

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Herschel T. Vinyard Jr., *Secretary*

LAND AND RECREATION

Erma M. Slager, *Acting Deputy Secretary*

FLORIDA GEOLOGICAL SURVEY

Jonathan D. Arthur, *State Geologist and Director*



OPEN-FILE REPORT 96

**Text to accompany geologic map of the eastern portion of the
USGS Inverness 30 x 60 minute quadrangle, central Florida**

By

Christopher P. Williams, Kevin E. Burdette, Richard C. Green,
Seth W. Bassett, Andrew D. Flor, and David T. Paul

2011

ISSN (1058-1391)

*This geologic map was funded in part by the USGS National Cooperative Geologic Mapping
Program under assistance award number G10AC00426 in Federal fiscal year 2010*

TABLE OF CONTENTS

ABSTRACT.....	1
INTRODUCTION	1
Methods	3
Previous Work	4
GEOLOGIC SUMMARY	4
Structure.....	7
Geomorphology	9
Ocala Karst District.....	11
Brooksville Ridge	11
Green Swamp.....	12
Land O’ Lakes Karst Plain.....	13
Ocala Karst Hills.....	13
Williston Karst Plain.....	13
LITHOSTRATIGRAPHIC UNITS	14
Tertiary System.....	14
Eocene Series.....	14
Avon Park Formation.....	14
Ocala Limestone	14
Oligocene Series	15
Suwannee Limestone	15
Miocene Series.....	16
Hawthorn Group	16
Undifferentiated Hawthorn Group.....	16
Coosawhatchie Formation	17
Tertiary/Quaternary Systems	17
Pliocene Series	17
Undifferentiated Tertiary/Quaternary Sediments	17
Pleistocene to Holocene Series	17
Undifferentiated Quaternary Sediments	17
Quaternary Beach Ridge and Dune.....	18
HYDROGEOLOGY	18
DERIVATIVE PRODUCTS	19
REFERENCES	20
ACKNOWLEDGEMENTS.....	25
APPENDIX A: WELLS UTILIZED FOR STUDY	26

LIST OF FIGURES

Figure 1. Nearby areas mapped under the FGS STATEMAP Program.	2
Figure 2. Location of selected river basins, springs, swallets, and other water bodies.	6
Figure 3. Principal subsurface structures of north Florida.....	8
Figure 4. Terraces in Florida.....	10

Text to accompany geologic map of the eastern portion of the USGS Inverness 30 x 60 minute quadrangle, central Florida

Christopher P. Williams (P.G. #2625), Kevin E. Burdette, Richard C. Green, P.G.,
Seth W. Bassett, Andrew D. Flor, and David T. Paul, P.G.

ABSTRACT

The accompanying 1:100,000 scale geologic map (Open-File Map Series 102, Plate 1) depicts the areal distribution of bedrock and surficial geologic units for the eastern portion of the USGS Inverness 30 x 60 minute quadrangle. The map was constructed using a combination of field mapping (at 1:24,000 scale), compilation of data from existing maps (various scales), core and cuttings analyses and descriptions, and analyses of various Geographic Information System (GIS) data sources. The resulting data were compiled in ESRI® ArcGIS® ArcMap™ 9.3.1 software for publication as part of the Florida Geological Survey Open-File Map Series. Mapped units range in age from Upper Eocene to Quaternary. Important resources in the mapped area include groundwater, springs, sand, clay and limestone. Numerous springs, swallets (sinking streams), and other karst features are present in the study area. Understanding of geologic units, karst, springs and their interactions within the area aids urban and land planners, environmental professionals, and citizens in making land-use decisions. Examples include designing new construction projects, siting new water supply wells and energy production facilities, siting waste management and storage facilities, locating sources of mineable resources for aggregate supply, and protection of springs, surface and groundwater quality.

Keywords: Florida, geologic map, Ocala Limestone, Suwannee Limestone, Avon Park Formation, Hawthorn Group, geomorphology, hydrogeology, springs, swallets, sinkholes, Floridan aquifer system, Citrus County, Hernando County, Marion County, Sumter County, Brooksville Ridge, Lake Panasoffkee, Tsala Apopka Lake.

INTRODUCTION

The Florida Geological Survey (FGS) Open-File Report (OFR) 96 accompanies Open-File Map Series (OFMS) 102, which is comprised of three plates. Plate 1 depicts the near-surface geology of the eastern half of the USGS Inverness 30 x 60 minute quadrangle (U.S. Geological Survey, 1978) on a light detection and ranging (LiDAR) digital elevation model (DEM). Plate 2 depicts six geologic cross-sections, a stratigraphic correlation chart, and representative photos for several of the lithologic units in the study area. Plate 3 is a geomorphology map on a LiDAR DEM, showing locations of known springs, sinkholes and swallets, along with photographs of selected exposures within the study area.

The study area lies south of Ocala, Florida and includes the community of Inverness. It includes portions of Citrus, Hernando, Sumter and Marion Counties (Figure 1). It lies due south of the eastern portion of the USGS Ocala 30 x 60 minute quadrangle, which was previously mapped under the STATEMAP program (Green et al., 2009a). The Withlacoochee and the Little Withlacoochee Rivers and Jumper Creek occur in the map area. Recharge to the Floridan aquifer system occurs over much of the study area, and it is the primary source of springs and drinking water in the region.

FLORIDA GEOLOGICAL SURVEY

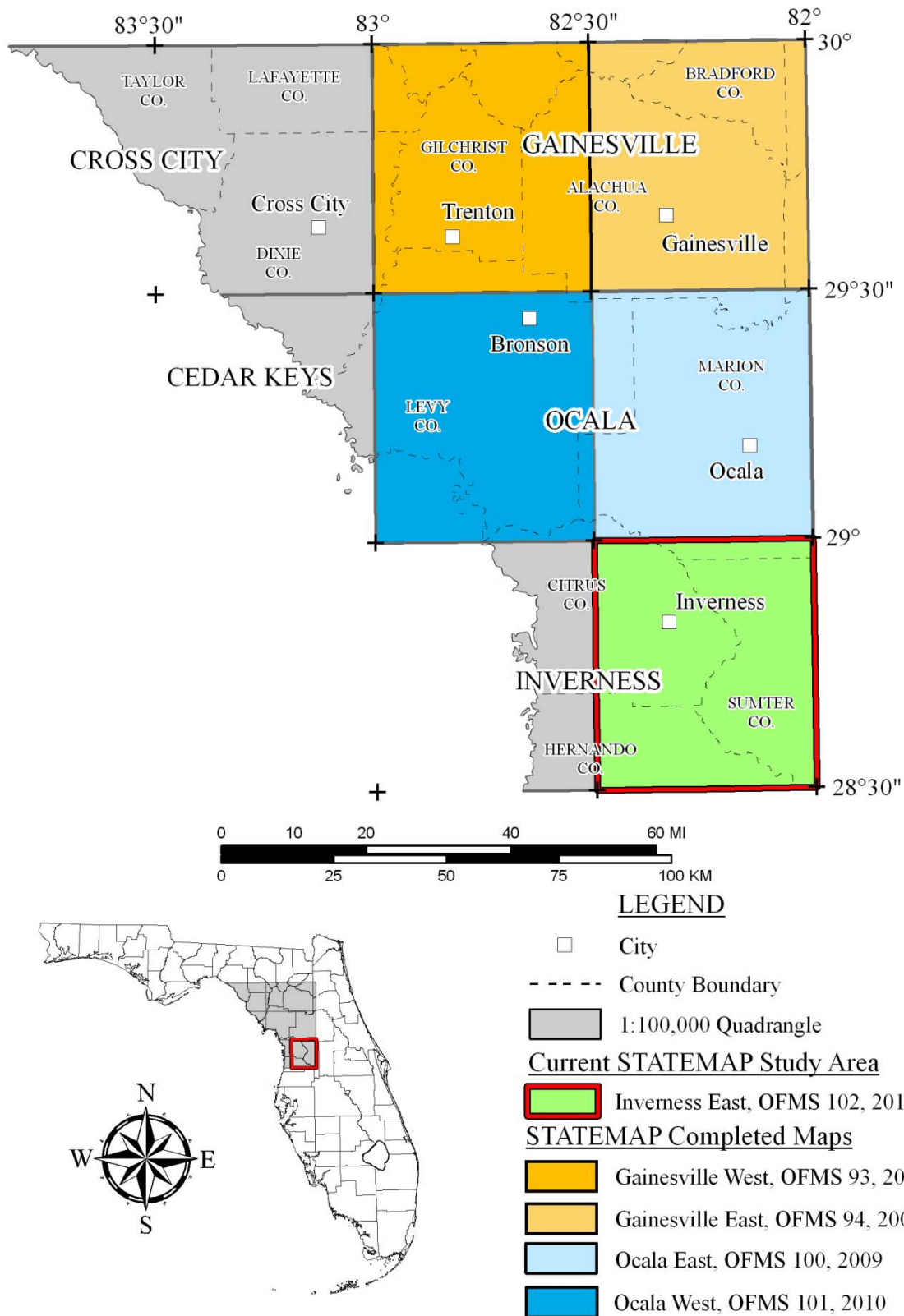


Figure 1. Nearby areas mapped under the FGS STATEMAP Program.

One objective for this report is to provide basic geologic information for the accompanying OFMS 102. Information provided by this report and the plates in OFMS 102 reaches a diverse audience comprising professionals in geology, hydrology, engineering, environmental and urban planning, and laypersons, all of whom have varying levels of geologic knowledge. The maps can help users identify and interpret geologic features which impact activities related to groundwater quality and quantity, as well as aid in location of mineral resources, land-use planning and construction project design. Applied uses of the maps and data in this report include: 1) identifying potential new mineral resources, 2) characterizing zones of potential aquifer recharge and confinement, 3) aiding water-management decisions on groundwater flow and usage, 4) providing information on aquifer vulnerability to potential pollution, 5) ecosystem, wetlands and environmental characterization and 6) recreational uses.

Methods

Mapping efforts consisted of 1) reviewing and compiling existing geologic literature and data, 2) mapping geologic units in the field at 1:24,000 scale using standard techniques, 3) analyses of existing core and cuttings samples from the FGS sample repository, 4) new core drilling, 5) collecting and describing outcrop samples and 6) preparing a geologic map, geological cross-sections and geomorphic map of the area. Field work, performed during the fall of 2010 through the summer of 2011, consisted of sampling and describing numerous outcrops, and river and quarry exposures.

In the fall of 2010, the FGS's STATEMAP program undertook upgrading its collection methods for *in situ* data collection. The mobile GIS package that emerged to meet these requirements is an innovative GIS solution that is easy to use, reliable, low-cost, and highly customizable to the STATEMAP program's needs. A laptop computer with Microsoft® Windows XP operating system, full-sized monitor, and Garmin® GPS unit form the core of the vehicle-based system. Data collection is handled in ESRI's ArcPad®, which runs a customized collection of tools that bypass time consuming digital forms and automatically attribute the relevant fields when a new point is added to the map: latitude and longitude; date and time; the type and geologic classification of observation; and the geologist recording the observation. The ease of use of these custom tools is further supplemented by a Logitech® G13, a 25 button keypad operated with the left hand. This piece of hardware allows the user to perform a variety of operations - toggle layers on and off; perform basic operations such as pan, zoom and switching the current ArcPad tool in use - by pressing a single key, rather than navigating multiple on-screen menus and forms; and record a variety of point, line and polygon features of a specific type or class. This ArcPad system quickly allowed us to digitally record the location of float and outcrop as well as other features that aided with geologic mapping.

Sixty-five new samples of geologic material were added to the FGS surface-sample archives (M-Series) and four cores (674 feet or 205.3 meters total) were drilled. Approximately 100 outcrops and exposures were also examined during this project. All data, including over 500 wells from the study area and bordering 7.5 minute quadrangles, were compiled and analyzed by the authors. Appendix A includes both FGS wells within the study area boundary and Water Management District well data points with top of limestone/dolostone rock information. An interpolated top of rock surface was developed using kriging along with a LiDAR derived DEM to generate an overburden thickness model. The map and accompanying plates were developed in ESRI® ArcGIS® ArcMap™ 9.3.1 software for publication as part of the FGS OFMS.

FLORIDA GEOLOGICAL SURVEY

Much of the study area is blanketed by a veneer of undifferentiated Tertiary and Quaternary sediments and soils. For this reason, and in keeping with geologic mapping practices developed by Scott et al. (2001), the authors have adopted the policy of mapping the first named geologic unit within 20 feet (6.1 meters) of the surface. If undifferentiated Tertiary/Quaternary (TQu) or undifferentiated Quaternary (Qu) sediments attain a thickness greater than 20 feet (6.1 meters), then they appear as the mapped unit. If these undifferentiated sediments are less than 20 feet (6.1 meters) thick, then the underlying lithostratigraphic unit appears on the map.

The region is generally vegetated, and public access in parts of the mapped area is hindered by the presence of numerous wetlands, farms, ranches and privately owned land. The authors had to rely on existing well and core data in these areas. Fieldwork access was typically limited to public roads, State-owned lands, County-owned lands, and Southwest Florida Water Management District-owned lands.

Previous Work

The current study builds on many previous geologic investigations in and around the present map area which were useful in preparing this report. A regional study of the geology of Citrus and Levy Counties was conducted by Vernon (1951) and is the baseline study for the current study area. Preliminary county geologic maps for Citrus (Campbell and Scott, 1992), Sumter (Campbell, 1993a), Hernando (Campbell, 1993b) and Marion (Scott, 1992) Counties at 1:126,720 scale were previously published by the FGS. However, each of these OFMS geologic maps were constructed in an average time-frame of two weeks utilizing selected in-house geologic data with little-to-no extra field work. Although these maps provided a starting point for the detailed geologic mapping undertaken for this project, significant refinement of prior geologic maps was possible as a result of this project. A statewide geologic map (Scott et al., 2001) was published by the FGS in digital format and provided a framework for the current, more detailed mapping. A structure-contour map of the top of the Floridan aquifer system (Allison et al., 1995; Arthur et al., 2008), and an isopach map of the Hawthorn Group in the region (Groszos and Rupert, 1992; Arthur et al., 2008) also proved useful.

This study benefited greatly from the work performed during geologic mapping of the USGS Ocala 30 x 60 minute quadrangle (Green et al., 2009a; Green et al., 2009b; Green et al., 2010; Williams et al., 2010). Some of the field relationships and stratigraphic problems were worked out during those projects and data gathered during those projects proved invaluable to the completion of this project.

GEOLOGIC SUMMARY

The near surface geology of the eastern portion of the USGS 30 x 60 minute Inverness quadrangle is composed of a complex mixture of Middle Eocene to Quaternary carbonate and siliciclastic sediments. A combination of factors, including fluvio-deltaic deposition, marine deposition, dissolution of underlying carbonates, erosion of sediments as a result of eustatic changes in sea level and structural features have influenced the geology of the study area.

Distinction between the Middle Eocene Avon Park Formation and the unconformably overlying unit, the Upper Eocene Ocala Limestone, is at times difficult in the study area. Dolomitization of the Avon Park Formation and common recrystallization of the lowermost Ocala Limestone has significantly altered the original rock lithology and fabric. Fossil indicators

are only somewhat helpful because the latest deposits of the Avon Park Formation and the earliest deposits of the Ocala Limestone are both bank assemblages, consistent with deposition in a shallow-water limestone bank or plateau, not unlike the present day Bahama Bank (Bryan, 2004). Karst development on the surface of the Avon Park Formation and later the Ocala Limestone, in addition to regional erosion over the Ocala Platform, has left an undulatory contact that does not allow clear definition of regional outcrops based upon elevation. A modern analog is evident along the Waccasassa Bay and Withlacoochee Bay shorelines where modern islands of Ocala Limestone with elevations rarely more than 5 feet (1.5 meters) above MSL exist in shallow flats where water depths are typically less than 3 feet (0.9 meters) (Green et al., 2010; Plate 3, Photos 1 and 3).

Rarely, the Upper Eocene Ocala Limestone is missing entirely from the rock section and the Middle Eocene Avon Park is unconformably overlain by the Lower Oligocene Suwannee Limestone. In the study area, this was most notable at Jordan Sink in the Two Mile Prairie Tract of the Withlacoochee State Forest. This feature is located in the northeastern part of the USGS Holder 7.5 minute quadrangle. Most often, when the Suwannee Limestone is present, it is underlain by the Ocala Limestone. These two formations can both vary from wackestone to grainstone. Aside from several diagnostic foraminifera and echinoids, these limestones can be difficult to differentiate in cores or cuttings. At times, such as seen in Photo 1 of OFMS 102; Plate 3, there is a distinct contact between the two formations; however, this is not always (or even usually) present. The key distinction of Suwannee Limestone from Ocala Limestone is that there are some microfossil assemblage similarities between the Suwannee Limestone and the Avon Park Formation that are not similar to the Ocala Limestone. Both of the former contain *Fallotella* sp. which is only found infrequently at the base of the Ocala Limestone (personal communication, Jonathan Bryan). These units contain *Discorinopsis* sp. which is not found in the Ocala Limestone. The occurrence of *Nummulites* sp. and *Lepidocyclina* sp. in the Ocala Limestone distinguish it from the Suwannee Limestone and the Avon Park Formation.

The Hawthorn Group occurs in the southwestern portion of the study area as hilltops of weathered sandy clays and clayey sands. The presence of these siliciclastics is hypothesized by the authors to have effectively capped and hindered dissolution of the underlying limestones. Where the Miocene undifferentiated Hawthorn Group sediments are present, the Lower Oligocene Suwannee Limestone and/or Upper Eocene Ocala Limestone reside at a higher elevation relative to surrounding areas without Hawthorn sediments. The Middle Miocene Coosawhatchie Formation of the Hawthorn Group is present in the northeastern part of the study area in a few remnant hills at the southern end of the Ocala Karst Hills geomorphic province (OFMS 102; Plate 1 and OFMS 102; Plate 3, Figures 1 and 3).

Much of the eastern portion of the Inverness quadrangle is located within the South Withlacoochee River basin with part in the Oklawaha River and Crystal River to St. Petersburg basins (Figure 2). Within the study area, these rivers and their tributaries contain several documented springs (Scott et al., 2004). A first magnitude spring is defined as having a minimum average flow of 100 cubic feet per second, or 64.6 million gallons per day (Copeland, 2003). Many of these springs have shown significant increases in pollutants in the last few decades, particularly nitrate (Phelps, 1994; Phelps, 2004; Jones et al., 1996; Scott et al., 2002; Upchurch et al., 2004; Copeland et al., 2009). Detailed geologic mapping of lithostratigraphic units in this area provides critical data needed for future assessments of the vulnerability of the aquifer systems and springs to contamination. The recharge areas for many springs are located

FLORIDA GEOLOGICAL SURVEY

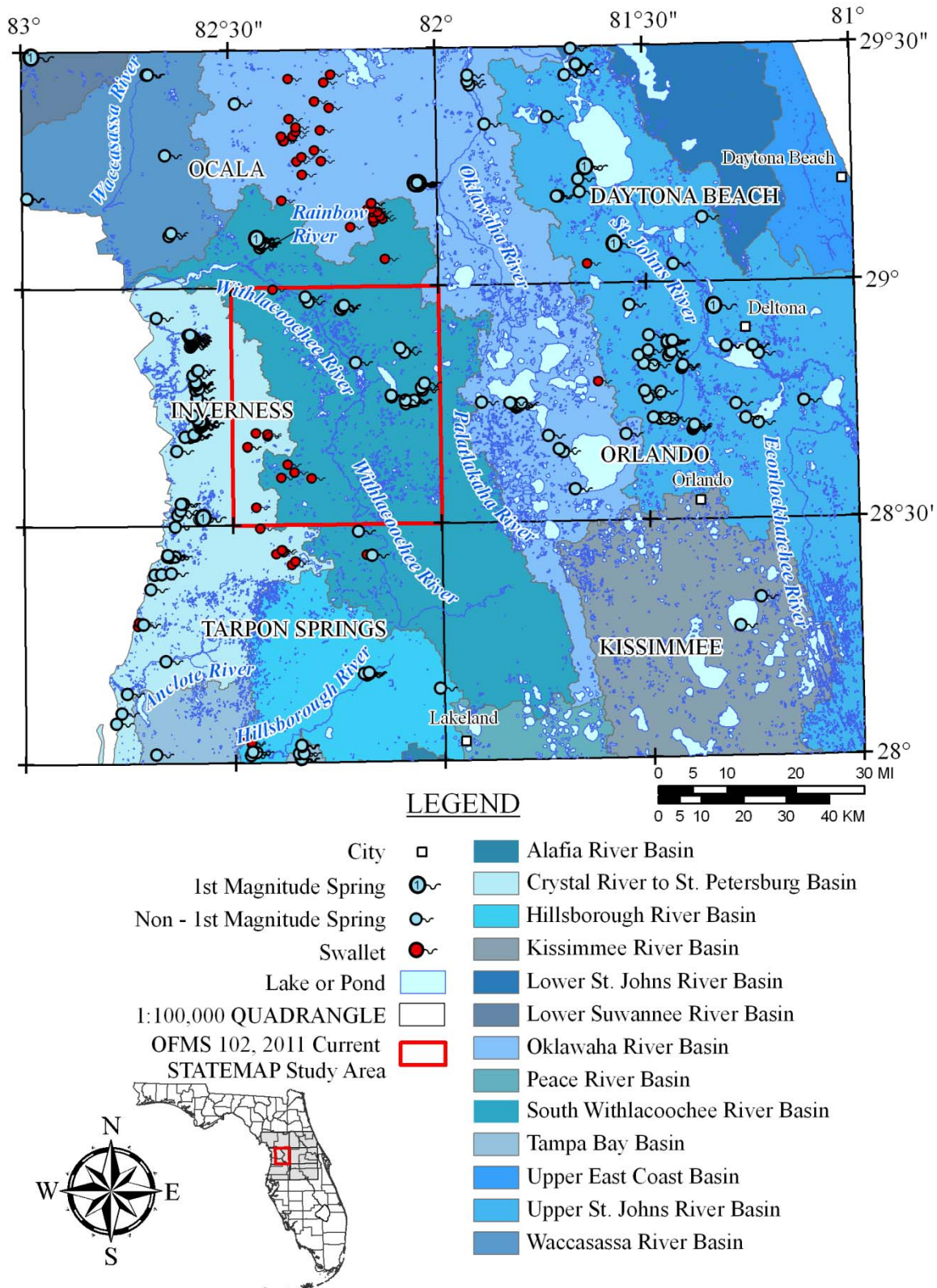


Figure 2. Location of selected river basins, springs, swallets, and other water bodies.

within and nearby the current study area. Understanding the surficial geology of the map area is a key factor in developing management and protection plans, not only for the springs, but for the unconfined portions of the Floridan aquifer system.

A recent report on Lake Panasoffkee by the USGS studied groundwater input to the lake. McBride et al. (2011) determined that spring and groundwater discharge to Lake Panasoffkee is equivalent to a first magnitude spring. The low transmissivity values in the Upper Floridan aquifer system, noted in southern Levy County by Bush and Johnson (1988), match areas where the Avon Park Formation and/or highly recrystallized lowermost Ocala Limestone crop out at the surface. The trend of shallow depth to the Avon Park Formation continues southeast from Levy County along the Ocala Platform to the region encompassed by Tsala Apopka Lake. The authors of this present study hypothesize that the location of the Tsala Apopka Lake above the shallow Avon Park Formation on the southeastern portion of the Ocala Platform is largely influenced by the low transmissivity of the Avon Park Formation. The shallowing of the depth to the Avon Park Formation also appears to be a major factor in the trends of groundwater flow and age of water that flows into Lake Panasoffkee. A comprehensive study of the details of groundwater flow into Lake Panasoffkee, from which the former hypothesis is postulated, may be found in McBride et al. (2011).

Structure

Several structural variables have affected the geology of the region (Figure 3). The Peninsular Arch, a structurally high area which affected deposition from the Cretaceous to the early Cenozoic, is the dominant subsurface feature of the Florida peninsula (Applin and Applin, 1944; Applin, 1951; Puri and Vernon, 1964; Williams et al., 1977; Schmidt, 1984; Miller, 1986; Scott, 1997). The axis of the Peninsular Arch, which lies to the east of the study area, extends from southeastern Georgia to the vicinity of Lake Okeechobee in southern Florida in a general northwest to southeast trend. The crest of the arch passes beneath Alachua County and is highest in Union and Baker Counties north of the study area. The arch was a topographic high during most of the Cretaceous Period and had Upper Cretaceous sediments deposited upon it (Applin, 1951). It formed a relatively stable base for Eocene carbonate deposition (Williams et al., 1977). The arch did not affect mid-Tertiary to Holocene sediment deposition (Williams et al., 1977; Scott, 1997).

The Ocala Platform is the most prominent structure affecting the near surface depositional and post-depositional environments within the map area. Hopkins (1920) originally named this feature the Ocala Uplift. Vernon (1951) described the Ocala Uplift as a gentle flexure developed in Tertiary sediments with a northwest-southeast trending crest. Because there is continuing uncertainty about the origin of this feature, Scott (1988) used the term Ocala Platform, rather than Ocala Uplift or Ocala Arch, since it does not have a structural connotation.

The Ocala Platform, which underlies the current study area, influenced late Tertiary sediment deposition. Miocene sediments of the Hawthorn Group are thought to have been deposited across the platform (Scott, 1981a; Scott, 1988; Scott, 1991a). Post-Miocene erosion has removed sediments of the Hawthorn Group from much of the crest of the Ocala Platform, exposing Eocene and Oligocene carbonates (Cooke, 1945; Espenshade and Spencer, 1963; Scott, 1981b). This is evident throughout much of the central portion of the map area (OFMS 102; Plate 1). Undifferentiated sediments, thickest over the western and eastern portion of the study

FLORIDA GEOLOGICAL SURVEY

area, have subsequently been deposited on the exposed Eocene carbonates. These consist of residual clays, sands, and aeolian sands deposited during the Miocene to Holocene (Scott, 1997).

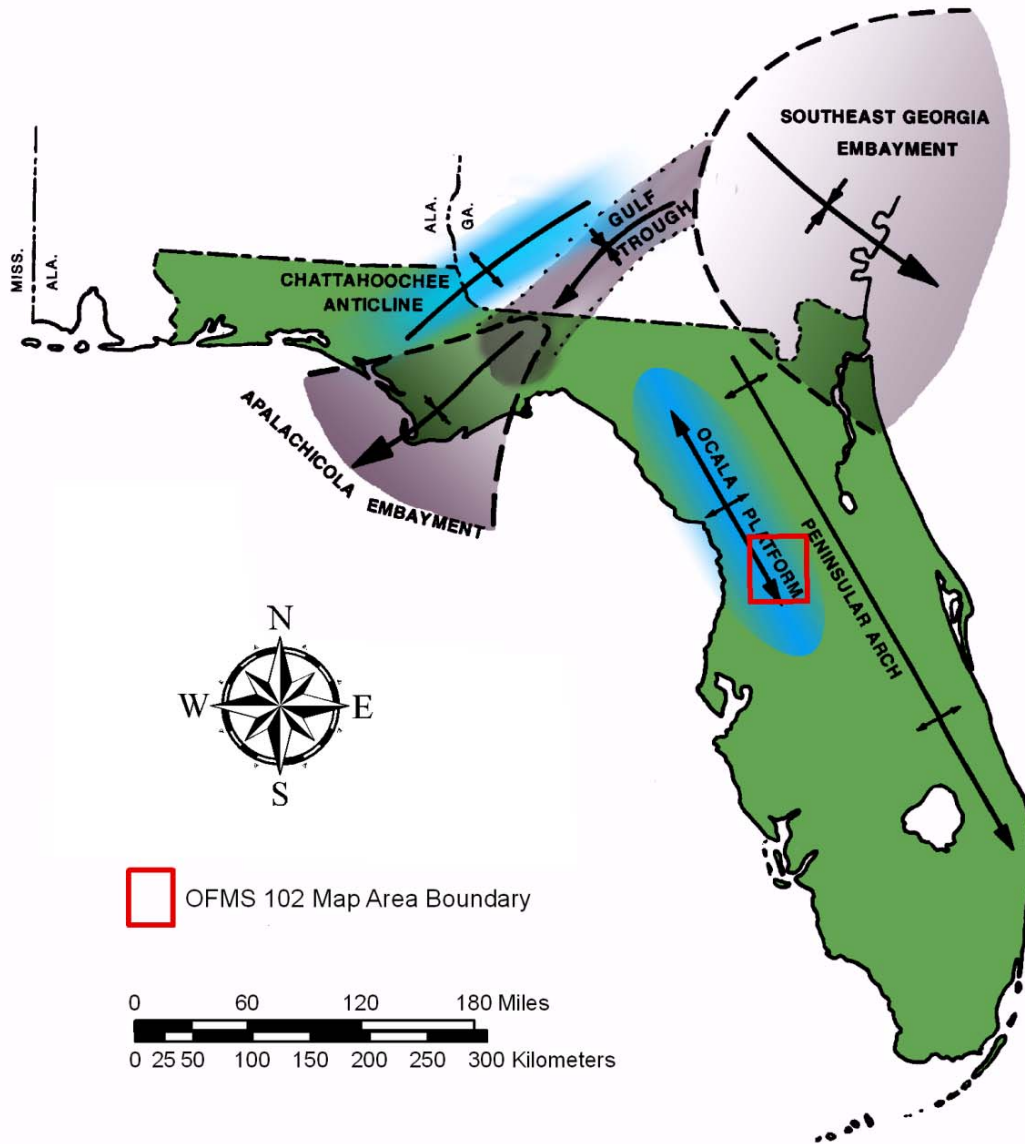


Figure 3. Principal subsurface structures of north Florida (modified from Puri and Vernon, 1964 and Schmidt, 1984).

Vernon (1951), utilizing aerial photographs, mapped fracture patterns throughout northern peninsular Florida. Regionally, these fractures generally trend parallel to the axis of the Ocala Platform in a northwest-southeast orientation. A secondary system of fractures intersects these primary fractures at high angles in a northeast-southwest trend (Vernon, 1951; see p. 47-52 for discussion of fractures). Orientation of stream meanders along portions of the Withlacoochee River suggests that these fracture patterns may be a controlling factor in stream location.

Vernon (1951) also discussed the occurrence of faults in part of the Florida peninsula. He attributed the origin of the faults to his postulated uplift of the Ocala Platform (his Ocala Uplift). Although he described the occurrence and surface-strike orientation of the faults, there was no discussion of the dip of the faults. Vernon did mention that his postulated faults were very steeply inclined. Vernon (1951) also mentioned seeing slickensides and grabens in quarries in the study area. Similar features have been observed by several of the authors of this publication while doing fieldwork in the region. It is believed that these are related to karst collapse and localized block movement within karst features, not to faulting as Vernon (1951) suggested. When a cover collapse sinkhole forms, large blocks may move downward along fractures created by the collapse and create localized slickensides which are not related to structural faulting. Additionally, numerous wells that Vernon (1951) used for cross-sections, which depicted faults in his report, were investigated by Green et al. (2009b) and several wells were deemed to be karst features. For example, W-1198 (see Vernon, 1951; Figure 14), appears to be karst infill. Karst features in the study area are very common (OFMS 102; Plate 3, Photo 4).

A secondary critique of the faulting described by Vernon (1951) is the fact that many of the purported faults are actually offsets between biozonations within a formation, such as the Avon Park Formation, or between members of what Vernon (1951) called the Moodys Branch Formation (now Ocala Limestone; Puri, [1957], Scott, [1991b]). Through analyses and interpretation of hundreds of wells in the USGS Ocala and Inverness 30 x 60 minute quadrangles, the present authors recognize that there is great variability in the Ocala Limestone and the Avon Park Formation that is in large part related to original environments of deposition. Therefore, any faulting inferred based upon lithologic differences within the Avon Park Formation and Ocala Limestone are more likely variations due to environmental facies, not that these formations have distinct horizontal beds that are continuous and contiguous throughout the entire formation. It has already been discussed that the unconformable contact of the Avon Park Formation and the Ocala Limestone is not a planar surface, but formed on a topographically variable, karstified surface. Thus, adjacent localities where Ocala Limestone and Avon Park Formation are at the same elevation do not require a structural solution.

Geomorphology

Healy (1975) recognized six possible marine terraces within the study area (Figure 4) based upon elevation: the Talbot terrace at elevations between 25 and 42 feet (7.6 and 12.8 meters) above mean sea level (MSL), the Penholoway terrace at elevations between 42 and 70 feet (12.8 and 21.3 meters) above MSL, the Wicomico terrace at elevations between 70 to 100 feet (21.3 to 30.5 meters) above MSL, the Sunderland/Okefenokee terrace at elevations between 100 and 170 feet (30.5 and 51.8 meters) above MSL, the Coharie terrace at elevations between 170 and 215 feet (51.8 and 65.5 meters) above MSL, and Hazelhurst terrace at elevations between 215 and 320 feet (65.5 and 97.6 meters) above MSL. Detailed discussions and correlations of these marine terraces and relict shorelines have been attempted by many authors,

FLORIDA GEOLOGICAL SURVEY

including Matson and Sanford (1913), Cooke (1931, 1939), Flint (1940, 1971), MacNeil (1950), Alt and Brooks (1965), Pirkle et al. (1970), Healy (1975), and Colquhoun et al. (1991).

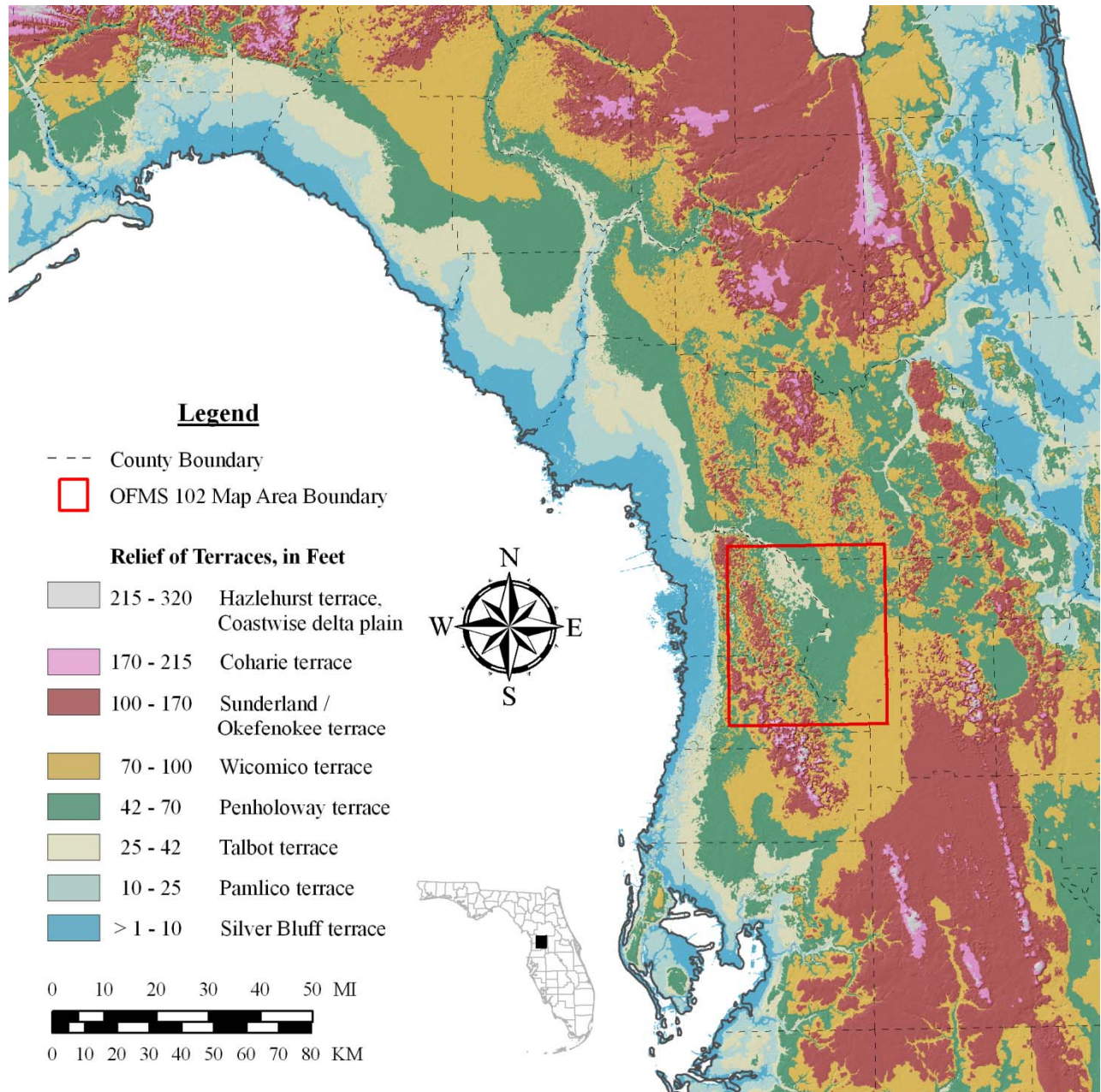


Figure 4. Terraces in Florida (after Healy, 1975).

The terrace associated with the Brooksville Ridge is best related to the Penholoway, but the elevations of the Brooksville Ridge suggest that it may have formed at some earlier, higher sea level and the present terrace at the western toe is a later geomorphic event that modified the western flank of the ridge. White (1970) inferred by its elevation that the Brooksville Ridge must be related to the Wicomico with sea level over 100 feet (30.5 meters) above MSL. However, White (1970) also noted that the Brooksville Ridge has “suffered so much differential subsidence from solution of underlying limestone that it is difficult to correlate.” Isostatic rebound initiated by carbonate dissolution further complicates tracing elevationally delineated features in Florida (Opdyke et al., 1984; Adams et al., 2010).

According to Scott et al. (in preparation), the study area is entirely within the Ocala Karst District (OFMS 102; Plate 3, Figure 2). Within the map area, the Ocala Karst District has been further subdivided topographically into five regional physiographic provinces: Brooksville Ridge, Green Swamp, Land O’ Lakes Karst Plain, Ocala Karst Hills and Williston Karst Plain.

Ocala Karst District

The Ocala Karst District encompasses a broad area from central Wakulla County in the panhandle of Florida, south to Hillsborough and Pinellas Counties in the west-central peninsula and inland to nearly the center of the peninsula (OFMS 102; Plate 3, Figures 2 and 3). Elevations within the district range from sea level along the Gulf of Mexico coast to a maximum of 300 feet (91.4 meters) above MSL on the Brooksville Ridge. Within the study area, elevations range from 4 feet (1.2 meters) to 271 feet (82.6 meters) above MSL in the southwest portion of the map area at the southern end of the Brooksville Ridge in Hernando County.

Carbonate sediments of the Middle Eocene Avon Park Formation, the Upper Eocene Ocala Limestone and Lower Oligocene Suwannee Limestone lie at or near the land surface in this district within the study area. There also exist Miocene undifferentiated Hawthorn Group and undifferentiated Tertiary/Quaternary sediments, particularly associated with the Brooksville Ridge. The northeastern portion of the study area has limited outcrops of Middle Miocene Hawthorn Group Coosawhatchie Formation sediments. The Ocala Karst District is dominated by sinkholes and shallow bowl-shaped depressions, producing a rolling topography. Generally, a variably permeable siliciclastic cover allows downward percolating groundwater to slowly dissolve the underlying limestone, leading to cover-collapse sinkholes and cover-subsidence features (Sinclair and Stewart, 1985). Cover-collapse sinkholes form rather abruptly from the structural failure of an underlying cavern roof. An excellent example of this is at Devil’s Millhopper Geological State Park, located in Alachua County north of the present study area (Evans et al., 2004).

Cover subsidence features generally occur in areas where sediments sag as carbonates dissolve underneath. Typically, areas such as these have shallow sinks formed by the downward raveling of the siliciclastic overburden filling voids created by slow dissolution of underlying carbonates or by slow dissolution of the carbonate surface. Springs, sinking (swallets) and resurgent streams, and caverns commonly occur within the Ocala Karst District.

Brooksville Ridge

The Brooksville Ridge, described by White (1970) as “the most massive of the ridges which rise above the general level of the Central Upland”, stands out in stark contrast to the surrounding

FLORIDA GEOLOGICAL SURVEY

karst plains. The Brooksville Ridge province encompasses most of the western portion of the study area (OFMS 102; Plate 3, Figures 1 and 3). It is separated into two sections (northern and southern) by the Withlacoochee River. The northern portion of the Brooksville Ridge begins in Gilchrist and Alachua Counties and terminates in Levy and Marion Counties. The southern portion extends from Citrus County southward into Pasco County.

The two sections of the ridge differ in elevation, length-to-width ratio and underlying geology. Elevations in the northern, narrower portion of the Brooksville Ridge range from approximately 50 feet (15.2 meters) to greater than 150 feet (45.7 meters) above MSL. Elevations in some sinkholes are less than 50 feet (15.2 meters) above MSL. The southern, broader part of the ridge ranges in elevation from approximately 50 feet (15.2 meters) to more than 300 feet (91 meters) above MSL. In a few sinkholes, elevations of approximately 10 feet (3 meters) above MSL occur. Within the study area, elevations in this province range from 5 feet (1.5 meters) to 270 feet (82.3 meters).

The topography of the Brooksville Ridge displays significant variability. The northern section has low, rolling karst hills interspersed with moderately shallow sinkholes. The southern portion of the ridge becomes progressively hillier and terrain relief increases from north to south. White (1970) describes the southern ridge area as having "the most irregular surface to be found in any area of comparable size in peninsular Florida." From the vicinity of Brooksville southward, the hills are higher and more closely spaced. North of Brooksville, the hills are more widely spaced and generally have lower elevations, an indication of more mature karst. The Brooksville Ridge is well drained with wet conditions existing only in the low lying karst features. There are no springs found on the ridge, but many swallets occur within the southern Brooksville Ridge.

The Upper Eocene Ocala Limestone underlies the northern portion of the Brooksville Ridge. Weathered Miocene undifferentiated Hawthorn Group sediments lie unconformably on the Ocala Limestone with undifferentiated Quaternary and/or Tertiary/Quaternary siliciclastics mantling the ridge. The southern portion of the Brooksville Ridge is more complex geologically than the northern section. The southern section of the Brooksville Ridge is present in the western third of the mapped area (OFMS 102; Plate 3, Figures 1 and 3). The province is underlain by carbonates of the Middle Eocene Avon Park Formation, the Upper Eocene Ocala Limestone and the Lower Oligocene Suwannee Limestone which are overlain by variable thicknesses of weathered Miocene undifferentiated Hawthorn Group sediments and undifferentiated Tertiary-Quaternary siliciclastics, Quaternary siliciclastics or relict dunes of the Quaternary Beach Ridge and Dune map unit.

Green Swamp

The Green Swamp province occupies parts of Hernando, Pasco, Sumter, Lake, Polk and Hillsborough Counties. It is bounded on the north by the Williston Karst Plain, on the west by the Brooksville Ridge and Land O' Lakes Karst Plain, on the south and east by the Lakeland-Lake Wales Ridge Complex, part of the Central Lakes District, and on the south by the Polk-DeSoto Plain, part of the Sarasota River District (OFMS 102; Plate 3, Figure 3). The entire area is very poorly drained and swampy conditions prevail due to the high potentiometric surface of the Floridan aquifer system. Elevations of the Green Swamp range from 39 feet (11.9 meters) to 197 feet (60 meters). Within the study area, elevations range from less than 70 feet (21.3 meters) in the southwest to 100 feet (30.1 meters) in the eastern part of the swamp. Few areas of sand dunes are found in the swamp. Karst features are common throughout Green Swamp but there are few springs. Green Swamp is primarily underlain by the Upper Eocene Ocala Limestone with the

Lower Oligocene Suwannee Limestone under the southwestern part of the province. Miocene Hawthorn Group sediments occur scattered throughout the swamp. Undifferentiated Tertiary-Quaternary and reworked Cypresshead Formation siliciclastic sediments cover much of Green Swamp. Within the study area, Green Swamp is underlain by Upper Eocene Ocala Limestone and undifferentiated Quaternary sediments.

Land O' Lakes Karst Plain

The Land O' Lakes Karst Plain province occurs from southwestern Hernando County southward to Pinellas and Hillsborough Counties. It lies west of the southern end of the Brooksville Ridge, west of the Green Swamp and north and west of the northern boundary of the Sarasota River District (OFMS 102; Plate 3, Figure 3). The occurrence of karst features varies from abundant and closely spaced to scattered. Sand dunes are present in several areas of the karst plain. This area varies from poorly drained to well drained and there are many springs. The northern half of the Land O' Lakes Karst Plain, including the present study area, is underlain by the Lower Oligocene Suwannee Limestone. The Upper Oligocene to Lower Miocene Tampa Member of the Arcadia Formation, Hawthorn Group underlies the southern portion of the karst plain. Clays and sands of Miocene undifferentiated Hawthorn Group overlie the carbonate sediments over much of the area. Quaternary siliciclastic sediments cover much of the karst plain. Elevations in the Land O' Lakes Karst Plain range from sea level to 142 feet (43.3 meters). Elevations in the Land O' Lakes Karst Plain over the study area range from 25 feet (7.6 meters) to 135 feet (41.2 meters).

Ocala Karst Hills

The Ocala Karst Hills province occurs from north-central Marion County southward to northeastern Sumter County (OFMS 102; Plate 3, Figure 3). Several large springs are present in the Ocala Karst Hills, including the Silver Springs Group, which occurs near the eastern edge of the province along the boundary with the Central Lakes District. The karst in this province is relatively mature. The Upper Eocene Ocala Limestone underlies Quaternary siliciclastic sediments of varying thicknesses, while Middle Miocene Hawthorn Group Coosawhatchie Formation sediments are thin where present, or absent. Within the study area, Quaternary siliciclastic sediments overlie the Upper Eocene Ocala Limestone with some isolated outliers of Middle Miocene Hawthorn Group Coosawhatchie Formation sediments. Elevations in the Ocala Karst Hills range from 16 feet (4.9 meters) to 193 feet (58.8 meters). Elevations in the Ocala Karst Hills over the study area range from 50 feet (15.2 meters) to 144 feet (44.2 meters).

Williston Karst Plain

The Williston Karst Plain province, located on the eastern flank of the Brooksville Ridge, extends eastward to the Hawthorne Lakes Region, the Fairfield Karst Hills, the Ocala Karst Hills, the Tavares Lakes Region, and the Lakeland-Lake Wales Ridge Complex and is underlain by the Upper Eocene Ocala Limestone (OFMS 102; Plate 3, Figures 1 and 3). The study area is covered with variable thicknesses of undifferentiated Quaternary sediments (Scott et al., in preparation). Scattered wells in the Tsala Apopka Lake region reveal that occasionally the Upper Eocene Ocala Limestone is missing and only the Middle Eocene Avon Park Formation is present.

FLORIDA GEOLOGICAL SURVEY

The Williston Karst Plain abuts Green Swamp south of the study area (OFMS 102; Plate 3, Figure 3). Elevations of the Williston Karst Plain range from 8 feet (2.4 meters) to 162 feet (49.4 meters). Within the mapped area, elevations of the province range from 12 feet (3.6 meters) to 160 feet (48.8 meters) above MSL. Much of the plain is well drained and a number of springs, including the Rainbow Springs Group, just north of the current study area, occur within this province.

LITHOSTRATIGRAPHIC UNITS

Tertiary System

Eocene Series

Avon Park Formation

The Middle Eocene Avon Park Formation (Tap), first described by Applin and Applin (1944), is the oldest unit investigated in the present study area. The unit consists of cream to light-brown to tan, poorly- to well-indurated, variably fossiliferous limestone (grainstone to wackestone, with rare mudstone). The limestones are interbedded with tan to brown, very poorly- to well-indurated, very fine to medium crystalline, fossiliferous (molds and casts), vuggy dolostones. Organics are often present. Fossils present in the unit include mollusks, foraminifera (*Spirolina* sp., *Lituonella floridana*, *Bolivina* sp., and *Cushmania* [*Dictyoconus*] *americana*), echinoids, algae and carbonized plant remains.

The Avon Park Formation underlies the mapped area and is rarely within 20 ft of land surface in the Tsala Apoka Lake region. The top of the Avon Park ranges from 23 feet (7 meters) above MSL in W-18801 (OFMS 102; Plate 2, cross-section E-E') to 142 feet (43.3 meters) below MSL in W-18737 (OFMS 102; Plate 2, cross-section D-D'). No wells utilized for cross-sections penetrated the entire thickness of the Avon Park Formation. In a few locations mapped as undifferentiated Quaternary sediments or Upper Eocene Ocala Limestone, it is possible to find wells in which the Avon Park Formation is within 20 feet of the surface in the Tsala Apoka Lake region. The Avon Park Formation forms part of the Floridan aquifer system (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986).

Ocala Limestone

The Upper Eocene Ocala Limestone (To), first described by Dall and Harris (1892), is a biogenic marine limestone comprised largely of foraminifera, mollusks, echinoids and bryozoans. Where present, the Ocala Limestone sits unconformably on the Avon Park Formation. When the Ocala Limestone is absent, such as in isolated locations near the Withlacoochee River and in the Tsala Apoka Lake vicinity, the Avon Park Formation may be in direct, unconformable contact with the overlying undifferentiated Quaternary sediments or rarely the Lower Oligocene Suwannee Limestone. An example of the latter is Jordan Sink, not far from the Withlacoochee River in the Two Mile Prairie Tract of the Withlacoochee State Forest in the northeastern portion of the USGS Holder 7.5 minute quadrangle. The Ocala Limestone is recrystallized to varying degrees, particularly within the northern and western parts of the study area, making the contact between the two units difficult to discern. Based on lithologic differences, the Ocala Limestone can be informally subdivided into an upper and lower unit

(Scott, 1991b). This subdivision, while often apparent in cores and quarries, is not readily apparent in cuttings. As a consequence of this, the geologic cross-sections do not break out the upper and lower Ocala Limestone.

The upper unit is typically a white to cream, fine- to coarse grained, poorly- to well-indurated, moderately- to well-sorted, very fossiliferous limestone (wackestone, packstone, and grainstone). Fossils commonly include foraminifera (*Lepidocyclina ocalana*), bryozoans, mollusks, and a rich diversity of echinoids. The lower unit is typically a white to cream, fine- to medium-grained, poorly- to moderately-indurated, moderately- to well-sorted limestone (grainstone to packstone). Fossils include foraminifera (*Amphistegina pinarensis*, *Nummulites* [*Camerina*] *vanderstoki*, *Nummulites* [*Operculinoides*] *ocalana*), bryozoans, algae, mollusks, echinoids, and crabs.

The top of the Ocala Limestone ranges from 113 feet (34.4 meters) above MSL in W-16001 (OFMS 102; Plate 2, cross-sections B-B' and D-D') to 37 feet (11.3 meters) below MSL in W-12148 (OFMS 102; Plate 2, cross-sections A-A' and D-D'). Approximately 70 percent of the wells utilized for geologic cross-sections penetrate the entire thickness of the Ocala Limestone. In these wells, the thickness of the Ocala Limestone ranges from being absent in W-7961 and W-18801 on cross-section E-E' (OFMS 102; Plate 2) to 198 feet (60.4 meters) in W-18737 (OFMS 102; Plate 2, cross-section D-D'). In the Tsala Apoka Lake region, the Ocala Limestone thins, and rare rock outcrops of Avon Park Formation (Jordan Sink mentioned previously) are present. The Ocala Limestone is generally thickest in the southeastern portion of the study area off the nose of the Ocala Platform. The Ocala Limestone forms part of the Floridan aquifer system (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986).

Oligocene Series

Suwannee Limestone

The Lower Oligocene Suwannee Limestone (Ts), named by Cooke and Mansfield (1936), consists of dolomitized grainstone and packstone in the present field area. The unit is typically gray, tan, light brown to moderate brown, moderately- to very well-indurated, finely- to coarsely-crystalline, with limited occurrences of fossiliferous beds. Fossils present in the unit include mollusks, foraminifera (*Fallotella* sp.), corals and echinoids (*Rhyncholampas gouldii*). In the present field area the Suwannee Limestone is often highly karstified.

The Suwannee Limestone lies unconformably on the Ocala Limestone and rarely on the Avon Park Formation and is unconformably overlain by the undifferentiated Hawthorn Group or undifferentiated Quaternary sediments. Outcrops of Suwannee Limestone are concentrated in the southwestern portion of the study area in the southern Brooksville Ridge, with outliers present in portions of the Brooksville Ridge in the northwestern part of the study area. The top of the Suwannee Limestone ranges from 187 feet (54.3 meters) above MSL in W-16001 (OFMS 102; Plate 2, cross-sections B-B' and D-D') to 47 feet (14.3 meters) above MSL in W-10639 (OFMS 102; Plate 2, cross-section C-C'). The Suwannee Limestone forms part of the Floridan aquifer system (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986).

Miocene Series

Hawthorn Group

Sediments of the Miocene Hawthorn Group are thought to have been deposited over the Ocala Platform throughout the area, but post-Miocene erosion and karstification have removed sediments from the crest of the Ocala Platform, exposing the Eocene carbonates in the central portion of the map area (Cooke, 1945; Espenshade and Spencer, 1963; Scott, 1981b). Fossils in the Hawthorn Group are sparse but may include vertebrate remains, corals, and mollusks. Williams et al. (1977) report that the most commonly found fossils are oysters and coral heads. Within the mapped area, the Hawthorn Group is composed of Miocene undifferentiated Hawthorn Group (Th) sediments, and was observed as weathered outcrop in the southern part of the Brooksville Ridge and variably weathered in cores and cuttings. The Middle Miocene Coosawhatchie Formation of the Hawthorn Group (Thc) is found in a few isolated remnants in the northeastern study area within the Ocala Karst Hills Province.

Undifferentiated Hawthorn Group

The Miocene undifferentiated Hawthorn Group (Th) sediments are light olive gray and blue gray in unweathered sections and reddish brown to reddish gray in weathered sections. They consist of poorly- to moderately-consolidated, clayey sands to silty clays and relatively pure clays with little to no phosphate due to leaching and transport (Scott, 2001). These sediments are present as outcrops in the southwest quadrant of the study area and in the subsurface of the southern Brooksville Ridge (OFMS 102; Plate 1). They are typically deeply weathered. In the southern Brooksville Ridge, undifferentiated Hawthorn Group sediments are often overlain by more than 20 feet (6.1 meters) of undifferentiated Tertiary and Quaternary sediments and/or Quaternary sediments. Hard-rock phosphate deposits are associated with the undifferentiated Hawthorn Group sediments in several places along the eastern flank of the Brooksville Ridge. These hard-rock phosphate deposits were formed by dissolution of phosphate from the Hawthorn Group and subsequent precipitation in karst features within the Ocala Limestone (Scott, 2001).

Where present, undifferentiated Hawthorn Group sediments unconformably overlie the Ocala Limestone or the Suwannee Limestone (Scott, 1988). They are at times unconformably overlain by undifferentiated Quaternary sediments or undifferentiated Tertiary/Quaternary sediments. Thin beds of the undifferentiated Hawthorn Group were penetrated in a few wells in the northwestern portion of the map area. In these, the top of the Hawthorn Group ranges from 41 feet (12.5 meters) above MSL in W-11452 (OFMS 102; Plate 2, cross-section D-D') to 27 feet (9.8 meters) below MSL in W-12148 (OFMS 102; Plate 2, cross-sections A-A' and D-D'). The undifferentiated Hawthorn Group is only 10-25 feet (3.1-7.6 meters) thick in each of these wells. Undifferentiated Hawthorn Group sediments also mantle hilltops in the southwestern part of the study area. The maximum elevation observed was 209 feet (63.7 meters) above MSL in W-16001 (OFMS 102; Plate 2, cross-sections B-B' and D-D'). Undifferentiated Hawthorn Group sediments are often clayey sands with some permeability, and only rarely consist of relatively pure clays. The undifferentiated Hawthorn Group sediments generally have low permeability and form part of the intermediate aquifer system/intermediate confining unit (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986).

Coosawhatchie Formation

The Middle Miocene Coosawhatchie Formation (Thc) is exposed or lies beneath a thin overburden on the eastern flank of the Ocala Platform in the present study area. It typically ranges from a light gray to olive gray, poorly-consolidated, variably clayey sand with minor dolostone, to an olive gray, poorly- to moderately-consolidated, slightly sandy, silty clay. The unit may contain 20 percent or more phosphate but generally has less than 10 percent phosphate (Scott, 1988). The Coosawhatchie Formation lies unconformably on the Ocala Limestone and is unconformably overlain by undifferentiated Quaternary sediments (Qu). The top of the Coosawhatchie Formation ranges from 78 feet (23.8 meters) above MSL in W-1707 (OFMS 102; Plate 2, cross-sections A-A' and F-F') to 76 feet (23.2 meters) above MSL in W-334 (OFMS 102; Plate 2, cross-section F-F') to and occurs in the northeastern portion of the study area. The Coosawhatchie Formation is between 18-30 feet (5.5-9.1 meters) thick based upon information from the previously mentioned wells. Permeability of the Coosawhatchie sediments is generally low, forming part of the intermediate confining unit/aquifer system (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986).

Tertiary/Quaternary Systems

Pliocene Series

Undifferentiated Tertiary/Quaternary Sediments

Undifferentiated Tertiary/Quaternary sediments (TQu) are siliciclastics that are separated from the lithologically similar undifferentiated Quaternary sediments solely on the basis of elevation (Scott et al., 2001). Pleistocene sea levels reached a maximum of approximately 100 feet (30.5 meters) above MSL (Colquhoun, 1969). The sediments which occur above 100 feet (30.5 meters) MSL are predominately older than Pleistocene but may have been reworked during the Pleistocene. They are present in the northwestern portion of the map area (OFMS 102; Plate 1) in areas where elevations exceed 100 feet (30.5 meters). Some areas below 100 feet (30.5 meters) may be included in the undifferentiated Tertiary/Quaternary sediments where not including them would have created very complex map polygons. These poorly-consolidated to unconsolidated siliciclastics are white to gray to orange to blue-green, fine- to coarse-grained, clean to clayey unfossiliferous sands, sandy clays and clays with variable admixtures of clay and organics. Permeable sediments of the undifferentiated Tertiary/Quaternary sediments form part of the surficial aquifer system (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986).

Pleistocene to Holocene Series

Undifferentiated Quaternary Sediments

Undifferentiated Quaternary sediments (Qu) lie unconformably on the Avon Park Formation, the Ocala Limestone, the Suwannee Limestone, undifferentiated Hawthorn Group, or on Coosawhatchie Formation sediments. The Avon Park Formation and the undifferentiated Quaternary sediments are only in direct contact in some instances where the Ocala Limestone is absent from the section.

FLORIDA GEOLOGICAL SURVEY

The undifferentiated Quaternary sediments present in the western and eastern portions of the mapped area are highly variable in thickness. Data from this project indicate that the surface of the Ocala Limestone in these areas is heavily karstified. Overlying sediments may range from 20 feet (6.1 meters) to over 130 feet (39.6 meters) thick on the Brooksville Ridge. Relief on the surface of the Ocala Limestone regularly exceeds 30 feet (9.1 meters) in karstic areas. Much of these undifferentiated sediments are derived from erosion and weathering of Hawthorn Group and younger units such as the Cypresshead Formation, and sinkholes may contain Hawthorn Group sediments (Scott, 1992). Field evidence also shows that small pinnacles of Ocala Limestone or Suwannee Limestone and outliers of weathered Hawthorn Group sediments can occur in these areas.

Generally, these undifferentiated Quaternary sediments consist of white to gray to orange to blue-green, fine- to coarse-grained, clean to clayey unfossiliferous sands, sandy clays and clays with variable admixtures of organics. They are only separated from the undifferentiated Tertiary/Quaternary sediments due to current elevations below 100 feet (30.5 meters). The undifferentiated Quaternary sediments form part of the surficial aquifer system (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986). Where these sediments lack clays and overlie the Eocene or Oligocene limestones, they are hydraulically connected to the Floridan aquifer system.

Quaternary Beach Ridge and Dune

The sediments of the beach ridge and dune (Qbd) are a subdivision of the undifferentiated Quaternary sediments that are noted on the basis of surficial expression of beach ridges and dunes. These sediments typically unconformably overlie the Ocala Limestone or the Suwannee Limestone. Beach ridge and dune sediments occur in three generalized areas in the study area. The most continuous region is in the southwestern part of the study area along the western flank of the southern Brooksville Ridge. Another location is along the southeastern flank of the Brooksville Ridge. Many of these dunes were single parabolic dunes or remnants too small to individually map, but a few larger sets are mapped (OFMS 102; Plate 1). The last area occurs in the eastern portion of the study area, within the Williston Karst Plain, and are the largest fields averaging 3.4 km². These dunes form along the highlands of undifferentiated Quaternary Sediments which lie to the east of the lowlands of the Tsala Apopka Lake and Withlacoochee River valley both north-northwest and south-southeast of Lake Panasoffkee. Subdivisions of the undifferentiated Quaternary sediments are not formally recognized lithostratigraphic units, but are noted to facilitate a better understanding of Florida's Quaternary geology (Scott, 2001).

Beach ridge and dune sediments are dominantly siliciclastic sands and are unconsolidated to poorly consolidated. Organics typically occur as disseminated organic matrix, roots and plant debris, carbonized remains or charcoal. These sediments are considered part of the surficial aquifer system (Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986).

HYDROGEOLOGY

Hydrostratigraphic units within the map area, in ascending order, consist of the Floridan aquifer system (FAS), the intermediate aquifer system/intermediate confining unit (IAS/ICU), and the surficial aquifer system (SAS) (Southeastern Geological Society Ad Hoc Committee on

Florida Hydrostratigraphic Unit Definition, 1986). The FAS, the primary source for springs and drinking water in the region, is generally comprised of carbonate units of the Avon Park Formation, the Ocala Limestone, and the Suwannee Limestone. The sands, silts, clays and carbonates of the Hawthorn Group comprise the IAS/ICU. The IAS/ICU is highly localized and laterally discontinuous in the study area. The SAS is comprised of the undifferentiated Tertiary/Quaternary sediments (TQu), the undifferentiated Quaternary sediments (Qu) and the Beach Ridge and Dune sediments (Qbd).

Where clayey siliciclastic sediments of the Hawthorn Group and younger units are thick and continuous, they provide confinement for the FAS, but where the clayey siliciclastic sediments of the Hawthorn Group and younger units are thin, missing or lack significant clay component, karst features often occur. Swallets (stream-to-sink features) are of particular concern to geoscientists and hydrogeologists. Several of these are found in the southern Brookville Ridge, particularly where areas of undifferentiated Hawthorn Group sediments thinly cover the Suwannee Limestone (OFMS 102; Plate 3, Figure 1).

DERIVATIVE PRODUCTS

Several derivative products will come from this project. During the mapping project, data from over 500 wells were analyzed (Appendix A includes those within the study area boundary and top of limestone rock information from Water Management District wells). Formation picks, made on all available wells with cores and cuttings samples, allow creation of a structure contour map of the top of the Floridan aquifer system, along with the construction of structure contour and isopach maps of the IAS/ICU in the area. Additional derivative data anticipated to come from this mapping effort include aquifer vulnerability assessment maps. Data derived from prior STATEMAP products have often been used to augment other Florida Geological Survey and Florida Aquifer Vulnerability Assessment (FAVA) projects in the state (Arthur et al., 2007; Baker et al., 2007).

FLORIDA GEOLOGICAL SURVEY

REFERENCES

- Adams, P.N., Opdyke, N.D., and Jaeger, J.M., 2010, Isostatic uplift driven by karstification and sea-level oscillation: Modeling landscape evolution in North Florida: *Geology*, v. 38, p. 531-534.
- Allison, D., Groszos, M., and Rupert, F., 1995, Top of rock of the Floridan aquifer system in the Suwannee River Water Management District: Florida Geological Survey Open-File Map Series 84, scale 1:475,000.
- Alt, D., and Brooks, H.K., 1965, Age of the Florida marine terraces: *Journal of Geology*, v. 73, p. 406-411.
- Applin, P., 1951, Possible future petroleum provinces of North America - Florida: *American Association of Petroleum Geologists Bulletin*, v. 35, p. 405-407.
- Applin, P.L., and Applin, E.R., 1944, Regional subsurface stratigraphy and structure of Florida and southern Georgia: *American Association of Petroleum Geologists Bulletin*, v. 28, p. 1673-1753.
- Arthur, J.D., Wood, H.A.R., Baker, A.E., Cichon, J.R., and Raines, G.L., 2007, Development and implementation of a Bayesian-based aquifer vulnerability assessment in Florida: *Natural Resources Research*, v. 16, p. 93-107.
- Arthur, J.D., Fischler, C., Kromhout, C., Clayton, J.M., Kelley, G.M., Lee, R.A., Li, L., O'Sullivan, M., Green, R.C., and Werner, C.L., 2008, Hydrogeologic framework of the Southwest Florida Water Management District: Florida Geological Survey Bulletin 68, 102 p., 59 plates.
- Baker, A.E., Wood, H.A.R., and Cichon, J.R., 2007, The Marion County Aquifer Vulnerability Assessment: unpublished report submitted to Marion County Board of County Commissioners in fulfillment of Marion County Project No. SS06-01, March 2007, 42 p.
- Bryan, J.R., 2004, Larger foraminifera: Introduction, biology, ecology, taxonomic and stratigraphic listings and comments on Florida fossil assemblages: *Florida Paleontological Society, Florida Fossil Invertebrates*, Part 6, 28 p.
- Bush, P.W., and Johnston, R.A., 1988, Ground-water hydraulics, regional flow, and ground-water development of the Floridan aquifer system in Florida and in parts of Georgia, South Carolina, and Alabama: *U.S. Geological Survey Professional Paper 1403-C*, 80 p.
- Campbell, K.M., 1993a, Geologic map of Sumter County, Florida: Florida Geological Survey Open-File Map Series 35, Scale 1:126,720.
- _____, 1993b, Geologic map of Hernando County, Florida: Florida Geological Survey Open-File Map Series 35, Scale 1:126,720.

- Campbell, K.M., and Scott, T.M., 1992, Geologic Map of Citrus County, Florida: Florida Geological Survey Open-File Map Series 10, Scale 1:126,720.
- Colquhoun, D.J., 1969, Coastal plain terraces in the Carolinas and Georgia, U.S.A., *in* Wright, H.E., Jr., ed., Quaternary Geology and Climate: Volume 16 of the Proceedings of the VII Congress of the International Association for Quaternary Research, p. 150-162.
- Colquhoun, D.J., Johnson, G.H., Peebles, P.C., Huddleston, P.F., and Scott, T., 1991, Quaternary geology of the Atlantic Coastal Plain, *in* Morrison, R.B., ed., Quaternary nonglacial geology; Conterminous U.S.: Boulder, Colorado, Geological Society of America, The Geology of North America, v. K-2, p. 629-650.
- Cooke, C.W., 1931, Seven coastal terraces in the southeastern United States: Washington Academy of Sciences Journal, v. 21, p. 503-513.
- Cooke, C.W., and Mansfield, W.C., 1936, Suwannee limestone of Florida (abstract): Geological Society of America Proceedings 1935, p. 71-72.
- Cooke, C.W., 1939, Scenery of Florida interpreted by a geologist: Florida Geological Survey Bulletin 17, 120 p.
- _____, 1945, Geology of Florida: Florida Geological Survey Bulletin 29, 342 p.
- Copeland, R., 2003, Florida spring classification system and spring glossary: Florida Geological Survey Special Publication 52, 17 p.
- Copeland, R., Doran, N.A., White, A.J., and Upchurch, S.B., 2009, Regional and statewide trends in Florida's spring and well groundwater quality (1991-2003): Florida Geological Survey Bulletin 69, 203 p.
- Dall, W.H., and Harris, G.D., 1892, Correlation papers, Neocene: United States Geological Survey Bulletin 84, 349 p.
- Espenshade, G.H., and Spencer, C.W., 1963, Geologic features of phosphate deposits of northern peninsular Florida: United States Geological Survey Bulletin 1118, 115 p.
- Evans, W.L., III, Green, R.C., Bryan, J.R., and Paul, D.T., 2004, Geologic map of the western portion of the USGS 1:100,000 scale Gainesville quadrangle, northern Florida: Florida Geological Survey Open-File Map Series 93, scale 1:100,000, 2 plates.
- Flint, R.F., 1940, Pleistocene features of the Atlantic coastal plain: American Journal of Science, v. 238, p. 757-787.
- _____, 1971, Glacial and Quaternary Geology: New York, John Wiley and Sons, Inc., 892 p.

FLORIDA GEOLOGICAL SURVEY

- Green, R.C., Evans, W.L., III, Paul, D.T., and Scott, T.M., 2005, Geologic map of the eastern portion of the USGS 1:100,000 scale Gainesville quadrangle, northern Florida: Florida Geological Survey Open-File Map Series 94, scale 1:100,000, 2 plates.
- Green, R.C., Williams, C.P., Paul, D.T., Kromhout, C., and Scott, T.M., 2009a, Geologic map of the eastern portion of the USGS Ocala 30 x 60 minute quadrangle, north-central Florida: Florida Geological Survey Open-File Map Series 100, scale 1:100,000, 3 plates.
- Green, R.C., Williams, C.P., Paul, D.T., Kromhout, C., and Scott, T.M., 2009b, Text to accompany geologic map of the eastern portion of the USGS Ocala 30 x 60 minute quadrangle, north-central Florida: Florida Geological Survey Open-File Report 93, 29 p.
- Green, R.C., Williams, C.P., Flor, A.D., Paul, D.T., Kromhout, C., and Scott, T.M., 2010, Geologic map of the western portion of the USGS Ocala 30 x 60 minute quadrangle, north-central Florida, Florida Geological Survey Open-File Map Series 101, scale 1:100,000, 3 plates.
- Groszos, M., and Rupert, F.R., 1992, An isopach map of the Hawthorn Group in the Suwannee River Water Management District: Florida Geological Survey Open-File Map Series 2, scale 1:250, 000.
- Healy, H.G., 1975, Terraces and shorelines of Florida: Florida Geological Survey Map Series 71, scale: 1:2,095,200.
- Hopkins, O.B., 1920, Drilling for oil in Florida: United States Geological Survey Press Bulletin, April, 1920.
- Jones, G.W., Upchurch, S.B., and Champion, K.M., 1996, Origin of nitrate in groundwater discharging from Rainbow Springs, Marion County, Florida: Southwest Florida Water Management District Report, 155 p.
- MacNeil, F.S., 1950, Pleistocene shorelines in Florida and Georgia: U.S. Geological Survey Professional Paper 221-F, p. 95-107.
- Matson, G.C., and Sanford, S., 1913, Geology and groundwater of Florida: U.S. Geological Survey Water Supply Paper 319, 445 p.
- McBride, W.S., Bellino, J.C., and Swancar, A., 2011, Hydrology, water budget, and water chemistry of Lake Panasoffkee, west-central Florida: U.S. Geological Survey Scientific Investigations Report 2010-5237, 96 p.
- Miller, J.A., 1986, Hydrogeologic framework of the Florida aquifer system in Florida and in parts of Georgia, Alabama, and South Carolina: Regional Aquifer-System Analysis: U.S. Geological Survey Professional Paper 1403-B, 91 p., 33 plates.

- Opdyke, N.D., Spangler, D.P., Smith, D.L., Jones, R.C., and Lindquist, R.C., 1984, Origin of the epeirogenic uplift of Pliocene-Pleistocene beach ridges in Florida and development of the Florida karst: *Geology*, v. 12, p. 226-228.
- Phelps, G.G., 1994, Hydrogeology, water quality and potential for contamination of the Upper Floridan Aquifer in the Silver Springs Ground-Water Basin, Central Marion County, Florida: U.S. Geological Survey Water-Resources Investigations Report 92-4159, 69 p.
- _____, 2004, Chemistry of groundwater in the Silver Springs Basin, with an emphasis on Nitrate: U.S. Geological Survey Scientific Investigations Report 2004-5144, 54 p.
- Pirkle, E.C., Jr., Yoho, W.H., and Hendry, C.W., Jr., 1970, Ancient sea level stands in Florida: Florida Geological Survey Bulletin 52, 61 p.
- Puri, H.S., 1957, Stratigraphy and zonation of the Ocala Group: Florida Geological Survey Bulletin 38, 248 p.
- Puri, H.S., and Vernon, R.O., 1964, Summary of the geology of Florida and a guidebook to the classic exposures: Florida Geological Survey Special Publication 5, revised, 312 p.
- Schmidt, W., 1984, Neogene stratigraphy and geologic history of the Apalachicola Embayment: Florida Geological Survey Bulletin 58, 146 p.
- Scott, T.M., 1981a, The paleo-extent of the Miocene Hawthorn Formation in peninsular Florida [abstract]: *Florida Scientist*, v. 44, Supplement 1, p. 42.
- _____, 1981b, The Hawthorn Formation of North Florida: Southeastern Geological Society, Field Conference Guidebook, v. 23, p. 15-23.
- _____, 1988, The lithostratigraphy of the Hawthorn Group (Miocene) of Florida: Florida Geological Survey Bulletin 59, 148 p.
- _____, 1991a, Depositional patterns of the Hawthorn Group in Florida: *Geological Society of America Abstracts with Programs*, v. 23, no. 1, p. 126.
- _____, 1991b, A geological overview, *in* Scott, T.M., Lloyd, J.M., and Maddox, G.L., eds., Florida's ground-water quality monitoring program, hydrogeologic framework: Florida Geological Survey Special Publication 32, 97 p.
- _____, 1992, Geologic map of Marion County, Florida: Florida Geological Survey Open-File Map Series 13, scale 1:126,720.
- _____, 1997, Miocene to Holocene history of Florida, *in* Randazzo, A.F. and Jones, D.S., eds., *The geology of Florida*: Gainesville, University Press of Florida, 327 p.

FLORIDA GEOLOGICAL SURVEY

- _____, 2001, Text to accompany the geologic map of Florida: Florida Geological Survey Open-File Report 80, 29 p.
- _____, 2005, Revisions to the geomorphology of Florida focusing on the eastern panhandle and north-central Florida, *in* Southeastern Geological Society Field Trip Guidebook 44, p. 18-36.
- Scott, T.M., Campbell, K.M., Rupert, F.R., Arthur, J.A., Green, R.C., Means, G.H., Missimer, T.M., Lloyd, J.M., and Duncan, J.G., 2001, Geologic map of Florida: Florida Geological Survey Map Series 146, scale 1:750,000.
- Scott, T.M., Means, G.H., Means, R.C., and Meegan R.P., 2002, First magnitude springs of Florida: Florida Geological Survey Open-File Report 85, 138 p.
- Scott, T.M., Means, G.H., Meegan, R.P., Means, R.C., Upchurch, S.B., Copeland, R.E., Jones, J., Roberts, T., and Willet, A., 2004, Springs of Florida: Florida Geological Survey Bulletin 66, 377 p.
- Scott, T.M., Paul, D.T., Means, G.H., and Williams, C.P. (in preparation) Geomorphic map of Florida: Florida Geological Survey, scale 1:750,000.
- Sinclair, W.C., and Stewart, J.W., 1985, Sinkhole type, development, and distribution in Florida: Florida Geological Survey Map Series 110, scale 30 miles to 1 inch.
- Southeastern Geological Society Ad Hoc Committee on Florida Hydrostratigraphic Unit Definition, 1986, Hydrogeological units of Florida: Florida Geological Survey Special Publication 28, 8 p.
- Upchurch, S.B., Champion, K.M., Schnieder, J.C., Hornsby, D., Ceryak, R., and Zwanka, W., 2004, Defining springsheds boundaries and water-quality domains near first-magnitude springs in north Florida [abstract]: Florida Scientist, v. 67, Supplement 1, 52 p.
- U.S. Geological Survey, 1978, 1:100,000-scale metric topographic map of Ocala, Florida: Reston, U.S. Geological Survey, 1 sheet.
- Vernon, R.O., 1951, Geology of Citrus and Levy Counties, Florida: Florida Geological Survey Bulletin 33, 256 p.
- White, W.A., 1970, The geomorphology of the Florida peninsula: Florida Geological Survey Bulletin 51, 164 p.
- Williams, C.P., Green, R.C., Flor, A.D., Paul, D.T., Scott, T.M., and Kromhout, C., 2010, Text to accompany geologic map of the western portion of the USGS Ocala 30 x 60 minute quadrangle, north-central Florida, Florida Geological Survey Open-File Report 94, 29 p.

Williams, K.E., Nicol, D., and Randazzo, A.F., 1977, The geology of the western part of Alachua County, Florida: Florida Geological Survey Report of Investigation 85, 97 p.

ACKNOWLEDGEMENTS

The authors extend many thanks to the personnel that assisted with access to land holdings: Colleen Werner and Wilbur Priest at the Withlacoochee State Forest who provided much assistance with road access and facilitating coring on their land, and Dave Dewitt from the Southwest Florida Water Management District.

Ken Campbell, David Paul, Jesse Hurd, Eric Thomas and Guy Richardson provided field support for drilling operations. Amber Raynsford and Lisa Fulton worked to make sure all wells were appropriately located using every piece of archived well location information that could be found. Thank you to Frank Rupert, Jackie Lloyd, Clint Kromhout, and Harley Means who reviewed, discussed and edited the product. Tom Scott continues to be an asset to geologic mapping in Florida and the ongoing work to revise the state's geomorphic map. This geologic map was funded in part by the Office of the Florida Geological Survey of the Florida Department of Environmental Protection and by the United States Geological Survey National Cooperative Geologic Mapping Program under assistance award number G10AC00426 in Federal fiscal year 2010.

FLORIDA GEOLOGICAL SURVEY

APPENDIX A: WELLS UTILIZED FOR STUDY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
1	W-251	FGS	Cuttings	-82.036503	28.911588	OXFORD	78	85
2	W-334	FGS	Cuttings	-82.031389	28.928611	OXFORD	101	80
3	W-808	FGS	Cuttings	-82.074519	28.689534	BUSHNELL	80	385
4	W-1707	FGS	Cuttings	-82.041750	28.982555	OXFORD	88	165
5	W-2876	FGS	Cuttings	-82.440744	28.596869	BROOKSVILLE	123	1154
6	W-6540	FGS	Cuttings	-82.205636	28.619599	SAINT CATHERINE	42	420
7	W-6590	FGS	Cuttings	-82.067546	28.804084	WILDWOOD	71	150
8	W-7755	FGS	Cuttings	-82.451546	28.727385	BROOKSVILLE NW	33	171
9	W-7833	FGS	Cuttings	-82.217145	28.551133	SAINT CATHERINE	53	294
10	W-7961	FGS	Cuttings	-82.274685	28.849512	INVERNESS	47	40
11	W-8382	FGS	Cuttings	-82.212896	28.587640	SAINT CATHERINE	56	135
12	W-8418	FGS	Cuttings	-82.122037	28.983606	LAKE PANASOFFKEE NW	73	66
13	W-10376	FGS	Cuttings	-82.328130	28.746052	NOBLETON	95	125
14	W-10554	FGS	Cuttings	-82.298359	28.743866	NOBLETON	91	200
15	W-10639	FGS	Cuttings	-82.344525	28.569087	BROOKSVILLE SE	87	416
16	W-10680	FGS	Cuttings	-82.394628	28.865368	LECANTO	60	143
17	W-10720	FGS	Cuttings	-82.178782	28.588554	SAINT CATHERINE	70	225
18	W-10855	FGS	Cuttings	-82.293074	28.571484	BROOKSVILLE SE	99	250
19	W-10901	FGS	Cuttings	-82.061706	28.600266	WEBSTER	90	66
20	W-11452	FGS	Cuttings	-82.371655	28.897282	HOLDER	67	73
21	W-11606	FGS	Cuttings	-82.045715	28.835873	WILDWOOD	60	400
22	W-11788	FGS	Cuttings	-82.079129	28.777666	WILDWOOD	55	80
23	W-11817	FGS	Cuttings	-82.162514	28.588340	SAINT CATHERINE	63	160
24	W-12148	FGS	Cuttings	-82.431580	28.963309	HOLDER	78	178
25	W-12879	FGS	Cuttings	-82.045588	28.865104	WILDWOOD	58	300
26	W-13349	FGS	Cuttings	-82.068798	28.735642	BUSHNELL	80	180
27	W-13716	FGS	Cuttings	-82.360967	28.953119	STOKES FERRY	40	158
28	W-14629	FGS	Cuttings	-82.180750	28.977556	LAKE PANASOFFKEE NW	74	221
29	W-15942	FGS	Core	-82.214191	28.603931	SAINT CATHERINE	64	300
30	W-16001	FGS	Core	-82.414503	28.728205	BROOKSVILLE NW	219	162
31	W-16022	FGS	Core	-82.064448	28.771891	WILDWOOD	57	204.5
32	W-16311	FGS	Core	-82.127374	28.774567	RUTLAND	52	270
33	W-16611	FGS	Core	-82.219722	28.753611	RUTLAND	51	566
34	W-17469	FGS	Core	-82.404322	28.556189	BROOKSVILLE	99	95
35	W-18681	FGS	Core	-82.337056	28.955556	STOKES FERRY	42	26
36	W-18737	FGS	Core	-82.403800	28.685367	BROOKSVILLE NW	91	242.6
37	W-18801	FGS	Core	-82.256750	28.821083	INVERNESS	43	41
38	W-19261	FGS	Core	-82.305944	28.904638	STOKES FERRY	44	93.6
39	W-19291	FGS	Core	-82.407833	28.768000	LECANTO	118	254.25
40	W-19292	FGS	Core	-82.044588	28.521919	WEBSTER	88	250
41	W-3	FGS	Cuttings	-82.063056	28.645833	BUSHNELL	76	3090
42	W-274	FGS	Cuttings	-82.366846	28.616211	BROOKSVILLE SE	261	804
43	W-807	FGS	Cuttings	-82.073956	28.690208	BUSHNELL	79	370
44	W-874	FGS	Cuttings	-82.302265	28.748924	NOBLETON	63	200
45	W-1442	FGS	Cuttings	-82.254496	28.506684	BROOKSVILLE SE	160	270
46	W-1712	FGS	Cuttings	-82.018597	28.987167	OXFORD	79	111
47	W-1721	FGS	Cuttings	-82.055340	28.656896	BUSHNELL	89	347
48	W-1735	FGS	Cuttings	-82.024087	28.871130	WILDWOOD	84	160
49	W-1762	FGS	Cuttings	-82.018597	28.987167	OXFORD	80	141
50	W-1767	FGS	Cuttings	-82.499742	28.947152	HOLDER	113	233
51	W-1790	FGS	Cuttings	-82.433732	28.669967	BROOKSVILLE NW	160	325
52	W-2645	FGS	Cuttings	-82.046597	28.860573	WILDWOOD	62	145
53	W-2688	FGS	Cuttings	-82.046590	28.859739	WILDWOOD	65	105
54	W-3675	FGS	Cuttings	-82.177045	28.509406	SAINT CATHERINE	65	820
55	W-3711	FGS	Cuttings	-82.296447	28.752085	INVERNESS	70	212
56	W-4114	FGS	Cuttings	-82.390165	28.550695	BROOKSVILLE	142	656
57	W-4410	FGS	Cuttings	-82.176380	28.512203	SAINT CATHERINE	183	1300
58	W-4697	FGS	Cuttings	-82.377003	28.579547	BROOKSVILLE	101	337

OPEN-FILE REPORT 96

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
59	W-4830	FGS	Cuttings	-82.386040	28.547118	BROOKSVILLE	143	620
60	W-4879	FGS	Cuttings	-82.029265	28.866805	WILDWOOD	83	105
61	W-5608	FGS	Cuttings	-82.394115	28.532869	BROOKSVILLE	143	207
62	W-5694	FGS	Cuttings	-82.300261	28.519708	BROOKSVILLE SE	117	200
63	W-5759	FGS	Cuttings	-82.201427	28.572258	SAINT CATHERINE	56	72
64	W-6234	FGS	Cuttings	-82.490902	28.663316	BROOKSVILLE NW	121	667
65	W-6392	FGS	Cuttings	-82.110700	28.666350	BUSHNELL	77	80
66	W-6393	FGS	Cuttings	-82.110700	28.666350	BUSHNELL	76	90
67	W-6394	FGS	Cuttings	-82.110700	28.666350	BUSHNELL	76	90
68	W-6475	FGS	Cuttings	-82.113334	28.761938	WILDWOOD	53	210
69	W-6541	FGS	Cuttings	-82.205636	28.619599	SAINT CATHERINE	42	414
70	W-6551	FGS	Cuttings	-82.113334	28.761938	WILDWOOD	47	57
71	W-6562	FGS	Cuttings	-82.406399	28.532592	BROOKSVILLE	101	420
72	W-6670	FGS	Cuttings	-82.427169	28.957643	HOLDER	45	1116
73	W-7311	FGS	Cuttings	-82.047693	28.848728	WILDWOOD	61	65
74	W-7602	FGS	Cuttings	-82.377699	28.923861	HOLDER	67	65
75	W-7728	FGS	Cuttings	-82.426085	28.551176	BROOKSVILLE	79	180
76	W-7736	FGS	Cuttings	-82.209730	28.568552	SAINT CATHERINE	66	85
77	W-7737	FGS	Cuttings	-82.222172	28.583163	SAINT CATHERINE	55	65
78	W-7750	FGS	Cuttings	-82.354005	28.829406	INVERNESS	77	80
79	W-7756	FGS	Cuttings	-82.450711	28.726419	BROOKSVILLE NW	50	41.5
80	W-7757	FGS	Cuttings	-82.450014	28.777756	LECANTO	72	64
81	W-7759	FGS	Cuttings	-82.478333	28.903611	HOLDER	68	335
82	W-7782	FGS	Cuttings	-82.139539	28.670120	WAHOO	63	80
83	W-7882	FGS	Cuttings	-82.103335	28.754730	WILDWOOD	55	60
84	W-7893	FGS	Cuttings	-82.359977	28.540767	BROOKSVILLE SE	89	446
85	W-7906	FGS	Cuttings	-82.327534	28.996482	STOKES FERRY	52	45
86	W-7911	FGS	Cuttings	-82.078760	28.865040	WILDWOOD	54	37
87	W-7960	FGS	Cuttings	-82.333623	28.832957	INVERNESS	76	48
88	W-7962	FGS	Cuttings	-82.230520	28.848657	RUTLAND	42	31
89	W-7963	FGS	Cuttings	-82.212488	28.853111	RUTLAND	50	22
90	W-7964	FGS	Cuttings	-82.189771	28.856972	RUTLAND	46	31
91	W-7970	FGS	Cuttings	-82.122814	28.776126	WILDWOOD	51	203
92	W-8010	FGS	Cuttings	-82.129281	28.675544	WAHOO	65	80
93	W-8021	FGS	Cuttings	-82.315378	28.524444	BROOKSVILLE SE	75	170
94	W-8038	FGS	Cuttings	-82.344043	28.702415	NOBLETON	80	360
95	W-8075	FGS	Cuttings	-82.043611	28.987222	OXFORD	85	285
96	W-8188	FGS	Cuttings	-82.230607	28.528353	SAINT CATHERINE	74	6209
97	W-8211	FGS	Cuttings	-82.390126	28.568704	BROOKSVILLE	160	524
98	W-8222	FGS	Cuttings	-82.043486	28.856010	WILDWOOD	61	125
99	W-8255	FGS	Cuttings	-82.047769	28.837731	WILDWOOD	56	80
100	W-8328	FGS	Cuttings	-82.346449	28.631750	NOBLETON	97	262
101	W-8379	FGS	Cuttings	-82.031089	28.866986	WILDWOOD	81	150
102	W-8381	FGS	Cuttings	-82.212839	28.584093	SAINT CATHERINE	57	124
103	W-8429	FGS	Cuttings	-82.402370	28.535904	BROOKSVILLE	100	105
104	W-8508	FGS	Cuttings	-82.340156	28.530135	BROOKSVILLE SE	101	175
105	W-8604	FGS	Cuttings	-82.405877	28.539779	BROOKSVILLE	84	208
106	W-8878	FGS	Cuttings	-82.018495	28.837384	WILDWOOD	70	100
107	W-10299	FGS	Cuttings	-82.393672	28.527105	BROOKSVILLE	205	325
108	W-10306	FGS	Cuttings	-82.402502	28.550627	BROOKSVILLE	129	165
109	W-10331	FGS	Cuttings	-82.050663	28.769439	WILDWOOD	70	565
110	W-10396	FGS	Cuttings	-82.263645	28.521046	BROOKSVILLE SE	116	203
111	W-10464	FGS	Cuttings	-82.234726	28.524722	SAINT CATHERINE	79	136
112	W-10465	FGS	Cuttings	-82.024888	28.861443	WILDWOOD	65	409
113	W-10534	FGS	Cuttings	-82.191424	28.503903	SAINT CATHERINE	72	150
114	W-10619	FGS	Cuttings	-82.428650	28.898430	HOLDER	100	118
115	W-10622	FGS	Cuttings	-82.025000	28.861389	WILDWOOD	65	700
116	W-10631	FGS	Cuttings	-82.079841	28.617160	WEBSTER	80	130
117	W-10683	FGS	Cuttings	-82.331555	28.504390	SPRING LAKE	116	445
118	W-10686	FGS	Cuttings	-82.180075	28.506615	SAINT CATHERINE	65	115
119	W-10691	FGS	Cuttings	-82.342692	28.570993	BROOKSVILLE SE	90	410

FLORIDA GEOLOGICAL SURVEY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
120	W-10829	FGS	Cuttings	-82.378372	28.835658	LECANTO	76	274
121	W-10937	FGS	Cuttings	-82.045715	28.835873	WILDWOOD	60	250
122	W-11073	FGS	Cuttings	-82.307575	28.795276	INVERNESS	50	95
123	W-11098	FGS	Cuttings	-82.335694	28.840215	INVERNESS	53	800
124	W-11209	FGS	Cuttings	-82.477102	28.514463	BROOKSVILLE	75	155
125	W-11218	FGS	Cuttings	-82.310730	28.702647	NOBLETON	65	375
126	W-11220	FGS	Cuttings	-82.309897	28.615123	BROOKSVILLE SE	50	300
127	W-11258	FGS	Cuttings	-82.459534	28.928464	HOLDER	79	90
128	W-11260	FGS	Cuttings	-82.492817	28.928038	HOLDER	110	200
129	W-11292	FGS	Cuttings	-82.465152	28.541932	BROOKSVILLE	77	192
130	W-11293	FGS	Cuttings	-82.458973	28.540733	BROOKSVILLE	96	137
131	W-11335	FGS	Cuttings	-82.095228	28.879530	OXFORD	51	200
132	W-11422	FGS	Cuttings	-82.096240	28.873110	WILDWOOD	50	200
133	W-11453	FGS	Cuttings	-82.112411	28.762614	WILDWOOD	50	100
134	W-11564	FGS	Cuttings	-82.078760	28.865040	WILDWOOD	63	163
135	W-11646	FGS	Cuttings	-82.064130	28.618995	WEBSTER	85	190
136	W-11650	FGS	Cuttings	-82.111783	28.879541	OXFORD	55	140
137	W-11653	FGS	Cuttings	-82.311731	28.791601	INVERNESS	33	90
138	W-11662	FGS	Cuttings	-82.105157	28.694487	BUSHNELL	69	150
139	W-11761	FGS	Cuttings	-82.145831	28.631858	WAHOO	67	65
140	W-11784	FGS	Cuttings	-82.177778	28.996156	LAKE PANASOFFKEE NW	77	112
141	W-11827	FGS	Cuttings	-82.244526	28.865059	RUTLAND	40	96
142	W-11950	FGS	Cuttings	-82.013464	28.646043	BUSHNELL	90	110
143	W-11995	FGS	Cuttings	-82.095228	28.879530	OXFORD	49	250
144	W-12003	FGS	Cuttings	-82.292692	28.529044	BROOKSVILLE SE	69	886
145	W-12057	FGS	Cuttings	-82.091112	28.871880	WILDWOOD	57	170
146	W-12073	FGS	Cuttings	-82.328373	28.821157	INVERNESS	63	95
147	W-12149	FGS	Cuttings	-82.427014	28.958220	HOLDER	62	130
148	W-12179	FGS	Cuttings	-82.029069	28.879691	OXFORD	72	153
149	W-12180	FGS	Cuttings	-82.029069	28.879691	OXFORD	80	206
150	W-12194	FGS	Cuttings	-82.477070	28.770887	LECANTO	65	94
151	W-12241	FGS	Cuttings	-82.212638	28.820886	RUTLAND	42	60
152	W-12267	FGS	Cuttings	-82.475719	28.840470	LECANTO	70	405
153	W-12873	FGS	Cuttings	-82.294901	28.746297	NOBLETON	41	193
154	W-13137	FGS	Cuttings	-82.476609	28.986748	HOLDER	74	110
155	W-13173	FGS	Cuttings	-82.118889	28.777778	WILDWOOD	50	170
156	W-13350	FGS	Cuttings	-82.037932	28.929384	OXFORD	100	100
157	W-13518	FGS	Cuttings	-82.456511	28.656988	BROOKSVILLE NW	105	344.5
158	W-14265	FGS	Cuttings	-82.359699	28.614530	BROOKSVILLE SE	95	185
159	W-14450	FGS	Cuttings	-82.260628	28.645911	NOBLETON	51	37
160	W-14457	FGS	Cuttings	-82.475917	28.913809	HOLDER	57	465
161	W-14661	FGS	Cuttings	-82.442148	28.584764	BROOKSVILLE	86	452
162	W-14916	FGS	Cuttings	-82.377290	28.716812	BROOKSVILLE NW	100	252
163	W-14917	FGS	Cuttings	-82.364910	28.725311	NOBLETON	158	260
164	W-15063	FGS	Cuttings	-82.292692	28.529044	BROOKSVILLE SE	69	410
165	W-15366	FGS	Cuttings	-82.344055	28.701714	NOBLETON	80	400
166	W-15590	FGS	Core	-82.054255	28.513861	WEBSTER	88	26.1
167	W-15596	FGS	Core	-82.018999	28.506312	WEBSTER	93	23.9
168	W-15645	FGS	Cuttings	-82.365000	28.724444	NOBLETON	158	284
169	W-15681	FGS	Cuttings	-82.402222	28.556667	BROOKSVILLE	102	714.5
170	W-15838	FGS	Cuttings	-82.096266	28.660796	BUSHNELL	83	710
171	W-15866	FGS	Cuttings	-82.096389	28.660000	BUSHNELL	82	750
172	W-15992	FGS	Cuttings	-82.382661	28.645559	BROOKSVILLE NW	155	115
173	W-16006	FGS	Core	-82.153600	28.802977	RUTLAND	48	154
174	W-16253	FGS	Cuttings	-82.181287	28.509234	SAINT CATHERINE	75	61
175	W-16310	FGS	Core	-82.091977	28.748854	BUSHNELL	63	144.5
176	W-16617	FGS	Core	-82.228303	28.880258	LAKE PANASOFFKEE NW	52	704
177	W-16644	FGS	Core	-82.094825	28.799845	WILDWOOD	52	154
178	W-17659	FGS	Cuttings	-82.011860	28.967790	OXFORD	69	101
179	W-18119	FGS	Core	-82.465278	28.793056	LECANTO	107	51
180	W-18598	FGS	Cuttings	-82.364861	28.725139	NOBLETON	157	29

OPEN-FILE REPORT 96

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
181	W-18599	FGS	Core	-82.413833	28.856611	LECANTO	132	59
182	W-18604	FGS	Core	-82.012222	28.938611	OXFORD	70	86.5
183	W-18680	FGS	Core	-82.480589	28.738639	BROOKSVILLE NW	59	88
184	W-18800	FGS	Core	-82.131690	28.843042	RUTLAND	44	48
185	W-18802	FGS	Core	-82.147944	28.856944	RUTLAND	47	22
186	W-18804	FGS	Core	-82.237028	28.601639	SAINT CATHERINE	73	1290
187	W-18988	FGS	Core	-82.001594	28.829942	WILDWOOD	73	2037
188	W-19235	FGS	Core	-82.305433	28.806864	INVERNESS	31	37
189	W-19245	FGS	Core	-82.109158	28.650478	BUSHNELL	75	2157
190	W-19263	FGS	Core	-82.385333	28.996472	HOLDER	28	75.7
191	W-50028	FGS	Core	-82.413861	28.856567	LECANTO	132	182
192	770539	SWFWMD	Water Well	-82.410508	28.993897	HOLDER	76	—
193	777685	SWFWMD	Water Well	-82.495778	28.947500	HOLDER	117	—
194	762005	SWFWMD	Water Well	-82.354500	28.538922	BROOKSVILLE SE	105	—
195	763021	SWFWMD	Water Well	-82.283586	28.991633	STOKES FERRY	60	—
196	768221	SWFWMD	Water Well	-82.087722	28.583111	WEBSTER	79	—
197	775568	SWFWMD	Water Well	-82.001917	28.933528	OXFORD	78	—
198	766863	SWFWMD	Water Well	-82.005914	28.983058	OXFORD	93	—
199	755175	SWFWMD	Water Well	-82.024772	28.738319	BUSHNELL	81	—
200	754407	SWFWMD	Water Well	-82.025456	28.786850	WILDWOOD	75	—
201	779954	SWFWMD	Water Well	-82.026725	28.774589	WILDWOOD	76	—
202	770795	SWFWMD	Water Well	-82.027722	28.804117	WILDWOOD	64	—
203	750703	SWFWMD	Water Well	-82.029247	28.763161	WILDWOOD	68	—
204	782775	SWFWMD	Water Well	-82.032761	28.913164	OXFORD	78	—
205	765500	SWFWMD	Water Well	-82.032778	28.743278	BUSHNELL	75	—
206	764921	SWFWMD	Water Well	-82.033611	28.575333	WEBSTER	94	—
207	781557	SWFWMD	Water Well	-82.034942	28.881333	OXFORD	63	—
208	776512	SWFWMD	Water Well	-82.035633	28.756219	WILDWOOD	72	—
209	774193	SWFWMD	Water Well	-82.036194	28.804917	WILDWOOD	69	—
210	765145	SWFWMD	Water Well	-82.036508	28.936389	OXFORD	89	—
211	772763	SWFWMD	Water Well	-82.041122	28.959086	OXFORD	103	—
212	770479	SWFWMD	Water Well	-82.042217	28.597511	WEBSTER	90	—
213	775696	SWFWMD	Water Well	-82.043242	28.966972	OXFORD	98	—
214	774187	SWFWMD	Water Well	-82.045444	28.811806	WILDWOOD	64	—
215	775863	SWFWMD	Water Well	-82.046033	28.855072	WILDWOOD	61	—
216	756280	SWFWMD	Water Well	-82.046883	28.573311	WEBSTER	89	—
217	762102	SWFWMD	Water Well	-82.049167	28.802444	WILDWOOD	61	—
218	764983	SWFWMD	Water Well	-82.050611	28.812083	WILDWOOD	62	—
219	780812	SWFWMD	Water Well	-82.052389	28.576500	WEBSTER	88	—
220	761527	SWFWMD	Water Well	-82.054475	28.610097	WEBSTER	90	—
221	761352	SWFWMD	Water Well	-82.055806	28.708878	BUSHNELL	82	—
222	771425	SWFWMD	Water Well	-82.056194	28.712361	BUSHNELL	91	—
223	756337	SWFWMD	Water Well	-82.057108	28.666144	BUSHNELL	87	—
224	756906	SWFWMD	Water Well	-82.059583	28.798500	WILDWOOD	61	—
225	776259	SWFWMD	Water Well	-82.061367	28.687333	BUSHNELL	84	—
226	763051	SWFWMD	Water Well	-82.062389	28.667944	BUSHNELL	85	—
227	761172	SWFWMD	Water Well	-82.065833	28.734000	BUSHNELL	81	—
228	772048	SWFWMD	Water Well	-82.070425	28.678922	BUSHNELL	80	—
229	777223	SWFWMD	Water Well	-82.073647	28.664147	BUSHNELL	82	—
230	766510	SWFWMD	Water Well	-82.075583	28.619500	WEBSTER	85	—
231	779871	SWFWMD	Water Well	-82.078833	28.913928	OXFORD	58	—
232	748019	SWFWMD	Water Well	-82.079303	28.719644	BUSHNELL	78	—
233	764791	SWFWMD	Water Well	-82.081583	28.610194	WEBSTER	80	—
234	780872	SWFWMD	Water Well	-82.083006	28.716306	BUSHNELL	77	—
235	784059	SWFWMD	Water Well	-82.083667	28.717881	BUSHNELL	76	—
236	782391	SWFWMD	Water Well	-82.083803	28.930469	OXFORD	69	—
237	768518	SWFWMD	Water Well	-82.085222	28.582944	WEBSTER	80	—
238	759951	SWFWMD	Water Well	-82.085722	28.920806	OXFORD	72	—
239	768478	SWFWMD	Water Well	-82.086800	28.676567	BUSHNELL	78	—
240	764178	SWFWMD	Water Well	-82.086897	28.958206	OXFORD	64	—
241	770435	SWFWMD	Water Well	-82.090622	28.737114	BUSHNELL	80	—

FLORIDA GEOLOGICAL SURVEY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
242	783897	SWFWMD	Water Well	-82.098517	28.611619	WEBSTER	72	—
243	772800	SWFWMD	Water Well	-82.101222	28.877389	OXFORD	55	—
244	770616	SWFWMD	Water Well	-82.101528	28.901528	OXFORD	60	—
245	775383	SWFWMD	Water Well	-82.103689	28.561383	WEBSTER	84	—
246	750145	SWFWMD	Water Well	-82.111614	28.952775	OXFORD	70	—
247	764522	SWFWMD	Water Well	-82.113944	28.753889	WILDWOOD	57	—
248	755976	SWFWMD	Water Well	-82.116597	28.983867	OXFORD	79	—
249	770806	SWFWMD	Water Well	-82.119278	28.671083	BUSHNELL	71	—
250	764789	SWFWMD	Water Well	-82.124556	28.646333	BUSHNELL	69	—
251	781219	SWFWMD	Water Well	-82.126139	28.657139	WAHOO	72	—
252	770414	SWFWMD	Water Well	-82.127803	28.767844	RUTLAND	51	—
253	753001	SWFWMD	Water Well	-82.128161	28.996469	LAKE PANASOFFKEE NW	82	—
254	753917	SWFWMD	Water Well	-82.128214	28.981872	LAKE PANASOFFKEE NW	61	—
255	763808	SWFWMD	Water Well	-82.134611	28.878056	LAKE PANASOFFKEE NW	80	—
256	763008	SWFWMD	Water Well	-82.136331	28.638081	WAHOO	66	—
257	766513	SWFWMD	Water Well	-82.137011	28.611300	SAINT CATHERINE	71	—
258	755019	SWFWMD	Water Well	-82.148028	28.654889	WAHOO	68	—
259	772893	SWFWMD	Water Well	-82.149531	28.565269	SAINT CATHERINE	74	—
260	784753	SWFWMD	Water Well	-82.156367	28.598239	SAINT CATHERINE	65	—
261	769107	SWFWMD	Water Well	-82.157194	28.680889	WAHOO	55	—
262	761302	SWFWMD	Water Well	-82.161583	28.581750	SAINT CATHERINE	77	—
263	751120	SWFWMD	Water Well	-82.162089	28.603117	SAINT CATHERINE	66	—
264	776168	SWFWMD	Water Well	-82.168583	28.523500	SAINT CATHERINE	65	—
265	753693	SWFWMD	Water Well	-82.168906	28.991808	LAKE PANASOFFKEE NW	99	—
266	758133	SWFWMD	Water Well	-82.170056	28.547139	SAINT CATHERINE	66	—
267	773959	SWFWMD	Water Well	-82.174372	28.841239	RUTLAND	50	—
268	765347	SWFWMD	Water Well	-82.175778	28.668750	WAHOO	52	—
269	774755	SWFWMD	Water Well	-82.177361	28.652583	WAHOO	56	—
270	753294	SWFWMD	Water Well	-82.178944	28.530403	SAINT CATHERINE	61	—
271	772953	SWFWMD	Water Well	-82.186250	28.521194	SAINT CATHERINE	69	—
272	764977	SWFWMD	Water Well	-82.186722	28.503389	SAINT CATHERINE	73	—
273	774139	SWFWMD	Water Well	-82.186778	28.576694	SAINT CATHERINE	58	—
274	750639	SWFWMD	Water Well	-82.188000	28.537028	SAINT CATHERINE	60	—
275	763026	SWFWMD	Water Well	-82.188444	28.607333	SAINT CATHERINE	58	—
276	764267	SWFWMD	Water Well	-82.190833	28.551444	SAINT CATHERINE	64	—
277	766506	SWFWMD	Water Well	-82.191889	28.562833	SAINT CATHERINE	68	—
278	777981	SWFWMD	Water Well	-82.192250	28.590861	SAINT CATHERINE	54	—
279	771566	SWFWMD	Water Well	-82.195058	28.526750	SAINT CATHERINE	67	—
280	756219	SWFWMD	Water Well	-82.202528	28.605444	SAINT CATHERINE	60	—
281	783158	SWFWMD	Water Well	-82.204550	28.626506	WAHOO	52	—
282	776889	SWFWMD	Water Well	-82.205861	28.507167	SAINT CATHERINE	68	—
283	759149	SWFWMD	Water Well	-82.206939	28.982197	LAKE PANASOFFKEE NW	79	—
284	774376	SWFWMD	Water Well	-82.213000	28.632806	WAHOO	54	—
285	754812	SWFWMD	Water Well	-82.215306	28.982786	LAKE PANASOFFKEE NW	64	—
286	779251	SWFWMD	Water Well	-82.228750	28.854833	RUTLAND	40	—
287	771762	SWFWMD	Water Well	-82.229361	28.709972	WAHOO	51	—
288	780382	SWFWMD	Water Well	-82.235344	28.522828	SAINT CATHERINE	78	—
289	762976	SWFWMD	Water Well	-82.236986	28.541197	SAINT CATHERINE	109	—
290	776562	SWFWMD	Water Well	-82.238250	28.861694	RUTLAND	39	—
291	754728	SWFWMD	Water Well	-82.244994	28.850689	RUTLAND	43	—
292	783314	SWFWMD	Water Well	-82.248622	28.651064	WAHOO	71	—
293	749614	SWFWMD	Water Well	-82.249611	28.869397	RUTLAND	45	—
294	767966	SWFWMD	Water Well	-82.254214	28.869781	INVERNESS	43	—
295	757483	SWFWMD	Water Well	-82.258083	28.744639	NOBLETON	45	—
296	772332	SWFWMD	Water Well	-82.258861	28.850289	INVERNESS	43	—
297	772036	SWFWMD	Water Well	-82.259111	28.853528	INVERNESS	42	—
298	782925	SWFWMD	Water Well	-82.263194	28.645472	NOBLETON	58	—
299	770507	SWFWMD	Water Well	-82.267139	28.530611	BROOKSVILLE SE	132	—
300	764133	SWFWMD	Water Well	-82.270453	28.661869	NOBLETON	49	—
301	758584	SWFWMD	Water Well	-82.270694	28.807639	INVERNESS	49	—
302	758339	SWFWMD	Water Well	-82.270722	28.826917	INVERNESS	59	—

OPEN-FILE REPORT 96

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
303	772392	SWFWMD	Water Well	-82.273014	28.672636	NOBLETON	68	—
304	784469	SWFWMD	Water Well	-82.276872	28.801433	INVERNESS	46	—
305	775736	SWFWMD	Water Well	-82.277694	28.661222	NOBLETON	56	—
306	763078	SWFWMD	Water Well	-82.278139	28.756556	INVERNESS	54	—
307	772331	SWFWMD	Water Well	-82.278350	28.828981	INVERNESS	58	—
308	756602	SWFWMD	Water Well	-82.278806	28.527611	BROOKSVILLE SE	138	—
309	771433	SWFWMD	Water Well	-82.283750	28.867889	INVERNESS	42	—
310	780166	SWFWMD	Water Well	-82.283806	28.792167	INVERNESS	41	—
311	751644	SWFWMD	Water Well	-82.295539	28.725436	NOBLETON	55	—
312	762337	SWFWMD	Water Well	-82.296278	28.771972	INVERNESS	49	—
313	771503	SWFWMD	Water Well	-82.296611	28.528417	BROOKSVILLE SE	85	—
314	762999	SWFWMD	Water Well	-82.296917	28.812500	INVERNESS	40	—
315	763414	SWFWMD	Water Well	-82.299306	28.730167	NOBLETON	58	—
316	779782	SWFWMD	Water Well	-82.300222	28.545194	BROOKSVILLE SE	155	—
317	768668	SWFWMD	Water Well	-82.301436	28.657989	NOBLETON	97	—
318	751044	SWFWMD	Water Well	-82.303217	28.777456	INVERNESS	32	—
319	764393	SWFWMD	Water Well	-82.305056	28.833333	INVERNESS	47	—
320	765310	SWFWMD	Water Well	-82.307139	28.528417	BROOKSVILLE SE	77	—
321	774953	SWFWMD	Water Well	-82.308186	28.874769	INVERNESS	44	—
322	783632	SWFWMD	Water Well	-82.308375	28.573758	BROOKSVILLE SE	88	—
323	757750	SWFWMD	Water Well	-82.310722	28.857694	INVERNESS	45	—
324	774745	SWFWMD	Water Well	-82.311444	28.874806	INVERNESS	43	—
325	769852	SWFWMD	Water Well	-82.311639	28.846361	INVERNESS	48	—
326	774694	SWFWMD	Water Well	-82.312083	28.561472	BROOKSVILLE SE	98	—
327	766778	SWFWMD	Water Well	-82.312917	28.567833	BROOKSVILLE SE	91	—
328	758878	SWFWMD	Water Well	-82.316417	28.611028	BROOKSVILLE SE	108	—
329	764010	SWFWMD	Water Well	-82.320708	28.603414	BROOKSVILLE SE	57	—
330	766314	SWFWMD	Water Well	-82.321033	28.777733	INVERNESS	60	—
331	759543	SWFWMD	Water Well	-82.322583	28.686972	NOBLETON	101	—
332	766743	SWFWMD	Water Well	-82.323833	28.592306	BROOKSVILLE SE	59	—
333	763158	SWFWMD	Water Well	-82.324508	28.512314	BROOKSVILLE SE	104	—
334	768786	SWFWMD	Water Well	-82.325139	28.559250	BROOKSVILLE SE	102	—
335	753099	SWFWMD	Water Well	-82.326314	28.586214	BROOKSVILLE SE	87	—
336	767313	SWFWMD	Water Well	-82.327444	28.524889	BROOKSVILLE SE	89	—
337	783355	SWFWMD	Water Well	-82.328228	28.605669	BROOKSVILLE SE	68	—
338	777484	SWFWMD	Water Well	-82.330039	28.835064	INVERNESS	46	—
339	759411	SWFWMD	Water Well	-82.330722	28.537444	BROOKSVILLE SE	82	—
340	768603	SWFWMD	Water Well	-82.331978	28.971675	STOKES FERRY	38	—
341	765725	SWFWMD	Water Well	-82.333528	28.779917	INVERNESS	80	—
342	760285	SWFWMD	Water Well	-82.336361	28.504639	BROOKSVILLE SE	127	—
343	765220	SWFWMD	Water Well	-82.338819	28.514275	BROOKSVILLE SE	156	—
344	772865	SWFWMD	Water Well	-82.340172	28.693344	NOBLETON	119	—
345	776988	SWFWMD	Water Well	-82.340556	28.597917	BROOKSVILLE SE	77	—
346	767455	SWFWMD	Water Well	-82.342694	28.597397	BROOKSVILLE SE	57	—
347	751223	SWFWMD	Water Well	-82.343592	28.838383	INVERNESS	90	—
348	776836	SWFWMD	Water Well	-82.344333	28.830444	INVERNESS	39	—
349	773209	SWFWMD	Water Well	-82.344556	28.803528	INVERNESS	46	—
350	772039	SWFWMD	Water Well	-82.345889	28.783889	INVERNESS	119	—
351	777019	SWFWMD	Water Well	-82.346056	28.525444	BROOKSVILLE SE	94	—
352	779958	SWFWMD	Water Well	-82.346381	28.860328	INVERNESS	50	—
353	759968	SWFWMD	Water Well	-82.349497	28.589650	BROOKSVILLE SE	100	—
354	772047	SWFWMD	Water Well	-82.350144	28.905331	STOKES FERRY	41	—
355	765728	SWFWMD	Water Well	-82.350833	28.822417	INVERNESS	115	—
356	758224	SWFWMD	Water Well	-82.351583	28.887083	STOKES FERRY	60	—
357	768862	SWFWMD	Water Well	-82.352372	28.897572	STOKES FERRY	37	—
358	761110	SWFWMD	Water Well	-82.355456	28.649161	NOBLETON	120	—
359	778581	SWFWMD	Water Well	-82.356450	28.573556	BROOKSVILLE SE	104	—
360	767235	SWFWMD	Water Well	-82.358083	28.523306	BROOKSVILLE SE	94	—
361	761504	SWFWMD	Water Well	-82.358592	28.671150	NOBLETON	123	—
362	781135	SWFWMD	Water Well	-82.359194	28.532417	BROOKSVILLE SE	106	—
363	749770	SWFWMD	Water Well	-82.359308	28.585800	BROOKSVILLE SE	105	—

FLORIDA GEOLOGICAL SURVEY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
364	772966	SWFWMD	Water Well	-82.361142	28.674936	NOBLETON	119	—
365	761434	SWFWMD	Water Well	-82.361806	28.975333	STOKES FERRY	55	—
366	756075	SWFWMD	Water Well	-82.362056	28.568861	BROOKSVILLE SE	109	—
367	777846	SWFWMD	Water Well	-82.364583	28.948250	STOKES FERRY	37	—
368	766721	SWFWMD	Water Well	-82.365972	28.855861	INVERNESS	56	—
369	757788	SWFWMD	Water Well	-82.369611	28.554361	BROOKSVILLE SE	124	—
370	768595	SWFWMD	Water Well	-82.372519	28.549925	BROOKSVILLE SE	97	—
371	778469	SWFWMD	Water Well	-82.373694	28.714278	NOBLETON	66	—
372	755687	SWFWMD	Water Well	-82.375778	28.722361	BROOKSVILLE NW	136	—
373	777155	SWFWMD	Water Well	-82.376083	28.993250	HOLDER	48	—
374	770351	SWFWMD	Water Well	-82.377517	28.556433	BROOKSVILLE	143	—
375	780490	SWFWMD	Water Well	-82.381611	28.534806	BROOKSVILLE	119	—
376	759049	SWFWMD	Water Well	-82.384722	28.858389	LECANTO	102	—
377	759378	SWFWMD	Water Well	-82.385111	28.868528	LECANTO	78	—
378	765674	SWFWMD	Water Well	-82.387114	28.898414	HOLDER	70	—
379	779373	SWFWMD	Water Well	-82.388331	28.537806	BROOKSVILLE	136	—
380	774232	SWFWMD	Water Well	-82.389333	28.959917	HOLDER	58	—
381	774971	SWFWMD	Water Well	-82.391767	28.586106	BROOKSVILLE	145	—
382	760413	SWFWMD	Water Well	-82.393361	28.889694	HOLDER	87	—
383	762177	SWFWMD	Water Well	-82.398361	28.911083	HOLDER	87	—
384	755400	SWFWMD	Water Well	-82.400703	28.941308	HOLDER	67	—
385	769926	SWFWMD	Water Well	-82.402883	28.546200	BROOKSVILLE	112	—
386	762175	SWFWMD	Water Well	-82.406333	28.915861	HOLDER	95	—
387	758170	SWFWMD	Water Well	-82.411639	28.614694	BROOKSVILLE	79	—
388	763117	SWFWMD	Water Well	-82.411778	28.871139	LECANTO	85	—
389	768376	SWFWMD	Water Well	-82.412694	28.938028	HOLDER	79	—
390	760921	SWFWMD	Water Well	-82.415225	28.548392	BROOKSVILLE	90	—
391	780431	SWFWMD	Water Well	-82.418778	28.544361	BROOKSVILLE	77	—
392	781059	SWFWMD	Water Well	-82.421278	28.860389	LECANTO	130	—
393	762211	SWFWMD	Water Well	-82.422000	28.554169	BROOKSVILLE	88	—
394	750832	SWFWMD	Water Well	-82.423361	28.878611	HOLDER	119	—
395	770659	SWFWMD	Water Well	-82.424722	28.895139	HOLDER	98	—
396	776623	SWFWMD	Water Well	-82.426083	28.871194	LECANTO	117	—
397	777676	SWFWMD	Water Well	-82.427056	28.631556	BROOKSVILLE NW	107	—
398	755692	SWFWMD	Water Well	-82.429806	28.505111	BROOKSVILLE	78	—
399	779516	SWFWMD	Water Well	-82.437500	28.868389	LECANTO	151	—
400	763733	SWFWMD	Water Well	-82.444444	28.890917	HOLDER	194	—
401	775957	SWFWMD	Water Well	-82.446278	28.884250	HOLDER	95	—
402	782246	SWFWMD	Water Well	-82.448389	28.625278	BROOKSVILLE NW	94	—
403	756400	SWFWMD	Water Well	-82.451861	28.625500	BROOKSVILLE NW	91	—
404	763022	SWFWMD	Water Well	-82.453956	28.504997	BROOKSVILLE	66	—
405	763734	SWFWMD	Water Well	-82.455417	28.519917	BROOKSVILLE	72	—
406	767421	SWFWMD	Water Well	-82.459472	28.948056	HOLDER	98	—
407	756954	SWFWMD	Water Well	-82.460361	28.621528	BROOKSVILLE	112	—
408	760670	SWFWMD	Water Well	-82.461139	28.546361	BROOKSVILLE	114	—
409	768695	SWFWMD	Water Well	-82.463528	28.931778	HOLDER	83	—
410	757655	SWFWMD	Water Well	-82.463833	28.617806	BROOKSVILLE	159	—
411	777591	SWFWMD	Water Well	-82.464778	28.882778	HOLDER	88	—
412	771151	SWFWMD	Water Well	-82.467175	28.744667	BROOKSVILLE NW	56	—
413	772459	SWFWMD	Water Well	-82.471583	28.535306	BROOKSVILLE	81	—
414	754354	SWFWMD	Water Well	-82.472211	28.552939	BROOKSVILLE	93	—
415	781981	SWFWMD	Water Well	-82.475119	28.918781	HOLDER	101	—
416	757028	SWFWMD	Water Well	-82.477778	28.769194	LECANTO	61	—
417	755313	SWFWMD	Water Well	-82.478203	28.885328	HOLDER	83	—
418	755838	SWFWMD	Water Well	-82.479397	28.880706	HOLDER	72	—
419	772339	SWFWMD	Water Well	-82.481447	28.784489	LECANTO	47	—
420	764586	SWFWMD	Water Well	-82.481889	28.777500	LECANTO	43	—
421	754827	SWFWMD	Water Well	-82.483056	28.612000	BROOKSVILLE	114	—
422	757734	SWFWMD	Water Well	-82.483361	28.902806	HOLDER	91	—
423	749639	SWFWMD	Water Well	-82.485783	28.916842	HOLDER	117	—
424	776929	SWFWMD	Water Well	-82.488194	28.528111	BROOKSVILLE	61	—

OPEN-FILE REPORT 96

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
425	759946	SWFWMD	Water Well	-82.489067	28.848678	LECANTO	37	—
426	749670	SWFWMD	Water Well	-82.490139	28.945278	HOLDER	96	—
427	764891	SWFWMD	Water Well	-82.491750	28.641889	BROOKSVILLE NW	90	—
428	775398	SWFWMD	Water Well	-82.493092	28.897633	HOLDER	48	—
429	756883	SWFWMD	Water Well	-82.495361	28.626361	BROOKSVILLE NW	92	—
430	754479	SWFWMD	Water Well	-82.495417	28.783861	LECANTO	52	—
431	759021	SWFWMD	Water Well	-82.495417	28.664694	BROOKSVILLE NW	111	—
432	771149	SWFWMD	Water Well	-82.497481	28.763008	LECANTO	72	—
433	776392	SWFWMD	Water Well	-82.497694	28.529667	BROOKSVILLE	91	—
434	778634	SWFWMD	Water Well	-82.498139	28.578111	BROOKSVILLE	81	—
435	779402	SWFWMD	Water Well	-82.000147	28.831769	WILDWOOD	71	—
436	769941	SWFWMD	Water Well	-82.018750	28.916694	OXFORD	71	—
437	755408	SWFWMD	Water Well	-82.038931	28.960497	OXFORD	89	—
438	773645	SWFWMD	Water Well	-82.044639	28.888167	OXFORD	78	—
439	783395	SWFWMD	Water Well	-82.055369	28.911922	OXFORD	107	—
440	769603	SWFWMD	Water Well	-82.062083	28.926222	OXFORD	71	—
441	758669	SWFWMD	Water Well	-82.062500	28.907667	OXFORD	63	—
442	764881	SWFWMD	Water Well	-82.070775	28.927550	OXFORD	66	—
443	782440	SWFWMD	Water Well	-82.073619	28.902244	OXFORD	65	—
444	783386	SWFWMD	Water Well	-82.080400	28.979553	OXFORD	57	—
445	766315	SWFWMD	Water Well	-82.080472	28.940250	OXFORD	60	—
446	773268	SWFWMD	Water Well	-82.084056	28.951806	OXFORD	64	—
447	772798	SWFWMD	Water Well	-82.085286	28.987408	OXFORD	71	—
448	780408	SWFWMD	Water Well	-82.087386	28.927364	OXFORD	66	—
449	762056	SWFWMD	Water Well	-82.090306	28.891500	OXFORD	71	—
450	756535	SWFWMD	Water Well	-82.095767	28.960431	OXFORD	66	—
451	780257	SWFWMD	Water Well	-82.097592	28.968703	OXFORD	67	—
452	762204	SWFWMD	Water Well	-82.097653	28.982678	OXFORD	71	—
453	771539	SWFWMD	Water Well	-82.097722	28.905167	OXFORD	75	—
454	752176	SWFWMD	Water Well	-82.098000	28.995544	OXFORD	65	—
455	754140	SWFWMD	Water Well	-82.106075	28.991869	OXFORD	68	—
456	775639	SWFWMD	Water Well	-82.125778	28.910667	LAKE PANASOFFKEE NW	80	—
457	756297	SWFWMD	Water Well	-82.157636	28.985208	LAKE PANASOFFKEE NW	77	—
458	776879	SWFWMD	Water Well	-82.162047	28.990883	LAKE PANASOFFKEE NW	83	—
459	755902	SWFWMD	Water Well	-82.195744	28.970267	LAKE PANASOFFKEE NW	72	—
460	772913	SWFWMD	Water Well	-82.208422	28.991681	LAKE PANASOFFKEE NW	70	—
461	780236	SWFWMD	Water Well	-82.267144	28.995744	STOKES FERRY	52	—
462	779182	SWFWMD	Water Well	-82.301061	28.886772	STOKES FERRY	38	—
463	768821	SWFWMD	Water Well	-82.353028	28.980753	STOKES FERRY	42	—
464	774351	SWFWMD	Water Well	-82.364167	28.924278	STOKES FERRY	42	—
465	772270	SWFWMD	Water Well	-82.375639	28.906131	HOLDER	47	—
466	782954	SWFWMD	Water Well	-82.385417	28.928500	HOLDER	45	—
467	753527	SWFWMD	Water Well	-82.394264	28.938997	HOLDER	44	—
468	779272	SWFWMD	Water Well	-82.402833	28.967167	HOLDER	54	—
469	759589	SWFWMD	Water Well	-82.414500	28.995278	HOLDER	62	—
470	754428	SWFWMD	Water Well	-82.417483	28.980697	HOLDER	57	—
471	770868	SWFWMD	Water Well	-82.435828	28.994286	HOLDER	80	—
472	748379	SWFWMD	Water Well	-82.429111	28.905833	HOLDER	35	—
473	763789	SWFWMD	Water Well	-82.296128	28.652817	NOBLETON	87	—
474	773743	SWFWMD	Water Well	-82.119261	28.618772	WEBSTER	76	—
475	772846	SWFWMD	Water Well	-82.008619	28.741556	BUSHNELL	82	—
476	784453	SWFWMD	Water Well	-82.008933	28.649028	BUSHNELL	94	—
477	771940	SWFWMD	Water Well	-82.009317	28.634378	BUSHNELL	95	—
478	782351	SWFWMD	Water Well	-82.015047	28.795150	WILDWOOD	80	—
479	783165	SWFWMD	Water Well	-82.017697	28.961756	OXFORD	90	—
480	778537	SWFWMD	Water Well	-82.017889	28.563222	WEBSTER	106	—
481	758924	SWFWMD	Water Well	-82.019972	28.984206	OXFORD	77	—
482	763483	SWFWMD	Water Well	-82.022822	28.877167	OXFORD	69	—
483	772573	SWFWMD	Water Well	-82.024219	28.610181	WEBSTER	94	—
484	759958	SWFWMD	Water Well	-82.024306	28.781428	WILDWOOD	85	—
485	773464	SWFWMD	Water Well	-82.024839	28.760136	WILDWOOD	80	—

FLORIDA GEOLOGICAL SURVEY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
486	751728	SWFWMD	Water Well	-82.029342	28.733878	BUSHNELL	76	—
487	766894	SWFWMD	Water Well	-82.029739	28.817561	WILDWOOD	69	—
488	752343	SWFWMD	Water Well	-82.030008	28.588078	WEBSTER	89	—
489	763062	SWFWMD	Water Well	-82.031972	28.560028	WEBSTER	98	—
490	768737	SWFWMD	Water Well	-82.034542	28.649503	BUSHNELL	93	—
491	759962	SWFWMD	Water Well	-82.040894	28.784314	WILDWOOD	52	—
492	764614	SWFWMD	Water Well	-82.041722	28.712056	BUSHNELL	83	—
493	757203	SWFWMD	Water Well	-82.042167	28.853583	WILDWOOD	60	—
494	775028	SWFWMD	Water Well	-82.044472	28.610978	WEBSTER	92	—
495	779363	SWFWMD	Water Well	-82.050417	28.644000	BUSHNELL	90	—
496	776511	SWFWMD	Water Well	-82.052514	28.767778	WILDWOOD	67	—
497	781584	SWFWMD	Water Well	-82.053361	28.549917	WEBSTER	87	—
498	765219	SWFWMD	Water Well	-82.058631	28.862306	WILDWOOD	59	—
499	770036	SWFWMD	Water Well	-82.059300	28.688014	BUSHNELL	85	—
500	777246	SWFWMD	Water Well	-82.059361	28.680306	BUSHNELL	85	—
501	765121	SWFWMD	Water Well	-82.060917	28.704000	BUSHNELL	83	—
502	767417	SWFWMD	Water Well	-82.061167	28.547083	WEBSTER	82	—
503	778386	SWFWMD	Water Well	-82.061478	28.849017	WILDWOOD	56	—
504	751291	SWFWMD	Water Well	-82.062422	28.748703	BUSHNELL	71	—
505	775691	SWFWMD	Water Well	-82.064358	28.553722	WEBSTER	82	—
506	751147	SWFWMD	Water Well	-82.071417	28.779750	WILDWOOD	58	—
507	760409	SWFWMD	Water Well	-82.071831	28.788061	WILDWOOD	61	—
508	775641	SWFWMD	Water Well	-82.074378	28.801119	WILDWOOD	57	—
509	777192	SWFWMD	Water Well	-82.074603	28.540358	WEBSTER	80	—
510	781787	SWFWMD	Water Well	-82.075033	28.550478	WEBSTER	81	—
511	769783	SWFWMD	Water Well	-82.078506	28.812450	WILDWOOD	50	—
512	752535	SWFWMD	Water Well	-82.078528	28.982072	OXFORD	64	—
513	747257	SWFWMD	Water Well	-82.079089	28.748733	BUSHNELL	69	—
514	759660	SWFWMD	Water Well	-82.079611	28.649417	BUSHNELL	81	—
515	756697	SWFWMD	Water Well	-82.086517	28.747833	BUSHNELL	65	—
516	773871	SWFWMD	Water Well	-82.086761	28.631106	BUSHNELL	80	—
517	772766	SWFWMD	Water Well	-82.088539	28.696000	BUSHNELL	74	—
518	775759	SWFWMD	Water Well	-82.089739	28.579133	WEBSTER	79	—
519	757768	SWFWMD	Water Well	-82.090917	28.543611	WEBSTER	84	—
520	749724	SWFWMD	Water Well	-82.093611	28.516333	WEBSTER	83	—
521	768439	SWFWMD	Water Well	-82.103556	28.656333	BUSHNELL	77	—
522	768976	SWFWMD	Water Well	-82.104694	28.745278	BUSHNELL	60	—
523	759703	SWFWMD	Water Well	-82.105197	28.700194	BUSHNELL	68	—
524	777366	SWFWMD	Water Well	-82.105806	28.612972	WEBSTER	75	—
525	754049	SWFWMD	Water Well	-82.107828	28.561750	WEBSTER	82	—
526	762847	SWFWMD	Water Well	-82.114194	28.916333	OXFORD	56	—
527	774134	SWFWMD	Water Well	-82.115611	28.770444	WILDWOOD	44	—
528	773302	SWFWMD	Water Well	-82.123039	28.642750	BUSHNELL	71	—
529	753161	SWFWMD	Water Well	-82.128217	28.952728	LAKE PANASOFFKEE NW	68	—
530	753416	SWFWMD	Water Well	-82.128258	28.879886	LAKE PANASOFFKEE NW	47	—
531	767977	SWFWMD	Water Well	-82.128408	28.681239	WAHOO	64	—
532	753361	SWFWMD	Water Well	-82.128797	28.748933	WAHOO	55	—
533	759479	SWFWMD	Water Well	-82.135167	28.939528	LAKE PANASOFFKEE NW	64	—
534	766016	SWFWMD	Water Well	-82.138083	28.773083	RUTLAND	47	—
535	775427	SWFWMD	Water Well	-82.139131	28.809819	RUTLAND	39	—
536	779364	SWFWMD	Water Well	-82.139389	28.769653	RUTLAND	47	—
537	774002	SWFWMD	Water Well	-82.140758	28.606669	SAINT CATHERINE	72	—
538	758911	SWFWMD	Water Well	-82.147056	28.805572	RUTLAND	46	—
539	750868	SWFWMD	Water Well	-82.147697	28.564233	SAINT CATHERINE	74	—
540	776384	SWFWMD	Water Well	-82.152117	28.597803	SAINT CATHERINE	68	—
541	766515	SWFWMD	Water Well	-82.155472	28.682267	WAHOO	55	—
542	757818	SWFWMD	Water Well	-82.157142	28.968386	LAKE PANASOFFKEE NW	84	—
543	772949	SWFWMD	Water Well	-82.157786	28.537403	SAINT CATHERINE	71	—
544	763178	SWFWMD	Water Well	-82.158650	28.650289	WAHOO	64	—
545	760095	SWFWMD	Water Well	-82.159181	28.821408	RUTLAND	51	—
546	751119	SWFWMD	Water Well	-82.162008	28.617650	SAINT CATHERINE	65	—

OPEN-FILE REPORT 96

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
547	752139	SWFWMD	Water Well	-82.162406	28.530372	SAINT CATHERINE	72	—
548	762237	SWFWMD	Water Well	-82.169200	28.508733	SAINT CATHERINE	75	—
549	767318	SWFWMD	Water Well	-82.173431	28.679228	WAHOO	49	—
550	762952	SWFWMD	Water Well	-82.176389	28.642472	WAHOO	59	—
551	778938	SWFWMD	Water Well	-82.177178	28.859481	RUTLAND	57	—
552	757958	SWFWMD	Water Well	-82.180722	28.819944	RUTLAND	40	—
553	778454	SWFWMD	Water Well	-82.182333	28.797722	RUTLAND	43	—
554	762062	SWFWMD	Water Well	-82.183917	28.826889	RUTLAND	42	—
555	774345	SWFWMD	Water Well	-82.186917	28.641611	WAHOO	52	—
556	754656	SWFWMD	Water Well	-82.190425	28.990594	LAKE PANASOFFKEE NW	88	—
557	769272	SWFWMD	Water Well	-82.193139	28.675444	WAHOO	46	—
558	756005	SWFWMD	Water Well	-82.195500	28.533083	SAINT CATHERINE	59	—
559	783615	SWFWMD	Water Well	-82.196342	28.649456	WAHOO	53	—
560	768642	SWFWMD	Water Well	-82.196806	28.619861	SAINT CATHERINE	53	—
561	759397	SWFWMD	Water Well	-82.197583	28.559833	SAINT CATHERINE	63	—
562	767162	SWFWMD	Water Well	-82.204111	28.871750	RUTLAND	50	—
563	750315	SWFWMD	Water Well	-82.204192	28.585467	SAINT CATHERINE	58	—
564	777952	SWFWMD	Water Well	-82.205833	28.642250	WAHOO	50	—
565	769432	SWFWMD	Water Well	-82.206222	28.857500	RUTLAND	50	—
566	767343	SWFWMD	Water Well	-82.207556	28.845972	RUTLAND	42	—
567	777344	SWFWMD	Water Well	-82.209583	28.509028	SAINT CATHERINE	58	—
568	774903	SWFWMD	Water Well	-82.216694	28.600336	SAINT CATHERINE	64	—
569	754715	SWFWMD	Water Well	-82.217875	28.729881	WAHOO	45	—
570	773347	SWFWMD	Water Well	-82.218944	28.838150	RUTLAND	43	—
571	762650	SWFWMD	Water Well	-82.220444	28.636222	WAHOO	61	—
572	773543	SWFWMD	Water Well	-82.220633	28.612650	SAINT CATHERINE	70	—
573	758382	SWFWMD	Water Well	-82.225694	28.717344	WAHOO	49	—
574	774800	SWFWMD	Water Well	-82.227083	28.848222	RUTLAND	40	—
575	755013	SWFWMD	Water Well	-82.227586	28.709817	WAHOO	43	—
576	754268	SWFWMD	Water Well	-82.228861	28.749669	WAHOO	47	—
577	766210	SWFWMD	Water Well	-82.231306	28.756167	RUTLAND	45	—
578	768000	SWFWMD	Water Well	-82.235556	28.642667	WAHOO	54	—
579	766053	SWFWMD	Water Well	-82.235889	28.651806	WAHOO	50	—
580	751912	SWFWMD	Water Well	-82.239417	28.515889	SAINT CATHERINE	93	—
581	765097	SWFWMD	Water Well	-82.239722	28.756139	RUTLAND	45	—
582	752776	SWFWMD	Water Well	-82.243139	28.705056	WAHOO	47	—
583	763678	SWFWMD	Water Well	-82.244250	28.754528	RUTLAND	49	—
584	767336	SWFWMD	Water Well	-82.246444	28.629500	WAHOO	57	—
585	764868	SWFWMD	Water Well	-82.250736	28.667678	NOBLETON	59	—
586	755841	SWFWMD	Water Well	-82.252750	28.561111	BROOKSVILLE SE	94	—
587	769969	SWFWMD	Water Well	-82.253136	28.634725	NOBLETON	47	—
588	770150	SWFWMD	Water Well	-82.254000	28.690111	NOBLETON	42	—
589	773702	SWFWMD	Water Well	-82.254469	28.526203	BROOKSVILLE SE	107	—
590	759234	SWFWMD	Water Well	-82.254750	28.826806	INVERNESS	52	—
591	780193	SWFWMD	Water Well	-82.255069	28.535417	BROOKSVILLE SE	92	—
592	756480	SWFWMD	Water Well	-82.255083	28.693028	NOBLETON	52	—
593	776818	SWFWMD	Water Well	-82.256167	28.875194	STOKES FERRY	41	—
594	755271	SWFWMD	Water Well	-82.258833	28.822722	INVERNESS	52	—
595	771836	SWFWMD	Water Well	-82.260017	28.735783	NOBLETON	56	—
596	765253	SWFWMD	Water Well	-82.261906	28.640547	NOBLETON	52	—
597	779380	SWFWMD	Water Well	-82.262569	28.995556	STOKES FERRY	50	—
598	769087	SWFWMD	Water Well	-82.265583	28.759694	INVERNESS	42	—
599	756290	SWFWMD	Water Well	-82.266472	28.512389	BROOKSVILLE SE	169	—
600	775991	SWFWMD	Water Well	-82.267019	28.810169	INVERNESS	47	—
601	762603	SWFWMD	Water Well	-82.277156	28.770703	INVERNESS	44	—
602	763844	SWFWMD	Water Well	-82.278192	28.678075	NOBLETON	46	—
603	767226	SWFWMD	Water Well	-82.278972	28.742917	NOBLETON	49	—
604	764554	SWFWMD	Water Well	-82.284603	28.874783	INVERNESS	44	—
605	779762	SWFWMD	Water Well	-82.284667	28.544500	BROOKSVILLE SE	87	—
606	783163	SWFWMD	Water Well	-82.287169	28.515939	BROOKSVILLE SE	91	—
607	759966	SWFWMD	Water Well	-82.288947	28.668281	NOBLETON	98	—

FLORIDA GEOLOGICAL SURVEY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
608	761591	SWFWMD	Water Well	-82.293917	28.694750	NOBLETON	83	—
609	758496	SWFWMD	Water Well	-82.296028	28.689306	NOBLETON	73	—
610	781590	SWFWMD	Water Well	-82.296364	28.897836	STOKES FERRY	48	—
611	772398	SWFWMD	Water Well	-82.300861	28.567694	BROOKSVILLE SE	89	—
612	761815	SWFWMD	Water Well	-82.302639	28.645528	NOBLETON	107	—
613	766256	SWFWMD	Water Well	-82.305069	28.587164	BROOKSVILLE SE	170	—
614	783725	SWFWMD	Water Well	-82.307089	28.513731	BROOKSVILLE SE	80	—
615	763149	SWFWMD	Water Well	-82.308100	28.625444	NOBLETON	61	—
616	779359	SWFWMD	Water Well	-82.309306	28.552722	BROOKSVILLE SE	101	—
617	775864	SWFWMD	Water Well	-82.310425	28.900261	STOKES FERRY	40	—
618	757551	SWFWMD	Water Well	-82.310583	28.616889	BROOKSVILLE SE	79	—
619	759646	SWFWMD	Water Well	-82.311083	28.731333	NOBLETON	52	—
620	752345	SWFWMD	Water Well	-82.313892	28.757672	INVERNESS	72	—
621	763868	SWFWMD	Water Well	-82.314261	28.665989	NOBLETON	124	—
622	775121	SWFWMD	Water Well	-82.315222	28.882033	STOKES FERRY	47	—
623	761136	SWFWMD	Water Well	-82.315614	28.685728	NOBLETON	89	—
624	781748	SWFWMD	Water Well	-82.316283	28.753383	INVERNESS	70	—
625	765874	SWFWMD	Water Well	-82.318583	28.640828	NOBLETON	114	—
626	752563	SWFWMD	Water Well	-82.327483	28.571481	BROOKSVILLE SE	102	—
627	776961	SWFWMD	Water Well	-82.328639	28.967833	STOKES FERRY	42	—
628	780195	SWFWMD	Water Well	-82.329861	28.552781	BROOKSVILLE SE	92	—
629	759072	SWFWMD	Water Well	-82.330722	28.855583	INVERNESS	45	—
630	770842	SWFWMD	Water Well	-82.331333	28.621500	BROOKSVILLE SE	107	—
631	769801	SWFWMD	Water Well	-82.333106	28.693972	NOBLETON	120	—
632	759953	SWFWMD	Water Well	-82.338250	28.639936	NOBLETON	100	—
633	768272	SWFWMD	Water Well	-82.338361	28.579750	BROOKSVILLE SE	93	—
634	761493	SWFWMD	Water Well	-82.343417	28.542694	BROOKSVILLE SE	103	—
635	754906	SWFWMD	Water Well	-82.348861	28.874583	INVERNESS	40	—
636	780163	SWFWMD	Water Well	-82.349056	28.634917	NOBLETON	141	—
637	772435	SWFWMD	Water Well	-82.349361	28.786806	INVERNESS	126	—
638	758538	SWFWMD	Water Well	-82.351861	28.735000	NOBLETON	77	—
639	770327	SWFWMD	Water Well	-82.352294	28.695822	NOBLETON	111	—
640	772564	SWFWMD	Water Well	-82.352903	28.756614	INVERNESS	53	—
641	755235	SWFWMD	Water Well	-82.354553	28.752778	INVERNESS	83	—
642	769275	SWFWMD	Water Well	-82.354639	28.596028	BROOKSVILLE SE	94	—
643	761114	SWFWMD	Water Well	-82.355375	28.651103	NOBLETON	154	—
644	759467	SWFWMD	Water Well	-82.356611	28.684556	NOBLETON	117	—
645	755323	SWFWMD	Water Well	-82.356639	28.801803	INVERNESS	58	—
646	778387	SWFWMD	Water Well	-82.357944	28.666056	NOBLETON	91	—
647	768940	SWFWMD	Water Well	-82.358972	28.715472	NOBLETON	117	—
648	753058	SWFWMD	Water Well	-82.360861	28.919972	STOKES FERRY	43	—
649	779074	SWFWMD	Water Well	-82.361222	28.634861	NOBLETON	105	—
650	768121	SWFWMD	Water Well	-82.363028	28.833556	INVERNESS	73	—
651	782199	SWFWMD	Water Well	-82.364722	28.571333	BROOKSVILLE SE	116	—
652	760705	SWFWMD	Water Well	-82.368861	28.735167	NOBLETON	156	—
653	755963	SWFWMD	Water Well	-82.369222	28.514083	BROOKSVILLE SE	130	—
654	782319	SWFWMD	Water Well	-82.373467	28.501975	BROOKSVILLE SE	147	—
655	780284	SWFWMD	Water Well	-82.376194	28.704722	BROOKSVILLE NW	117	—
656	772096	SWFWMD	Water Well	-82.377194	28.648722	BROOKSVILLE NW	203	—
657	750040	SWFWMD	Water Well	-82.377219	28.731750	BROOKSVILLE NW	114	—
658	753736	SWFWMD	Water Well	-82.378194	28.678694	BROOKSVILLE NW	118	—
659	762135	SWFWMD	Water Well	-82.379222	28.729667	BROOKSVILLE NW	116	—
660	781030	SWFWMD	Water Well	-82.381889	28.599778	BROOKSVILLE	115	—
661	758791	SWFWMD	Water Well	-82.382611	28.531222	BROOKSVILLE	172	—
662	763530	SWFWMD	Water Well	-82.383258	28.603239	BROOKSVILLE	139	—
663	761943	SWFWMD	Water Well	-82.384917	28.828472	LECANTO	31	—
664	776059	SWFWMD	Water Well	-82.387906	28.698625	BROOKSVILLE NW	67	—
665	778067	SWFWMD	Water Well	-82.391664	28.583778	BROOKSVILLE	119	—
666	765899	SWFWMD	Water Well	-82.395333	28.603333	BROOKSVILLE	99	—
667	780568	SWFWMD	Water Well	-82.399111	28.552583	BROOKSVILLE	128	—
668	780771	SWFWMD	Water Well	-82.402972	28.641667	BROOKSVILLE NW	121	—

OPEN-FILE REPORT 96

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
669	763763	SWFWMD	Water Well	-82.406000	28.578333	BROOKSVILLE	219	—
670	762796	SWFWMD	Water Well	-82.408181	28.529478	BROOKSVILLE	98	—
671	764550	SWFWMD	Water Well	-82.408425	28.579333	BROOKSVILLE	242	—
672	758033	SWFWMD	Water Well	-82.412611	28.612972	BROOKSVILLE	80	—
673	755771	SWFWMD	Water Well	-82.414961	28.863161	LECANTO	129	—
674	759538	SWFWMD	Water Well	-82.417028	28.620417	BROOKSVILLE	90	—
675	764917	SWFWMD	Water Well	-82.418636	28.534181	BROOKSVILLE	70	—
676	771985	SWFWMD	Water Well	-82.420306	28.559500	BROOKSVILLE	103	—
677	782622	SWFWMD	Water Well	-82.421778	28.503739	BROOKSVILLE	82	—
678	768874	SWFWMD	Water Well	-82.426753	28.676444	BROOKSVILLE NW	60	—
679	762132	SWFWMD	Water Well	-82.427144	28.636364	BROOKSVILLE NW	117	—
680	756640	SWFWMD	Water Well	-82.429194	28.855250	LECANTO	123	—
681	755683	SWFWMD	Water Well	-82.439500	28.658222	BROOKSVILLE NW	111	—
682	751058	SWFWMD	Water Well	-82.441881	28.782836	LECANTO	46	—
683	752956	SWFWMD	Water Well	-82.443081	28.900047	HOLDER	154	—
684	783367	SWFWMD	Water Well	-82.445997	28.624097	BROOKSVILLE	90	—
685	762232	SWFWMD	Water Well	-82.449000	28.944164	HOLDER	64	—
686	781041	SWFWMD	Water Well	-82.450167	28.859000	LECANTO	122	—
687	773288	SWFWMD	Water Well	-82.451800	28.787167	LECANTO	64	—
688	766371	SWFWMD	Water Well	-82.452742	28.574525	BROOKSVILLE	93	—
689	765349	SWFWMD	Water Well	-82.454278	28.619972	BROOKSVILLE	105	—
690	782195	SWFWMD	Water Well	-82.454417	28.770361	LECANTO	72	—
691	751659	SWFWMD	Water Well	-82.455406	28.971164	HOLDER	121	—
692	764101	SWFWMD	Water Well	-82.462750	28.758556	LECANTO	70	—
693	771145	SWFWMD	Water Well	-82.466469	28.742181	BROOKSVILLE NW	77	—
694	778155	SWFWMD	Water Well	-82.467700	28.587592	BROOKSVILLE	99	—
695	757333	SWFWMD	Water Well	-82.469500	28.857278	LECANTO	51	—
696	784237	SWFWMD	Water Well	-82.471775	28.666161	BROOKSVILLE NW	86	—
697	770191	SWFWMD	Water Well	-82.472333	28.789083	LECANTO	50	—
698	779513	SWFWMD	Water Well	-82.473111	28.613278	BROOKSVILLE	113	—
699	768146	SWFWMD	Water Well	-82.475531	28.588378	BROOKSVILLE	134	—
700	780080	SWFWMD	Water Well	-82.475694	28.642722	BROOKSVILLE NW	137	—
701	784070	SWFWMD	Water Well	-82.476406	28.943572	HOLDER	90	—
702	751563	SWFWMD	Water Well	-82.476525	28.754253	LECANTO	49	—
703	771016	SWFWMD	Water Well	-82.478722	28.557778	BROOKSVILLE	85	—
704	773401	SWFWMD	Water Well	-82.478944	28.553111	BROOKSVILLE	75	—
705	763452	SWFWMD	Water Well	-82.484594	28.671850	BROOKSVILLE NW	79	—
706	768361	SWFWMD	Water Well	-82.486897	28.847217	LECANTO	46	—
707	755158	SWFWMD	Water Well	-82.488992	28.609392	BROOKSVILLE	137	—
708	780143	SWFWMD	Water Well	-82.491331	28.824811	LECANTO	74	—
709	765348	SWFWMD	Water Well	-82.492167	28.717281	BROOKSVILLE NW	68	—
710	760721	SWFWMD	Water Well	-82.493833	28.584111	BROOKSVILLE	84	—
711	765702	SWFWMD	Water Well	-82.494028	28.990528	HOLDER	113	—
712	782722	SWFWMD	Water Well	-82.498194	28.753472	LECANTO	83	—
713	Big Jones Creek	SWFWMD	Water Well	-82.114722	28.856944	WILDWOOD	43	—
714	1563	SWFWMD	Water Well	-82.222000	28.754000	RUTLAND	41	—
715	744877	SWFWMD	Water Well	-82.012108	28.952800	OXFORD	70	—
716	750036	SWFWMD	Water Well	-82.012197	28.909039	OXFORD	72	—
717	749081	SWFWMD	Water Well	-82.012242	28.894536	OXFORD	65	—
718	753923	SWFWMD	Water Well	-82.045353	28.938347	OXFORD	81	—
719	753030	SWFWMD	Water Well	-82.049925	28.898364	OXFORD	98	—
720	760147	SWFWMD	Water Well	-82.058228	28.954425	OXFORD	69	—
721	769952	SWFWMD	Water Well	-82.074306	28.952833	OXFORD	70	—
722	773569	SWFWMD	Water Well	-82.079444	28.891306	OXFORD	88	—
723	775638	SWFWMD	Water Well	-82.103056	28.923639	OXFORD	61	—
724	765203	SWFWMD	Water Well	-82.107389	28.936139	OXFORD	67	—
725	768214	SWFWMD	Water Well	-82.113906	28.895036	OXFORD	81	—
726	782976	SWFWMD	Water Well	-82.126278	28.974056	LAKE PANASOFFKEE NW	59	—
727	759661	SWFWMD	Water Well	-82.133806	28.897472	LAKE PANASOFFKEE NW	77	—
728	761245	SWFWMD	Water Well	-82.134500	28.918000	LAKE PANASOFFKEE NW	58	—
729	773211	SWFWMD	Water Well	-82.138997	28.952881	LAKE PANASOFFKEE NW	67	—

FLORIDA GEOLOGICAL SURVEY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
730	753431	SWFWMD	Water Well	-82.144822	28.879825	LAKE PANASOFFKEE NW	77	—
731	753619	SWFWMD	Water Well	-82.150611	28.890083	LAKE PANASOFFKEE NW	73	—
732	755880	SWFWMD	Water Well	-82.166011	28.962297	LAKE PANASOFFKEE NW	86	—
733	770329	SWFWMD	Water Well	-82.182378	28.960144	LAKE PANASOFFKEE NW	77	—
734	754387	SWFWMD	Water Well	-82.193986	28.961164	LAKE PANASOFFKEE NW	87	—
735	770207	SWFWMD	Water Well	-82.214572	28.979833	LAKE PANASOFFKEE NW	58	—
736	750883	SWFWMD	Water Well	-82.227619	28.996836	LAKE PANASOFFKEE NW	60	—
737	754517	SWFWMD	Water Well	-82.250797	28.994447	STOKES FERRY	50	—
738	772465	SWFWMD	Water Well	-82.294889	28.993439	STOKES FERRY	55	—
739	779217	SWFWMD	Water Well	-82.320056	28.965389	STOKES FERRY	40	—
740	760871	SWFWMD	Water Well	-82.345944	28.967028	STOKES FERRY	38	—
741	769827	SWFWMD	Water Well	-82.350011	28.908147	STOKES FERRY	41	—
742	776117	SWFWMD	Water Well	-82.404611	28.893333	HOLDER	106	—
743	760342	SWFWMD	Water Well	-82.418067	28.925058	HOLDER	62	—
744	769163	SWFWMD	Water Well	-82.433542	28.977811	HOLDER	52	—
745	759801	SWFWMD	Water Well	-82.468483	28.918689	HOLDER	104	—
746	761068	SWFWMD	Water Well	-82.471042	28.892761	HOLDER	68	—
747	756629	SWFWMD	Water Well	-82.019506	28.999000	OXFORD	75	—
748	775556	SWFWMD	Water Well	-82.495889	28.975583	HOLDER	92	—
749	763360	SWFWMD	Water Well	-82.134164	28.882053	LAKE PANASOFFKEE NW	80	—
750	768416	SWFWMD	Water Well	-82.141306	28.889250	LAKE PANASOFFKEE NW	72	—
751	761937	SWFWMD	Water Well	-82.142444	28.883167	LAKE PANASOFFKEE NW	66	—
752	755085	SWFWMD	Water Well	-82.158692	28.976353	LAKE PANASOFFKEE NW	89	—
753	775598	SWFWMD	Water Well	-82.166556	28.973472	LAKE PANASOFFKEE NW	89	—
754	752726	SWFWMD	Water Well	-82.167586	28.968389	LAKE PANASOFFKEE NW	94	—
755	761716	SWFWMD	Water Well	-82.175231	28.964922	LAKE PANASOFFKEE NW	86	—
756	754551	SWFWMD	Water Well	-82.184003	28.965406	LAKE PANASOFFKEE NW	73	—
757	764796	SWFWMD	Water Well	-82.211875	28.985844	LAKE PANASOFFKEE NW	69	—
758	741478	SWFWMD	Water Well	-82.217519	28.996772	LAKE PANASOFFKEE NW	72	—
759	768384	SWFWMD	Water Well	-82.026722	28.894306	OXFORD	71	—
760	769836	SWFWMD	Water Well	-82.005131	28.996583	OXFORD	85	—
761	754209	SWFWMD	Water Well	-82.009167	28.988519	OXFORD	79	—
762	754535	SWFWMD	Water Well	-82.013125	28.988547	OXFORD	100	—
763	760026	SWFWMD	Water Well	-82.022000	28.901667	OXFORD	65	—
764	780128	SWFWMD	Water Well	-82.025278	28.931972	OXFORD	106	—
765	771354	SWFWMD	Water Well	-82.026875	28.887586	OXFORD	65	—
766	774474	SWFWMD	Water Well	-82.031011	28.885431	OXFORD	70	—
767	782238	SWFWMD	Water Well	-82.041500	28.890639	OXFORD	80	—
768	772400	SWFWMD	Water Well	-82.054833	28.949944	OXFORD	78	—
769	770953	SWFWMD	Water Well	-82.057944	28.947556	OXFORD	61	—
770	772151	SWFWMD	Water Well	-82.060361	28.914361	OXFORD	64	—
771	760538	SWFWMD	Water Well	-82.082806	28.897528	OXFORD	66	—
772	754289	SWFWMD	Water Well	-82.086142	28.924017	OXFORD	69	—
773	756031	SWFWMD	Water Well	-82.105011	28.971517	OXFORD	58	—
774	771843	SWFWMD	Water Well	-82.109261	28.961767	OXFORD	58	—
775	778720	SWFWMD	Water Well	-82.112219	28.967114	OXFORD	71	—
776	778218	SWFWMD	Water Well	-82.065444	28.914444	OXFORD	63	—
777	755509	SWFWMD	Water Well	-82.071550	28.936775	OXFORD	65	—
778	760753	SWFWMD	Water Well	-82.085417	28.902083	OXFORD	67	—
779	778114	SWFWMD	Water Well	-82.110333	28.979286	OXFORD	76	—
780	761370	SWFWMD	Water Well	-82.051444	28.810361	WILDWOOD	65	—
781	765295	SWFWMD	Water Well	-82.057878	28.806389	WILDWOOD	63	—
782	779399	SWFWMD	Water Well	-82.070139	28.800094	WILDWOOD	62	—
783	778244	SWFWMD	Water Well	-82.181250	28.825083	RUTLAND	48	—
784	768477	SWFWMD	Water Well	-82.274417	28.810222	INVERNESS	49	—
785	772586	SWFWMD	Water Well	-82.280333	28.844444	INVERNESS	46	—
786	765168	SWFWMD	Water Well	-82.283944	28.771306	INVERNESS	50	—
787	770030	SWFWMD	Water Well	-82.289750	28.862250	INVERNESS	45	—
788	755769	SWFWMD	Water Well	-82.298522	28.862553	INVERNESS	44	—
789	756888	SWFWMD	Water Well	-82.299194	28.776833	INVERNESS	50	—
790	762815	SWFWMD	Water Well	-82.302806	28.843694	INVERNESS	40	—

OPEN-FILE REPORT 96

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
791	767308	SWFWMD	Water Well	-82.305611	28.827417	INVERNESS	51	—
792	763237	SWFWMD	Water Well	-82.310972	28.819083	INVERNESS	51	—
793	757320	SWFWMD	Water Well	-82.320250	28.814611	INVERNESS	71	—
794	767460	SWFWMD	Water Well	-82.326639	28.804556	INVERNESS	61	—
795	772772	SWFWMD	Water Well	-82.331083	28.785806	INVERNESS	70	—
796	756817	SWFWMD	Water Well	-82.333194	28.798417	INVERNESS	71	—
797	762581	SWFWMD	Water Well	-82.333389	28.815361	INVERNESS	65	—
798	764287	SWFWMD	Water Well	-82.340056	28.781678	INVERNESS	116	—
799	759140	SWFWMD	Water Well	-82.342694	28.790306	INVERNESS	81	—
800	766760	SWFWMD	Water Well	-82.348889	28.864611	INVERNESS	42	—
801	754838	SWFWMD	Water Well	-82.355167	28.866111	INVERNESS	59	—
802	757308	SWFWMD	Water Well	-82.363139	28.868806	INVERNESS	65	—
803	778610	SWFWMD	Water Well	-82.367750	28.860472	INVERNESS	77	—
804	757696	SWFWMD	Water Well	-82.371583	28.865722	INVERNESS	68	—
805	755259	SWFWMD	Water Well	-82.377358	28.867319	LECANTO	58	—
806	774299	SWFWMD	Water Well	-82.377972	28.857833	LECANTO	72	—
807	782054	SWFWMD	Water Well	-82.415767	28.869733	LECANTO	118	—
808	750876	SWFWMD	Water Well	-82.442953	28.870728	LECANTO	143	—
809	762721	SWFWMD	Water Well	-82.458775	28.766667	LECANTO	82	—
810	765151	SWFWMD	Water Well	-82.464556	28.866194	LECANTO	98	—
811	761740	SWFWMD	Water Well	-82.470361	28.760750	LECANTO	55	—
812	771720	SWFWMD	Water Well	-82.477147	28.783661	LECANTO	64	—
813	753011	SWFWMD	Water Well	-82.497933	28.835444	LECANTO	48	—
814	782105	SWFWMD	Water Well	-82.035306	28.579956	WEBSTER	97	—
815	757099	SWFWMD	Water Well	-82.046444	28.593333	WEBSTER	88	—
816	770206	SWFWMD	Water Well	-82.046750	28.728333	BUSHNELL	83	—
817	775026	SWFWMD	Water Well	-82.051806	28.724028	BUSHNELL	84	—
818	777447	SWFWMD	Water Well	-82.055222	28.650478	BUSHNELL	88	—
819	753360	SWFWMD	Water Well	-82.062544	28.734133	BUSHNELL	82	—
820	765801	SWFWMD	Water Well	-82.065506	28.609008	WEBSTER	89	—
821	763764	SWFWMD	Water Well	-82.066367	28.742933	BUSHNELL	71	—
822	781308	SWFWMD	Water Well	-82.067022	28.618772	WEBSTER	87	—
823	777076	SWFWMD	Water Well	-82.069619	28.602214	WEBSTER	86	—
824	767522	SWFWMD	Water Well	-82.069967	28.635536	BUSHNELL	86	—
825	756643	SWFWMD	Water Well	-82.077242	28.593717	WEBSTER	80	—
826	751148	SWFWMD	Water Well	-82.096058	28.690408	BUSHNELL	72	—
827	760407	SWFWMD	Water Well	-82.098694	28.697861	BUSHNELL	67	—
828	772946	SWFWMD	Water Well	-82.099808	28.671333	BUSHNELL	80	—
829	761039	SWFWMD	Water Well	-82.109389	28.670389	BUSHNELL	76	—
830	781000	SWFWMD	Water Well	-82.142469	28.656261	WAHOO	65	—
831	773377	SWFWMD	Water Well	-82.157903	28.564794	SAINT CATHERINE	69	—
832	761003	SWFWMD	Water Well	-82.161528	28.569389	SAINT CATHERINE	65	—
833	760857	SWFWMD	Water Well	-82.164833	28.536139	SAINT CATHERINE	79	—
834	756307	SWFWMD	Water Well	-82.170806	28.568119	SAINT CATHERINE	67	—
835	771218	SWFWMD	Water Well	-82.173417	28.596000	SAINT CATHERINE	61	—
836	771490	SWFWMD	Water Well	-82.176806	28.579389	SAINT CATHERINE	67	—
837	750880	SWFWMD	Water Well	-82.178319	28.646983	WAHOO	56	—
838	762386	SWFWMD	Water Well	-82.178894	28.602392	SAINT CATHERINE	63	—
839	760501	SWFWMD	Water Well	-82.180944	28.566611	SAINT CATHERINE	61	—
840	771644	SWFWMD	Water Well	-82.181631	28.576542	SAINT CATHERINE	69	—
841	759824	SWFWMD	Water Well	-82.185472	28.557111	SAINT CATHERINE	66	—
842	764225	SWFWMD	Water Well	-82.185611	28.594556	SAINT CATHERINE	61	—
843	764763	SWFWMD	Water Well	-82.185806	28.553861	SAINT CATHERINE	55	—
844	759700	SWFWMD	Water Well	-82.188583	28.527167	SAINT CATHERINE	64	—
845	757296	SWFWMD	Water Well	-82.189944	28.603056	SAINT CATHERINE	63	—
846	751577	SWFWMD	Water Well	-82.194967	28.647047	WAHOO	51	—
847	775724	SWFWMD	Water Well	-82.206889	28.503639	SAINT CATHERINE	75	—
848	768792	SWFWMD	Water Well	-82.207944	28.611333	SAINT CATHERINE	77	—
849	773542	SWFWMD	Water Well	-82.210722	28.608194	SAINT CATHERINE	62	—
850	776919	SWFWMD	Water Well	-82.271806	28.662944	NOBLETON	40	—
851	767258	SWFWMD	Water Well	-82.271806	28.528306	BROOKSVILLE SE	138	—

FLORIDA GEOLOGICAL SURVEY

Map ID	Well Label	Data Source	Sample Type	Longitude	Latitude	24K Quad	Elevation (ft)	Total Depth (ft)
852	777569	SWFWMD	Water Well	-82.272111	28.510944	BROOKSVILLE SE	105	—
853	760568	SWFWMD	Water Well	-82.295528	28.534806	BROOKSVILLE SE	68	—
854	754602	SWFWMD	Water Well	-82.296111	28.539944	BROOKSVILLE SE	66	—
855	754481	SWFWMD	Water Well	-82.300333	28.652528	NOBLETON	111	—
856	762870	SWFWMD	Water Well	-82.318472	28.516389	BROOKSVILLE SE	105	—
857	771213	SWFWMD	Water Well	-82.319703	28.610403	BROOKSVILLE SE	130	—
858	761829	SWFWMD	Water Well	-82.323858	28.589569	BROOKSVILLE SE	74	—
859	750638	SWFWMD	Water Well	-82.327794	28.500586	BROOKSVILLE SE	209	—
860	784099	SWFWMD	Water Well	-82.343300	28.534319	BROOKSVILLE SE	87	—
861	777278	SWFWMD	Water Well	-82.348306	28.531806	BROOKSVILLE SE	117	—
862	771441	SWFWMD	Water Well	-82.352833	28.595944	BROOKSVILLE SE	80	—
863	764564	SWFWMD	Water Well	-82.355222	28.735806	NOBLETON	79	—
864	768356	SWFWMD	Water Well	-82.358583	28.589194	BROOKSVILLE SE	127	—
865	755832	SWFWMD	Water Well	-82.362667	28.733167	NOBLETON	85	—
866	768670	SWFWMD	Water Well	-82.408069	28.534681	BROOKSVILLE	89	—
867	758245	SWFWMD	Water Well	-82.459528	28.522778	BROOKSVILLE	78	—
868	765234	SWFWMD	Water Well	-82.462528	28.504417	BROOKSVILLE	80	—
869	774257	SWFWMD	Water Well	-82.470564	28.502886	BROOKSVILLE	71	—
870	755566	SWFWMD	Water Well	-82.485367	28.512144	BROOKSVILLE	84	—
871	765957	SWFWMD	Water Well	-82.486889	28.525056	BROOKSVILLE	97	—
872	755638	SWFWMD	Water Well	-82.495025	28.651256	BROOKSVILLE NW	74	—
873	766519	SWFWMD	Water Well	-82.495472	28.653194	BROOKSVILLE NW	85	—
874	780930	SWFWMD	Water Well	-82.497417	28.512028	BROOKSVILLE	58	—
875	759736	SWFWMD	Water Well	-82.498083	28.635611	BROOKSVILLE NW	88	—
876	765054	SWFWMD	Water Well	-82.498472	28.655944	BROOKSVILLE NW	68	—
877	765318	SWFWMD	Water Well	-82.291778	28.996342	STOKES FERRY	56	—
878	778336	SWFWMD	Water Well	-82.302597	28.890147	STOKES FERRY	43	—
879	760367	SWFWMD	Water Well	-82.361153	28.992236	STOKES FERRY	41	—
880	775653	SWFWMD	Water Well	-82.364806	28.901056	STOKES FERRY	47	—
881	772025	SWFWMD	Water Well	-82.367778	28.883667	STOKES FERRY	62	—
882	770552	SWFWMD	Water Well	-82.370139	28.963625	STOKES FERRY	51	—
883	778440	SWFWMD	Water Well	-82.370733	28.935908	STOKES FERRY	44	—
884	751336	SWFWMD	Water Well	-82.377464	28.930547	HOLDER	60	—
885	769356	SWFWMD	Water Well	-82.378619	28.968356	HOLDER	39	—
886	755448	SWFWMD	Water Well	-82.405500	28.923694	HOLDER	70	—
887	758042	SWFWMD	Water Well	-82.408611	28.970306	HOLDER	54	—
888	750470	SWFWMD	Water Well	-82.413225	28.951361	HOLDER	92	—
889	771037	SWFWMD	Water Well	-82.423500	28.962861	HOLDER	74	—
890	775371	SWFWMD	Water Well	-82.424194	28.975083	HOLDER	64	—
891	760818	SWFWMD	Water Well	-82.433139	28.891222	HOLDER	101	—
892	769728	SWFWMD	Water Well	-82.486389	28.932056	HOLDER	76	—
893	753577	SWFWMD	Water Well	-82.492661	28.917717	HOLDER	75	—
894	774397	SWFWMD	Water Well	-82.497711	28.901492	HOLDER	94	—
895	768173	SWFWMD	Water Well	-82.305247	28.897197	STOKES FERRY	44	—
896	772644	SWFWMD	Water Well	-82.359581	28.903339	STOKES FERRY	55	—
897	774494	SWFWMD	Water Well	-82.360917	28.881278	STOKES FERRY	65	—
898	777823	SWFWMD	Water Well	-82.367750	28.931389	STOKES FERRY	42	—
899	763235	SWFWMD	Water Well	-82.380306	28.879583	HOLDER	52	—
900	771036	SWFWMD	Water Well	-82.413194	28.944111	HOLDER	45	—
901	755498	SWFWMD	Water Well	-82.433500	28.879389	HOLDER	119	—
902	755696	SWFWMD	Water Well	-82.459075	28.940014	HOLDER	90	—

NOTE: Elevations for the Southwest Florida Water Management District (SWFWMD) wells used in this project were acquired from an FGS-generated Digital Elevation Model (DEM).