminifera, Cones Sample Type :Core

597 600 Rock Type :Dolostone;pale yellowish orange_10YR 8/6_35 To dark yellowish orange_10YR 6/6_36

Porosity :Moldic,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

General Fossils :Fossil Molds, Benthic Foraminifera, Echinoid

Sample Type :Core

600 602 Rock Type :Dolostone;dark yellowish orange_10YR 6/6_36 To very pale orange_10YR 8/2_29

Porosity :Moldic,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-10%

Other Features :Fossilferous

General Fossils :Fossil Molds, Fossil Fragments, Benthic Foraminifera, Bryozoa, Miliolids

Index Fossils :Fabularia vaughani (Avon Park Fm.)

Sample Type :Core

602 604 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very light gray_N8_77

Porosity :Moldic,Intercrystalline,Vugular

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-20%, Organics-1%

Other Features :Fossilferous, Calcareous

General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Echinoid

Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)

Sample Type :Core

604 606 Rock Type :Packstone;dark yellowish orange_10YR 6/6_36 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Calcilutite GRAIN SIZE :Granular

Induration:Moderate

Cement :Dolomite, Calcarenite

Sediment Structures:Mottled

Accessory Minerals :Dolomite-25%, Organics-3%

Other Features :Dolomitic

General Fossils :Fossil Fragments, Benthic Foraminifera, Echinoid, Cones
Sample Type :Core

606 610 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Calcilutite GRAIN SIZE :Granular
Induration:Moderate
Cement :Dolomite, Calcarenite
Accessory Minerals :Dolomite-20%, Organics-2%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones
Sample Type :Core

610 612 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-10%, Organics-3%
Other Features :Medium Recrystallization, Dolomitic, Fossilferous
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Bryozoa, Coral
Sample Type :Core

612 614 Rock Type :Packstone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Dolomite-25%, Organics-5%
Other Features :Dolomitic, Fossilferous
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Echinoid
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

614 616 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Moldic,Intercrystalline
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Limestone-15%, Organics-7%

Other Features :Calcareous, Fossilferous, Muddy
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Cones
Sample Type :Core

616 619 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Moldic,Intercrystalline,Intragranular
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Accessory Minerals :Limestone-25%, Organics-10%
Other Features :Calcareous, Fossilferous
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Plant Remains, Cones
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

619 621 Rock Type :Calcarenite;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Granular
Induration:Poor
Cement :Calcarenite
Accessory Minerals :Organics-7%
General Fossils :Fossil Fragments, Benthic Foraminifera, Plant Remains, Cones
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

621 625 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Intragranular
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Limestone-35%, Organics-7%
Other Features :Calcareous, Fossilferous
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Plant Remains, Cones
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

625 626 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular

LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Very Coarse
Induration:Poor
Cement :Dolomite
Accessory Minerals :Dolomite-10%, Organics-15%, Silt-3%
Other Features :Dolomitic, Muddy
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

626 628 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31
Porosity :Moldic,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
Accessory Minerals :Limestone-7%, Organics-7%
Other Features :Calcareous
General Fossils :Fossil Molds, Fossil Fragments, Benthic Foraminifera, Plant Remains, Mollusks
Sample Type :Core

628 629 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Medium
Induration:Poor
Cement :Dolomite
Sediment Structures:Streaked
Accessory Minerals :Organics-10%
General Fossils :Fossil Molds
Sample Type :Core

629 630 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34
Porosity :Moldic,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-7%
General Fossils :Fossil Molds, Benthic Foraminifera, Cones
Sample Type :Core

630	631	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31 Porosity :Intercrystalline,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine Induration:Poor Cement :Dolomite Sediment Structures:Streaked Accessory Minerals :Organics-10% General Fossils :Fossil Molds, Benthic Foraminifera, Plant Remains Sample Type :Core
631	636	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34 Porosity :Moldic,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium Induration:Moderate Cement :Dolomite Sediment Structures:Interbedded Accessory Minerals :Organics-10% Other Features :Muddy General Fossils :Fossil Molds, Benthic Foraminifera, Mollusks Sample Type :Core
636	636.5	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34 Porosity :Moldic,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium Induration:Moderate Cement :Dolomite Sediment Structures:Interbedded Accessory Minerals :Organics-10% Other Features :Muddy General Fossils :Fossil Molds, Benthic Foraminifera, Mollusks Sample Type :Core
636.5	638	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34 Porosity :Moldic,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium Induration:Moderate Cement :Dolomite

Accessory Minerals :Organics-15%
General Fossils :Fossil Molds, Benthic Foraminifera, Mollusks
Sample Type :Core

638 640 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34
Porosity :Moldic,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium
Induration:Moderate
Cement :Dolomite
Sediment Structures:Bedded
Accessory Minerals :Limestone-5%, Organics-3%
Other Features :Calcareous
General Fossils :Fossil Molds, Benthic Foraminifera, Gastropods
Sample Type :Core

640 641 Rock Type :Packstone;very pale orange_10YR 8/2_29 To dark yellowish brown_10YR 4/2_31
Porosity :Intragranular,Moldic
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Dolomite-35%, Organics-7%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Benthic Foraminifera, Plant Remains
Sample Type :Core

641 643 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Dolomite, Calcarenite
Accessory Minerals :Dolomite-15%, Organics-10%, Silt-3%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Plant Remains
Sample Type :Core

643 648 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Granular
Induration:Moderate

Cement :Dolomite, Sparry Calcite
Sediment Structures:Bedded, Streaked
Accessory Minerals :Dolomite-10%, Organics-10%
Other Features :Dolomitic, Fossilferous, Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Plant Remains, Mollusks
Sample Type :Core

648 650 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Other Features :Fossilferous, Medium Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids, Mollusks, Coral
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

650 652 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Other Features :Fossilferous, Medium Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids, Mollusks, Coral
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

652 654 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Bedded
Other Features :Fossilferous, Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks, Coral
Sample Type :Core

654 659 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate

Cement :Sparry Calcite
Accessory Minerals :Pyrite-<1%
Other Features :Fossilferous, Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

659 660 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Pyrite-<1%
Other Features :Fossilferous, Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

660 663 Rock Type :Packstone; To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Dolomite-25%, Pyrite-<1%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks
Sample Type :Core

663 668 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Dolomite-10%, Pyrite-<1%
Other Features :Dolomitic, Low Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

668 672 Rock Type :Grainstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Dolomite-10%, Pyrite-<1%
Other Features :Dolomitic, Low Recrystallization

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale
672 676 orange_10YR 8/2_29
Porosity :Intercrystalline,Intragranular
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Medium RANGE :Fine To Medium
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Limestone-25%, Organics-<1%
Other Features :Calcareous
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids
Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale
676 678 orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
Accessory Minerals :Limestone-30%
Other Features :Calcareous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale
678 680 orange_10YR 8/2_29
Porosity :Intercrystalline
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Medium RANGE :Fine To Medium
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Limestone-30%
Other Features :Calcareous
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish
680 682 brown_10YR 5/4_34
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Medium
Induration:Good

Cement :Dolomite
Accessory Minerals :Limestone-2%, Organics-1%
General Fossils :Fossil Molds, Fossil Fragments, Benthic Foraminifera
Sample Type :Core

682 682 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Medium
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Limestone-<1%
Other Features :Sucrosic
General Fossils :Fossil Fragments
Sample Type :Core

682 683 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds
Sample Type :Core

683 687 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Moldic,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Gastropods, Benthic Foraminifera
Sample Type :Core

687 688 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish orange_10YR 6/6_36
Porosity :Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Fine To Medium
Induration:Unconsolidated
Cement :Dolomite

Other Features :Sucrosic

Sample Type :Core

688 690 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Organics-<1%

Other Features :Crystalline

General Fossils :Fossil Molds

Sample Type :Core

690 691 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

General Fossils :Fossil Molds

Sample Type :Core

691 693 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish orange_10YR 6/6_36

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Medium

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Organics-<1%

Other Features :Sucrosic

General Fossils :Fossil Molds

Sample Type :Core

693 694 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Vugular,Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Organics-<1%

General Fossils :Fossil Molds, Gastropods

Sample Type :Core

694 695 Rock Type :Peat;black_N1_83 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Pin Point Vugs
Induration:Poor
Cement :Organic Matrix
Sediment Structures:Interbedded, Mottled
Accessory Minerals :Dolomite-35%
General Fossils :Fossil Molds, Plant Remains
Sample Type :Core

695 696 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To black_N1_83
Porosity :Vugular,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Organic Matrix
Sediment Structures:Streaked
Accessory Minerals :Organics-20%
General Fossils :Fossil Molds
Sample Type :Core

696 697 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Organics-10%
General Fossils :Fossil Molds, Benthic Foraminifera, Plant Remains
Sample Type :Core

697 700 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs,Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-7%, Quartz-<1%
General Fossils :Fossil Molds, Plant Remains
Sample Type :Core

700 702 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30

Porosity :Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Organics-2%

Other Features :Crystalline

General Fossils :Fossil Molds, Cones

Sample Type :Core

702 703 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30

Porosity :Pin Point Vugs,Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Accessory Minerals :Organics-3%, Quartz-<1%

General Fossils :Fossil Molds

Sample Type :Core

703 704 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium

Induration:Poor

Cement :Dolomite

Accessory Minerals :Organics-2%

Other Features :Sucrosic

General Fossils :Fossil Molds

Sample Type :Core

704 704.5 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Medium

Induration:Unconsolidated

Cement :Dolomite

Other Features :Sucrosic

Sample Type :Core

704.5 706 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31

Porosity :Moldic,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-1%
General Fossils :Fossil Molds, Miliolids
Sample Type :Core

706 707 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34
Porosity :Vugular,Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Mottled
General Fossils :Fossil Molds
Sample Type :Core

707 709 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Pin Point Vugs,Intragranular
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite, Sparry Calcite
Sediment Structures:Mottled
Accessory Minerals :Limestone-40%, Organics-<1%
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Cones
Sample Type :Core

709 710 Rock Type :Packstone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Granular
Induration:Moderate
Cement :Dolomite
Sediment Structures:Streaked, Laminated
Accessory Minerals :Dolomite-25%, Organics-5%, Silt-7%
Other Features :Variegated
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Gastropods, Plant Remains
Sample Type :Core

710 711 Rock Type :Limestone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29

Porosity :Intergranular

LimeStone Properties :GRAIN TYPE : Biogenic GRAIN SIZE :Microcrystalline

Induration:Poor

Cement :Clay Matrix

Sediment Structures:Streaked, Banded

Accessory Minerals :Peat-30%, Clay-20%

Other Features :Variegated, Friable

General Fossils :Fossil Fragments

Sample Type :Core

711 712 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Pin Point Vugs

LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Crystals GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Mottled

Accessory Minerals :Organics-3%

General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids, Gastropods, Cones

Sample Type :Core

712 716 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29

Porosity :Intercrystalline,Intragranular

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Fine

Induration:Moderate

Cement :Dolomite, Calcilutite Matrix

Accessory Minerals :Limestone-40%, Organics-2%

Other Features :Fossilferous, Calcareous

General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids

Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)

Sample Type :Core

716 719 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To dark yellowish brown_10YR 4/2_31

Porosity :Intercrystalline,Intragranular

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Moderate

Cement :Dolomite, Calcilutite Matrix

Accessory Minerals :Limestone-30%, Organics-5%

Other Features :Fossilferous, Calcareous

General Fossils :Fossil Fragments, Benthic Foraminifera, Plant Remains
Sample Type :Core

719	720	Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29 Porosity :Intragranular,Intergranular LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Gravel Induration:Moderate Cement :Dolomite, Calcilutite Matrix Sediment Structures:Burrowed Accessory Minerals :Dolomite-30%, Organics-5% Other Features :Dolomitic General Fossils :Fossil Fragments, Benthic Foraminifera, Plant Remains, Cones Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.) Sample Type :Core
720	724	Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30 Porosity :Intergranular LimeStone Properties :GRAIN TYPE : Biogenic,Calcilutite GRAIN SIZE :Very Coarse Induration:Moderate Cement :Dolomite, Calcilutite Matrix Sediment Structures:Burrowed, Mottled, Nodular Accessory Minerals :Dolomite-25%, Organics-10%, Chert-7% Other Features :Dolomitic General Fossils :Fossil Fragments, Miliolids Sample Type :Core
724	725	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30 Porosity :Intercrystalline Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine Induration:Moderate Cement :Dolomite, Calcilutite Matrix Accessory Minerals :Limestone-30%, Organics-15% Other Features :Calcareous General Fossils :Fossil Fragments, Plant Remains, Benthic Foraminifera Sample Type :Core
725	728	Rock Type :Wackestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30 Porosity :Intergranular LimeStone Properties :GRAIN TYPE : Biogenic,Calcilutite GRAIN SIZE :Coarse Induration:Moderate

Cement :Dolomite, Calcilutite Matrix
Sediment Structures:Burrowed, Mottled, Nodular
Accessory Minerals :Dolomite-25%, Organics-15%, Chert-10%
Other Features :Dolomitic
General Fossils :Fossil Fragments
Sample Type :Core

728 730 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To black_N1_83
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Dolomite-25%, Organics-20%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Plant Remains, Miliolids
Sample Type :Core

730 733 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To black_N1_83
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Dolomite, Calcilutite Matrix
Sediment Structures:Burrowed
Accessory Minerals :Organics-25%, Dolomite-10%
Other Features :Dolomitic, Speckled
General Fossils :Fossil Fragments, Plant Remains, Miliolids
Sample Type :Core

733 735 Rock Type :Limestone;dusky yellowish brown_10YR 2/2_32
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Coarse
Induration:Moderate
Cement :Calcilutite Matrix, Organic Matrix
Accessory Minerals :Organics-40%
General Fossils :Fossil Fragments, Plant Remains, Benthic Foraminifera, Miliolids
Sample Type :Core

735 737 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Very Coarse
Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Mottled
Accessory Minerals :Organics-20%
Other Features :Medium Recrystallization, Speckled
General Fossils :Fossil Fragments, Miliolids, Plant Remains, Benthic Foraminifera
Sample Type :Core

737 738 Rock Type :Limestone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal , Calcilutite GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Calcilutite Matrix, Organic Matrix
Sediment Structures:Mottled
Accessory Minerals :Organics-20%
Other Features :Muddy
General Fossils :Fossil Fragments, Miliolids, Plant Remains
Sample Type :Core

738 740 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix, Dolomite
Accessory Minerals :Dolomite-10%, Organics-7%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Miliolids, Plant Remains, Benthic Foraminifera
Sample Type :Core

740 741 Rock Type :Peat;black_N1_83 To very pale orange_10YR 8/2_29
Porosity :Intergranular
Induration:Poor
Cement :Organic Matrix
Sediment Structures:Fissile, Interbedded
Accessory Minerals :Limestone-25%
Other Features :Partings, Friable
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

741 743 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix, Dolomite
Sediment Structures:Bioturbated
Accessory Minerals :Dolomite-10%, Organics-7%
Other Features :Dolomitic
General Fossils :Fossil Fragments, Miliolids, Plant Remains, Benthic Foraminifera
Sample Type :Core

743 748 Rock Type :Limestone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Coarse
Induration:Moderate
Cement :Calcilutite Matrix, Organic Matrix
Sediment Structures:Bioturbated
Accessory Minerals :Organics-40%
Other Features :Muddy
General Fossils :Fossil Fragments, Miliolids, Plant Remains
Sample Type :Core

748 748 Rock Type :Limestone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Biogenic,Skeletal GRAIN SIZE :Coarse
Induration:Moderate
Cement :Calcilutite Matrix, Organic Matrix
Sediment Structures:Bioturbated
Accessory Minerals :Organics-40%
Other Features :Muddy
General Fossils :Fossil Fragments, Miliolids, Plant Remains
Sample Type :Core

748 749 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Gravel
Induration:Moderate
Cement :Calcilutite Matrix, Sparry Calcite
Accessory Minerals :Organics-15%, Quartz-2%
Other Features :Muddy, Weathered
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids
Sample Type :Core

749 750 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30
Porosity :Pin Point Vugs,Low Permeability
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Microcrystalline
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated
Accessory Minerals :Organics-7%, Limestone-5%
Other Features :Crystalline
General Fossils :Fossil Fragments, Fossil Molds, Plant Remains, Miliolids
Sample Type :Core

750 751 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Accessory Minerals :Organics-15%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Plant Remains, Benthic Foraminifera
Sample Type :Core

751 756 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-10%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Plant Remains
Sample Type :Core

756 757 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Biogenic , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-10%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Plant Remains
Sample Type :Core

757 758 Rock Type :Peat;black_N1_83 To very pale orange_10YR 8/2_29
Porosity :Intergranular
Induration:Poor
Cement :Organic Matrix
Sediment Structures:Interbedded
Accessory Minerals :Limestone-35%
Other Features :Friable
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

758 759 Rock Type :Packstone;very pale orange_10YR 8/2_29 To medium gray_N5_80
Porosity :Intergranular,Low Permeability
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Bioturbated, Burrowed
Accessory Minerals :Organics-7%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Plant Remains
Sample Type :Core

759 760 Rock Type :Packstone;very pale orange_10YR 8/2_29 To medium gray_N5_80
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-5%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

760 762 Rock Type :Packstone;very pale orange_10YR 8/2_29 To medium gray_N5_80
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Mottled
Accessory Minerals :Organics-5%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Mollusks
Sample Type :Core

762 765 Rock Type :Peat;black_N1_83 To medium gray_N5_80
Porosity :Intergranular
Induration:Poor
Cement :Organic Matrix
Accessory Minerals :Limestone-3%
Other Features :Friable, Partings
General Fossils :Fossil Fragments
Sample Type :Core

765 766 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Low Permeability
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Organics-10%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Mollusks
Sample Type :Core

766 767 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite, Organic Matrix
Accessory Minerals :Organics-20%
Other Features :Medium Recrystallization, Partings, Weathered
General Fossils :Fossil Fragments
Sample Type :Core

767 770 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Medium
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Burrowed
Accessory Minerals :Organics-3%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments
Sample Type :Core

770 774 Rock Type :Packstone; To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Medium
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Burrowed
Accessory Minerals :Organics-5%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

774 776 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Sediment Structures:Mottled
Accessory Minerals :Limestone-30%, Chert-5%, Organics-2%
Other Features :Dolomitic
General Fossils :Fossil Fragments
Sample Type :Core

776 780 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dark gray_N3_82
Porosity :Low Permeability,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Banded
Accessory Minerals :Chert-30%, Quartz-2%
Other Features :Crystalline
General Fossils :Benthic Foraminifera
Sample Type :Core

780 784 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dark gray_N3_82
Porosity :Low Permeability,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Banded
Accessory Minerals :Chert-30%, Quartz-2%
Other Features :Crystalline

General Fossils :Benthic Foraminifera
Sample Type :Core

784	785	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31 Porosity :Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Medium Induration:Moderate Cement :Dolomite Sediment Structures:Burrowed Accessory Minerals :Organics-2% Sample Type :Core
785	790	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30 Porosity :Intercrystalline,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium Induration:Good Cement :Dolomite Sediment Structures:Burrowed Accessory Minerals :Organics-3% General Fossils :Miliolids Sample Type :Core
790	795	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dark gray_N3_82 Porosity :Intercrystalline,Moldic Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Accessory Minerals :Chert-7% General Fossils :Fossil Molds, Benthic Foraminifera Sample Type :Core
795	800	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dark gray_N3_82 Porosity :Intercrystalline,Moldic Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Accessory Minerals :Chert-7% General Fossils :Fossil Molds, Benthic Foraminifera Sample Type :Core

800 804 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30

Porosity :Low Permeability,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Chert-2%

General Fossils :Fossil Molds

Sample Type :Core

804 806 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30

Porosity :Low Permeability,Intercrystalline,Moldic

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Accessory Minerals :Quartz-<1%

General Fossils :Fossil Molds

Sample Type :Core

806 807 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31

Porosity :Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Organics-<1%

Other Features :Sucrosic

General Fossils :Plant Remains

Sample Type :Core

807 808 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Moderate

Cement :Dolomite

Sediment Structures:Streaked

Accessory Minerals :Organics-2%, Quartz-<1%

Sample Type :Core

808 808 Rock Type :Dolostone; To dark yellowish orange_10YR 6/6_36
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Medium
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Organics-<1%
Other Features :Sucrosic
General Fossils :Fossil Molds
Sample Type :Core

808 810 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Moldic,Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Quartz-1%
General Fossils :Fossil Molds, Benthic Foraminifera
Sample Type :Core

810 815 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To white_N9_76
Porosity :Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite, Calcilutite Matrix
Sediment Structures:Mottled, Bedded
Accessory Minerals :Limestone-40%, Chert-2%, Quartz-1%
Other Features :Weathered, Calcareous
General Fossils :Fossil Fragments, Benthic Foraminifera
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

815 820 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To white_N9_76
Porosity :Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite, Calcilutite Matrix
Sediment Structures:Mottled, Bedded
Accessory Minerals :Limestone-40%, Chert-2%, Quartz-1%

Other Features :Weathered, Calcareous

General Fossils :Fossil Fragments, Benthic Foraminifera

Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)

Sample Type :Core

Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish
820 825 brown_10YR 5/4_34

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-5%, Quartz-1%

Other Features :Weathered, Calcareous

General Fossils :Fossil Fragments, Benthic Foraminifera, Bryozoa, Plant Remains, Mollusks

Sample Type :Core

Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish
825 827 brown_10YR 5/4_34

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-5%, Quartz-1%

Other Features :Weathered, Calcareous

General Fossils :Fossil Fragments, Benthic Foraminifera, Bryozoa, Plant Remains, Mollusks

Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish
827 828 brown_10YR 6/2_30

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Coarse

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-10%, Quartz-<1%

Other Features :Weathered, Calcareous

General Fossils :Fossil Fragments, Benthic Foraminifera

Sample Type :Core

Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
828 830 6/2_30

Porosity :Intergranular,Intercrystalline

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast , Biogenic GRAIN SIZE :Coarse

Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Quartz-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

830 834 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast , Skeletal GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

834 836 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Quartz-<1%, Pyrite-<1%
Other Features :High Recrystallization
General Fossils :Benthic Foraminifera, Fossil Fragments
Sample Type :Core

836 841 Rock Type :Packstone; To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Bryozoa, Miliolids
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

841 843 Rock Type :Packstone; To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite

Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Bryozoa, Miliolids
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

843 844 Rock Type :Packstone; To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Mottled
Accessory Minerals :Pyrite-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones
Sample Type :Core

844 846 Rock Type :Packstone; To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Bedded
Accessory Minerals :Dolomite-7%, Quartz-<1%, Pyrite-<1%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Miliolids
Sample Type :Core

846 848 Rock Type :Packstone; To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Pyrite-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Bryozoa
Index Fossils :Cushmania (Dictyoconus) americana (Avon Park Fm.)
Sample Type :Core

848 848.5 Rock Type :Limestone; To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Intergranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite, Dolomite

Sediment Structures:Banded
Accessory Minerals :Dolomite-15%
Other Features :Dolomitic, High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones
Sample Type :Core

848.5 852 Rock Type :Limestone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Pyrite-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Echinoid
Sample Type :Core

852 854 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Vugular,Moldic
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Quartz-1%
General Fossils :Fossil Molds, Benthic Foraminifera
Sample Type :Core

854 859 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dusky yellowish brown_10YR 2/2_32
Porosity :Moldic,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds, Benthic Foraminifera
Sample Type :Core

859 860 Rock Type :Dolostone; To moderate yellowish brown_10YR 5/4_34
Porosity :Vugular,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Calcilutite-1%

General Fossils :Fossil Molds, Benthic Foraminifera

Sample Type :Core

860 864 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30

Porosity :Vugular,Pin Point Vugs,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds, Benthic Foraminifera, Mollusks

Sample Type :Core

864 867 Rock Type :Packstone; To very pale orange_10YR 8/2_29

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite, Dolomite

Accessory Minerals :Dolomite-30%, Pyrite-<1%, Organics-<1%

Other Features :Dolomitic, Medium Recrystallization

General Fossils :Fossil Fragments, Benthic Foraminifera, Cones, Echinoid, Miliolids

Sample Type :Core

867 870 Rock Type :Grainstone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29

Porosity :Intergranular

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite

Accessory Minerals :Glauconite-2%

Other Features :High Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Echinoid, Benthic Foraminifera

Sample Type :Core

870 870.5 Rock Type :Dolostone;dark gray_N3_82 To dark yellowish brown_10YR 4/2_31

Porosity :Moldic,Pin Point Vugs,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds

Sample Type :Core

870.5 872 Rock Type :Packstone;very pale orange_10YR 8/2_29

Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Accessory Minerals :Glauconite-3%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Echinoid, Miliolids
Sample Type :Core

872 872.5 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To dark yellowish brown_10YR 4/2_31
Porosity :Low Permeability,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Microcrystalline
Induration:Good
Cement :Dolomite
Other Features :Crystalline
General Fossils :Fossil Fragments
Sample Type :Core

872.5 873 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Poor
Cement :Calcilutite Matrix, Sparry Calcite
Accessory Minerals :Glauconite-1%
Other Features :Low Recrystallization
General Fossils :Fossil Fragments, Echinoid, Miliolids
Sample Type :Core

873 874 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To dark yellowish brown_10YR 4/2_31
Porosity :Low Permeability,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Microcrystalline
Induration:Good
Cement :Dolomite
Other Features :Crystalline
General Fossils :Fossil Fragments
Sample Type :Core

874 875 Rock Type :Limestone;very pale orange_10YR 8/2_29 To greenish black_5GY 2/1_93
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Calcilutite GRAIN SIZE :Very Coarse

Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Nodular
Accessory Minerals :Glauconite-3%, Pyrite-<1%
Other Features :Speckled, Medium Recrystallization
General Fossils :Fossil Fragments, Bryozoa, Mollusks
Sample Type :Core

875 877 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Calcilutite GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Sediment Structures:Interbedded
Accessory Minerals :Dolomite-25%, Glauconite-1%, Pyrite-<1%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Mollusks, Bryozoa
Sample Type :Core

877 880 Rock Type :Packstone;very pale orange_10YR 8/2_29 To greenish black_5GY 2/1_93
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Glauconite-3%, Pyrite-<1%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Echinoid, Bryozoa
Sample Type :Core

880 884 Rock Type :Packstone;very pale orange_10YR 8/2_29 To greenish black_5GY 2/1_93
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Glauconite-3%, Pyrite-<1%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Echinoid, Bryozoa
Sample Type :Core

884 886 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Vugular

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-30%, Glauconite-<1%

Other Features :Calcareous

General Fossils :Fossil Fragments, Fossil Molds, Echinoid

Sample Type :Core

886 888 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Moldic,Vugular,Fracture

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Other Features :Crystalline

General Fossils :Fossil Molds

Sample Type :Core

888 891 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

Sediment Structures:Interbedded

Accessory Minerals :Organics-1%, Gypsum-<1%, Limestone-5%

General Fossils :Fossil Molds, Echinoid

Sample Type :Core

891 893 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31

Porosity :Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Medium

Induration:Moderate

Cement :Dolomite

Accessory Minerals :Glauconite-2%, Limestone-1%

Other Features :Sucrosic

General Fossils :Fossil Fragments, Fossil Molds, Echinoid

Sample Type :Core

893 895 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Vugular,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Glauconite-1%
General Fossils :Fossil Molds
Sample Type :Core

895 898 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Accessory Minerals :Glauconite-1%
General Fossils :Fossil Molds
Sample Type :Core

898 902 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Vugular,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds
Sample Type :Core

902 904 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Vugular,Fracture
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Interbedded
Other Features :Crystalline, Sucrosic
General Fossils :Fossil Molds
Sample Type :Core

904 906 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Fine

Induration:Moderate
Cement :Dolomite, Calcilutite Matrix
Accessory Minerals :Limestone-25%, Glauconite-1%
Other Features :Calcareous
General Fossils :Fossil Fragments, Echinoid
Sample Type :Core

906 908 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Glauconite-1%
Other Features :Medium Recrystallization, Weathered
General Fossils :Fossil Fragments, Echinoid, Miliolids
Sample Type :Core

908 910 Rock Type :Packstone;very pale orange_10YR 8/2_29 To greenish black_5GY 2/1_93
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Glauconite-3%
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Gastropods
Sample Type :Core

910 912 Rock Type :Limestone;very pale orange_10YR 8/2_29 To greenish black_5GY 2/1_93
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Siliciclastic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Accessory Minerals :Glauconite-7%
Other Features :Medium Recrystallization, Speckled, Weathered
General Fossils :Fossil Fragments, Bryozoa, Echinoid
Sample Type :Core

912 914 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31
Porosity :Pin Point Vugs,Low Permeability
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good

Cement :Dolomite
Accessory Minerals :Glauconite-1%
Other Features :Crystalline
General Fossils :Fossil Molds
Sample Type :Core

914 917 Rock Type :Limestone;very pale orange_10YR 8/2_29 To greenish black_5GY 2/1_93
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Siliciclastic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Glauconite-5%
Other Features :Medium Recrystallization, Speckled, Weathered
General Fossils :Fossil Fragments, Bryozoa, Echinoid, Mollusks
Sample Type :Core

917 919 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Limestone-3%, Glauconite-2%
General Fossils :Fossil Molds
Sample Type :Core

919 920 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dusky yellowish brown_10YR 2/2_32
Porosity :Vugular,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Other Features :Crystalline
General Fossils :Fossil Molds
Sample Type :Core

920 925 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To dark yellowish orange_10YR 6/6_36
Porosity :Vugular,Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite

Accessory Minerals :Organics-<1%
General Fossils :Fossil Molds
Sample Type :Core

Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To dark yellowish orange_10YR
925 929 6/6_36
Porosity :Vugular,Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-<1%
General Fossils :Fossil Molds
Sample Type :Core

929 930 Rock Type :Dolostone; To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-<1%, Pyrite-<1%, Gypsum-<1%
Other Features :Speckled
General Fossils :Fossil Molds
Sample Type :Core

930 933 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31
Porosity :Vugular,Fracture,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-<1%, Pyrite-<1%
General Fossils :Fossil Molds
Sample Type :Core

933 933 Rock Type :Chert;dusky yellowish brown_10YR 2/2_32 To very pale orange_10YR 8/2_29
Porosity :Not Observed,Low Permeability
Induration:Good
Cement :Silicic
Accessory Minerals :Dolomite-2%, Pyrite-<1%
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

933 936 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-<1%, Pyrite-<1%
General Fossils :Fossil Molds
Sample Type :Core

936 936 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dusky yellowish brown_10YR 2/2_32
Porosity :Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine
Induration:Moderate
Cement :Dolomite
Sediment Structures:Streaked
Accessory Minerals :Organics-5%, Pyrite-<1%, Gypsum-<1%
General Fossils :Plant Remains
Sample Type :Core

936 938 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34
Porosity :Vugular,Fracture,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Pyrite-<1%
General Fossils :Fossil Molds
Sample Type :Core

938 940 Rock Type :Chert;dark gray_N3_82
Porosity :Not Observed,Low Permeability
Induration:Good
Cement :Silicic
Accessory Minerals :Dolomite-5%
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

940 944 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31
Porosity :Vugular,Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds

Sample Type :Core

942 943 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Streaked

Sample Type :Core

943 946 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Vugular,Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sample Type :Core

946 948 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Intragranular

Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-35%

Other Features :Calcareous, Fossilferous, Weathered

General Fossils :Fossil Fragments, Bryozoa

Sample Type :Core

948 950 Rock Type :Packstone;very pale orange_10YR 8/2_29 To medium gray_N5_80

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Burrowed

Accessory Minerals :Organics-<1%, Quartz-<1%

Other Features :Medium Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Bryozoa

Sample Type :Core

950 952 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Not Observed,Low Permeability
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Glauconite-5%, Gypsum-<1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Bryozoa, Miliolids, Benthic Foraminifera
Sample Type :Core

952 957 Rock Type :Limestone;very pale orange_10YR 8/2_29 To medium gray_N5_80
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal Cast,Crystals , Skeletal GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Dolomite-10%, Glauconite-<1%
Other Features :High Recrystallization, Fossilferous, Speckled
General Fossils :Fossil Fragments, Bryozoa, Benthic Foraminifera
Sample Type :Core

957 959 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To medium gray_N5_80
Porosity :Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Glauconite-<1%
Sample Type :Core

959 964 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To medium gray_N5_80
Porosity :Vugular,Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Other Features :Variegated
Sample Type :Core

964 966 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To medium gray_N5_80
Porosity :Vugular,Pin Point Vugs,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Other Features :Variegated
Sample Type :Core

966 970 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Calcilutite Matrix, Dolomite
Sediment Structures:Bedded
Accessory Minerals :Limestone-20%
Other Features :Calcareous, Medium Recrystallization
General Fossils :Benthic Foraminifera, Fossil Fragments
Sample Type :Core

970 974 Rock Type :Limestone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Other Features :Medium Recrystallization, Weathered
General Fossils :Benthic Foraminifera, Fossil Fragments
Sample Type :Core

974 976 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel
Induration:Good
Cement :Dolomite, Sparry Calcite
Accessory Minerals :Dolomite-15%
Other Features :Dolomitic, Medium Recrystallization, Fossilferous
General Fossils :Benthic Foraminifera, Fossil Fragments, Fossil Molds, Mollusks
Sample Type :Core

976 980 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Good

Cement :Sparry Calcite, Dolomite
Sediment Structures:Bedded, Burrowed
Accessory Minerals :Dolomite-10%
Other Features :Dolomitic, High Recrystallization
General Fossils :Benthic Foraminifera, Fossil Fragments, Fossil Molds, Coral
Sample Type :Core

980 983 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Benthic Foraminifera, Fossil Fragments, Bryozoa
Sample Type :Core

983 988 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Bedded
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Bryozoa, Mollusks
Sample Type :Core

988 992 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Mottled
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Bryozoa, Coral, Mollusks
Sample Type :Core

992 994 Rock Type :Packstone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Intercrystalline,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Granular
Induration:Good

Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-10%
Other Features :Dolomitic, High Recrystallization, Weathered
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

994 996 Rock Type :Packstone;very pale orange_10YR 8/2_29 To medium gray_N5_80
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite
Other Features :High Recrystallization, Weathered
General Fossils :Fossil Fragments, Fossil Molds, Coral
Sample Type :Core

996 999 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Coral, Bryozoa, Mollusks
Sample Type :Core

999 1000 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Moldic
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Mollusks, Bryozoa
Sample Type :Core

1000 1003 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Moldic
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Mollusks, Bryozoa
Sample Type :Core

1003 1008 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Interbedded, Bioturbated
Accessory Minerals :Dolomite-15%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Mollusks, Bryozoa
Sample Type :Core

1008 1010 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Interbedded
Accessory Minerals :Dolomite-7%
Other Features :High Recrystallization, Weathered, Dolomitic
General Fossils :Fossil Fragments, Fossil Molds, Coral
Sample Type :Core

1010 1012 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Interbedded
Accessory Minerals :Dolomite-7%
Other Features :High Recrystallization, Weathered, Dolomitic
General Fossils :Fossil Fragments, Fossil Molds, Bryozoa
Sample Type :Core

1012 1014 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded

General Fossils :Fossil Molds
Sample Type :Core

1014 1017 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34
Porosity :Vugular,Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Other Features :Crystalline
General Fossils :Fossil Molds
Sample Type :Core

1017 1018 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34
Porosity :Fracture,Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
Other Features :Crystalline, Sucrosic
General Fossils :Fossil Molds
Sample Type :Core

1018 1019 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Other Features :Crystalline, Sucrosic
General Fossils :Fossil Molds
Sample Type :Core

1019 1022 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31
Porosity :Intercrystalline,Fracture,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds
Sample Type :Core

1022 1025 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Fracture,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

Sediment Structures:Interbedded

Accessory Minerals :Limestone-<1%

Other Features :Crystalline, Sucrosic

General Fossils :Fossil Molds, Fossil Fragments, Mollusks

Sample Type :Core

1025 1025.5 Rock Type :Limestone;very pale orange_10YR 8/2_29

Porosity :Intergranular

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Other Features :Medium Recrystallization

General Fossils :Fossil Fragments

Sample Type :Core

1026 1028 Rock Type :Limestone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34

Porosity :Intergranular,Intercrystalline

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Interbedded

Accessory Minerals :Dolomite-25%

Other Features :High Recrystallization

General Fossils :Fossil Fragments, Mollusks, Echinoid

Sample Type :Core

1028 1030 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite

Accessory Minerals :Quartz-<1%

General Fossils :Fossil Fragments, Fossil Molds, Gastropods

Sample Type :Core

1030 1030.5 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Intergranular

Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-7%

Other Features :Calcareous, Slicken-sides

General Fossils :Fossil Fragments, Benthic Foraminifera, Mollusks

Sample Type :Core

1031 1032 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite

Accessory Minerals :Dolomite-5%

Other Features :High Recrystallization, Dolomitic

General Fossils :Fossil Fragments, Benthic Foraminifera

Sample Type :Core

1032 1035 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

General Fossils :Fossil Molds, Gastropods, Bryozoa

Sample Type :Core

1032 1037 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Pin Point Vugs,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Banded

Accessory Minerals :Organics-3%, Pyrite-<1%

Other Features :High Recrystallization

General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Plant Remains, Mollusks

Sample Type :Core

1035 1036 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite

Other Features :Medium Recrystallization

General Fossils :Fossil Fragments, Echinoid, Bryozoa

Sample Type :Core

1036 1040 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31

Porosity :Intercrystalline,Pin Point Vugs,Fracture

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Other Features :Speckled

General Fossils :Fossil Molds, Fossil Fragments

Sample Type :Core

1037 1038 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Pin Point Vugs,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Banded

Accessory Minerals :Organics-3%, Pyrite-<1%

Other Features :High Recrystallization

General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Plant Remains, Mollusks

Sample Type :Core

1040 1042 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish orange_10YR 6/6_36

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium

Induration:Good

Cement :Dolomite
General Fossils :Fossil Molds
Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish
1042 1046 brown_10YR 6/2_30
Porosity :Intercrystalline,Fracture,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds, Mollusks, Bryozoa
Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish
1046 1047 brown_10YR 6/2_30
Porosity :Intercrystalline,Vugular
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Sediment Structures:Interbedded
Accessory Minerals :Limestone-35%, Glauconite-<1%, Pyrite-<1%
Other Features :High Recrystallization, Calcareous
General Fossils :Fossil Molds, Fossil Fragments
Sample Type :Core

1047 1050 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Bioturbated
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Mollusks, Bryozoa, Benthic Foraminifera
Index Fossils :Helicostegina gyralis (Oldsmar Ls.)
Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish
1050 1051 brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite

Accessory Minerals :Limestone-<1%
General Fossils :Fossil Fragments, Fossil Molds
Sample Type :Core

1051 1052 Rock Type :Dolostone; To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Intragranular
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Limestone-20%, Glauconite-1%
Other Features :Calcareous, High Recrystallization
General Fossils :Fossil Fragments, Echinoid, Benthic Foraminifera, Bryozoa, Mollusks
Sample Type :Core

1052 1054 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Fracture
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
General Fossils :Fossil Molds, Echinoid
Sample Type :Core

1054 1056 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To white_N9_76
Porosity :Intercrystalline
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Limestone-7%
Other Features :Calcareous
General Fossils :Fossil Molds
Sample Type :Core

1056 1058 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To white_N9_76
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite, Sparry Calcite
Sediment Structures:Interbedded

Accessory Minerals :Limestone-40%
Other Features :Calcareous, Medium Recrystallization
General Fossils :Fossil Molds, Fossil Fragments, Benthic Foraminifera, Mollusks
Sample Type :Core

1058 1060 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To white_N9_76
Porosity :Intercrystalline,Intercrystalline,Fracture
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-35%
Other Features :Dolomitic, High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera
Sample Type :Core

1060 1062 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To white_N9_76
Porosity :Intercrystalline,Intercrystalline,Fracture
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-35%
Other Features :Dolomitic, High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera
Sample Type :Core

1062 1063 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine
Induration:Moderate
Cement :Dolomite
Accessory Minerals :Quartz-<1%
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

1063 1064 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34
Porosity :Vugular,Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Pyrite-<1%

General Fossils :Fossil Molds, Bryozoa

Sample Type :Core

1064 1065 Rock Type :Dolostone; To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Good

Cement :Dolomite

Other Features :Sucrosic

General Fossils :Fossil Molds, Echinoid

Sample Type :Core

1065 1066 Rock Type :No Sample; To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds, Echinoid

Sample Type :Core

1066 1067 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Accessory Minerals :Limestone-5%

Other Features :Calcareous

General Fossils :Fossil Molds, Fossil Fragments, Mollusks

Sample Type :Core

1067 1069 Rock Type :Packstone;very pale orange_10YR 8/2_29

Porosity :Intergranular,Intercrystalline

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Other Features :Speckled, Medium Recrystallization

General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Echinoid, Mollusks

Sample Type :Core

1069	1070	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29 Porosity :Intercrystalline,Vugular Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine Induration:Good Cement :Dolomite, Sparry Calcite Sediment Structures:Bedded, Burrowed Accessory Minerals :Limestone-25% Other Features :Calcareous General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Mollusks, Coral Sample Type :Core
1070	1072	Rock Type :Packstone;white_N9_76 To very pale orange_10YR 8/2_29 Porosity :Intergranular,Intragranular LimeStone Properties :GRAIN TYPE : Skeletal Cast,Crystals , Biogenic GRAIN SIZE :Gravel Induration:Moderate Cement :Sparry Calcite, Calcilutite Matrix Other Features :Medium Recrystallization, Speckled General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Benthic Foraminifera, Mollusks Sample Type :Core
1072	1072	Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34 Porosity :Vugular,Intercrystalline Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Accessory Minerals :Limestone-25% Other Features :Calcareous, Weathered General Fossils :Fossil Fragments, Fossil Molds, Miliolids Sample Type :Core
1072	1076	Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30 Porosity :Intergranular,Intragranular LimeStone Properties :GRAIN TYPE : Skeletal Cast,Crystals , Biogenic GRAIN SIZE :Gravel Induration:Moderate Cement :Sparry Calcite, Calcilutite Matrix Accessory Minerals :Dolomite-7% Other Features :Medium Recrystallization, Dolomitic, Weathered General Fossils :Fossil Fragments, Fossil Molds, Miliolids, Mollusks Sample Type :Core

1076 1076 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Vugular
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Limestone-2%
General Fossils :Fossil Molds, Fossil Fragments, Miliolids
Sample Type :Core

1076 1078 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Other Features :Medium Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Miliolids
Sample Type :Core

1078 1080 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dusky yellowish brown_10YR 2/2_32
Porosity :Fracture,Vugular,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded
Other Features :Crystalline
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

1080 1085 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To moderate yellowish brown_10YR 5/4_34
Porosity :Fracture,Vugular,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Glauconite-<1%
Other Features :Crystalline
General Fossils :Fossil Molds, Mollusks, Echinoid
Sample Type :Core

1085 1088 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To moderate yellowish brown_10YR 5/4_34

Porosity :Fracture,Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Glauconite-<1%

Other Features :Crystalline

General Fossils :Fossil Molds, Mollusks, Echinoid

Sample Type :Core

1088 1091 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32

Porosity :Fracture,Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Glauconite-<1%

Other Features :Crystalline, Slicken-sides

General Fossils :Fossil Molds

Sample Type :Core

1091 1096 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To moderate yellowish brown_10YR 5/4_34

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Accessory Minerals :Glauconite-<1%, Quartz-<1%

Other Features :Crystalline

General Fossils :Fossil Molds

Sample Type :Core

1096 1098 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To moderate yellowish brown_10YR 5/4_34

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Accessory Minerals :Glauconite-<1%, Quartz-<1%

Other Features :Crystalline

General Fossils :Fossil Molds

Sample Type :Core

1098 1100 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32

Porosity :Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Mottled

Accessory Minerals :Pyrite-<1%, Quartz-<1%

Other Features :Crystalline, Sucrosic

General Fossils :Fossil Molds

Sample Type :Core

1100 1102 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Pin Point Vugs,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds

Sample Type :Core

1102 1103 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish orange_10YR 6/6_36

Porosity :Vugular,Intercrystalline,Fracture

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Mottled

Accessory Minerals :Pyrite-<1%, Quartz-<1%

General Fossils :Fossil Molds

Sample Type :Core

1103 1107 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Pyrite-<1%, Quartz-<1%

Sample Type :Core

1107 1109 Rock Type :Dolostone;dark yellowish orange_10YR 6/6_36 To dark yellowish brown_10YR 4/2_31

Porosity :Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Very Fine To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Mottled

Accessory Minerals :Organics-<1%

General Fossils :Fossil Molds, Echinoid

Sample Type :Core

1109 1110 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Pyrite-<1%, Quartz-<1%

General Fossils :Fossil Molds, Echinoid

Sample Type :Core

1110 1112 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal GRAIN SIZE :Coarse

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Sediment Structures:Banded

Accessory Minerals :Organics-<1%, Pyrite-<1%

Other Features :Medium Recrystallization, Weathered

General Fossils :Fossil Fragments, Benthic Foraminifera, Coral

Sample Type :Core

1112 1113 Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Accessory Minerals :Dolomite-7%, Organics-1%, Pyrite-<1%

Other Features :High Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Benthic Foraminifera, Bryozoa, Echinoid

Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish
1113 1115 brown_10YR 6/2_30

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Quartz-<1%

General Fossils :Fossil Molds

Sample Type :Core

Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1115 1117 6/2_30

Porosity :Vugular,Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal GRAIN SIZE :Coarse

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Sediment Structures:Mottled

Accessory Minerals :Dolomite-3%, Organics-2%, Pyrite-<1%

Other Features :High Recrystallization

General Fossils :Fossil Fragments, Benthic Foraminifera, Mollusks

Sample Type :Core

Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1117 1120 6/2_30

Porosity :Fracture,Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal GRAIN SIZE :Coarse

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Sediment Structures:Streaked

Accessory Minerals :Organics-3%, Pyrite-<1%

Other Features :High Recrystallization

General Fossils :Fossil Fragments, Benthic Foraminifera, Plant Remains, Bryozoa

Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish
1120 1122 brown_10YR 4/2_31

Porosity :Vugular,Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Quartz-2%

General Fossils :Fossil Molds

Sample Type :Core

1122 1127 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Fracture,Pin Point Vugs,Moldic

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal Cast GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Accessory Minerals :Organics-<1%, Pyrite-<1%

Other Features :High Recrystallization

General Fossils :Fossil Molds, Mollusks, Plant Remains, Benthic Foraminifera

Sample Type :Core

1127 1032 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Fracture,Pin Point Vugs,Moldic

LimeStone Properties :GRAIN TYPE : Crystals,Biogenic , Skeletal Cast GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Accessory Minerals :Organics-<1%, Pyrite-<1%

Other Features :High Recrystallization

General Fossils :Fossil Molds, Mollusks, Plant Remains, Benthic Foraminifera

Sample Type :Core

1138 1139 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-3%, Organics-<1%, Quartz-<1%

General Fossils :Fossil Molds, Fossil Fragments, Benthic Foraminifera

Sample Type :Core

1139 1140 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular,Intercrystalline

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-40%, Organics-<1%
Other Features :Dolomitic, High Recrystallization, Variegated
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

1140 1143 Rock Type :Limestone;very pale orange_10YR 8/2_29 To yellowish gray_5Y 8/1_86
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Streaked
Accessory Minerals :Organics-3%, Pyrite-<1%, Glauconite-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Plant Remains
Sample Type :Core

1143 1143.5 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Quartz-<1%
Other Features :Crystalline
General Fossils :Fossil Molds
Sample Type :Core

1144 1145 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Sediment Structures:Bedded
Accessory Minerals :Dolomite-7%, Organics-1%
Other Features :Dolomitic, High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

1145 1148 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30
Porosity :Intercrystalline,Moldic,Vugular

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bedded

Accessory Minerals :Organics-1%, Quartz-<1%

General Fossils :Fossil Molds, Benthic Foraminifera, Coral

Sample Type :Core

Rock Type :Wackestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1148 1150 6/2_30

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Crystals,Calcilutite , Skeletal GRAIN SIZE :Granular

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Sediment Structures:Bedded

Accessory Minerals :Organics-2%, Pyrite-<1%

Other Features :Medium Recrystallization, Chalky

General Fossils :Fossil Fragments, Benthic Foraminifera

Sample Type :Core

1150 1151 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34

Porosity :Pin Point Vugs,Intercrystalline

Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-10%, Organics-2%

Other Features :Calcareous

General Fossils :Fossil Fragments, Gastropods

Sample Type :Core

Rock Type :Wackestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1151 1155 6/2_30

Porosity :Pin Point Vugs,Intragranular,Fracture

LimeStone Properties :GRAIN TYPE : Calcilutite,Crystals , Skeletal GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Calcilutite Matrix, Sparry Calcite

Accessory Minerals :Organics-2%, Glauconite-<1%

Other Features :High Recrystallization, Slicken-sides

General Fossils :Fossil Fragments, Fossil Molds, Gastropods

Sample Type :Core

1155 1158 Rock Type :Wackestone;very pale orange_10YR 8/2_29

Porosity :Pin Point Vugs,Intragranular,Fracture
LimeStone Properties :GRAIN TYPE : Calcilutite,Crystals , Skeletal GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Accessory Minerals :Glauconite-2%, Organics-<1%, Pyrite-<1%
Other Features :High Recrystallization, Slicken-sides, Speckled
General Fossils :Fossil Fragments, Fossil Molds, Gastropods, Benthic Foraminifera
Sample Type :Core

Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1158 1160 6/2_30
Porosity :Pin Point Vugs,Intragranular,Intergranular
LimeStone Properties :GRAIN TYPE : Crystals,Calcilutite , Skeletal GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Bioturbated
Accessory Minerals :Glauconite-1%, Organics-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Gastropods, Echinoid
Sample Type :Core

Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1160 1162 6/2_30
Porosity :Moldic,Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal Cast GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Bedded, Bioturbated
Accessory Minerals :Organics-2%, Glauconite-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Mollusks, Plant Remains, Gastropods
Sample Type :Core

Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1162 1162 6/2_30
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Biogenic,Crystals , Skeletal GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-2%, Glauconite-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Echinoid, Plant Remains, Mollusks
Sample Type :Core

1162 1167 Rock Type :Limestone;very pale orange_10YR 8/2_29 To dark gray_N3_82
Porosity :Moldic,Intergranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast , Biogenic GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Glauconite-<1%, Pyrite-<1%
Other Features :High Recrystallization, Speckled
General Fossils :Fossil Molds, Fossil Fragments, Mollusks, Miliolids
Sample Type :Core

1167 1168 Rock Type :Limestone;very pale orange_10YR 8/2_29 To dark gray_N3_82
Porosity :Intergranular,Moldic,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast , Biogenic GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Nodular
Accessory Minerals :Glauconite-2%, Pyrite-<1%
Other Features :High Recrystallization, Variegated
General Fossils :Fossil Molds, Fossil Fragments, Mollusks, Miliolids, Echinoid
Sample Type :Core

1168 1171 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Vugular
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite, Sparry Calcite
Sediment Structures:Mottled, Interbedded
Accessory Minerals :Limestone-35%, Quartz-1%, Glauconite-<1%
Other Features :Calcareous, High Recrystallization, Weathered
General Fossils :Fossil Fragments, Fossil Molds, Mollusks
Sample Type :Core

1171 1174 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast , Skeletal GRAIN SIZE :Gravel
Induration:Good
Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-35%, Organics-3%
Other Features :High Recrystallization, Dolomitic, Muddy
General Fossils :Fossil Fragments, Mollusks, Miliolids
Sample Type :Core

1174 1177 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To dark yellowish orange_10YR 6/6_36
Porosity :Moldic,Intragranular,Intergranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Gravel
Induration:Moderate
Cement :Sparry Calcite, Dolomite
Sediment Structures:Bedded
Accessory Minerals :Dolomite-20%, Organics-5%
Other Features :High Recrystallization, Dolomitic, Muddy
General Fossils :Fossil Fragments, Mollusks, Miliolids
Sample Type :Core

1177 1178 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30
Porosity :Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal Cast , Peloids GRAIN SIZE :Very Coarse
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated
Accessory Minerals :Organics-1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

1178 1180 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Skeletal Cast , Biogenic GRAIN SIZE :Granular
Induration:Moderate
Cement :Sparry Calcite, Organic Matrix
Accessory Minerals :Organics-5%
Other Features :Medium Recrystallization, Muddy
General Fossils :Fossil Fragments, Miliolids, Plant Remains, Mollusks
Sample Type :Core

1180 1181 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular,Low Permeability
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Peloids GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite, Silicic
Accessory Minerals :Quartz-25%
Other Features :High Recrystallization, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks, Fossil Molds

Sample Type :Core

1181 1183 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Pin Point Vugs

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Skeletal Cast GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Accessory Minerals :Organics-<1%

Other Features :High Recrystallization

General Fossils :Fossil Fragments, Miliolids, Mollusks, Benthic Foraminifera, Fossil Molds

Sample Type :Core

1183 1187 Rock Type :Packstone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31

Porosity :Intergranular,Intragranular,Pin Point Vugs

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Accessory Minerals :Organics-1%, Dolomite-7%

Other Features :High Recrystallization, Muddy, Dolomitic

General Fossils :Fossil Fragments, Miliolids, Mollusks, Benthic Foraminifera, Fossil Molds

Sample Type :Core

1187 1188 Rock Type :Packstone;very pale orange_10YR 8/2_29 To dark yellowish brown_10YR 4/2_31

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Mottled

Accessory Minerals :Silt-3%, Organics-<1%

Other Features :High Recrystallization, Muddy

General Fossils :Fossil Fragments, Miliolids, Mollusks

Sample Type :Core

1188 1190 Rock Type :Packstone;very pale orange_10YR 8/2_29

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Bioturbated, Burrowed

Accessory Minerals :Silt-1%, Organics-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Mollusks
Sample Type :Core

1190 1195 Rock Type :Packstone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Bedded
Accessory Minerals :Organics-3%, Silt-2%, Dolomite-10%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

1195 1199 Rock Type :Packstone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite
Sediment Structures:Bedded
Accessory Minerals :Organics-3%, Silt-2%, Dolomite-10%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

1199 1200 Rock Type :Packstone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Intercrystalline
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Organics-<1%, Dolomite-30%
Other Features :High Recrystallization, Dolomitic, Weathered
General Fossils :Fossil Fragments, Miliolids
Sample Type :Core

1200 1203 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Moldic
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-2%

Other Features :Sucrosic

General Fossils :Fossil Fragments, Fossil Molds

Sample Type :Core

1203 1206 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To white_N9_76

Porosity :Intercrystalline

Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Fine RANGE :Very Fine To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Limestone-35%, Organics-1%

Other Features :Calcareous, Fossilferous

General Fossils :Fossil Fragments, Mollusks, Echinoid

Sample Type :Core

1206 1209 Rock Type :Limestone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Intergranular

LimeStone Properties :GRAIN TYPE : Calcilutite,Crystals , Skeletal GRAIN SIZE :Fine

Induration:Good

Cement :Sparry Calcite, Dolomite, Calcilutite Matrix

Sediment Structures:Mottled

Accessory Minerals :Dolomite-40%, Organics-<1%

Other Features :Dolomitic

General Fossils :Fossil Fragments, Mollusks

Sample Type :Core

1209 1209 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intragranular,Pin Point Vugs

LimeStone Properties :GRAIN TYPE : Calcilutite,Crystals , Skeletal GRAIN SIZE :Fine

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Accessory Minerals :Dolomite-7%

Other Features :High Recrystallization, Dolomitic

General Fossils :Fossil Fragments

Sample Type :Core

1209 1214 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular,Vugular

LimeStone Properties :GRAIN TYPE : Skeletal,Calcilutite , Peloids GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Bioturbated, Burrowed
Accessory Minerals :Silt-<1%, Dolomite-1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid
Sample Type :Core

1214 1219 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Vugular
LimeStone Properties :GRAIN TYPE : Skeletal,Calcilutite , Peloids GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Bioturbated, Burrowed
Accessory Minerals :Silt-<1%, Dolomite-1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid
Sample Type :Core

1219 1220 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular,Vugular
LimeStone Properties :GRAIN TYPE : Skeletal,Calcilutite , Peloids GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Sediment Structures:Bioturbated, Burrowed
Accessory Minerals :Silt-<1%, Dolomite-1%
Other Features :High Recrystallization, Fossilferous
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid
Sample Type :Core

1220 1223 Rock Type :Packstone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Calcilutite , Crystals GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite, Calcilutite Matrix
Accessory Minerals :Dolomite-7%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Echinoid
Sample Type :Core

1223 1228 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Calcilutite , Crystals GRAIN SIZE :Granular

Induration:Good

Cement :Sparry Calcite, Calcilutite Matrix

Sediment Structures:Bedded

Accessory Minerals :Dolomite-3%, Glauconite-<1%

Other Features :High Recrystallization, Dolomitic, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Algae, Cones

Sample Type :Core

1228 1229 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Calcilutite , Crystals GRAIN SIZE :Granular

Induration:Good

Cement :Sparry Calcite, Calcilutite Matrix

Sediment Structures:Bedded

Accessory Minerals :Dolomite-3%, Glauconite-<1%

Other Features :High Recrystallization, Dolomitic, Fossilferous

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Algae, Cones

Sample Type :Core

1229 1230 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Intergranular,Intragranular

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Calcilutite GRAIN SIZE :Granular

Induration:Good

Cement :Sparry Calcite, Calcilutite Matrix

Accessory Minerals :Glauconite-<1%

Other Features :High Recrystallization

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera

Sample Type :Core

1230 1233 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31

Porosity :Vugular,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

General Fossils :Fossil Molds

Sample Type :Core

1233 1235 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Fracture
Dolostone Properties :50-90% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite, Sparry Calcite
Sediment Structures:Banded, Streaked
Accessory Minerals :Limestone-40%
Other Features :Calcareous, Medium Recrystallization, Variegated
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera, Fossil Molds
Sample Type :Core

1235 1240 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34
Porosity :Pin Point Vugs,Fracture,Intercrystalline
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
General Fossils :Fossil Molds
Sample Type :Core

1240 1243 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dark yellowish orange_10YR 6/6_36
Porosity :Intercrystalline,Fracture,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite
Other Features :Crystalline, Sucrosic
General Fossils :Fossil Molds
Sample Type :Core

1243 1244 Rock Type :Packstone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Sediment Structures:Interbedded, Bioturbated
Accessory Minerals :Dolomite-35%, Organics-<1%
Other Features :Dolomitic, Medium Recrystallization
General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera
Sample Type :Core

1244	1247	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dark yellowish orange_10YR 6/6_36 Porosity :Intercrystalline,Fracture,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Accessory Minerals :Organics-<1% Other Features :Crystalline, Sucrosic General Fossils :Fossil Molds, Echinoid Sample Type :Core
1247	1250	Rock Type :Limestone;very pale orange_10YR 8/2_29 Porosity :Intergranular,Intercrystalline LimeStone Properties :GRAIN TYPE : Crystals,Calcilutite , Skeletal GRAIN SIZE :Granular Induration:Good Cement :Sparry Calcite, Calcilutite Matrix Accessory Minerals :Dolomite-5%, Organics-<1% Other Features :Dolomitic, High Recrystallization, Weathered General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera Sample Type :Core
1250	1254	Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 Porosity :Intergranular,Intercrystalline,Pin Point Vugs LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Skeletal Cast GRAIN SIZE :Very Coarse Induration:Good Cement :Sparry Calcite, Dolomite Accessory Minerals :Dolomite-10% Other Features :Dolomitic, High Recrystallization General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera Sample Type :Core
1254	1255	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 Porosity :Vugular,Intercrystalline,Moldic Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Accessory Minerals :Organics-3% General Fossils :Fossil Molds Sample Type :Core

1255 1256 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To dark yellowish orange_10YR 6/6_36

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Mottled, Interbedded

Accessory Minerals :Organics-5%

Other Features :Crystalline, Sucrosic, Muddy

General Fossils :Fossil Molds

Sample Type :Core

1256 1257 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To dark yellowish brown_10YR 4/2_31

Porosity :Pin Point Vugs,Vugular

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Streaked

Accessory Minerals :Organics-7%

Other Features :Crystalline

Sample Type :Core

1257 1260 Rock Type :Limestone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Fracture,Pin Point Vugs

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Very Coarse

Induration:Good

Cement :Sparry Calcite, Dolomite

Sediment Structures:Mottled

Accessory Minerals :Dolomite-30%, Organics-2%

Other Features :High Recrystallization, Dolomitic

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera

Sample Type :Core

1260 1262 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34

Porosity :Pin Point Vugs,Moldic

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bioturbated

Accessory Minerals :Organics-<1%

General Fossils :Fossil Molds, Gastropods, Mollusks, Miliolids

Sample Type :Core

1262 1263 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To dark gray_N3_82

Porosity :Pin Point Vugs,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Organics-15%

General Fossils :Plant Remains

Sample Type :Core

Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR
1263 1265 8/2_29

Porosity :Intercrystalline,Intergranular,Pin Point Vugs

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Coarse

Induration:Moderate

Cement :Sparry Calcite

Sediment Structures:Mottled

Accessory Minerals :Dolomite-20%, Organics-2%, Silt-1%

Other Features :Dolomitic, High Recrystallization

General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids

Sample Type :Core

Rock Type :Limestone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR
1265 1265 8/2_29

Porosity :Intercrystalline,Intergranular

LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Medium

Induration:Moderate

Cement :Sparry Calcite, Dolomite

Accessory Minerals :Dolomite-20%, Silt-3%, Organics-1%

Other Features :Dolomitic, Medium Recrystallization, Partings

General Fossils :Fossil Fragments, Benthic Foraminifera

Sample Type :Core

Rock Type :Packstone;very pale orange_10YR 8/2_29 To dark yellowish brown_10YR
1265 1269 4/2_31

Porosity :Intergranular,Intercrystalline

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite, Dolomite

Sediment Structures:Mottled

Accessory Minerals :Dolomite-20%, Organics-3%

Other Features :Dolomitic, Medium Recrystallization

General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids

Sample Type :Core

1269 1270 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Vugular

Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite, Sparry Calcite

Sediment Structures:Mottled

Accessory Minerals :Limestone-30%, Organics-2%

Other Features :Calcareous, High Recrystallization

General Fossils :Fossil Fragments, Miliolids, Benthic Foraminifera

Sample Type :Core

1270 1272 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29

Porosity :Intergranular

LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Calcilutite GRAIN SIZE :Very Coarse

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Accessory Minerals :Organics-2%, Silt-2%

Other Features :Medium Recrystallization, Muddy

General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids

Sample Type :Core

1272 1273 Rock Type :Wackestone;white_N9_76 To very pale orange_10YR 8/2_29

Porosity :Intergranular

LimeStone Properties :GRAIN TYPE : Calcilutite,Crystals , Skeletal GRAIN SIZE :Coarse

Induration:Moderate

Cement :Sparry Calcite, Calcilutite Matrix

Sediment Structures:Bioturbated

Accessory Minerals :Organics-<1%

Other Features :Medium Recrystallization

General Fossils :Fossil Fragments, Benthic Foraminifera, Gastropods

Sample Type :Core

1273 1275 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Organics-<1%
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

1275 1277 Rock Type :Packstone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Calcilutite GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Sediment Structures:Mottled
Accessory Minerals :Dolomite-15%, Organics-<1%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids, Gastropods
Sample Type :Core

1277 1280 Rock Type :Packstone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Sediment Structures:Mottled
Accessory Minerals :Dolomite-35%, Organics-<1%
Other Features :High Recrystallization, Dolomitic, Fossilferous
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids, Gastropods
Sample Type :Core

1280 1282 Rock Type :Packstone; To moderate yellowish brown_10YR 5/4_34
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Sediment Structures:Mottled
Accessory Minerals :Dolomite-25%, Organics-3%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids
Sample Type :Core

1282 1284 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :90-100% ALTERED;Anhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Mottled
Other Features :Crystalline
General Fossils :Fossil Molds
Sample Type :Core

1284 1285 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34
Porosity :Intercrystalline,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Very Fine RANGE :Microcrystalline To Fine
Induration:Moderate
Cement :Dolomite, Sparry Calcite
Sediment Structures:Bedded
Accessory Minerals :Limestone-20%, Organics-<1%
Other Features :Calcareous
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera
Sample Type :Core

1285 1287 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34
Porosity :Vugular,Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Other Features :Crystalline
General Fossils :Fossil Molds
Sample Type :Core

1287 1288 Rock Type :Packstone;very pale orange_10YR 8/2_29 To dark yellowish brown_10YR 4/2_31
Porosity :Intergranular,Pin Point Vugs
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Sediment Structures:Mottled
Accessory Minerals :Dolomite-15%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids

Sample Type :Core

1288 1289 Rock Type :Packstone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Intergranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Streaked
Accessory Minerals :Organics-3%, Silt-2%
Other Features :High Recrystallization, Muddy
General Fossils :Fossil Fragments, Benthic Foraminifera
Sample Type :Core

1289 1290 Rock Type :Wackestone;very pale orange_10YR 8/2_29
Porosity :Moldic,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Granular
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Bioturbated, Burrowed
Other Features :High Recrystallization
General Fossils :Fossil Molds, Fossil Fragments, Gastropods, Miliolids, Benthic Foraminifera
Sample Type :Core

1290 1291 Rock Type :Dolostone;medium light gray_N6_79 To very pale orange_10YR 8/2_29
Porosity :Intercrystalline,Intergranular,Pin Point Vugs
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Microcrystalline
Induration:Good
Cement :Dolomite, Sparry Calcite
Sediment Structures:Mottled
Accessory Minerals :Limestone-30%
Other Features :Calcareous, High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Gastropods
Sample Type :Core

1291 1294 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To dark yellowish brown_10YR 4/2_31
Porosity :Pin Point Vugs,Intercrystalline
Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite, Sparry Calcite

Sediment Structures:Mottled
Accessory Minerals :Limestone-35%, Organics-2%, Silt-1%
Other Features :Calcareous, High Recrystallization, Variegated, Muddy
General Fossils :Fossil Fragments, Fossil Molds
Sample Type :Core

1294 1296 Rock Type :Packstone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Pin Point Vugs,Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Accessory Minerals :Dolomite-10%, Organics-2%
Other Features :Dolomitic, High Recrystallization, Variegated
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera
Sample Type :Core

1296 1297 Rock Type :Wackestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Pin Point Vugs,Vugular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Burrowed
Accessory Minerals :Dolomite-15%, Organics-<1%
Other Features :High Recrystallization, Dolomitic
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Gastropods
Sample Type :Core

1297 1298 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Vugular,Fracture,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated
Other Features :Crystalline, High Recrystallization, Variegated
General Fossils :Fossil Molds
Sample Type :Core

1298 1299 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Vugular,Intercrystalline,Intergranular

Dolostone Properties :50-90% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine
Induration:Good
Cement :Dolomite, Sparry Calcite
Sediment Structures:Mottled
Accessory Minerals :Limestone-30%
Other Features :Calcareous, Medium Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids
Sample Type :Core

1299 1300 Rock Type :Limestone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intercrystalline,Vugular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite, Dolomite
Sediment Structures:Mottled, Brecciated
Accessory Minerals :Dolomite-25%, Organics-<1%
Other Features :Dolomitic, High Recrystallization, Variegated
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Miliolids, Gastropods
Sample Type :Core

1300 1302 Rock Type :Packstone;very pale orange_10YR 8/2_29 To light gray_N7_78
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite
Sediment Structures:Mottled
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Fossil Molds, Benthic Foraminifera, Gastropods, Miliolids
Index Fossils :Coskinolina elongata (Oldsmar Ls.)
Sample Type :Core

1302 1306 Rock Type :Packstone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Crystals GRAIN SIZE :Very Coarse
Induration:Good
Cement :Sparry Calcite
Accessory Minerals :Dolomite-5%, Silt-1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids, Echinoid

Sample Type :Core

1306 1307 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Quartz-<1%, Organics-<1%
Other Features :Crystalline
General Fossils :Fossil Molds, Mollusks
Sample Type :Core

1307 1308 Rock Type :Packstone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Skeletal,Crystals , Biogenic GRAIN SIZE :Very Coarse
Induration:Moderate
Cement :Sparry Calcite
Accessory Minerals :Silt-2%, Organics-<1%
Other Features :High Recrystallization
General Fossils :Fossil Fragments, Benthic Foraminifera, Miliolids
Sample Type :Core

1308 1310 Rock Type :Limestone;very pale orange_10YR 8/2_29
Porosity :Intergranular,Intragranular
LimeStone Properties :GRAIN TYPE : Crystals,Skeletal , Biogenic GRAIN SIZE :Coarse
Induration:Good
Cement :Sparry Calcite
Other Features :High Recrystallization
General Fossils :Fossil Molds, Benthic Foraminifera, Miliolids, Gastropods
Sample Type :Core

1310 1312 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29
Porosity :Fracture,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Bedded, Bioturbated
Other Features :Crystalline, Variegated
General Fossils :Fossil Molds
Sample Type :Core

1312	1314	Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To pale yellowish brown_10YR 6/2_30 Porosity :Vugular,Fracture,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine Induration:Good Cement :Dolomite Other Features :Crystalline Sample Type :Core
1314	1316	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 Porosity :Fracture,Pin Point Vugs,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Sediment Structures:Bedded Accessory Minerals :Silt-1% Sample Type :Core
1316	1319	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To very pale orange_10YR 8/2_29 Porosity :Fracture,Intercrystalline,Low Permeability Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine Induration:Good Cement :Dolomite Sediment Structures:Bedded, Bioturbated Accessory Minerals :Pyrite-<1% Other Features :Crystalline Sample Type :Core
1319	1320	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To dark yellowish brown_10YR 4/2_31 Porosity :Pin Point Vugs,Vugular,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Fine Induration:Good Cement :Dolomite Other Features :Crystalline General Fossils :Fossil Molds Sample Type :Core

1320	1323	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34 Porosity :Pin Point Vugs,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite General Fossils :Fossil Molds Sample Type :Core
1323	1325	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30 Porosity :Fracture,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine Induration:Good Cement :Dolomite Sample Type :Core
1325	1329	Rock Type :Dolostone;very pale orange_10YR 8/2_29 Porosity :Fracture Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Microcrystalline Induration:Good Cement :Dolomite Accessory Minerals :Pyrite-<1% Other Features :Medium Recrystallization Sample Type :Core
1329	1334	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 Porosity :Pin Point Vugs,Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Sample Type :Core
1334	1336	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30 Porosity :Fracture,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine Induration:Good Cement :Dolomite Other Features :Crystalline

Sample Type :Core

1336	1338	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34 Porosity :Pin Point Vugs,Fracture Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine Induration:Good Cement :Dolomite Sediment Structures:Bedded Sample Type :Core
1338	1338	Rock Type :Dolostone;very pale orange_10YR 8/2_29 Porosity :Intercrystalline Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine Induration:Good Cement :Dolomite Sediment Structures:Streaked Accessory Minerals :Silt-1% Other Features :Medium Recrystallization Sample Type :Core
1339	1340	Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34 Porosity :Vugular,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Microcrystalline Induration:Good Cement :Dolomite Sediment Structures:Bioturbated, Bedded Other Features :Crystalline Sample Type :Core
1340	1345	Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29 Porosity :Vugular,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Microcrystalline Induration:Good Cement :Dolomite Sediment Structures:Bedded Other Features :Crystalline General Fossils :Fossil Molds Sample Type :Core

1345 1348 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To moderate yellowish brown_10YR 5/4_34

Porosity :Low Permeability,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Microcrystalline

Induration:Good

Cement :Dolomite

Other Features :Crystalline

Sample Type :Core

1348 1350 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Low Permeability,Fracture,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Other Features :Crystalline

Sample Type :Core

1350 1352 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Low Permeability,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Microcrystalline

Induration:Good

Cement :Dolomite

Other Features :Crystalline

Sample Type :Core

1352 1353 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Pin Point Vugs,Intercrystalline,Vugular

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bioturbated

Sample Type :Core

1353 1354 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31

Porosity :Pin Point Vugs,Intercrystalline

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Silt-1%

Sample Type :Core

1354 1355 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Fracture,Vugular,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Microcrystalline

Induration:Good

Cement :Dolomite

Other Features :Crystalline

General Fossils :Fossil Molds

Sample Type :Core

1355 1356 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Fracture,Vugular

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Microcrystalline

Induration:Good

Cement :Dolomite

Sample Type :Core

1356 1360 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30

Porosity :Vugular,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bioturbated, Burrowed

Accessory Minerals :Silt-<1%

General Fossils :Fossil Molds, Gastropods

Sample Type :Core

1360 1362 Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To moderate yellowish brown_10YR 5/4_34

Porosity :Pin Point Vugs,Vugular

Dolostone Properties :90-100% ALTERED;Anhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine

Induration:Good

Cement :Dolomite

Sample Type :Core

1362 1363 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To moderate yellowish brown_10YR 5/4_34

Porosity :Fracture,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Silt-1%

Sample Type :Core

1363	1365	Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29 Porosity :Fracture,Pin Point Vugs Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine Induration:Good Cement :Dolomite Accessory Minerals :Silt-1%, Pyrite-<1% Other Features :High Recrystallization General Fossils :Fossil Molds, Gastropods Sample Type :Core
1365	1366	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29 Porosity :Pin Point Vugs,Intercrystalline Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Fine Induration:Good Cement :Dolomite Accessory Minerals :Silt-<1% Sample Type :Core
1366	1368	Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30 Porosity :Fracture,Vugular Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine Induration:Good Cement :Dolomite Other Features :Medium Recrystallization, Variegated Sample Type :Core
1368	1369	Rock Type :Dolostone;dark yellowish brown_10YR 4/2_31 To very pale orange_10YR 8/2_29 Porosity :Pin Point Vugs,Intercrystalline Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good
Cement :Dolomite
Sample Type :Core

1369 1369 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Vugular,Low Permeability
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Microcrystalline
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated, Burrowed
Accessory Minerals :Pyrite-<1%, Silt-<1%
Other Features :Medium Recrystallization
Sample Type :Core

1369 1370 Rock Type :Dolostone; To moderate yellowish brown_10YR 5/4_34
Porosity :Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine
Induration:Good
Cement :Dolomite
Sediment Structures:Streaked
Accessory Minerals :Silt-1%
Other Features :Weathered
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

1370 1372 Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR 6/2_30
Porosity :Low Permeability,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Fine
Induration:Good
Cement :Dolomite
Other Features :High Recrystallization
Sample Type :Core

1372 1374 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30
Porosity :Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Fine
Induration:Good
Cement :Dolomite

Accessory Minerals :Quartz-<1%
Other Features :High Recrystallization, Crystalline
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

1374 1376 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Pin Point Vugs,Intercrystalline
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine
Induration:Good
Cement :Dolomite
Other Features :Variegated, Weathered
General Fossils :Fossil Molds
Sample Type :Core

1376 1378 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30
Porosity :Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Fine
Induration:Good
Cement :Dolomite
Accessory Minerals :Quartz-<1%
Other Features :High Recrystallization, Crystalline
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

1378 1380 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Low Permeability,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Medium
Induration:Good
Cement :Dolomite
Sediment Structures:Bioturbated
Accessory Minerals :Quartz-<1%
Other Features :High Recrystallization, Crystalline, Variegated
General Fossils :Fossil Molds, Gastropods
Sample Type :Core

1380 1382 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30 To very pale orange_10YR 8/2_29
Porosity :Low Permeability,Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Medium

Induration:Good

Cement :Dolomite

Sediment Structures:Bioturbated

Accessory Minerals :Quartz-<1%

Other Features :High Recrystallization, Crystalline, Variegated

General Fossils :Fossil Molds, Gastropods

Sample Type :Core

Rock Type :Dolostone;very pale orange_10YR 8/2_29 To pale yellowish brown_10YR
1382 1384 6/2_30

Porosity :Low Permeability,Vugular

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Sediment Structures:Bioturbated

Accessory Minerals :Pyrite-<1%

Other Features :High Recrystallization, Crystalline

Sample Type :Core

1384 1387 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Vugular

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Pyrite-<1%, Quartz-<1%

Other Features :High Recrystallization, Crystalline

Sample Type :Core

Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish
1387 1388 brown_10YR 6/2_30

Porosity :Vugular

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Quartz-<1%

Other Features :High Recrystallization, Crystalline, Variegated

Sample Type :Core

Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32 To moderate yellowish
1388 1388 brown_10YR 5/4_34

Porosity :Fracture,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Silt-2%

Other Features :Crystalline

Sample Type :Core

1388 1390 Rock Type :Dolostone;moderate yellowish brown_10YR 5/4_34 To pale yellowish brown_10YR 6/2_30

Porosity :Fracture,Vugular

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Quartz-<1%

Other Features :High Recrystallization, Crystalline, Variegated

Sample Type :Core

1390 1390 Rock Type :Dolostone;dusky yellowish brown_10YR 2/2_32

Porosity :Pin Point Vugs,Intercrystalline

Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Cryptocrystalline To Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Silt-1%

Other Features :High Recrystallization, Variegated, Weathered

Sample Type :Core

1390 1391 Rock Type :Dolostone;pale yellowish brown_10YR 6/2_30

Porosity :Intercrystalline,Pin Point Vugs

Dolostone Properties :90-100% ALTERED;Subhedral GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Very Fine

Induration:Good

Cement :Dolomite

Accessory Minerals :Pyrite-<1%

Other Features :High Recrystallization, Speckled

Sample Type :Core

1391 1394 Rock Type :Dolostone;medium light gray_N6_79 To moderate yellowish brown_10YR 5/4_34

Porosity :Vugular

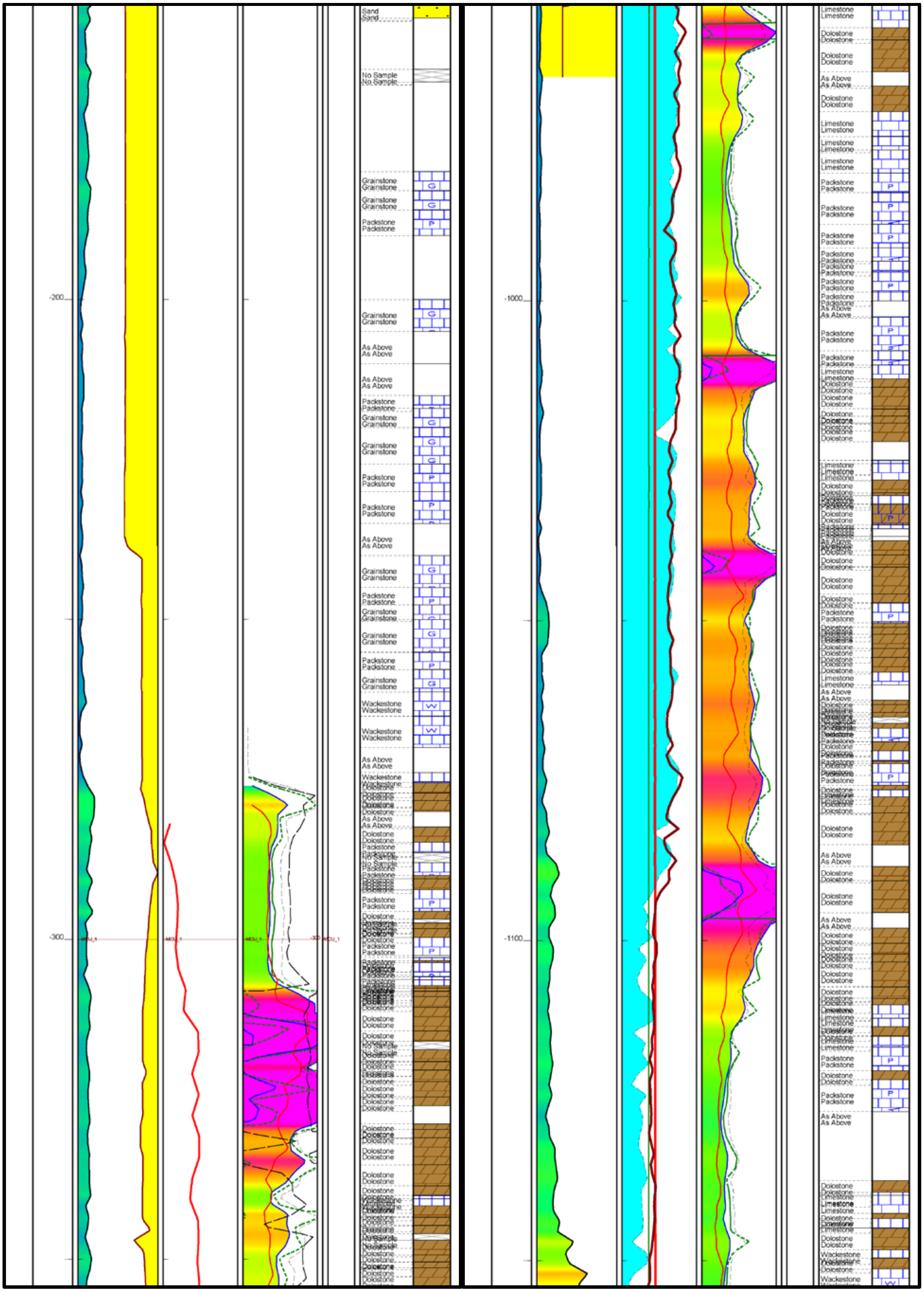
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Cryptocrystalline RANGE :Cryptocrystalline To Fine

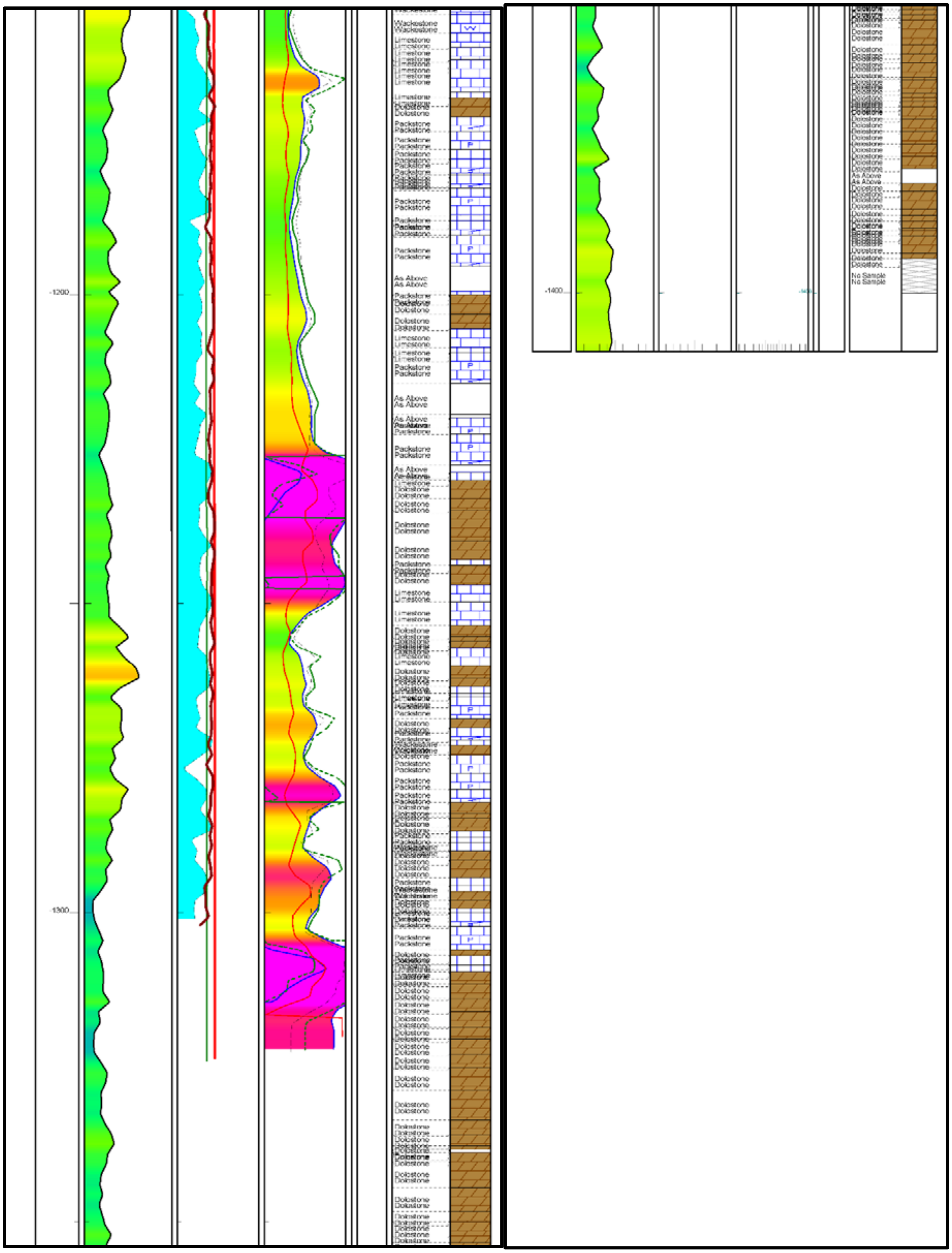
Induration:Good

Cement :Dolomite
Sediment Structures:Mottled
Other Features :High Recrystallization, Crystalline
Sample Type :Core

1394 1395 Rock Type :Dolostone;
Porosity :Vugular
Dolostone Properties :90-100% ALTERED;Undetermined GRAIN SIZE : Microcrystalline RANGE :Microcrystalline To Medium
Induration:Good
Cement :Dolomite
Accessory Minerals :Quartz-<1%, Pyrite-<1%
Other Features :Crystalline
Sample Type :Core

1395 1400 Rock Type :No Sample;
Sample Type :Core





APPENDIX C

WATER QUALITY

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 180'-210'		Packer 240'-270'	
Date and Time of Collection		28APR14:14:15		02MAY14:09:00	
Station Name		P-0304		P-0304	
LIMS Login ID		L20142061-001		L20142140-001	
Analyte Name	Units	Value	Depth (ft bls)	Value	Depth (ft bls)
Water Temp	deg C	22.6	210	.	270
pH-Field	std units	8.3	210	.	270
Conductivity-Field	umhos/cm	184	210	.	270
Alkalinity	mg/L	89.895599	210	88.768471	270
Cl	mg/L	10.14	210	8.8	270
Conductivity	umhos/cm	182.89999	210	182.89999	270
Hardness Calc Ca+Mg	mg/L	100.26589	210	91.793702	270
SO4	mg/L	1.0204	210	1.4128	270
TDS	mg/L	111	210	101	270
Si-T	mg/L	.	210	.	270
Ag-T	ug/L	0.0651554	210	0.3177101	270
Al-T	ug/L	209.3901	210	52.14651	270
As-T	ug/L	0.4435459	210	1.708895	270
Ba-T	ug/L	7.275336	210	4.045216	270
Ca-T	mg/L	30.73168	210	27.0489	270
Cd-T	ug/L	0.0185787	210	0.253112	270
Cr-T	ug/L	0.3684309	210	0.3931041	270
Cu-T	ug/L	0.8291547	210	1.992327	270
Fe-T	ug/L	233.9757	210	96.29282	270
K-T	mg/L	0.3536438	210	0.3468379	270
Mg-T	mg/L	5.713667	210	5.889412	270
Mn-T	ug/L	7.244364	210	1.483395	270
Mo-T	ug/L	0.7380279	210	0.5236339	270
Na-T	mg/L	3.758466	210	3.229151	270
Ni-T	ug/L	-0.200242	210	-0.522539	270
Pb-T	ug/L	0.0824788	210	0.2336477	270
Se-T	ug/L	-4.009726	210	-4.113741	270
Sr-T	ug/L	44.46164	210	44.15184	270
Zn-T	ug/L	12.78295	210	13.25692	270

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 300'-330'		Packer 360'-390'	
Date and Time of Collection		05MAY14:13:30		06MAY14:09:15	
Station Name		P-0304		P-0304	
LIMS Login ID		L20142140-002		L20142062-001	
Analyte Name	Units	Value	Depth (ft bls)	Value	Depth (ft bls)
Water Temp	deg C	22.8	330	22.9	390
pH-Field	std units	.	330	.	390
Conductivity-Field	umhos/cm	224	330	224	390
Alkalinity	mg/L	116.06586	330	111.66547	390
Cl	mg/L	8.8	330	8.9	390
Conductivity	umhos/cm	228	330	224	390
Hardness Calc Ca+Mg	mg/L	287.93518	330	138.55191	390
SO4	mg/L	1.2157	330	0.9239	390
TDS	mg/L	138	330	128	390
Si-T	mg/L	.	330	.	390
Ag-T	ug/L	0.4081445	330	0.0801956	390
Al-T	ug/L	100.6124	330	477.7765	390
As-T	ug/L	0.8520359	330	1.305511	390
Ba-T	ug/L	8.292608	330	8.600927	390
Ca-T	mg/L	85.40899	330	33.95621	390
Cd-T	ug/L	0.2726451	330	0.2850293	390
Cr-T	ug/L	5.220323	330	5.011333	390
Cu-T	ug/L	1.061437	330	0.9179327	390
Fe-T	ug/L	742.4225	330	902.9715	390
K-T	mg/L	0.3708656	330	0.3843851	390
Mg-T	mg/L	18.13233	330	13.05567	390
Mn-T	ug/L	75.16189	330	28.09225	390
Mo-T	ug/L	1.524007	330	0.7722278	390
Na-T	mg/L	3.408922	330	3.09471	390
Ni-T	ug/L	0.6303942	330	2.475995	390
Pb-T	ug/L	-0.704883	330	-0.511232	390
Se-T	ug/L	-6.411803	330	0.1194509	390
Sr-T	ug/L	80.58372	330	66.59079	390
Zn-T	ug/L	19.36332	330	9.581082	390

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 420'-450'		Packer 480'-510'	
Date and Time of Collection		**07MAY14:10:45**		**08MAY14:09:20**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142063-001**		**L20142064-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	23.1	450	24.6	510
pH-Field	std units	.	450	.	510
Conductivity-Field	umhos/cm	237	450	245	510
Alkalinity	mg/L	121.45789	450	121.00569	510
Cl	mg/L	10.68	450	8.87	510
Conductivity	umhos/cm	235	450	233	510
Hardness Calculated Ca+Mg	mg/L	163.31219	450	131.99681	510
SO4	mg/L	0.9	450	0.5376	510
TDS	mg/L	138	450	140	510
Si-T	mg/L	.	450	.	510
Ag-T	ug/L	-0.082241	450	-0.022758	510
Al-T	ug/L	1678.579	450	28.89428	510
As-T	ug/L	2.865845	450	-1.061224	510
Ba-T	ug/L	10.37995	450	6.823112	510
Ca-T	mg/L	38.01467	450	35.35472	510
Cd-T	ug/L	0.3728254	450	0.9446082	510
Cr-T	ug/L	9.624927	450	1.659479	510
Cu-T	ug/L	1.347428	450	0.4225502	510
Fe-T	ug/L	2322.075	450	580.1498	510
K-T	mg/L	0.4551564	450	0.5660395	510
Mg-T	mg/L	16.60747	450	10.61585	510
Mn-T	ug/L	19.68039	450	9.37536	510
Mo-T	ug/L	0.6633476	450	2.245204	510
Na-T	mg/L	3.4072	450	3.256633	510
Ni-T	ug/L	4.914647	450	0.9542434	510
Pb-T	ug/L	0.0977462	450	-0.498651	510
Se-T	ug/L	1.657633	450	-0.008332	510
Sr-T	ug/L	68.91397	450	114.414	510
Zn-T	ug/L	13.05289	450	22.63566	510

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 510'-540'		Packer 540'-570'	
Date and Time of Collection		08MAY14:14:15		09MAY14:09:00	
Station Name		P-0304		P-0304	
LIMS Login ID		L20142065-001		L20142066-001	
Analyte Name	Units	Value	Depth (ft bls)	Value	Depth (ft bls)
Water Temp	deg C	23.7	540	.	570
pH-Field	std units	8.14	540	.	570
Conductivity-Field	umhos/cm	267	540	.	570
Alkalinity	mg/L	134.52686	540	115.46418	570
Cl	mg/L	8.68	540	8.51	570
Conductivity	umhos/cm	262	540	224	570
Hardness Calculated Ca+Mg	mg/L	140.62701	540	119.05174	570
SO4	mg/L	0.9	540	3.2997	570
TDS	mg/L	160	540	126	570
Si-T	mg/L	.	540	.	570
Ag-T	ug/L	-0.097843	540	-0.016006	570
Al-T	ug/L	6.776353	540	12.19084	570
As-T	ug/L	2.792065	540	-0.199755	570
Ba-T	ug/L	7.56668	540	3.957346	570
Ca-T	mg/L	34.90205	540	34.21092	570
Cd-T	ug/L	0.4021404	540	0.1375287	570
Cr-T	ug/L	-0.104648	540	0.0515186	570
Cu-T	ug/L	0.1424418	540	0.2441629	570
Fe-T	ug/L	215.7921	540	215.537	570
K-T	mg/L	0.6786978	540	0.3430677	570
Mg-T	mg/L	12.98606	540	8.165876	570
Mn-T	ug/L	3.222273	540	6.650105	570
Mo-T	ug/L	1.149129	540	0.7369725	570
Na-T	mg/L	3.270722	540	3.109632	570
Ni-T	ug/L	0.5238333	540	0.2187913	570
Pb-T	ug/L	-0.847086	540	-0.524402	570
Se-T	ug/L	-2.8372	540	-4.953496	570
Sr-T	ug/L	86.30703	540	358.2697	570
Zn-T	ug/L	13.45717	540	9.145157	570

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 570'-600'		Packer 600'-630'	
Date and Time of Collection		**12MAY14:10:15**		**12MAY14:07:30**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142067-001**		**L20142068-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	.	600	.	630
pH-Field	std units	.	600	.	630
Conductivity-Field	umhos/cm	.	600	.	630
Alkalinity	mg/L	150.13297	600	152.67352	630
Cl	mg/L	8.66	600	8.53	630
Conductivity	umhos/cm	284	600	282	630
Hardness Calculated Ca+Mg	mg/L	157.01819	600	161.82173	630
SO4	mg/L	1.8502	600	1.134	630
TDS	mg/L	155	600	159	630
Si-T	mg/L	.	600	.	630
Ag-T	ug/L	0.0148309	600	0.0678922	630
Al-T	ug/L	22.21231	600	20.18863	630
As-T	ug/L	-0.811126	600	3.259074	630
Ba-T	ug/L	4.491597	600	7.15921	630
Ca-T	mg/L	45.501	600	43.59584	630
Cd-T	ug/L	0.2267822	600	1.979174	630
Cr-T	ug/L	5.477928	600	0.9573904	630
Cu-T	ug/L	0.8142089	600	0.6759732	630
Fe-T	ug/L	922.209	600	440.5187	630
K-T	mg/L	0.1958006	600	0.5990054	630
Mg-T	mg/L	10.53963	600	12.86132	630
Mn-T	ug/L	7.00607	600	9.784212	630
Mo-T	ug/L	4.04696	600	13.16248	630
Na-T	mg/L	3.060858	600	3.335156	630
Ni-T	ug/L	0.7162689	600	1.441536	630
Pb-T	ug/L	-0.020394	600	-0.044626	630
Se-T	ug/L	1.149314	600	-2.688973	630
Sr-T	ug/L	173.331	600	114.8212	630
Zn-T	ug/L	19.06005	600	31.95915	630

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 630'-660'		Packer 660'-690'	
Date and Time of Collection		13MAY14:14:00		14MAY14:07:40	
Station Name		P-0304		P-0304	
LIMS Login ID		L20142069-001		L20142070-001	
Analyte Name	Units	Value	Depth (ft bls)	Value	Depth (ft bls)
Water Temp	deg C	.	660	.	690
pH-Field	std units	.	660	.	690
Conductivity-Field	umhos/cm	.	660	.	690
Alkalinity	mg/L	161.58664	660	167.40929	690
Cl	mg/L	8.15	660	9.29	690
Conductivity	umhos/cm	300	660	315	690
Hardness Calculated Ca+Mg	mg/L	157.362	660	175.90096	690
SO4	mg/L	0.9614	660	0.7619	690
TDS	mg/L	172	660	174	690
Si-T	mg/L	.	660	.	690
Ag-T	ug/L	0.0222192	660	0.067395	690
Al-T	ug/L	7.148957	660	48.15515	690
As-T	ug/L	1.530212	660	7.679089	690
Ba-T	ug/L	6.823942	660	8.355775	690
Ca-T	mg/L	35.29621	660	48.39937	690
Cd-T	ug/L	0.2560656	660	0.1662061	690
Cr-T	ug/L	0.1625279	660	0.8389231	690
Cu-T	ug/L	0.2818711	660	0.4746472	690
Fe-T	ug/L	446.3113	660	472.3284	690
K-T	mg/L	1.049284	660	0.4848034	690
Mg-T	mg/L	16.81092	660	13.36759	690
Mn-T	ug/L	4.768131	660	13.81598	690
Mo-T	ug/L	3.08838	660	21.86147	690
Na-T	mg/L	5.502208	660	3.513093	690
Ni-T	ug/L	0.2466312	660	0.8781549	690
Pb-T	ug/L	-0.39315	660	-0.507531	690
Se-T	ug/L	-2.024066	660	-7.295297	690
Sr-T	ug/L	99.72445	660	101.5234	690
Zn-T	ug/L	9.066412	660	15.07817	690

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 690'-720'		Packer 750'-780'	
Date and Time of Collection		**14MAY14:17:30**		**16MAY14:13:05**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142071-001**		**L20142072-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	.	720	.	780
pH-Field	std units	.	720	.	780
Conductivity-Field	umhos/cm	.	720	.	780
Alkalinity	mg/L	177.74106	720	104.30285	780
Cl	mg/L	9.69	720	11.95	780
Conductivity	umhos/cm	329	720	213	780
Hardness Calculated Ca+Mg	mg/L	305.50396	720	108.76947	780
SO4	mg/L	0.3462	720	3.0373	780
TDS	mg/L	187	720	124	780
Si-T	mg/L	.	720	.	780
Ag-T	ug/L	-0.097866	720	0.0149933	780
Al-T	ug/L	140.8685	720	18.75178	780
As-T	ug/L	4.92777	720	3.707426	780
Ba-T	ug/L	10.65248	720	4.690636	780
Ca-T	mg/L	81.38456	720	23.34764	780
Cd-T	ug/L	0.1801366	720	-0.042008	780
Cr-T	ug/L	3.823191	720	0.2216154	780
Cu-T	ug/L	2.674749	720	0.0619076	780
Fe-T	ug/L	666.1296	720	129.2292	780
K-T	mg/L	0.6817078	720	1.497837	780
Mg-T	mg/L	24.83893	720	12.25605	780
Mn-T	ug/L	18.18638	720	3.019536	780
Mo-T	ug/L	13.12492	720	8.399591	780
Na-T	mg/L	3.463467	720	3.266231	780
Ni-T	ug/L	1.858028	720	1.038686	780
Pb-T	ug/L	0.0793526	720	0.4205279	780
Se-T	ug/L	-2.874127	720	1.195839	780
Sr-T	ug/L	109.656	720	244.3111	780
Zn-T	ug/L	20.94098	720	5.387222	780

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 780'-810'		Packer 840'-870'	
Date and Time of Collection		21MAY14:09:45		22MAY14:12:45	
Station Name		P-0304		P-0304	
LIMS Login ID		L20142073-001		L20142074-001	
Analyte Name	Units	Value	Depth (ft bls)	Value	Depth (ft bls)
Water Temp	deg C	.	810	.	870
pH-Field	std units	.	810	.	870
Conductivity-Field	umhos/cm	.	810	.	870
Alkalinity	mg/L	152.16867	810	114.95117	870
Cl	mg/L	8.07	810	9.82	870
Conductivity	umhos/cm	289	810	227	870
Hardness Calculated Ca+Mg	mg/L	191.51673	810	170.62848	870
SO4	mg/L	0.5361	810	0.0939	870
TDS	mg/L	163	810	135	870
Si-T	mg/L	.	810	.	870
Ag-T	ug/L	0.5840991	810	0.1877257	870
Al-T	ug/L	45.04582	810	34.37825	870
As-T	ug/L	2.153826	810	1.866441	870
Ba-T	ug/L	6.483261	810	12.54776	870
Ca-T	mg/L	50.5067	810	39.59826	870
Cd-T	ug/L	-0.113953	810	-0.048026	870
Cr-T	ug/L	11.0362	810	1.681127	870
Cu-T	ug/L	4.052296	810	-0.089429	870
Fe-T	ug/L	1618.756	810	223.4656	870
K-T	mg/L	0.8229696	810	1.170999	870
Mg-T	mg/L	15.88186	810	17.4239	870
Mn-T	ug/L	19.57974	810	4.393961	870
Mo-T	ug/L	16.9703	810	2.287213	870
Na-T	mg/L	3.488333	810	3.823044	870
Ni-T	ug/L	2.067034	810	0.7561208	870
Pb-T	ug/L	-0.911751	810	-1.264901	870
Se-T	ug/L	-4.879869	810	-8.202505	870
Sr-T	ug/L	181.3615	810	151.1821	870
Zn-T	ug/L	13.41534	810	8.530316	870

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 870'-900'		Packer 990'-1,020'	
Date and Time of Collection		**23MAY14:09:00**		**24MAY14:12:30**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142075-001**		**L20142079-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	.	900	.	1020
pH-Field	std units	.	900	.	1020
Conductivity-Field	umhos/cm	.	900	.	1020
Alkalinity	mg/L	134.6075	900	133.41396	1020
Cl	mg/L	10.97	900	10.64	1020
Conductivity	umhos/cm	264	900	261	1020
Hardness Calculated Ca+Mg	mg/L	140.97317	900	133.48491	1020
SO4	mg/L	0.1488	900	0.7244	1020
TDS	mg/L	155	900	146	1020
Si-T	mg/L	.	900	.	1020
Ag-T	ug/L	0.0555014	900	-0.125221	1020
Al-T	ug/L	13.93547	900	13.3372	1020
As-T	ug/L	3.029842	900	10.3625	1020
Ba-T	ug/L	9.576684	900	8.243221	1020
Ca-T	mg/L	32.76369	900	30.72593	1020
Cd-T	ug/L	-0.005046	900	-0.099568	1020
Cr-T	ug/L	0.4047254	900	2.327721	1020
Cu-T	ug/L	0.1460439	900	0.3210787	1020
Fe-T	ug/L	314.6516	900	405.7896	1020
K-T	mg/L	1.084308	900	1.034732	1020
Mg-T	mg/L	14.36674	900	13.78394	1020
Mn-T	ug/L	4.071191	900	5.190656	1020
Mo-T	ug/L	5.036456	900	2.21497	1020
Na-T	mg/L	4.720156	900	4.833008	1020
Ni-T	ug/L	0.2165832	900	-0.078398	1020
Pb-T	ug/L	-0.46842	900	-1.544212	1020
Se-T	ug/L	-0.445711	900	-4.449222	1020
Sr-T	ug/L	183.8432	900	196.1926	1020
Zn-T	ug/L	5.362751	900	5.871987	1020

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 1,020'-1,050'		Packer 1,050'-1,080'	
Date and Time of Collection		**30MAY14:12:25**		**02JUN14:16:10**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142080-001**		**L20142199-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	23.9	1050	23.9	1080
pH-Field	std units	7.74	1050	7.62	1080
Conductivity-Field	umhos/cm	235	1050	243	1080
Alkalinity	mg/L	114.51318	1050	118.31969	1080
Cl	mg/L	9.2	1050	11.16	1080
Conductivity	umhos/cm	226	1050	231	1080
Hardness Calculated Ca+Mg	mg/L	140.17828	1050	124.29082	1080
SO4	mg/L	0.1423	1050	0.2163	1080
TDS	mg/L	134	1050	125	1080
Si-T	mg/L	.	1050	5.1457023	1080
Ag-T	ug/L	0.1203892	1050	0.075129	1080
Al-T	ug/L	22.18665	1050	18.96645	1080
As-T	ug/L	40.40458	1050	10.91399	1080
Ba-T	ug/L	6.750951	1050	7.410929	1080
Ca-T	mg/L	32.58728	1050	29.89374	1080
Cd-T	ug/L	-0.034854	1050	-0.00501	1080
Cr-T	ug/L	1.089208	1050	2.121055	1080
Cu-T	ug/L	-0.040077	1050	0.2336888	1080
Fe-T	ug/L	277.1626	1050	206.1623	1080
K-T	mg/L	0.9514658	1050	0.9700233	1080
Mg-T	mg/L	14.28068	1050	12.05589	1080
Mn-T	ug/L	3.957147	1050	3.413874	1080
Mo-T	ug/L	2.802061	1050	1.639587	1080
Na-T	mg/L	4.378173	1050	4.571789	1080
Ni-T	ug/L	0.2372195	1050	-0.04339	1080
Pb-T	ug/L	-1.355896	1050	-0.102251	1080
Se-T	ug/L	-0.946928	1050	-3.550453	1080
Sr-T	ug/L	192.9816	1050	199.9915	1080
Zn-T	ug/L	7.736652	1050	7.248593	1080

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 1,170'-1,200'		Packer 1,200'-1,230'	
Date and Time of Collection		**04JUN14:08:15**		**05JUN14:15:05**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142202-001**		**L20142203-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	.	1200	.	1230
pH-Field	std units	.	1200	.	1230
Conductivity-Field	umhos/cm	.	1200	.	1230
Alkalinity	mg/L	114.91264	1200	118.41358	1230
Cl	mg/L	9.7	1200	9.9	1230
Conductivity	umhos/cm	223	1200	220	1230
Hardness Calculated Ca+Mg	mg/L	154.20959	1200	251.18505	1230
SO4	mg/L	2.0839	1200	2.0106	1230
TDS	mg/L	139	1200	135	1230
Si-T	mg/L	5.2375698	1200	5.1137708	1230
Ag-T	ug/L	-0.075374	1200	0.1160587	1230
Al-T	ug/L	29.67643	1200	77.63142	1230
As-T	ug/L	12.92008	1200	10.9664	1230
Ba-T	ug/L	7.22129	1200	7.731784	1230
Ca-T	mg/L	41.43175	1200	71.7326	1230
Cd-T	ug/L	0.0448329	1200	0.082156	1230
Cr-T	ug/L	1.415426	1200	19.13811	1230
Cu-T	ug/L	0.6585346	1200	2.61096	1230
Fe-T	ug/L	345.4624	1200	937.9323	1230
K-T	mg/L	0.9070345	1200	0.8528249	1230
Mg-T	mg/L	12.32504	1200	17.50091	1230
Mn-T	ug/L	7.29562	1200	11.83573	1230
Mo-T	ug/L	34.16964	1200	32.69494	1230
Na-T	mg/L	4.146735	1200	4.035436	1230
Ni-T	ug/L	4.579107	1200	9.482163	1230
Pb-T	ug/L	-0.778234	1200	-1.178578	1230
Se-T	ug/L	5.274794	1200	-1.54419	1230
Sr-T	ug/L	175.6865	1200	192.746	1230
Zn-T	ug/L	14.25889	1200	151.3313	1230

WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

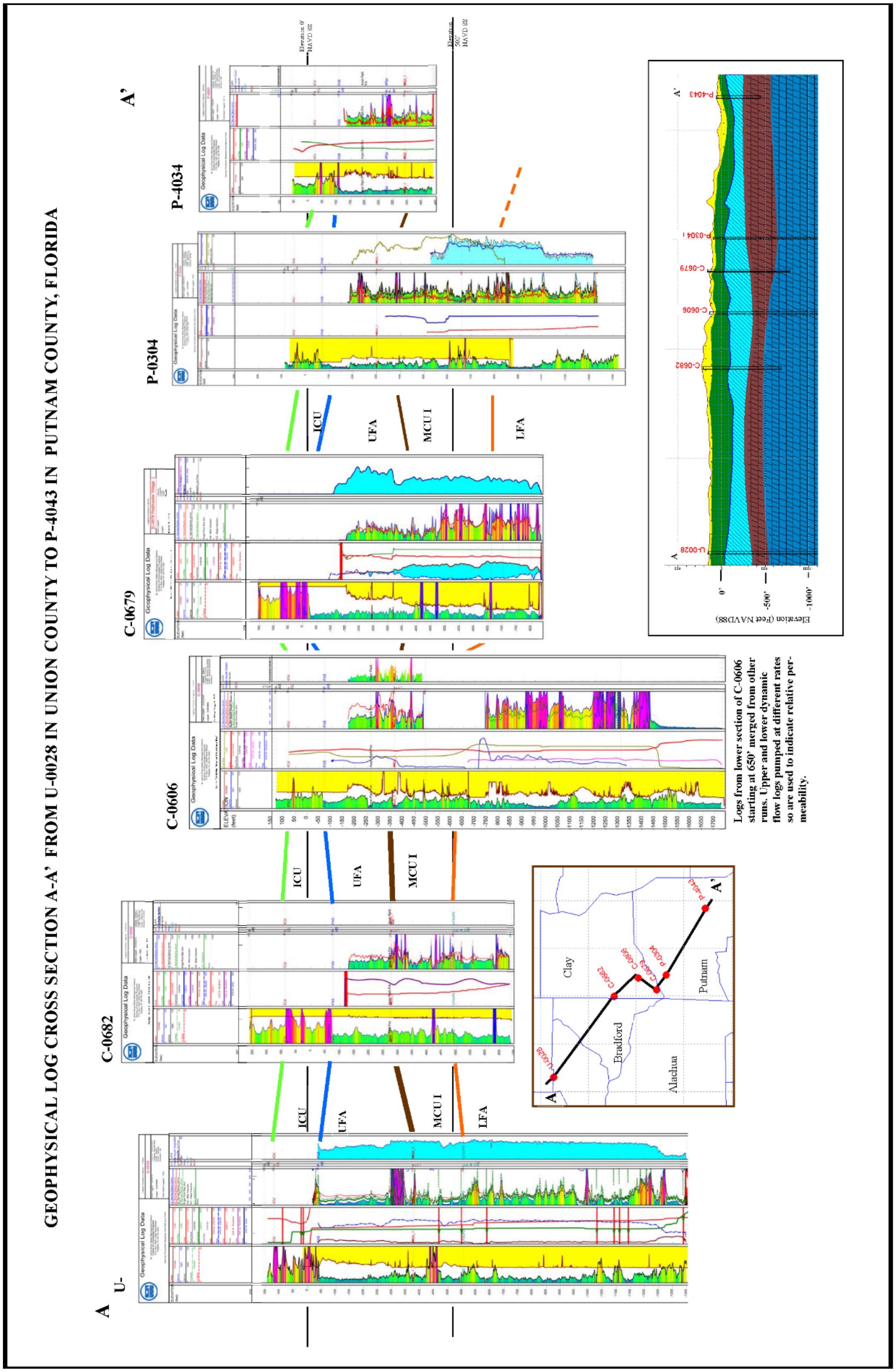
		Packer 1,230'-1,260'		Packer 1,260'-1,290'	
Date and Time of Collection		**06JUN14:09:50**		**09JUN14:14:35**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142204-001**		**L20142205-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	24	1260	24.1	1290
pH-Field	std units	7.93	1260	10.18	1290
Conductivity-Field	umhos/cm	245	1260	234	1290
Alkalinity	mg/L	112.21513	1260	112.5661	1290
Cl	mg/L	10.56	1260	11.63	1290
Conductivity	umhos/cm	233	1260	223	1290
Hardness Calculated Ca+Mg	mg/L	123.77556	1260	134.59195	1290
SO4	mg/L	0.514	1260	-0.1055	1290
TDS	mg/L	135	1260	118	1290
Si-T	mg/L	5.1514528	1260	5.2449099	1290
Ag-T	ug/L	0.0190608	1260	0.099227	1290
Al-T	ug/L	15.4813	1260	18.32285	1290
As-T	ug/L	44.24379	1260	16.66371	1290
Ba-T	ug/L	6.638846	1260	7.004947	1290
Ca-T	mg/L	29.03146	1260	32.77172	1290
Cd-T	ug/L	0.0278938	1260	0.0581804	1290
Cr-T	ug/L	0.8666851	1260	0.284247	1290
Cu-T	ug/L	0.0568305	1260	0.6628941	1290
Fe-T	ug/L	238.0696	1260	90.40572	1290
K-T	mg/L	0.8090239	1260	1.139846	1290
Mg-T	mg/L	12.45362	1260	12.81228	1290
Mn-T	ug/L	3.008904	1260	2.281437	1290
Mo-T	ug/L	88.56086	1260	71.06348	1290
Na-T	mg/L	4.401011	1260	4.241083	1290
Ni-T	ug/L	2.103885	1260	0.3392104	1290
Pb-T	ug/L	-1.29891	1260	-1.095021	1290
Se-T	ug/L	3.479393	1260	2.073534	1290
Sr-T	ug/L	175.5953	1260	205.3847	1290
Zn-T	ug/L	120.2769	1260	140.0911	1290

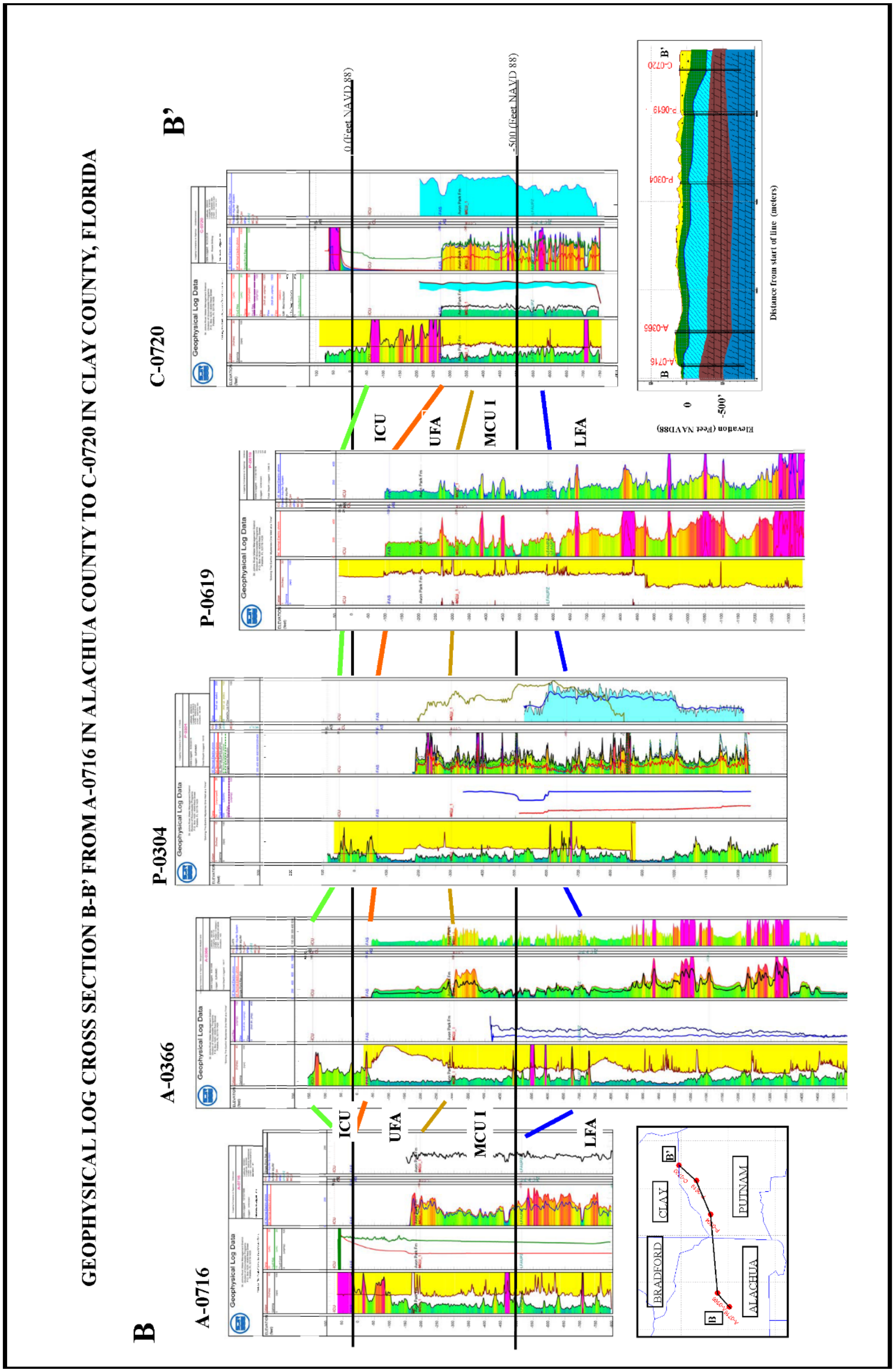
WATER QUALITY SAMPLES FROM COREHOLE P-0304 FROM SPECIFIC PACKER INTERVALS

		Packer 1,290'-1,320'		Packer 1,320'-1,350'	
Date and Time of Collection		**10JUN14:14:00**		**17JUN14:10:00**	
Station Name		**P-0304**		**P-0304**	
LIMS Login ID		**L20142206-001**		**L20142207-001**	
Analyte Name	**Units**	**Value**	**Depth (ft bls)**	**Value**	**Depth (ft bls)**
Water Temp	deg C	24.2	1320	24	1350
pH-Field	std units	10.15	1320	8.3	1350
Conductivity-Field	umhos/cm	239	1320	251	1350
Alkalinity	mg/L	113.63342	1320	124.65826	1350
Cl	mg/L	10.13	1320	8.03	1350
Conductivity	umhos/cm	228	1320	237	1350
Hardness Calculated Ca+Mg	mg/L	118.10893	1320	155.92215	1350
SO4	mg/L	-0.2232	1320	4.634	1350
TDS	mg/L	129	1320	142	1350
Si-T	mg/L	5.1886673	1320	4.8993198	1350
Ag-T	ug/L	0.0460141	1320	0.0916609	1350
Al-T	ug/L	8.421432	1320	13.90986	1350
As-T	ug/L	6.213005	1320	45.15067	1350
Ba-T	ug/L	6.513837	1320	5.542171	1350
Ca-T	mg/L	28.77032	1320	35.60959	1350
Cd-T	ug/L	0.0118209	1320	-0.01885	1350
Cr-T	ug/L	-0.051218	1320	1.631498	1350
Cu-T	ug/L	-0.054984	1320	0.3025129	1350
Fe-T	ug/L	73.27336	1320	134.7602	1350
K-T	mg/L	0.824163	1320	0.7100906	1350
Mg-T	mg/L	11.2359	1320	16.27125	1350
Mn-T	ug/L	1.408941	1320	3.814349	1350
Mo-T	ug/L	21.63773	1320	361.7471	1350
Na-T	mg/L	4.406469	1320	4.337842	1350
Ni-T	ug/L	0.4907634	1320	4.675348	1350
Pb-T	ug/L	-1.278316	1320	-1.446329	1350
Se-T	ug/L	2.49559	1320	6.124813	1350
Sr-T	ug/L	188.255	1320	149.4197	1350
Zn-T	ug/L	217.8821	1320	101.6382	1350

APPENDIX D

CROSS SECTIONS


GEOPHYSICAL LOG CROSS SECTION A-A' FROM U-0028 IN UNION COUNTY TO P-4043 IN PUTNAM COUNTY, FLORIDA
A
A'
U-
C-0682
C-0606
C-0679
P-0304
P-4034
ICU
UFA
MCU I
LFA
Geophysical Log Data
Logs from lower section of C-0606 starting at 650' merged from other runs. Upper and lower dynamic flow logs pumped at different rates so are used to indicate relative permeability.
Clay
Putnam
Bradford
Alachua
Elevation (Feet NAVD88)
0'
-500'
-1000'


GEOPHYSICAL LOG CROSS SECTION B-B' FROM A-0716 IN ALACHUA COUNTY TO C-0720 IN CLAY COUNTY, FLORIDA
B
B'
A-0716
A-0366
P-0304
P-0619
C-0720
ICU
UFA
MCU I
LFA
0 (feet NAVD 88)
-500 (feet NAVD 88)
BRADFORD
CLAY
PUTNAM
ALACHUA
Elevation (Feet NAVD88)
0
-500'
Distance from start of line (meters)

APPENDIX E

CORE IMAGES

P-304 CORE IMAGES FROM FLORIDA GEOLOGICAL SURVEY

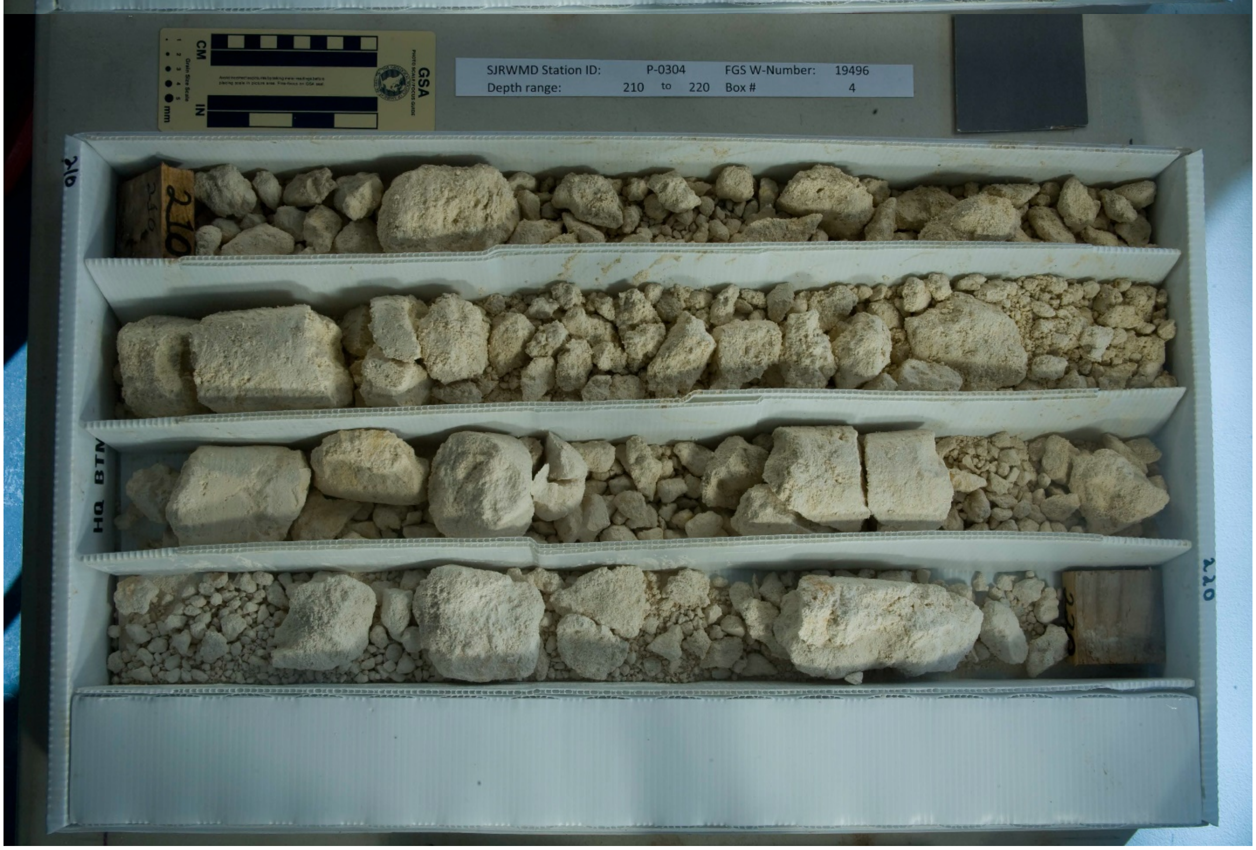

SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 4 to 104 Box # 1
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 104 to 171 Box # 2
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 180 to 190 Box # 1
GSA
CM
IN
HQ BTM

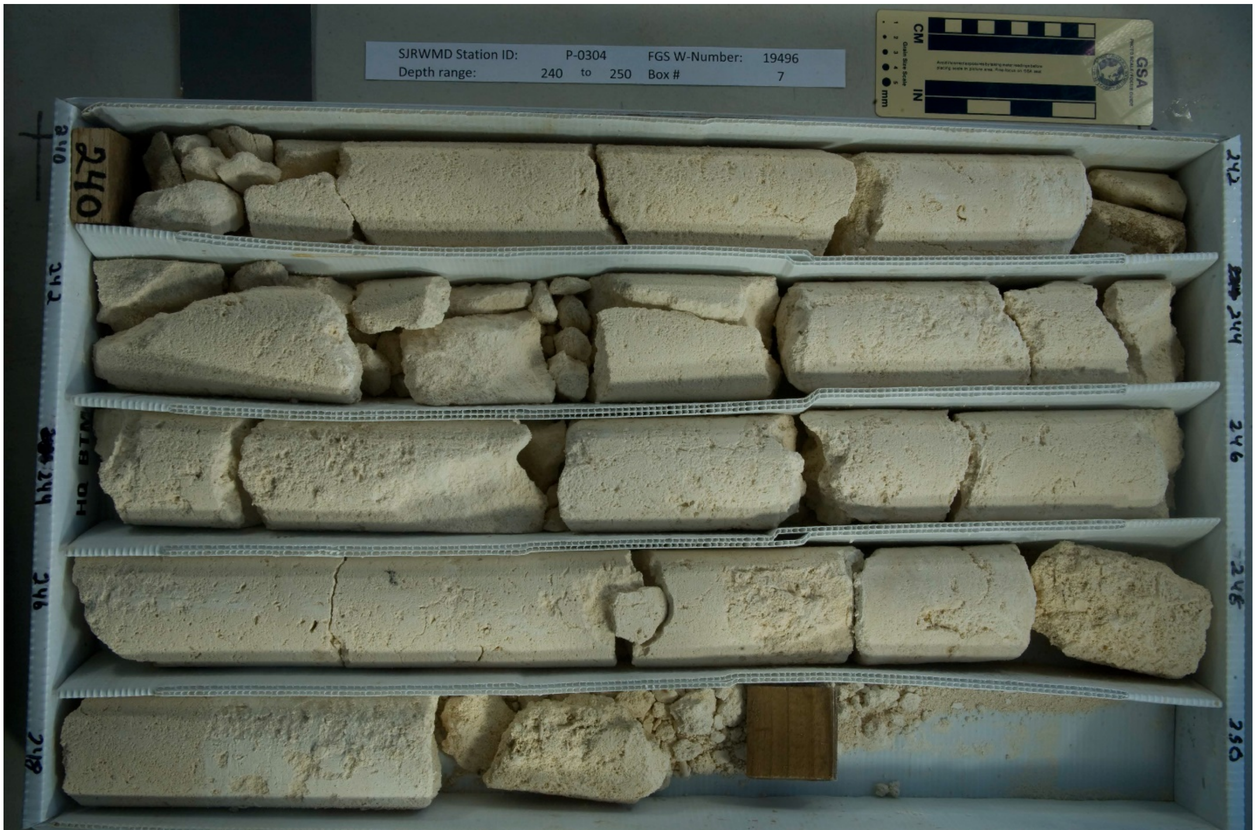

SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 190 to 200 Box # 2
GSA
CM
IN
190
HQ BTM
200


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 200 to 210
Box # 3
CM
IN
GSA
HQ BTM
200
210


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 210 to 220
Box # 4
CM
IN
GSA
HQ BTM
210
220


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 220 to 230 Box # 5


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 230 to 240 Box # 6


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 240 to 250 Box # 7
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 240 to 250 Box # 7
CM
IN
GSA


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 250 to 260
Box # 8


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 260 to 270
Box # 9


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 270 to 280 Box # 10
GSA
CM
IN
HQ BTM
270
272
274
276
278
280
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 270 to 280 Box # 10

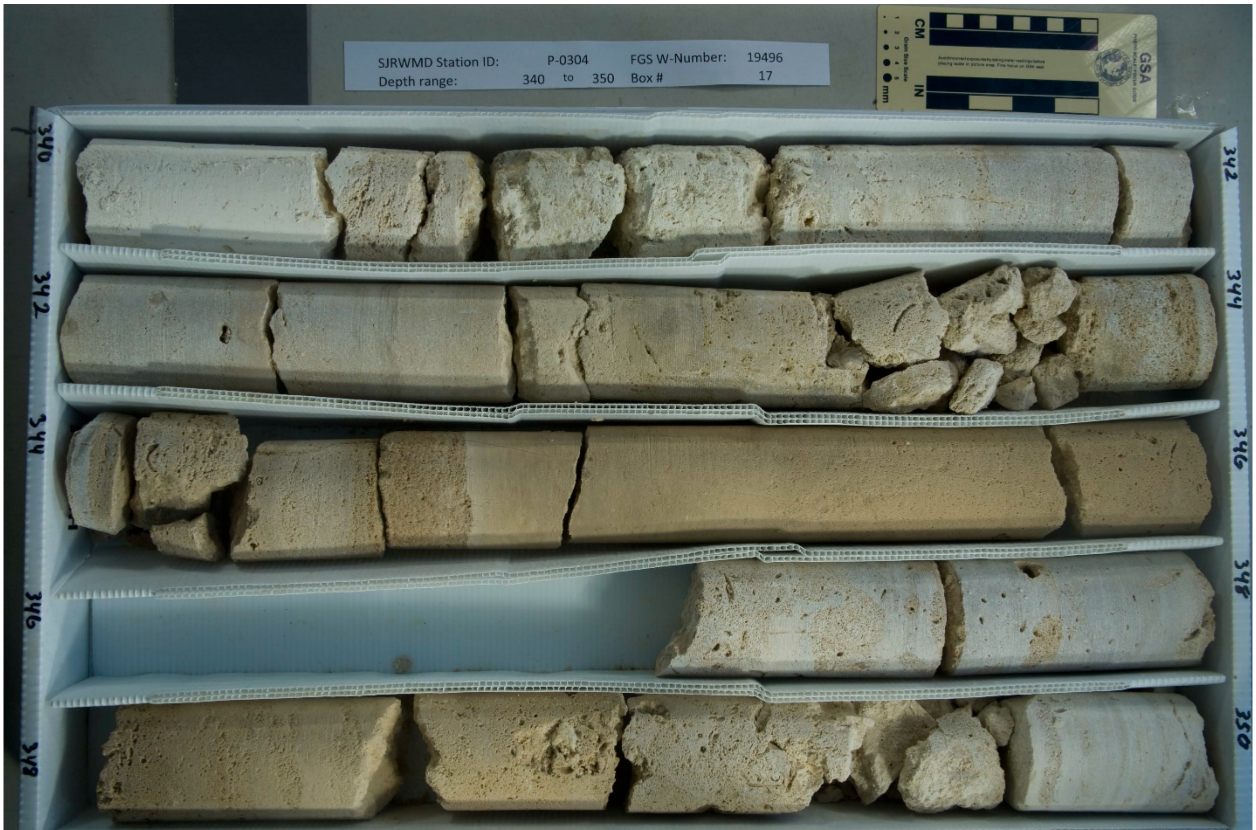

SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 270 to 280 Box # 10
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 280 to 290 Box # 11


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 290 to 300 Box # 12
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 300 to 310 Box # 13


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 300 to 310 Box # 13


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 310 to 320 Box # 14
HQ BTM


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 320 to 330 Box # 15
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 330 to 340 Box # 16
HQ BTM


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 340 to 350
Box # 17


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 350 to 360
Box # 18


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 360 to 370 Box # 19
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 370 to 380 Box # 20
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 370 to 380 Box # 20


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 380 to 390 Box # 21


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 380 to 390 Box # 21
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 380 to 390 Box # 21
CM
IN
GSA


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 390 to 400
Box # 22
CM
IN
GSA


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 390 to 400
Box # 22
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 390 to 400 Box # 22
CM
IN
GSA
390
392
394
396
398
400


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 400 to 410 Box # 23
CM
IN
GSA
400
402
404
406
408
410

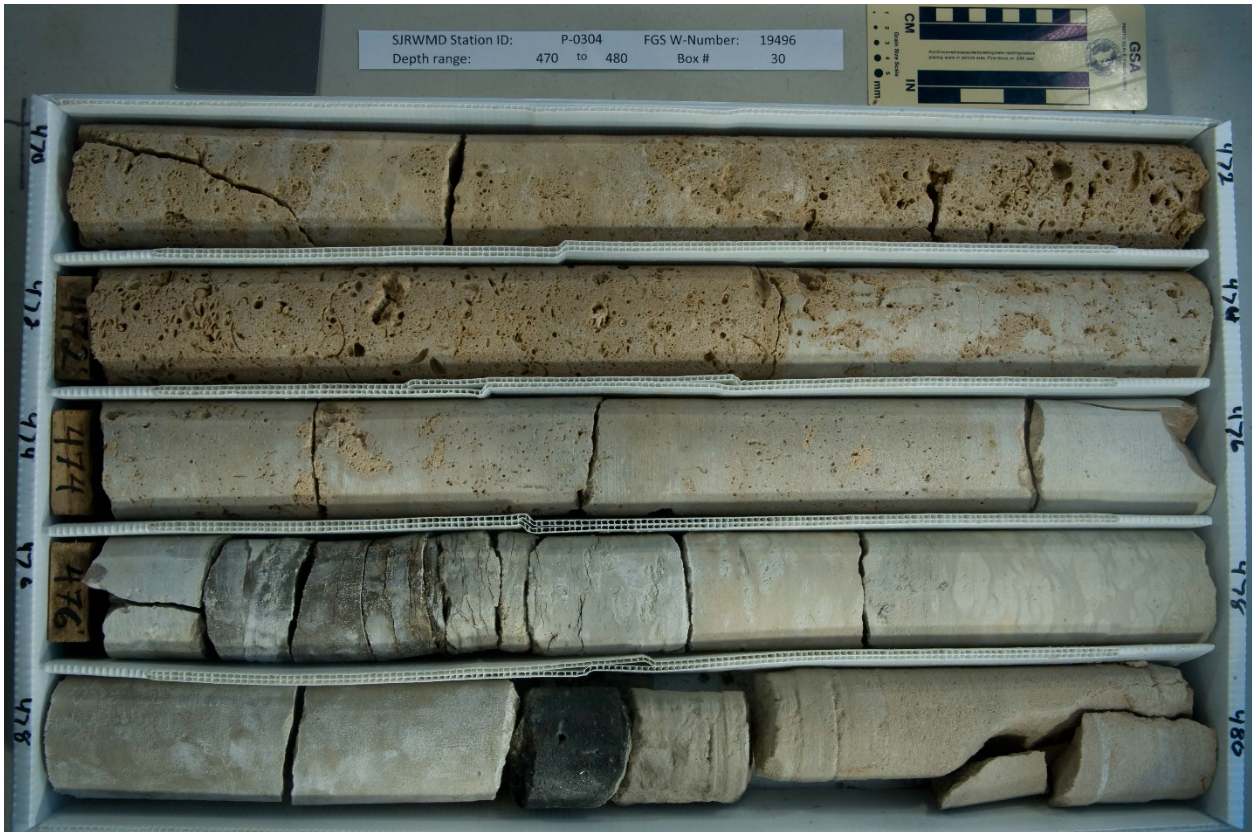

SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 410 to 420 Box # 24


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 420 to 430 Box # 25


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 430 to 440 Box # 26
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 440 to 450 Box # 27

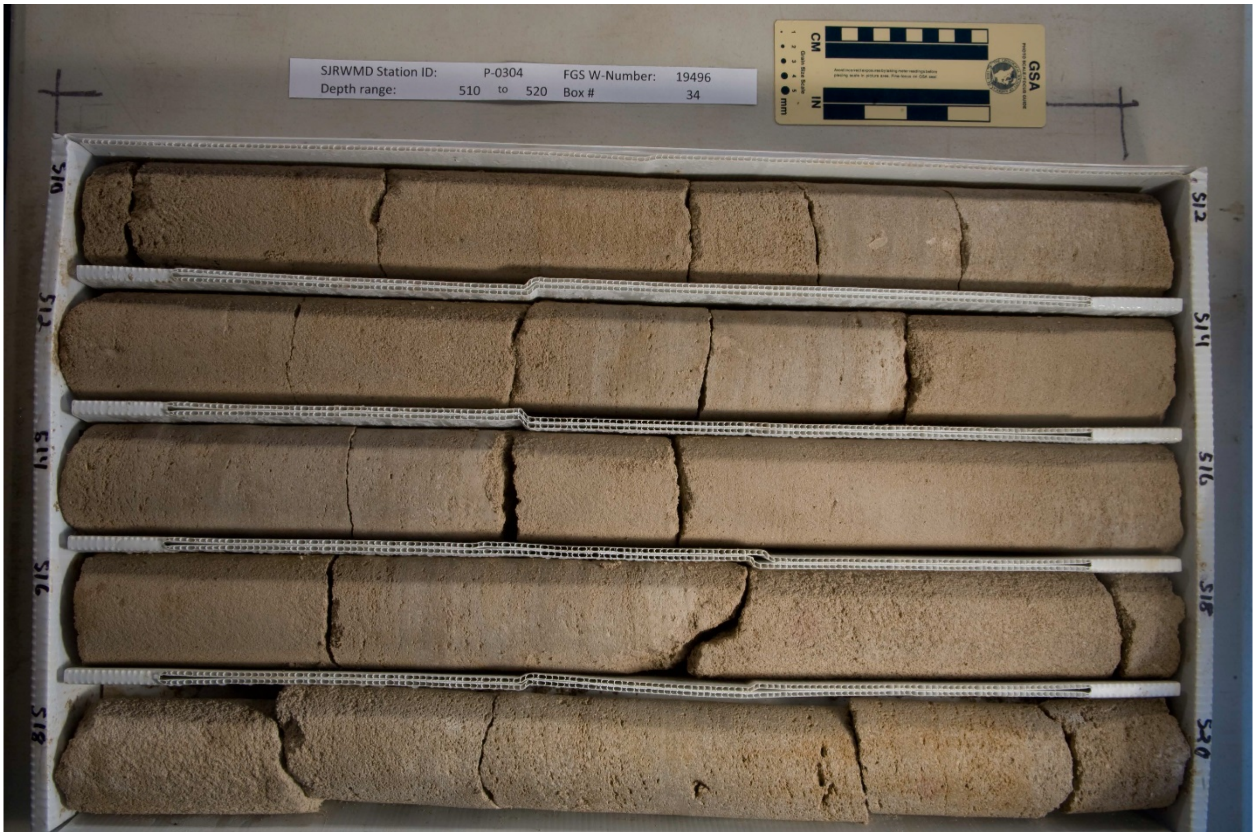

SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 450 to 460
Box # 28


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 460 to 470
Box # 29
Void


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 470 to 480 Box # 30


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 480 to 490 Box # 31


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 490 to 500 Box # 32
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 500 to 510 Box # 33


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 510 to 520 Box # 34


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 520 to 530 Box # 35


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 530 to 540 Box # 36


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 540 to 550 Box # 37


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 550 to 560 Box # 38
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 560 to 570 Box # 39


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 570 to 580 Box # 40


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 580 to 590 Box # 41


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 580 to 590
Box # 41
580
590'


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 580 to 590
Box # 41
580
590'


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 580 to 590 Box # 41
580
590
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 600 to 610 Box # 43
604
606
610


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 620 to 630 Box # 45
HQ BTM


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 630 to 640 Box # 46
HQ BTM


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 640 to 650 Box # 47


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 650 to 660 Box # 48


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 660 to 670 Box # 49
GSA
CM
IN


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 670 to 680 Box # 50
GSA
CM
IN

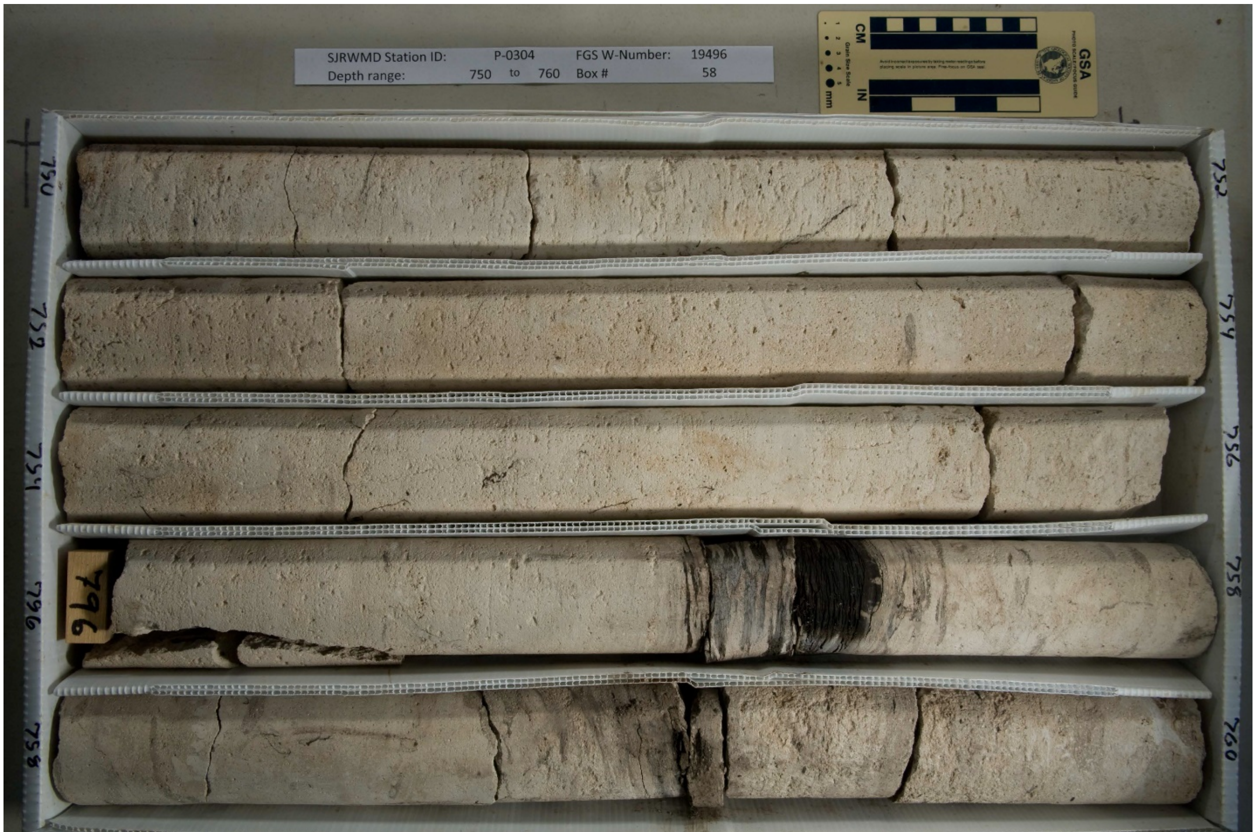

SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 680 to 690 Box # 51
GSA
CM
IN
mm


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 690 to 700 Box # 52
GSA
CM
IN
mm
HQ BTM


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 700 to 710 Box # 53
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 710 to 720 Box # 54


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 720 to 730 Box # 55


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 740 to 750 Box # 57


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 750 to 760 Box # 58
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 760 to 770 Box # 59
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 770 to 780 Box # 60
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 780 to 790 Box # 61


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 790 to 800 Box # 62
790
800


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 800 to 810 Box # 63
800'
802'
802
804'
806'
808


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 810 to 820 Box # 64
810
HQ BTM
820


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 820 to 830 Box # 65
824
826
828


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 830 to 840 Box # 66
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 840 to 850 Box # 67
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 850 to 860 Box # 68
850
860


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 860 to 870 Box # 69


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 870 to 880 Box # 70
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 880 to 890 Box # 71


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 890 to 900
Box # 72
CM
IN
GSA

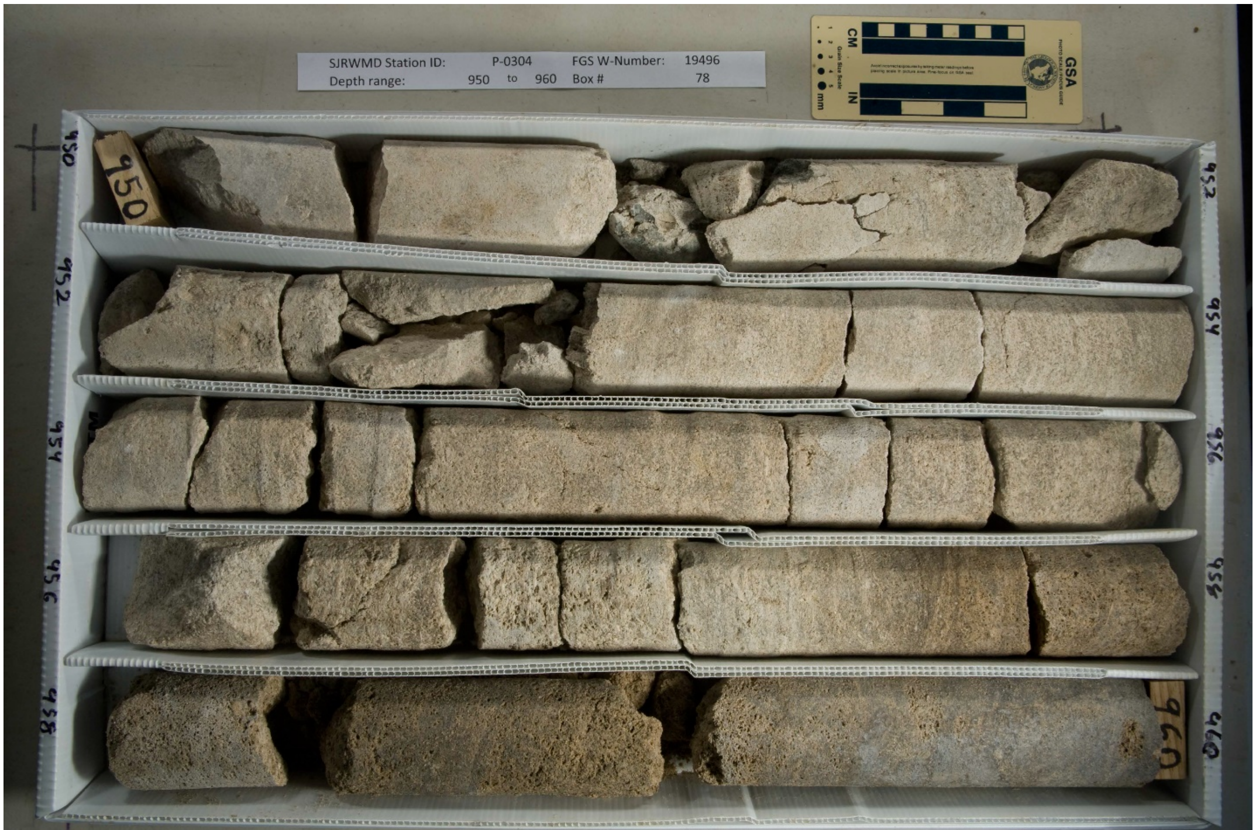

SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 900 to 910
Box # 73
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 910 to 920 Box # 74
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 920 to 930 Box # 75
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 930 to 940 Box # 76
930'
940
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 940 to 950 Box # 77
940
946'
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 950 to 960 Box # 78
GSA
CM
IN
950
960


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 960 to 970 Box # 79
GSA
CM
IN
970


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 970 to 980 Box # 80
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 980 to 990 Box # 81
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 990 to 1000 Box # 82
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1000 to 1010 Box # 83


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1010 to 1020 Box # 84


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1020 to 1030 Box # 85


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1030 to 1040 Box # 86
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1040 to 1050 Box # 87


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1050 to 1060 Box # 88


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1060 to 1070 Box # 89


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1070 to 1080 Box # 90
CM
IN
GSA
1070
1074
1078
1080


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1080 to 1090 Box # 91
CM
IN
GSA
1080
1083
1084
1086
1088


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1090 to 1100 Box # 92
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1100 to 1110 Box # 93
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1110 to 1120 Box # 94
GSA
CM
IN
mm
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1120 to 1130 Box # 95
1128
1130


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 1130 to 1140
Box # 96


SJRWMD Station ID: P-0304
FGS W-Number: 19496
Depth range: 1140 to 1150
Box # 97


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1150 to 1160 Box # 98
SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1160 to 1170 Box # 99


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1170 to 1180 Box # 100
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1180 to 1190 Box # 101
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1190 to 1200 Box # 102
CM
IN
GSA


SJRWMD Station ID: P-0304 FGS W-Number: 19496
Depth range: 1210 to 1220 Box # 104
CM
IN
GSA