Well Completion Report
Exploratory Test Well ETW-1

Florida Governmental Utility Authority
Mirror Lakes Water Treatment Plant
Lehigh Acres, Lee County, Florida

September 2007

Prepared for:
Malcolm Pirnie, Inc.

MALCOLM PIRNIE

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1.0 Introduction

1.1 Background

As part of the most recent Water Use Permit (WUP) renewal process, the South Florida Water Management District (SFWMD) required that the Florida Governmental Utility Authority (FGUA) evaluate the use of an Alternate Water Source (AWS) to meet future demand. Pre-application discussions with the SFWMD led to an agreement that FGUA would explore the feasibility of an AWS utilizing the brackish waters from the mid-Hawthorne Aquifer, the Lower Hawthorne Aquifer, or the upper Floridan Aquifer as a requirement of the next WUP.

1.2 Purpose

The purpose of this report is to document the hydrogeologic data collected during the drilling and testing of an exploratory test well into the mid-to-lower Hawthorne Aquifer and upper Floridan Aquifer at the project site in Lehigh Acres, Lee County, Florida (**Figure 1**). The data includes a summary of:

1. well drilling and construction details
2. lithostratigraphy and hydrogeology data
3. water quality results, and
4. aquifer performance testing.

The data collected from this well will be used to support the development of an Alternative Water Source (brackish water) to replace future use of the shallow Sandstone Aquifer. This well represents the first phase of the process with the goal being to identify a target aquifer/producing zone, which will serve to allow this source to be developed as the permitted source of water supply. Once the AWS has been approved by SFWMD, further work will include the construction of a test/production well, additional observation wells, to conduct an Aquifer Performance Test (APT), the development of a ground water flow model, the design of a well field, and the development of an impact analysis. All work will be submitted to SFWMD for approval before this brackish source can be permitted and development as an AWS.

1.3 Project Description

The project site is located in Section 23, Township 45 south, Range 27 east at the intersection of Bolivia Drive and Bedford Point Avenue in Lehigh Acres, Florida. **Figure 2** is an aerial photograph showing the well location on the project site.

Site preparation and equipment mobilization began on April 2, 2007. Exploratory test well, ETW-1, was installed to a total depth of 1,110 feet below land surface (BLS). This well was used to evaluate the use of the mid-Hawthorne Aquifer, the Lower Hawthorne Aquifer and the upper Floridan Aquifer as a potential AWS. The well was constructed with telescoping casings with the final 6-inch PVC casing set to a depth of 770 feet BLS.

Connect Consulting, Inc. (CCI) provided oversight during well drilling, construction, and testing operations. Parsons Drilling, Inc., (PDI) a Chuluota, Florida-based drilling contractor, was responsible for all drilling, well construction, and testing services (excluding geophysical logging) associated with this well. The well construction and

1.0 Introduction

testing was completed on July 20, 2007 at which time all drilling equipment was demobilized from the site. A Lee County Well Completion Report (WCR) was completed by PDI and submitted to the Lee County Natural Resources Division. A copy of the Lee County WCR is provided in **Appendix A.**

Figure 1 – Site Location Map

1.0 Introduction

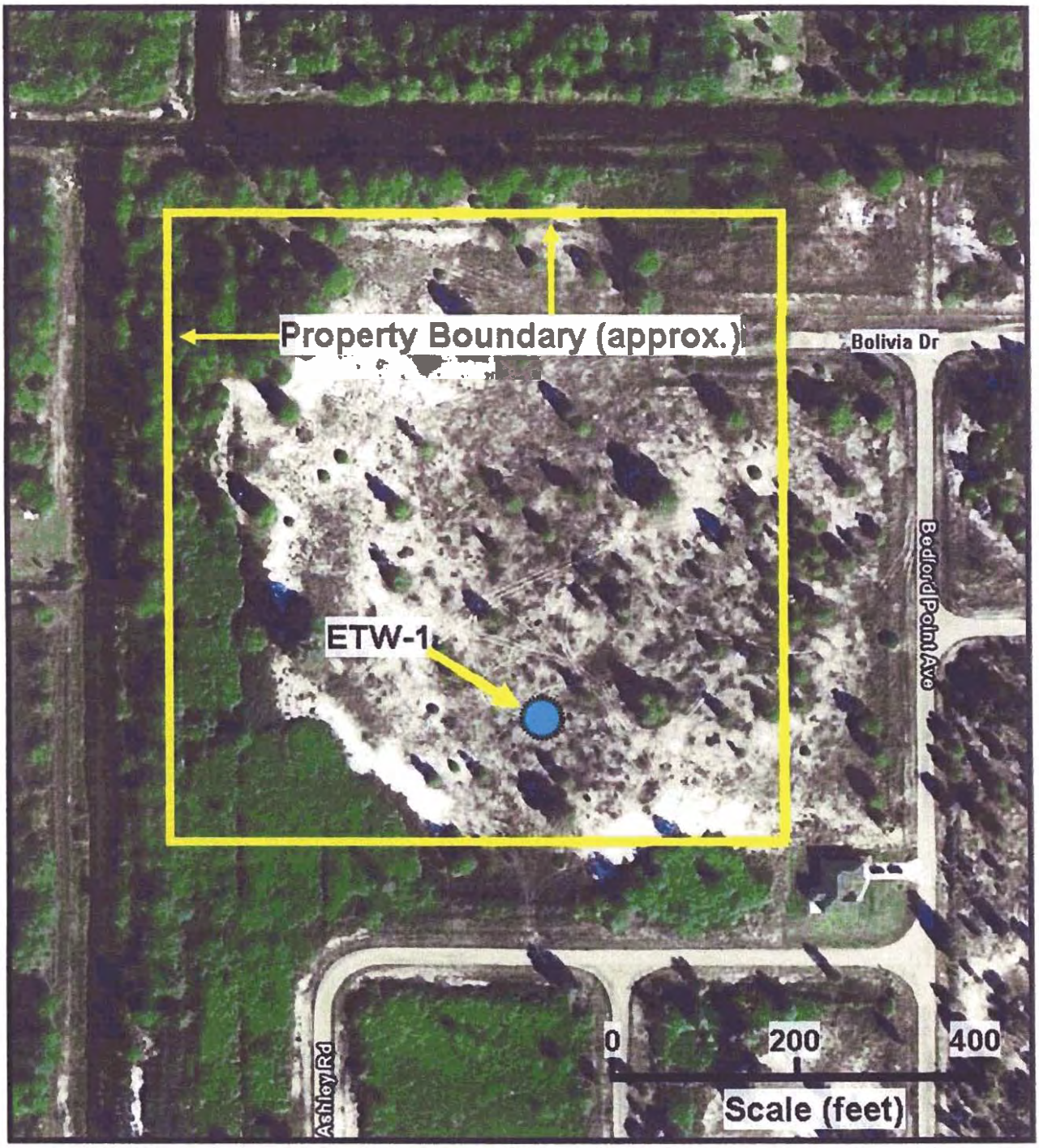

Figure 2 – Aerial Photograph of Site (pre-construction)

2.0 Exploratory Drilling and Well Construction

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2.0 Exploratory Drilling and Well Construction

Prior to mobilization of drilling equipment, PDI obtained a well construction permit from the Groundwater Permitting Unit of the Lee County Natural Resources Division on March 23, 2007. A copy of Permit No. WEL2007-01389 is included in **Appendix A**. After the well permit was issued, PDI began mobilizing equipment to the project site on April 2, 2007.

After mobilizing drilling equipment to the site in early April 2007, mud rotary and reverse air drilling techniques were used during drilling operations. PDI used closed circulation mud rotary drilling to advance a nominal 12-inch pilot hole from land surface to 630 feet BLS. PDI used reverse air, open circulation drilling to advance a nominal 12-inch pilot hole from 630 feet BLS to 1,110 feet BLS. **Figure 3** is a photograph of the Gardner Denver 2000 drill rig used at the project site.

CCI used formation samples (well cuttings), drill stem tests, field water quality sample analysis, and geophysical logging to determine casing setting depths. Once the casing set point was identified the contractor reamed the pilot hole, if necessary, to the diameter and depth for the selected casing setting. Four concentric casings (24-, 18-, 12-, and 6-inch diameter) were used in the construction of the telescoping style test well.

On April 9, 2007, PDI began drilling operations by advancing a nominal 30-inch diameter borehole to a depth of 41 feet. PDI then installed a 24-inch diameter, steel casing (0.375-inch thickness) to 41 feet and pressure grouted the annulus to surface using 72 cubic feet (ft^3) of ASTM Type I neat cement.

After installing the 24-inch diameter surface casing, PDI advanced a nominal 23-inch borehole from 25 feet to 194 feet BLS. Based on formation samples collected, low permeability sediments beginning at a depth of 186 feet BLS, which mark the base of the surficial aquifer system. A casing setting depth of 188 feet BLS was selected for the 18-inch diameter steel casing. This depth was 2 feet into the confining sediments of the intermediate aquifer system. PDI conditioned the borehole by circulating the drilling mud to remove any residual debris from the borehole prior to setting the casing.

On April 13 and 14, 2007, PDI installed the 18-inch diameter, steel casing (0.375-inch thickness) to a depth of 188 feet. The casing was grouted in two stages beginning on April 14, 2007. The initial stage of grouting used the inside-casing tremie pressure grouting method. The grout return on the first stage was tagged at a depth of 65 feet BLS. The second grout stage was performed using the exterior tremie line method and was used to complete the grouting of the casing from 65 feet BLS to land surface. A total of 177 ft^3 of ASTM Type I neat cement was used to grout the 18-inch casing to 188 feet BLS.

After installing the 18-inch casing to 188 feet BLS, PDI advanced a nominal 17-inch diameter borehole from 188 feet to a depth of 425 feet BLS. Based on the low permeability sediments encountered from 188 to 420 feet and the expected depth of the first zone of potential artesian conditions in the mid-Hawthorne Aquifer, a casing setting depth of 412 feet was selected. PDI conditioned the borehole prior to setting the casing

by circulating any remaining debris from the borehole. **Figure 4** shows the geophysical logging of the 17-inch borehole.

On May 10, 2007, Aquifer Data Systems, Inc. (ADS) conducted geophysical logging of the borehole to document the borehole condition and also assist with determining the appropriate casing setting depth. The caliper log showed no unusual borehole features that would inhibit proper installation of the 12-inch casing. As a result, PDI installed the 12-inch steel casing (0.250-inch) on May 10, 2007 to a depth of 412 feet BLS and pressure grouted back to a depth of 280 feet on May 11, 2007. A second stage of grout was pumped on May 11, 2007, using the exterior tremie line method after the tremie line used for the interior pressure grouting became plugged. A third stage of grout was pumped using the exterior tremie line method on May 12, 2007, to complete the grouting of the 12-inch casing to 412 feet BLS. A total of 383 ft^3 of ASTM Type I neat cement was used to grout the casing back to land surface. **Figure 5 through 12** document the various phases of well construction up to the setting of the 12-inch casing.

The use of the first three steel casings serves the following purposes:

- Provide stability of the subsurface surrounding the drilling rig during future drilling operations;
- Prevent unconsolidated sediments from collapsing into the borehole; and
- Isolate the fresh water aquifers from brackish ground water.

With the surface casings set in place, PDI installed a pressure control device onto the top of the 12-inch casing to handle potential artesian conditions while drilling through the intermediate and Floridan Aquifer systems. **Figure 12** shows the pressure control device installed on the top of the 12-inch steel casing.

On May 17, 2007, PDI began advancing a nominal 12-inch borehole from 412 feet to 1,110 feet via mud rotary method by drilling out the cement shoe in the base of the 12-inch casing. On May 23, 2007, PDI switched from drilling via mud rotary to the reverse air circulation method based on the lithology changing from unconsolidated siliclastics to limestone at approximately 600 feet BLS. On May 30, 2007, the nominal 12-inch borehole was completed to a depth of 1,110 feet BLS. The borehole was developed via airlifting for approximately 60 minutes after reaching the total depth.

On June 5, 2007, MV Geophysical Surveys, Inc. (MVGS) performed geophysical logging on the nominal 12-inch pilot hole. A series of geophysical logs were conducted on the water-filled borehole. A suite of logs included a caliper, gamma-ray, dual induction (LL3/SP), fluid resistivity, fluid temperature, and a flow meter log. The fluid resistivity, temperature, and flow meter log were run under static and dynamic conditions. **Figure 13 shows the geophysical logging of the 12-inch pilot hole. Appendix B** contains the individual geophysical log plots from ETW-1. An evaluation of the geophysical logs is provided in **Section 4.1**. A borehole television survey was also conducted by MVGS on June 5, 2007. A copy of the borehole TV survey is contained in **Appendix C**. The visual observations from the borehole TV survey are limited due to the clarity of the water in the borehole at the time of the logging. A layer of

unconsolidated sediment at approximately 915-930 feet BLS was creating very turbid conditions during the TV survey and prevented the TV camera from reaching the total depth of the borehole. This feature can be seen on the caliper log, the gamma ray log, and the TV survey.

CCI reviewed the geophysical logs and the lithologic samples (well cuttings) from the subject borehole and identified the top of the Suwannee Limestone at a depth of approximately 780 feet BLS. CCI made a decision to set the final 6-inch PVC casing to a depth of 775 feet to:

- Set the casing in competent, well-indurated rock immediately above the solution feature observed at the top of the Suwannee Limestone.
- Seal off the lower Hawthorne Formation just above the top of the Suwannee Limestone.
- Evaluate the flow characteristics of the Suwannee Limestone with the open hole section from 775 feet to 1,110 feet BLS.
- Evaluate the water quality of the Suwannee Limestone without interference from the lower Hawthorne Formation.

On June 13, 2007, PDI conducted a "wiper pass" on the nominal 12-inch borehole to clean any debris from the borehole that would potentially inhibit the installation of the final casing. The borehole was reamed using reverse air circulation from 415 feet to 1,110 feet BLS.

After removing all of the drill string from the borehole, PDI proceeded to install the 6-inch Schedule 40 PVC casing to a depth of 775 feet. PDI secured three cement baskets on the base of the casing at 775, 770, and 765 feet and then proceed to install the casing and cement grouted it in place via the exterior tremie method using a total of 597 ft^3 of ASTM Type I neat cement containing 5% bentonite. **Figures 14 through 17** document the installation of the 6-inch PVC casing.

Prior to the first stage of grout, approximately 2 ft^3 of #57 stone was placed in the cement baskets to reduce the potential for the cement grout to flow through the baskets. Following the additional of gravel, PDI pumped the initial cement grout seal on June 17, 2007, using approximately 42 ft^3 of neat cement (no bentonite). Subsequent stages of grouting were done with neat cement and 5% (pre-mixed) bentonite. The final grouting stage was completed on July 15, 2007. **Figures 18 and 19** show the grouting operations for the 6-inch PVC casing.

PDI developed the well by over pumping and artesian flow techniques until the turbidity in the formation water was ~5.0 milligrams per liter (mg/L) or less. PDI then constructed a 6-foot by 6-foot reinforced concrete pad at the surface of the wellhead. Protective bollards were installed at the corners of the well pad, filled with concrete, and painted with high-yellow traffic paint. The aboveground portion of the well casing was equipped with a protective aluminum riser and hinged, lockable box to enclose the ball valve and pressure transducer installed on the top of the well casing. **Figures 20 and 21** show the completed wellhead.

2.0 Exploratory Drilling and Well Construction

Table 2-1 summarizes the actual well casing details and **Figure 22** is a diagram showing the well construction details for ETW-1.

Table 2-1- ETW-1 Well Construction Details

Nominal Borehole Diameter (in)	Casing Diameter (in)	Casing Material	Completion Date*	Casing / Open Hole Depth (ft)
30	24	Steel	4/11/2007	41
23	18	Steel	4/19/2007	188
17	12	Steel	5/12/2007	412
12	6	PVC	7/15/2007**	770
12	NA	Open Hole	5/30/2007***	1,110

Notes: * - Denotes completion date for grouting of casing.
** - The 6-inch PVC casing was installed on June 13, 2007 using 6" x 12" cement baskets. Final grout stage was July 15, 2007.
*** - The 12" pilot hole was completed to total depth on May 30, 2007.

2.0 Exploratory Drilling and Well Construction

Figure 3 – Gardner Denver 2000 Drill Rig Set Up on ETW-1 (looking west)

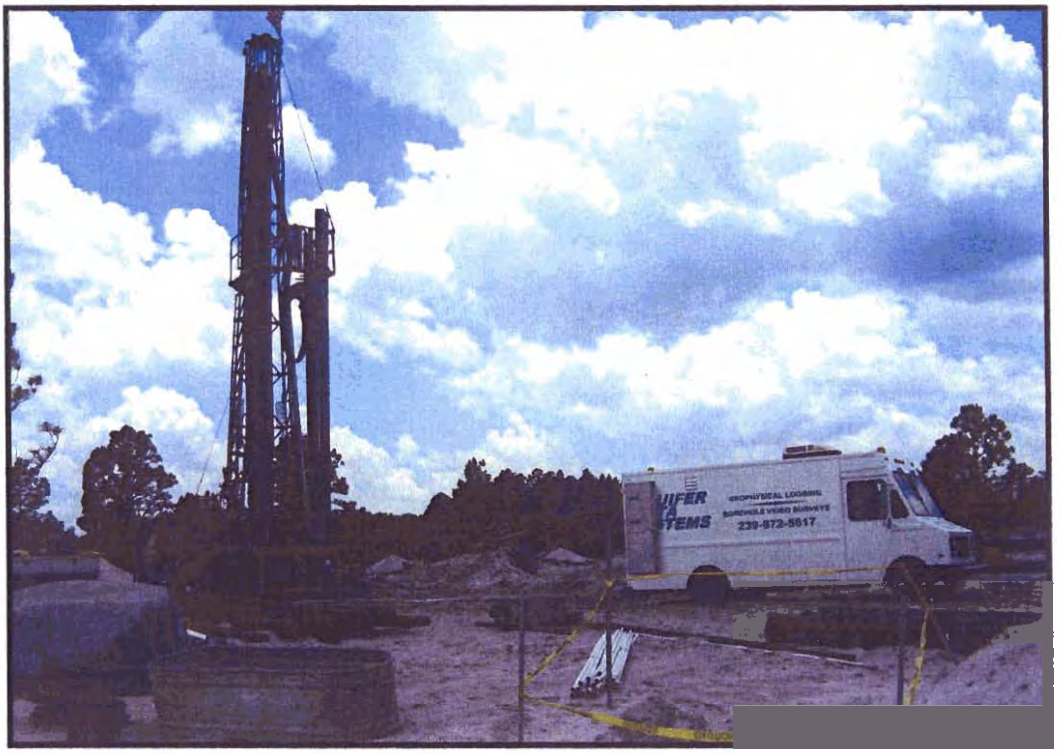

Figure 4 – Geophysical Logging of 17-inch Borehole

Figure 5 – Installing 18-inch Steel Casing

Figure 6 – Welding 18-inch Steel Casing

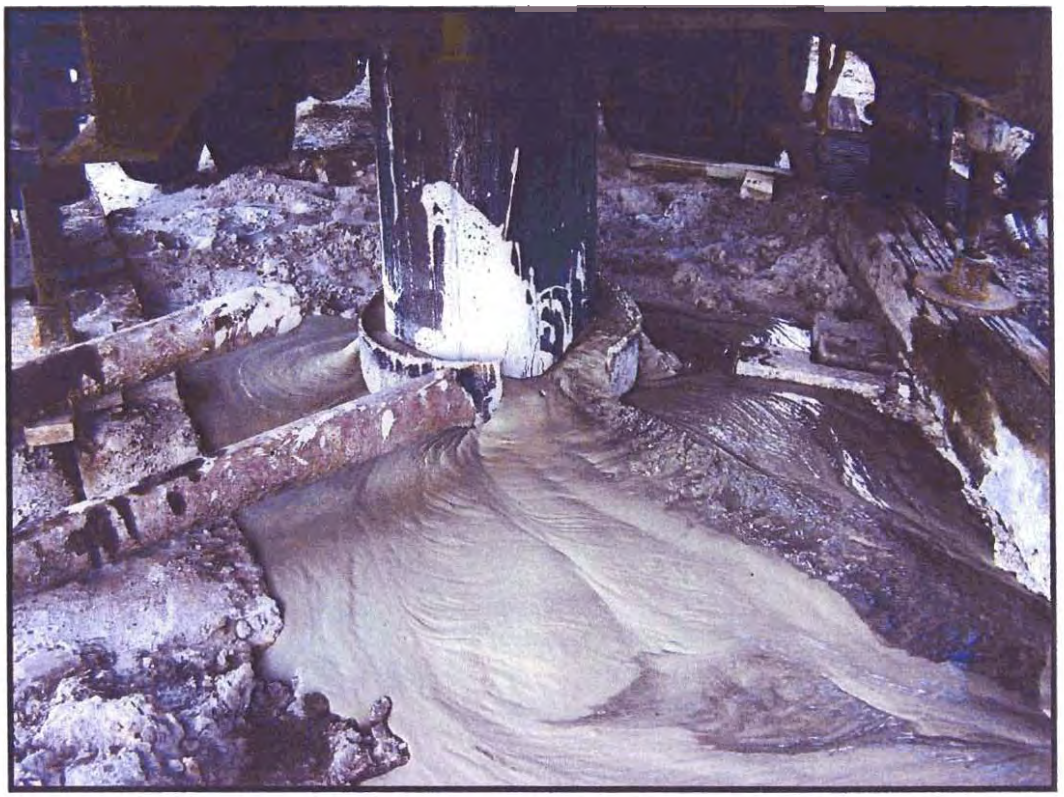

Figure 7 – Grouting of 18-inch Steel Casing

Figure 8 – Circulating Drilling Mud Prior to Grouting of 12-inch Casing

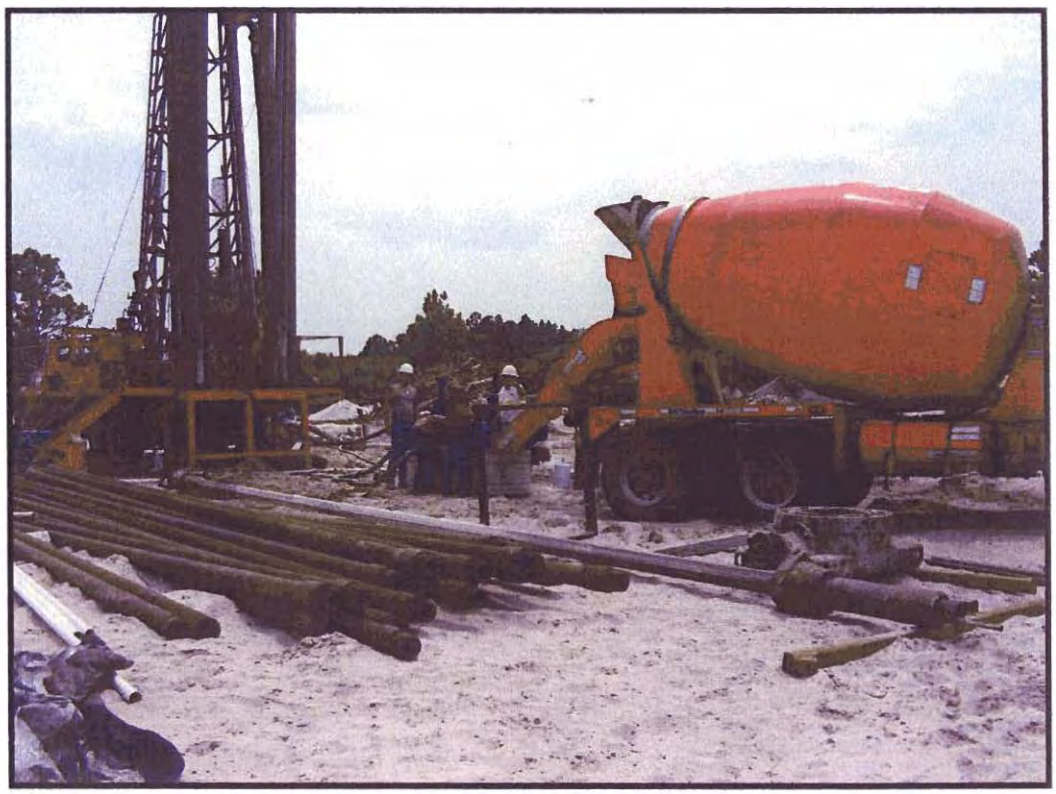

Figure 9 – Grouting of 12-inch Steel Casing

Figure 10 – Measuring Weight of Cement Grout Slurry

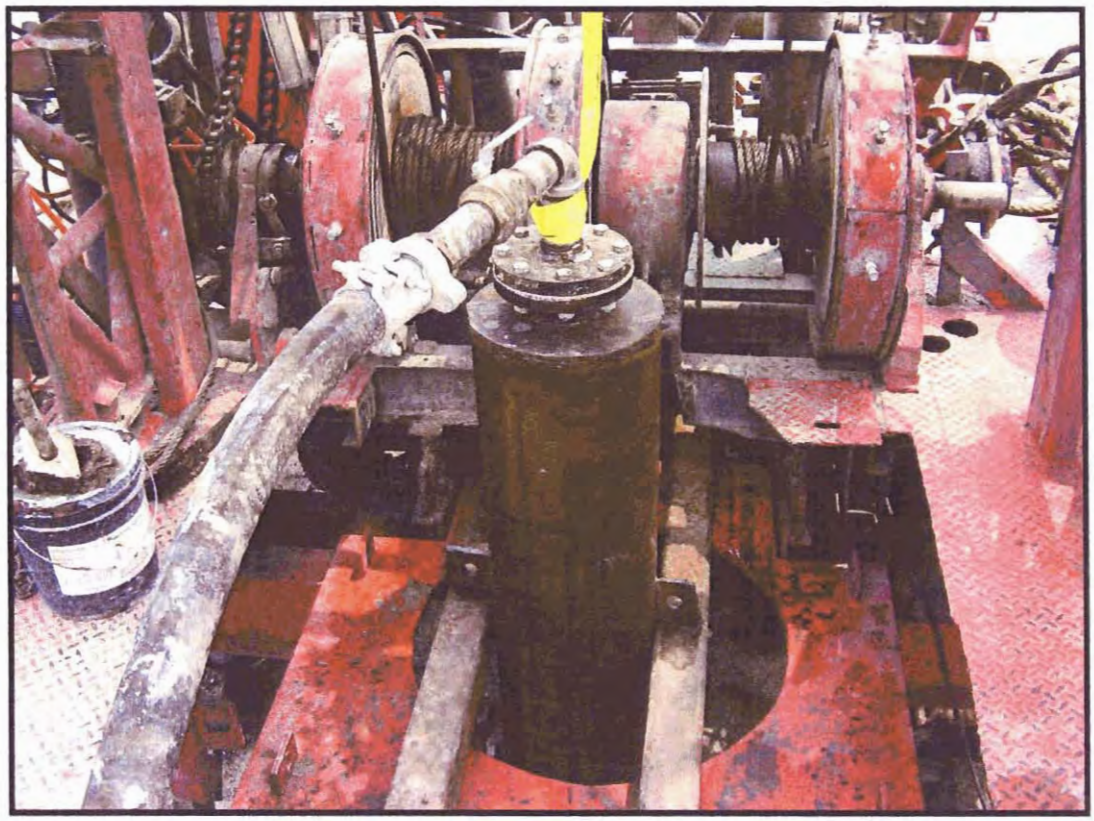

Figure 11 – Pressure Header on 12-inch Steel Casing for Grouting

Figure 12 – Pressure Control Device on 12-inch Steel Casing

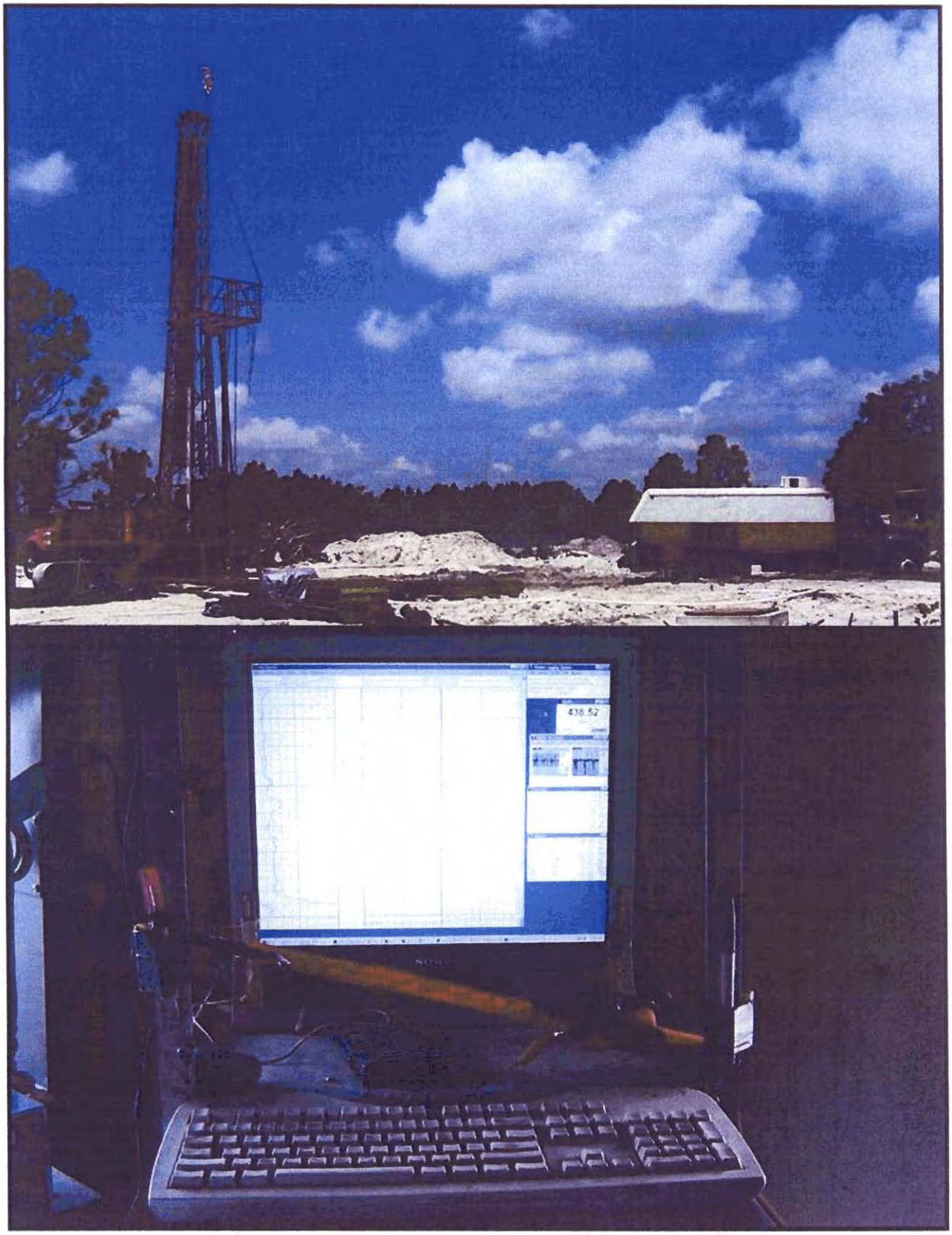

Figure 13 – Geophysical Logging of 12-inch Pilot Hole

Figure 14 – Cement Baskets Attached to Base of 6-Inch PVC Casing

Figure 15 – Installing First Section of 6-inch PVC Casing (note baskets attached)

Figure 16 – Installing Centralizers on 6-inch PVC Casing

Figure 17 – Installation Set Up of 6-inch PVC Casing

Figure 18 – Grout Mixing and Grout Pump for 6-inch PVC Casing

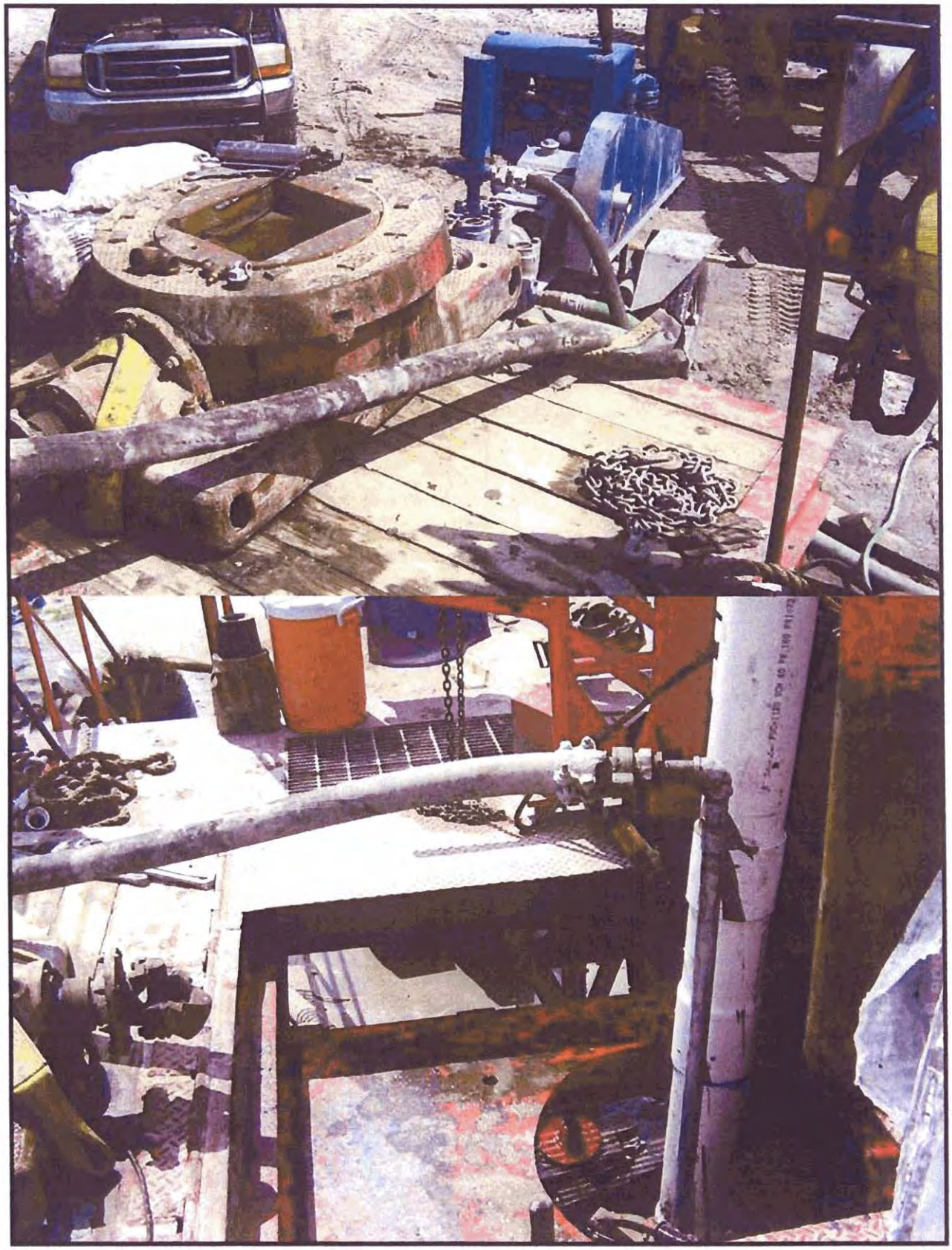

Figure 19 – Grout Pump, Discharge Hose, and Tremie Pipe

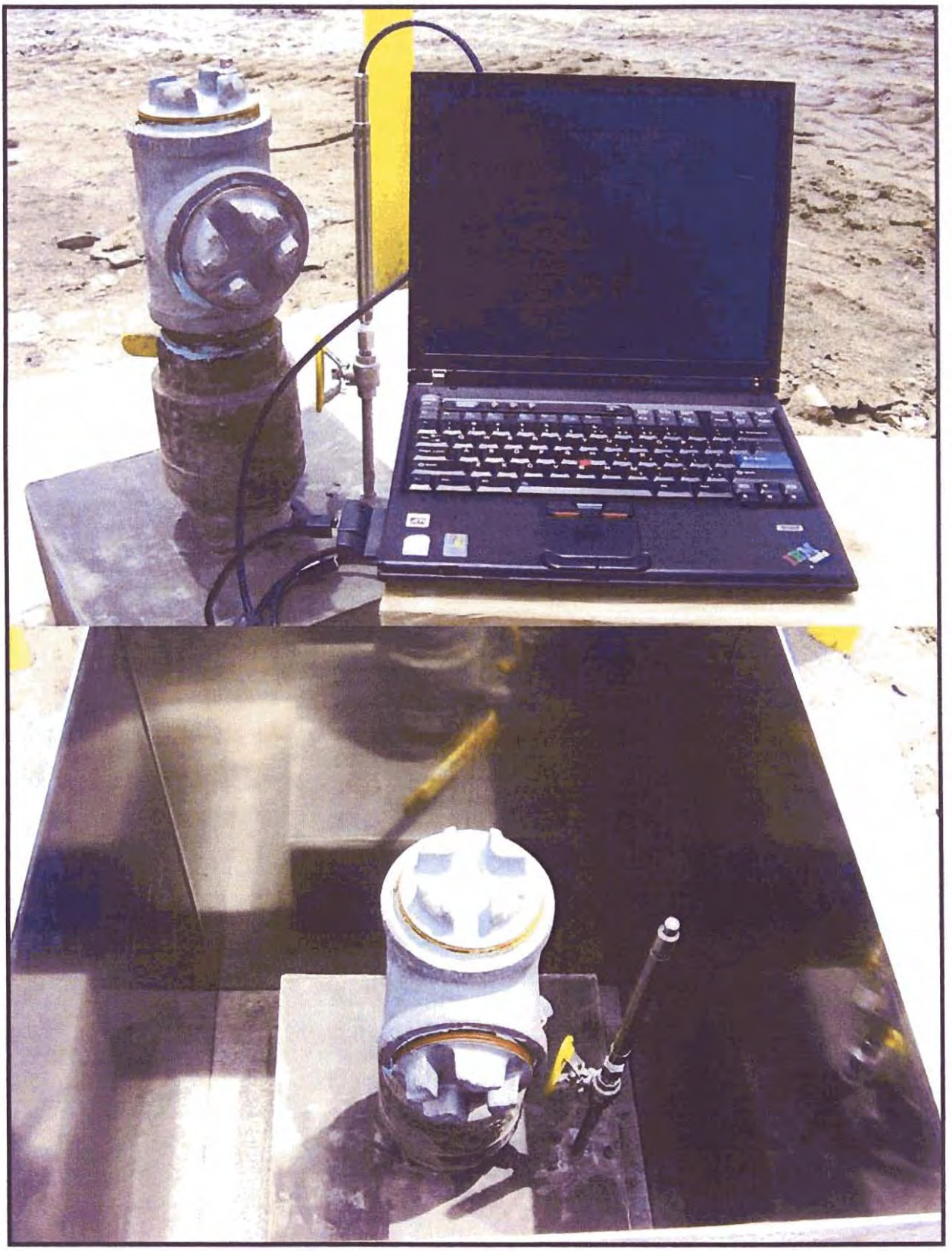

Figure 20 – Wellhead with 4-inch Ball Valve and Pressure Transducer

Figure 21 – Wellhead Enclosure and Concrete Slab

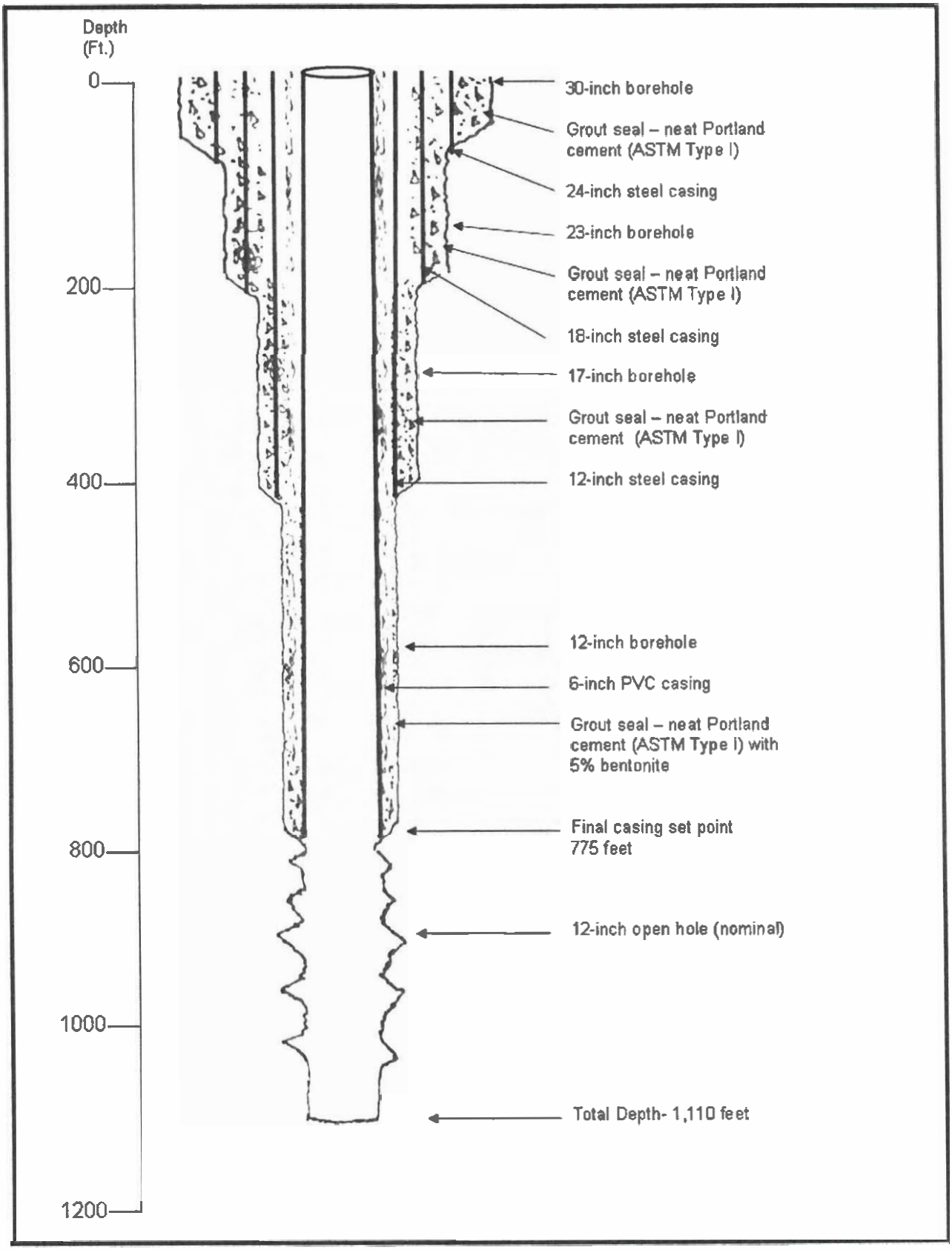

Figure 22 – Exploratory Test Well ETW-1 Construction Diagram

3.0 Stratigraphic and Hydrogeologic Framework

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3.0 Stratigraphic and Hydrogeologic Framework

3.1 Stratigraphy

CCI collected geologic formation samples (drill cuttings) during the drilling of the exploratory test well and separated them based on their dominant lithologic or textural characteristics and to a lesser degree color. Samples were collected every 10 feet or at each apparent formation change. Samples from 187 feet to 1,110 BLS were stored in lithologic sample bags and kept for future study. **Figure 23** shows the samples collected during the drilling operations and the field microscope used for lithologic analysis and interpretation. **Figure 24** shows the generalized geology and hydrogeology of Southwestern Florida. **Appendix D** contains the lithologic log developed from the drill cuttings.

Pliocene-Pleistocene Series

The undifferentiated sediments that comprise the Pliocene-Pleistocene age sediments occur from land surface to a depth of 58 feet BLS. These sediments generally consist of yellowish-grey to greenish-grey clay with varying amounts of shell and sand.

Tamiami Formation

The interval from 58 feet to 186 feet BLS comprises the Tamiami Formation. The Tamiami Formation consists of materials ranging from a light greenish-grey micritic limestone occurring from 70 to 105 feet BLS, to greenish-grey clayey and shelly sands occurring from 105 to 162 feet BLS, to the calcareous sandstone that marks the lower portion of the Tamiami Formation occurring from 162 to 186 feet BLS.

Miocene-Pliocene Series

Hawthorne Group

The Hawthorne Group is composed of a heterogeneous mix of siliclastics, silt, clay, calcareous clay, quartz sand, phosphate, limestone, and dolomite. The group is subdivided into two lithostratigraphic units (Scott, 1988). The upper unit is composed of predominantly siliclastic material of the Peace River Formation. The lower unit is composed principally of interbedded siliclastics and carbonates of the Arcadia Formation (Scott, 1988). At this site, the Hawthorne Group is relatively thick, occurring from 186 feet to 780 feet BLS.

Peace River Formation

The top of the Peace River Formation at this site is recognized as a light grey to olive grey sandy, shelly clay with minor phosphate content. The Peace River Formation extends from 186 feet to approximately 270 feet BLS where a light grey to olive grey, phosphatic sand is documented. The lithology at 270 feet BLS combined with the noted peak in the natural gamma ray log at a depth of 280 feet BLS appears to denote the top of the Arcadia Formation (Missimer, 2002).

Arcadia Formation

The Arcadia Formation is generally separated from the Peace River Formation by a lithologic change from predominantly unconsolidated siliclastics to mixed-siliclastics-carbonate sediments (Bennett, 2003).

The lithology encountered at 270 feet BLS was a light grey to olive grey, phosphatic sand with varying amounts of silt, shell and clay continued until a depth of 310 feet. A

very pale orange limestone containing sand and phosphates was found from 310 to 325 feet BLS. Similar lithology consisting of interbedded sandy, phosphatic clay and thin beds of slightly indurated carbonate were found between 325 feet and 480 feet BLS. At 480 feet BLS, a light grey limestone/dolostone was documented. The dolostone material continued until 520 feet BLS. The lithology below 520 feet BLS changes to a more unconsolidated siliclastic sequence composed of phosphatic clays with varying amounts of sand and thin layers of non-indurated carbonates.

The lower portion of the Arcadia Formation is also known as the basal Hawthorne Unit and consists of more carbonate material and less siliclastic material. A series of sediments known as the "marker unit" defines the top of the basal Hawthorne unit (Reese, 2000). The top of the marker unit is marked by a series of high gamma ray peaks. At this site, the top of the marker unit appears to be at 540 feet BLS based on the lithology and the two gamma ray peaks seen at approximately 540 feet and 600 feet BLS. These peaks document thin beds with elevated phosphate content. Between these intervals, the composition of the basal Hawthorne generally consists of limestone containing low phosphatic and quartz sand content.

Generally, the lithology below the marker unit is variable. At this site, the lithology of the lower part of the basal Hawthorne unit consists of light grey, sandy limestone with varying amount of phosphates. These sediments are documented from 600 feet to approximately 710 feet BLS where a dolomitic limestone or dolostone is documented. The dolomitic lithology continues from 710 feet to 750 feet BLS. At 750 feet BLS, a medium-grey, friable quartz-rich, phosphatic sandstone was documented. This calcareous sandstone unit was documented from 750 feet to 810 feet BLS. A noted spike in the gamma ray log from 750 feet to 770 feet BLS combined with the lithologic change to a calcareous sandstone from 750 feet to 810 feet BLS indicates the base of the Hawthorne Formation.

Oligocene Series

The Suwannee Limestone denotes the first occurrence of Oligocene age material. The dominant lithology of the Suwannee Limestone is a pale orange, fossiliferous limestone with minor amounts of quartz sand and a significantly lower phosphatic content. The top of the Suwannee Limestone is often recognized by a large decrease in the gamma ray response as compared to the basal Hawthorne. At this site, the gamma ray log documents this decrease at 770 to 780 feet BLS.

Although this gamma ray decrease often marks the top of the Suwannee, lithologic samples collected during drilling suggest that the calcareous sandstone at the base of the Hawthorne Formation occurs from 750 feet to 810 feet BLS. Therefore, the top of the Suwannee Limestone at this location is placed at 810 feet BLS.

The pale orange to tan, fossiliferous limestone documented at 810 feet continues to 910 feet BLS. At 910 feet BLS, a very fine grained quartz sand and clay was documented. This unconsolidated siliclastic material continues to 925 feet BLS. This layer of unconsolidated material denotes a transition from a more pure carbonate material seen in the upper portion of the Suwannee Limestone to interbedding of carbonates and siliclastic materials with increased phosphatic content in the lower portion of the

Suwannee Limestone. The increased gamma ray spikes seen in the gamma ray log from 920 feet BLS to the base of the open hole at 1,110 feet BLS supports transition.

It does not appear that the Ocala Formation was encountered in this well based on a lack of key index fossils such as the large benthic foraminifera (Operculinoids, Camerina, or Lepidocyclina) and the lack of gamma ray attenuation similar to the top of the Suwannee Limestone.

3.2 Hydrogeology

Three major aquifer systems underlie this site; the surficial aquifer system, the intermediate aquifer system, and the Floridan aquifer system. The upper Floridan Aquifer is the primary focus of this exploratory well program. These aquifer systems consist of discrete aquifers separated by low permeability sediments which act as confining units to varying degrees.

Surficial Aquifer System

The surficial aquifer system at this location is comprised of three main producing intervals separated by low permeability sediments that occur from land surface to a depth of 186 feet BLS. An unconfined aquifer is present from land surface to 25 feet BLS where a zone of lost circulation has been documented at its base. An interval primarily consisting of a yellowish-grey clay is present from 25 feet to 70 feet BLS.

A second producing interval is documented from 75 feet to 105 feet BLS where a moderately indurated shelly sandstone is found. This second producing interval is followed by another sequence of low permeability sediments consisting primarily of a olive grey, sandy clay is documented from 105 feet to 162 feet BLS.

A lithologic change from the unconsolidated siliclastics to a moderately indurated sandy limestone or calcareous sandstone occurs from 162 feet to 186 feet BLS. This sequence is part of the producing interval of the Tamiami Formation which is at the base of the surficial aquifer system.

Intermediate Aquifer System

Below the surficial aquifer system is the intermediate aquifer system which extends from 186 feet to approximately 700 feet BLS. The lower portion of the Tamiami Formation and the sediments of the Hawthorne Formation act as confining units separating the surficial aquifer system and the Floridan aquifer system. Lithologic samples obtained from the drilling of ETW-1 indicate that the Hawthorne Formation sediments consist of unconsolidated shell beds, clay beds, quartz-phosphate sand units, and some low to moderately indurated carbonates.

The intermediate aquifer in Southwest Florida contains multiple producing zones separated by low permeability, inter-aquifer confining units (Bennett, 2003). At this site, it appears some of the producing intervals in the intermediate aquifer are small and may not be extensive. The top of the intermediate aquifer system is noted by low permeability sediments including silts and clays from 186 feet to 310 feet BLS. Based on well cuttings, a minor producing interval appears from 310 feet to 325 feet BLS.

Below this interval a thick sequence of low permeability sediments occurs from 325 feet to 480 feet BLS. Another producing interval was documented from 480 feet to 510 feet BLS where a light grey, sandy phosphatic limestone was documented. This is likely what other refer to as the mid-Hawthorne aquifer. At this site, this producing interval appears to be limited in both thickness and in capacity based on lithology. Below 480 feet, another sequence of low permeability sediments interbedded with thin carbonate units extend from 480 feet to 600 feet BLS.

Floridan Aquifer System

The top of the Floridan aquifer system coincides with the top of a vertically continuous permeable carbonate sequence as defined by the Southeastern Geological Society AdHoc Committee on the Florida Hydrostratigraphic Unit Definition (1986).

The upper Floridan Aquifer consists of thin, highly permeable water-bearing intervals interspersed with thick sequences of low permeability sediments including the basal Hawthorne (base of Arcadia Formation), the Suwannee and Ocala Limestone's, and the Avon Park Formation. At this site, the top of the Floridan aquifer system occurs at a depth of 660 feet BLS, which coincides with the top of the basal Hawthorne unit or lower portion of the Arcadia Formation.

On a regional scale, two zones of high permeability exist within the upper Floridan Aquifer and typically lie between 700 and 1,300 feet BLS (Bennett, 2003). The most transmissive parts usually occur near the top coincident with the unconformities between the Miocene and Oligocene-aged formations (Hawthorne-Suwannee) and also the contact between the Suwannee and Ocala Limestone's (Miller, 1986).

At this site, only the upper regional producing interval was encountered. Within the upper producing interval, the first productive zone appears to lie between 660 and 920 feet and includes the basal Hawthorne unit and the upper portion of the Suwannee Limestone. This unit generally consists of a light grey to pale orange, moderately indurated limestone.

The contact between the basal Hawthorne unit and the Suwannee Limestone documented at 780 feet to 800 feet BLS indicates a solution feature as seen on the caliper log. The flow meter log shows a positive deflection at 780 feet indicates increased water production at this depth. A second significant solution feature documented by the caliper log between 890 and 910 feet BLS also coincides with a positive deflection on the flow meter log indicating another increased producing interval. A third solution feature documented by the caliper log at 1,030 feet BLS also coincides with a positive deflection on the flow meter log indicating another increased producing interval.

CCI selected the interval from 770 feet to 1,110 feet BLS for long term monitoring and hydraulic testing based on analysis of drilling, geophysical, and lithologic data. Data collected from future pilot holes and production wells will be used to refine the specific interval that will be targeted for full-scale production purposes.

Figure 23 – Lithologic Samples and Field Microscope

Series		Geologic Unit		Approximate thickness (feet)	Lithology	Hydrogeologic unit		Approximate thickness (feet)
HOLOCENE TO PLIOCENE		UNDIFFERENTIATED		0-70	Quartz sand, silt, clay, and shell	SURFICIAL AQUIFER SYSTEM	WATER-TABLE AQUIFER	20 - 100
		TAMIAMI FORMATION		0-175	Silt, sandy clay, micritic limestone, sandy, shelly limestone, calcereous sandstone, and quartz sand		CONFINING BEDS	0-60
							LOWER TAMIAMI AQUIFER	25-160
MIOCENE AND LATE OLIGOCENE		HAWTHORN GROUP	PEACE RIVER FORMATION	50-400	Interbedded sand, silt, gravel, clay, carbonate, and phosphatic sand	INTERMEDIATE AQUIFER SYSTEM	CONFINING UNIT	20-100
							SANDSTONE AQUIFER	0 - 100
							CONFINING UNIT	10-250
							MID-HAWTHORN AQUIFER	0-130
			ARCADIA FORMATION	400-550	Sandy limestone, shell beds, dolomite, phosphatic sand and carbonate, sand, silt, and clay		CONFINING UNIT	100-400
EARLY OLIGOCENE		SUWANNEE LIMESTONE		0-600	Fossiliferous, calcarenitic limestone	FLORIDAN AQUIFER SYSTEM	LOWER HAWTHORN PRODUCING ZONE	0-300
EOCENE	LATE	OCALA LIMESTONE		0-400	Chalky to fossiliferous, calcarenitic limestone		UPPER FLORIDAN AQUIFER	700-1,200
	MIDDLE	AVON PARK FORMATION		900-1,200	Fine-grained, micritic to fossiliferous limestone, dolomitic limestone, dense dolomite, and gypsum		MIDDLE CONFINING UNIT	500-800
	EARLY	?		?				
		OLDSMAR FORMATION		800-1,400			LOWER FLORIDAN AQUIFER / BOULDER ZONE	1,400-1,800 / 400
PALEOCENE		CEDAR KEYS FORMATION		500-700	Dolomite and dolomitic limestone			
				1,200 ?	Massive anhydrite beds		SUB-FLORIDAN CONFINING UNIT	1,200?

Figure 24 – Generalized Geology and Hydrogeology of Southwestern Florida (from Reese, 2000)

4.0 Hydrogeologic Testing

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4.0 Hydrogeologic Testing

CCI collected data during the drilling program to determine the lithologic, hydraulic, and water quality characteristics of the Upper Floridan Aquifer. These data were used to determine the final design criteria of the test well, select casing set point, and assist with the design of the production wells planned for the near future.

4.1 Geophysical Logging

Geophysical logging was conducted on the pilot hole at various stages of the drilling program. The geophysical logs provide a continuous record of the physical properties of the subsurface formations and the fluid within those formations. These logs were used to assist in the interpretation of lithology, identification of producing and confining intervals, and determine the fluid conductivity profile of the formation fluids.

The geophysical logging contractors downloaded data directly from the on site logging processor onto diskettes or CDs. MV Geophysical Surveys, Inc. (MVGS) and Aquifer Data Systems, Inc. (ADS) provided geophysical logging services. **Table 4-1** is a summary of the geophysical logging program conducted at this site. **Figures 3 and 13** show the geophysical logging operations.

Table 4-1 – Summary of Geophysical Logging Operations

Date	Logging Contractor	Logged Interval (Feet BLS)	Caliper	Gamma Ray	Dual Induction (LL3/SP)	Flow Meter	Temp	Fluid Cond.	Video
05/10/07	ADS	0-420	X	X					
06/05/07	MVGS	0-1110	X	X	X	X	X	X	X

The geophysical logging conducted on May 10, 2007 by ADS was to assist with determining lithology and to confirm that the borehole diameter was sufficient to allow installation and grouting of the 18-inch steel casing. CCI wanted to review and interpret the gamma ray log to assist with determining if the borehole had reached the top of the marker unit of the basal Hawthorne unit (lower portion of the Arcadia Formation). The caliper log was conducted to ensure that the borehole remained open and would allow sufficient space to install and grout the 18-inch steel casing with a minimum of a 2-inch annulus.

The results of the May 10, 2007 logging indicated that the borehole had not yet reached the top of the marker unit of the basal Hawthorne and that the borehole would allow for proper casing installation and grouting.

The geophysical logging conducted on June 5, 2007 by MVGS was to provide a continuous geophysical record of the entire borehole. A down-hole TV survey was also conducted on June 5, 2007 by MVGS. The TV survey was intended to be used to observe borehole features which would assist with selecting a casing setting depth and locating producing intervals. **Appendix B** contains the geophysical logging output from the various log runs performed by MVGS on June 5, 2007. **Appendix C** contains a copy of the TV video on DVD.

4.0 Hydrogeologic Testing

Key features of the intermediate and Floridan aquifer systems documented from the geophysical logging operations conducted by MVGS on June 5, 2007 include the following:

Caliper Log

- A solution feature in the basal Hawthorne unit can be seen from 610 feet to 640 feet BLS.
- A second, smaller solution feature in the basal Hawthorne unit is observed from 680 feet to 700 feet BLS
- A significant solution feature is observed at 780 feet to 800 feet BLS which is interpreted as the unconformity contact between the basal Hawthorne unit and the Suwannee Limestone.
- A second significant solution feature is observed in the Suwannee Limestone is seen from 890 feet to 910 feet BLS.
- The caliper log confirms the depth of a zone of unconsolidated siliclastics within the Suwannee Limestone at 920 feet to 930 feet BLS.
- A small solution feature in the lower portion of the Suwannee Limestone is observed at 1,030 feet BLS.

Gamma Ray Log

- The small peak on the gamma ray log at 280 feet BLS is likely the contact between the Peace River Formation and the Arcadia Formation of the Hawthorne Group.
- The gamma ray peaks seen at 540 feet, 600 feet, and 640 feet BLS are interpreted as the "marker unit" which identifies the top of the basal Hawthorne unit (or Lower portion of the Arcadia Formation).
- The gamma ray peak and relatively rapid attenuation in gamma ray activity documented at 750 feet to 770 feet BLS marks the contact between the basal Hawthorne unit and the top of the Suwannee Limestone.
- The gamma ray peak noted at 920 feet BLS and subsequent peaks noted from 920 feet to total depth are interpreted as the transition from the upper part of the Suwannee Limestone to the lower portion of the Suwannee Limestone where more siliclastic an phosphatic materials exist.

Fluid Conductivity & Temperature Logs

- The fluid conductivity log documents a general trend of increasing conductivity with depth which correlates to the water quality of the fluids encountered. Higher conductance is tied to increasing chloride concentrations of the formation waters.
- The fluid conductivity profile that shows a shift at 670 feet BLS, combined with the temperature shift at the same depth are interpreted as denoting the top of the producing interval of the basal Hawthorne unit.
- A similar increase in the fluid conductivity and temperature logs are documented at 720 feet BLS denoting increasing chloride concentrations.
- The temperature fluctuations (delta T) documented from 790 feet to 820 feet BLS are interpreted as zones of increased flow and permeability. These features, which correlate with the caliper log and gamma ray log, document the

unconformity known to occur at the contact between the basal Hawthorne unit and Suwannee Limestone.
- The Delta T and shift in the fluid conductivity documented at 860 feet BLS are interpreted as zones of increased flow and permeability.

Flow Meter Log
- The positive deflections observed in the flow meter log shows two zones of increased water production. These zones correspond to the temperature log and caliper log which show solution features at 780 feet to 800 feet BLS and again at 890 feet to 910 feet BLS.
- A general positive deflection of the flow meter log observed from 790 feet to 900 feet BLS indicate that this appears to be a sequence of higher production relative to the zone above and below this.
- A second trend of positive deflection on the flow meter log is observed from 1,010 feet to 1,080 feet BLS also indicates a sequence of higher production.

Borehole TV Survey
- The TV survey documented the bottom of the 12-inch casing at 411 feet BLS. The grout seal at the base of the 12-inch casing appeared to be in good condition.
- The clarity of the TV survey was poor due to production of a very fine sand at 915 feet to 920 feet BLS. Visual observations became more difficult with depth.
- The borehole wall from 765 feet to 775 feet showed no large karst solution features, which assisted in selecting a final casing setting depth of 770 feet BLS.
- Small to medium sized solution features (cavities) were noted between 780 feet and 917 feet from close observation of the TV survey.
- The geophysical logging contractor did not want to run a TV camera below 917 feet BLS due to the lack of visibility caused by the flowing sands at this depth.

4.2 Water Quality Sampling and Analysis

Field Water Quality

CCI began collecting field water quality samples at 650 feet BLS once the drilling method changed from mud rotary to reverse air circulation. Samples were collected every 30 feet at each drill rod change. Additionally, field water quality samples were collected after the well was completed and developed. The water quality data parameters included pH, temperature, conductivity, total dissolved solids (TDS), chlorides, and total Iron. **Table 4-2** summarizes the results of field water quality sampling. As can be seen from this table, a general trend of increasing conductivity, TDS, and chlorides was documented. **Figure 25** shows the field sampling equipment used for field water quality testing.

4.0 Hydrogeologic Testing

Table 4-2 – Summary of Field Water Quality

Depth (Feet BLS)	Date	Parameters					
		Conductivity (uS)	TDS (ppm)	Temp (°F)	pH	Chlorides (mg/L)	Total Iron (mg/L)
650	5/24/07	1,962	926	84.2	6.0-6.5	495	0.32
680	5/24/07	3,780	1,860	84.5	6.0-6.5	598	0.05
710	5/24/07	4,020	1,980	84.2	~6.0	739	NC
740	5/24/07	4,280	2,140	82.9	~6.0	739	NC
770	5/25/07	4,430	2,220	83.7	6.5	667	0.05
800	5/25/07	4,490	2,250	80.8	6.5	598	0.48
830	5/25/07	4,550	2,280	81.7	6.5	897	0.90
860	5/25/07	4,840	2,430	80.6	6.5	983	NC
890	5/25/07	4,990	2,480	82.4	6.5	983	0.08
924	5/29/07	4,950	2,460	84.0	6.0-6.5	923	1.98
954	5/29/07	5,300	2,670	85.8	6.0-6.5	1,075	NC
985	5/29/07	5,260	2,630	86.0	6.0-6.5	1,075	0.85
1,016	5/29/07	5,280	2,660	85.1	6.5	1,075	0.35
1,048	5/29/07	5,480	2,730	84.6	6.5	1,075	0.25
1,080	5/29/07	5,740	2,880	84.6	6.5	1,172	0.49
1,110	5/30/07	5,670	2,830	82.1	6.5	1,172	0.13
Finished Well	6/29/07	4,760	2,390	88.3	~6.0	1,172	0.27
Finished Well	7/14/07	4,780	2,400	88.5	~6.0	1,275	0.19

Notes:
NC – Not Collected
uS – micro Siemens
ppm – parts per million
°F – Degrees Fahrenheit
mg/L – milligrams per liter

4.0 Hydrogeologic Testing

Figure 25 – Field Water Quality Testing Equipment

Laboratory Sampling and Analysis

CCI collected water samples for laboratory analysis on July 14, 2007 at the conclusion of well construction, development, and initial specific capacity testing. The samples included the analytical parameters that are recommended in ASTM D4195 – Water Analysis for Reverse Osmosis Application (ASTM, 2003). The samples were delivered and analyzed by US Biosystems, Inc. in Boca Raton, Florida. The results of the laboratory analyses are summarized in **Table 4-3**. A complete copy of the laboratory analyses and chain of custody are contained in **Appendix E**.

The results from the laboratory analyses will assist in the design of the planned Reverse Osmosis (RO) Water Treatment Plant (WTP) by providing a comprehensive analysis of the potential feed water. The performance of RO membranes is strongly influenced by the chemical composition of the feed water (raw ground water). Salt rejection is dependent upon the type, ratio, and total sum of specific ions. The data provided in this report will be important for determining salt rejection and permeate flow projections of an RO system using the upper Floridan Aquifer ground water.

4.0 Hydrogeologic Testing

Table 4-3 – Summary of Laboratory Analytical Data

Parameter	Result (mg/L)*	Parameter	Result (mg/L)*
Hydrogen Sulfide (H_2S)	5.20	Aluminum (Total)	0.255
Total Organic Carbon	2.12	Aluminum (Dissolved)	<0.1
Carbon Dioxide(CO_2)	4.1 (Q)	Barium	0.0288
pH	7.66	Calcium	148
Turbidity	2.0 NTU	Iron (Total)	0.184
Total Dissolved Solids	2,800	Iron (Dissolved)	<0.20
Carbonate (CO_3)	<2.0	Iron (Ferrous)	<0.10 (Q)
Bicarbonate (HCO_3)	148	Silica ((SiO_2)Total)	18.6
Chlorides	1,360	Silica ((SiO_2)Dissolved)	16.1
Fluoride	0.468	Manganese (Total)	<0.01
Sulfate (SO_4)	436	Manganese (Dissolved)	<0.01
Phosphate (PO_4)	0.0177	Magnesium	143
Chlorine	<0.1 (Q)	Potassium	31.4
Nitrate (NO_3)	<0.05	Sodium	581
		Strontium	17.2

Notes:
* - Results in milligram per liter (mg/L), unless otherwise noted.
NTU – Nephelometric Turbidity Units
Q – Holding time exceeded

4.3 Specific Capacity Testing

Step testing was performed on the completed well to determine the specific capacity of the well. Step testing was conducted on July 15, 2007. The specific capacity data summarized in **Table 4-4** were calculated at the end of the step. The initial step was conducted by removing the stand pipe from the top of the well and allowing the well to flow under natural artesian conditions without pumping. Subsequent steps were conducted by pumping with a gasoline-driven 5-inch by 6-inch centrifugal pump with a 40 foot long, 4-inch PVC drop pipe installed in the top of the well. **Figures 26 & 27** show step testing operations.

Table 4-4 – Summary of Step Testing Data

Parameter	Step No. 1*	Step No. 2	Step No.3
Flow Rate (GPM)	150	275	330
Static Water Level (ft)	5.65	5.65	5.65
Pumping Water Level (ft)	18.10	35.50	46.25
Drawdown (ft)	12.45	29.85	40.60
Specific Capacity (GPM/ft)	12.05	9.20	8.13

Note: * - manually-calculated artesian flow rate at top of 6-inch casing without pumping

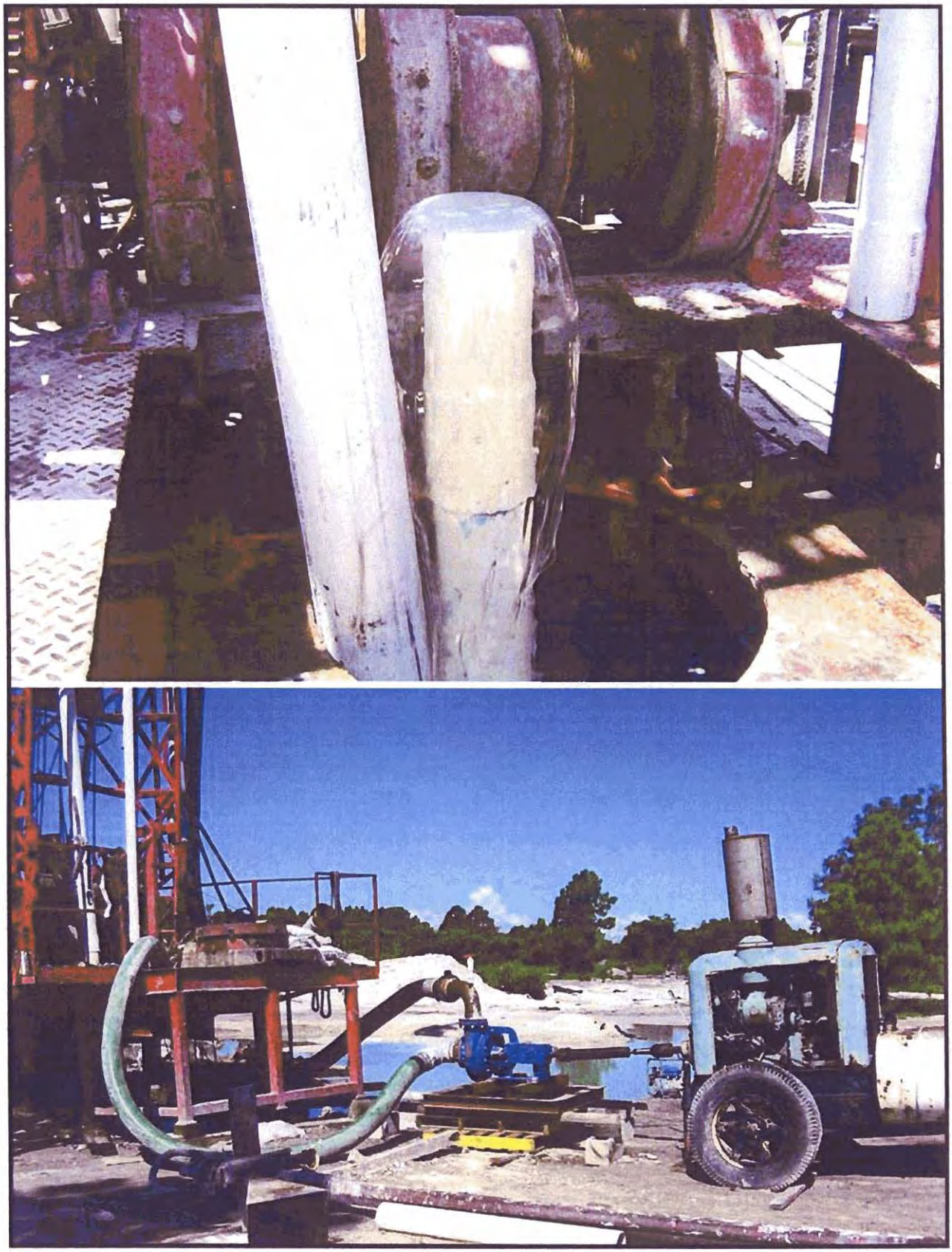

Figure 26 – Artesian Flow and Step Testing Set Up

Figure 27 – Step Testing Drop Pipe and Discharge Assembly

5.0 Conclusions and Recommendations

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5.0 Conclusions and Recommendations

The following conclusions are made based on the drilling and testing of the exploratory test well:

- The purpose of this study was to investigate the potential use of the brackish waters in the mid Hawthorne aquifer, the lower Hawthorne aquifer, and the upper Floridan aquifer as an Alternate Water Source.
- The site is underlain by three primary aquifer systems; the surficial aquifer system, the intermediate (Sandstone) aquifer system, and the Floridan aquifer system.
- The lithology beneath the site is a thick sequence of siliclastic and carbonate formations dominated by unconsolidated siliclastic materials, sandstone, limestone, and dolomitic limestone (dolostone) representing the three aquifer systems.
- The surficial aquifer system includes lithologic material from land surface to a depth of 186 feet at the base of the lower sandstone unit of the Tamiami Formation.
- The intermediate aquifer system occurs at the base of the surficial aquifer system at 186 feet and includes the Peace River and Arcadia Formations which are comprised of a mixture of siliclastics sediments and carbonate sequences that form the mid and lower Hawthorne aquifers to a depth of 780 feet.
- The upper Floridan aquifer system includes the basal Hawthorne unit, Suwannee Limestone, the Ocala Limestone, and the Avon Park Formation. The exploratory test well penetrated the basal Hawthorne unit and Suwannee Limestone.
- The upper Floridan aquifer should serve as a reliable AWS of brackish ground water for use in an RO WTP.
- Water quality data from laboratory analysis of the ground water samples indicates that the water is suitable for use as the feed water for an RO WTP.

The following recommendations are made based on the results of well construction and testing:

- The use of the Upper Floridan aquifer system as an AWS appears to be viable at this location.
- FGUA should include this target source of brackish water in their Water Use Permit as an AWS
- With concurrence from SFWMD, FGUA should proceed with the quantification phase of this effort. This would include:
    - Design of a full size test/production design, construction, and testing of a full-scale Test/Production well.
    - Development of an APT Plan which would include the Exploratory Test Well as an observation well and the test/production well as the pumped well. The existing monitoring well network would be proposed as Intermediate (Sandstone aquifer, both upper and lower producing zones) and water table aquifer observation wells for the APT.
    - Conduct an APT to determine aquifer characteristics for the target brackish water source.

5.0 Conclusions and Recommendations

  - Develop a ground water flow model to first design an AWS well field and second to determine the impact of ground water withdrawal utilizing the upper Floridan aquifer.
- Submit APT information and analyses, the ground water flow model and Impact Analysis and the well field design to SFWMD for review, revision and approval
- FGUA can proceed with well field and piping design, RO Water Treatment Plant, and concentrate disposal well design and permitting, once the SFWMD has approved the withdrawal.

6.0 References

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6.0 References

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ASTM, 2003. D 4195-88 Standard Guide for Water Analysis for Reverse Osmosis Application (Re-approved 2003), ASTM International, West Conshohocken, PA.

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Appendices

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Appendix A
Lee County Well Construction Permit and Well Completion Report

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Appendix A
Well Permit and Completion Report

LEE COUNTY
SOUTHWEST FLORIDA

LEE COUNTY
SOUTHWEST FLORIDA

Water Well

PERMIT

PERMIT NUMBER: WEL2007-01389 **ISSUED:** 03/23/07

Owner Name: FLORIDA GOVT UTILITY AUTHORITY **EXPIRES:** 09/23/07

Contractor: ERIC PARSONS

Description: 12" TEST WELL / COMMERCIAL - **WITH CONDITIONS

Job Address: 925 BOLIVIA DR

Date of Construction: Well Use: TEST Gallons/Minute:

Total Well Depth: Casing Depth: Sacks of Cement:

INSPECTION REQUEST LINE: (239) 338-2138

Notation- All Permits are CALLED IN and/or CANCELED by PERMIT (#) only

SPECIAL CONDITIONS REQUIRED (as summarized):

1 MUST CALL ONE HR (1-HR) PRIOR TO CASING SET AND/OR GROUTING
2 ALL CASING SET & GROUT MUST BE WITNESSED BY A LEE COUNTY WELL INSPECTOR.
3. CALL 849-5823 OR 848-0228
4. No well construction performed after hours and/or weekends, except for emergency well. (Ref) Well Code 06-09, Appendix A, Section II – Well Construction. Drilling after regular work hours: "An after-hour inspection fee ($65.00 per hr) may be assessed for inspections performed outside normal working hours (7:00a.m. to 4:00p.m.) of county well inspectors."
5 TEST WELL MUST BE PLACED EITHER INTO PRODUCTION WITHIN 120 DAYS AND/OR PLUGGED
6 *COMPLETE COPY OF LC HEALTH DEPARTMENT PUBLIC WATER SUPPLY APPLICATION & SITE APPROVAL (*IF TO BE PLACED INTO PRODUCTION)
7

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY, AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

THIS PERMIT IS VOID IF THE FIRST INSPECTION IS NOT MADE WITHIN ONE (1) YEAR FROM THE DATE ISSUED.

THIS CARD MUST BE PLACED ON A BOARD AT EYE LEVEL SO IT CAN BE READ FROM STREET AND BE PROTECTED FROM THE WEATHER.

Lee County Well Completion Report

CONSTRUCTION PERMIT # WEL 2007 - 01389

Florida Governmental Utility Authority	925 Bolivia Drive		Lehigh Acres	Florida	33936
Owner	Site Address		City	State	Zip
	WL 1166	July 15, 2007	775	1,110	ETW-1
Contractor's Signature	Lee County License #	Completion Date	Casing Depth	Total Depth	Well #
Parsons Well Drilling, Inc.	WL 1166	7287			
Well Driller's Name	Lee County License #	State License #			

Strap # 2 3 | 4 5 | 2 7 | 0 1 | 0 0 0 0 0 . 3 0 A 0
(section) (township) (range) (unit) (block) (lot)

LOCATION: (Subdivision/Area) Lehigh Acres

TYPE OF WORK: Construct (☒) Repair (☐) Abandon (☐)
WELL USE: Private Well (☐) Public (☐) Monitor (☐) Test (☒)
Irrigation (☐) Fire Well (☐) Other (☒) exploratory
METHOD: Rotary with MUD (☒) or Air (☒) Cable Tool (☐) Jet (☐)
Casing Driven (☐) Other (☐) _____
STATIC WATER LEVEL +23 feet above Ft. below top of casing
PUMPING WATER LEVEL N/A Ft. after N/A Hrs at N/A GPM
PUMP SIZE N/A H.P. CAPACITY N/A GPM
PUMP TYPE N/A IN TAKE DEPTH N/A
CASING: Black Steel (☒) Galv. (☐) PVC (☒) Fiberglass (☐)
GROUT TYPE: Portland 47# (☐) 94# (☒) % Additives 5 %
Crumbles (☐) EZ Seal (☐) Other (☒) bentonite
SCREEN: Type N/A Slot Size N/A
Screened from 775 (ft) to 1,110 (open hole) (ft)
WATER: Clear (☒) Cloudy (☐) Iron (☐) Tannin (☐) Sulfur (☒)
Sandy (☒) Other (☒) TDS = 2,400 mg/L
Conductivity 4,780 uS Chlorides 1,360 mg/L

Grout	Casing & Screen		Depth (ft)	DRILL CUTTINGS LOG Examine cuttings every 20 ft or at formation changes give color, grain size & type of material Note cavities, depth to producing zone.
Thickness & Depth	Diameter & Depth		From - To	
5" & 41'	24"	41'	0-5	Sand, medium grain
5" & 188'	18"	188'	5-25	Limestone
5" & 412'	12"	412	25-58	Clay, sandy, grey to olive
5.5"&775'	6"	775	58-105	Sandstone/Limestone
			105-162	Sandy Clay, olive grey
			162-186	Sandstone
			186-480	Sandy Clay with limestone beds
			480-600	Limestone & sandy clay
# of Bags used			600-820	Limestone, grey - v. pale orange
900			820-1,110	Limestone w/ sand @ 910-925 ft.

Print Form

Appendix B
Geophysical Logs

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MV Geophysical

X-Y CALIPER GAMMA RAY LOG

Company Connect Consulting Inc.
Well ETW-1
Field Lehigh Acres
County Lee
State/Prv Florida

Company Connect Consulting Inc.
Well ETW-1
Field Lehigh Acres
County Lee
State/Prv Florida

Location: FGUA WTP Site 2 at Mirror Lake

Other Services: XY/GR.DIL FLOW,FCT DHTV

Permanent Datum	G.L.	Elevation ~31'	Elevation
Log Measured From	G.L.		K.B.
Drilling Measured From	G.L.		D.F.
			G.L. ~31'

Date	5-JUN-2007
Run Number	ONE
Depth Driller	1110'
Depth Logger	1097'
Bottom Logged Interval	1097'
Top Log Interval	SURFACE
Open Hole Size	11.875"
Type Fluid	H2O
Density / Viscosity	NA/NA
Max. Recorded Temp	see FCT log
Estimated Cement Top	NA
Time Well Ready	10:00 6/5/2007
Time Logger on Bottom	10:00 6/5/2007
Equipment Number	MVGS-1
Location	Ft. Myers
Recorded By	S.Miller
Witnessed By	J.McGrath (LSS) D.Robertson (CCI)

Borehole Record				Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To
ONE	11.875"	420'	1110'				
			1097' Logger				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	12"	12" ID	SURFACE	415'
Prot. String				408' Logger
Production String				
Liner				

Invoice No 2007150 5X * FINAL PRINT *

Comments

X-Y Caliper Arm Extensions: 33"

FUTURE CASING SIZE: 6.75"

MAIN PASS

MV Geophysical

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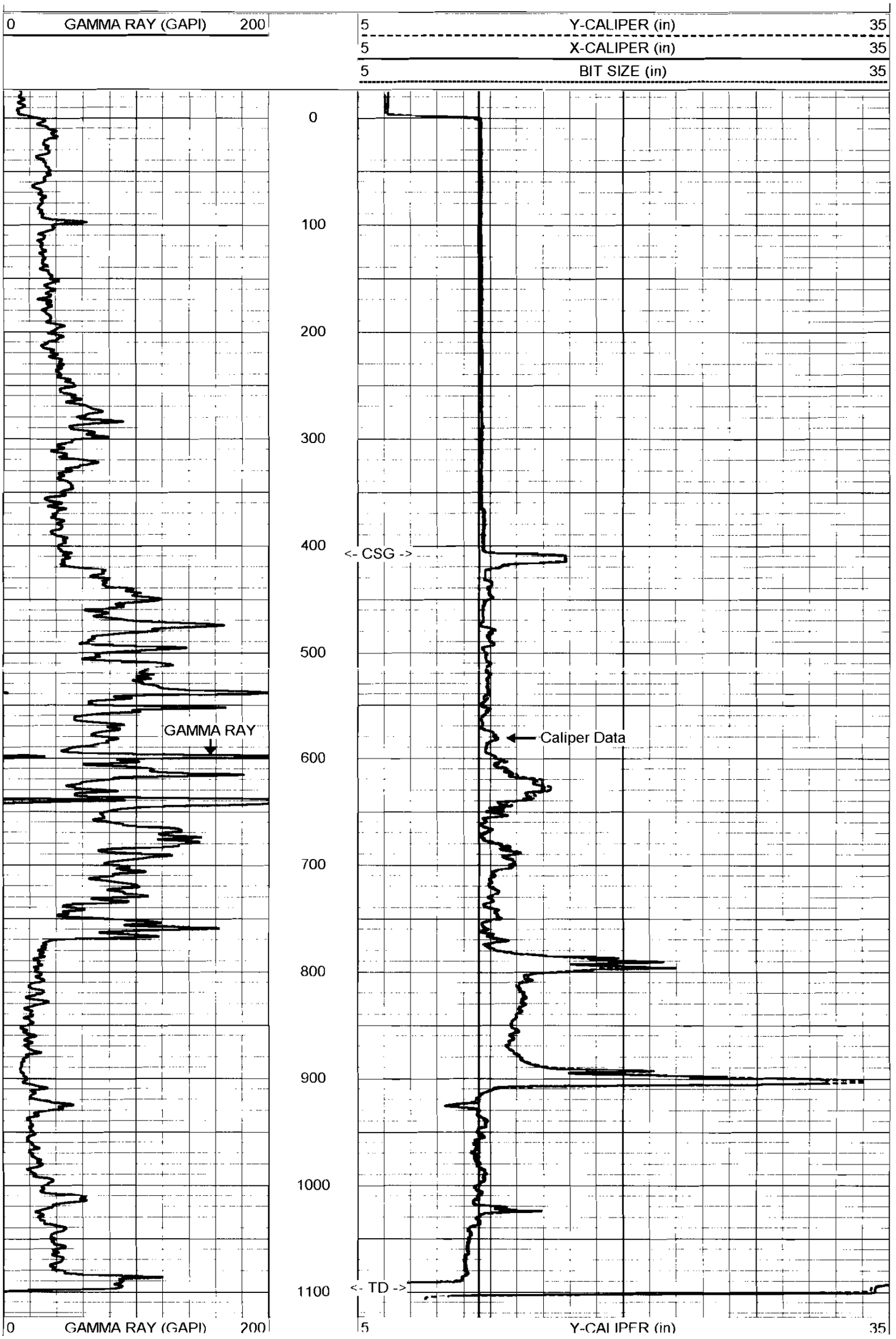
Charted by: Depth in Feet scaled 1:200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500
600
700
800
900
1000
1100
<- CSG ->
GAMMA RAY
Caliper Data
<- TD ->
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MV Geophysical

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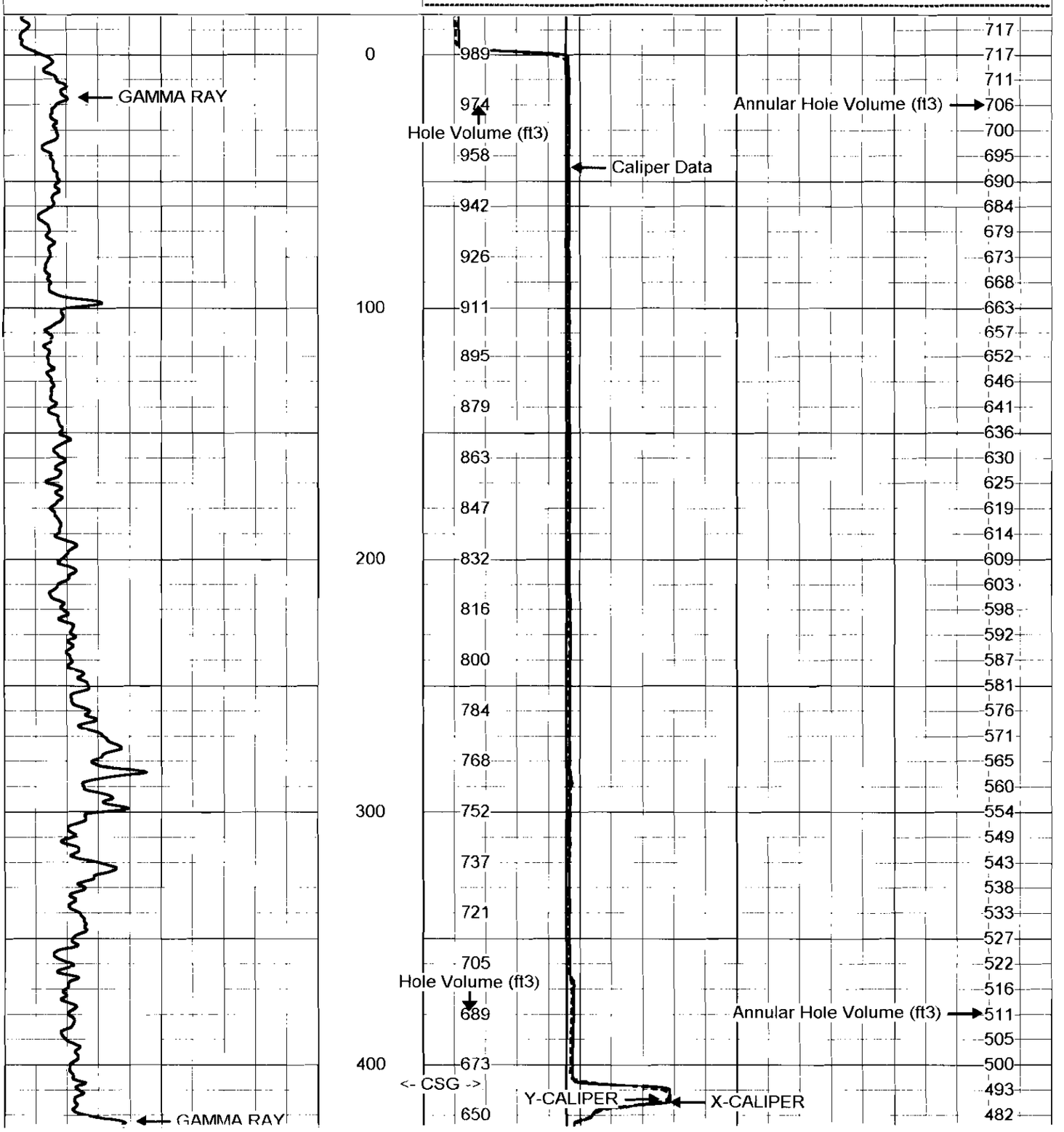

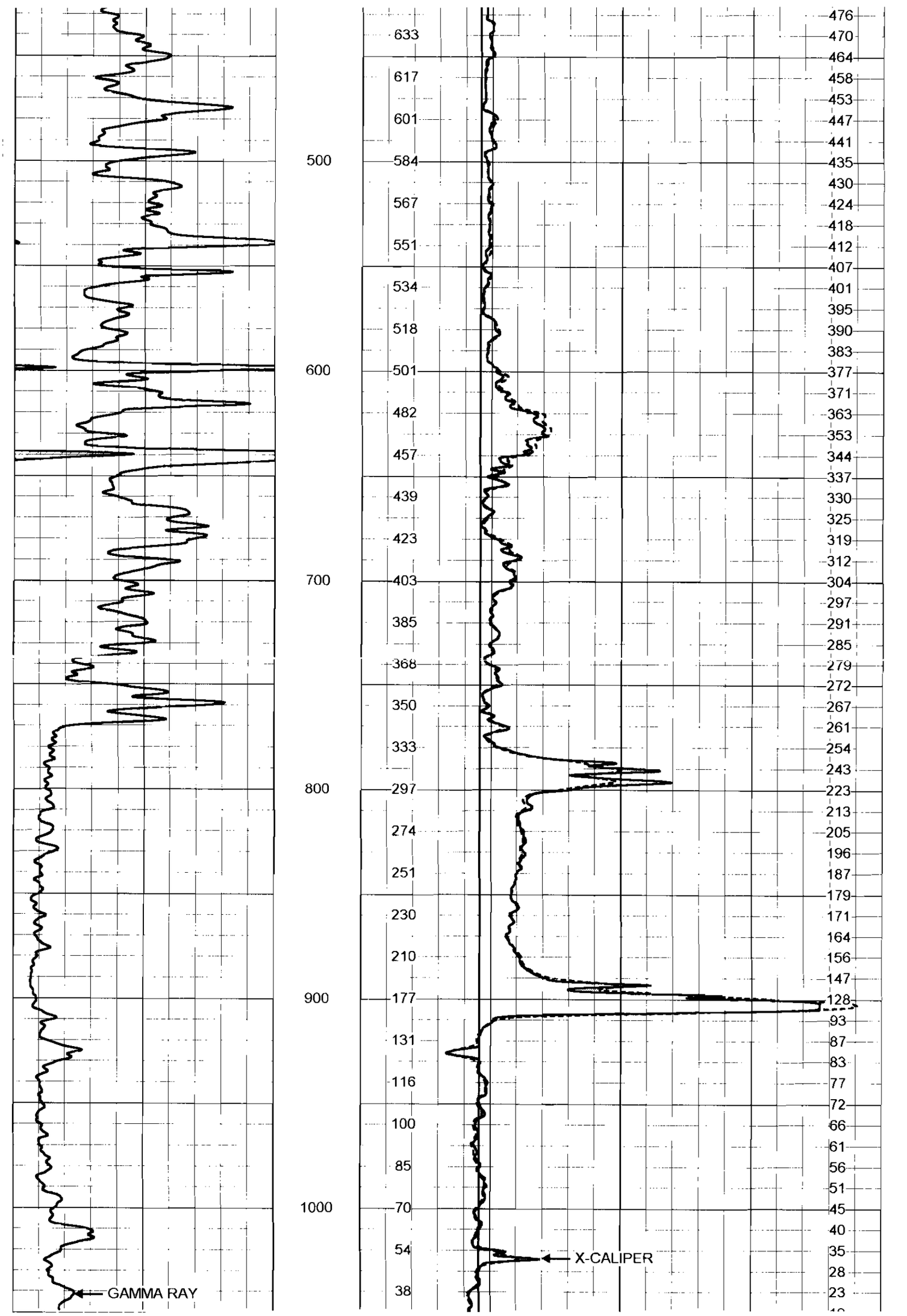
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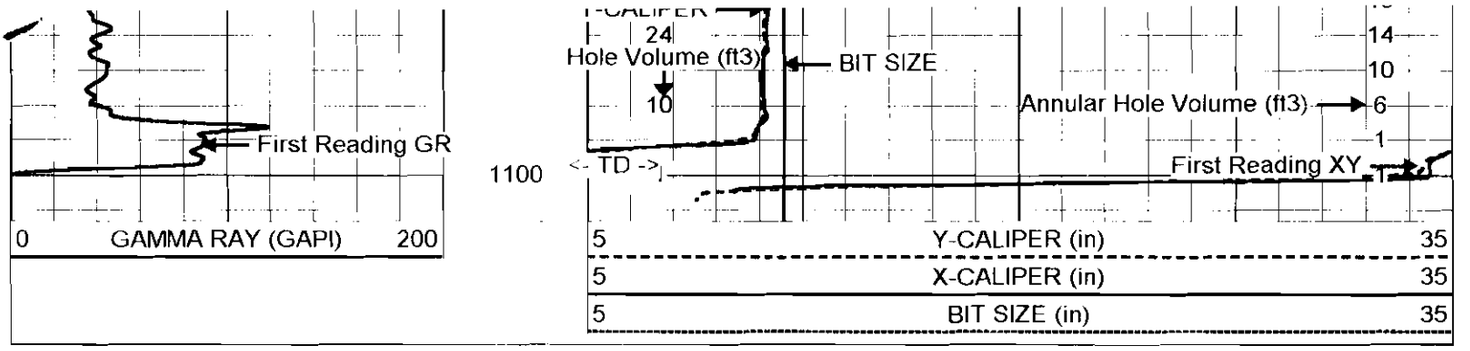
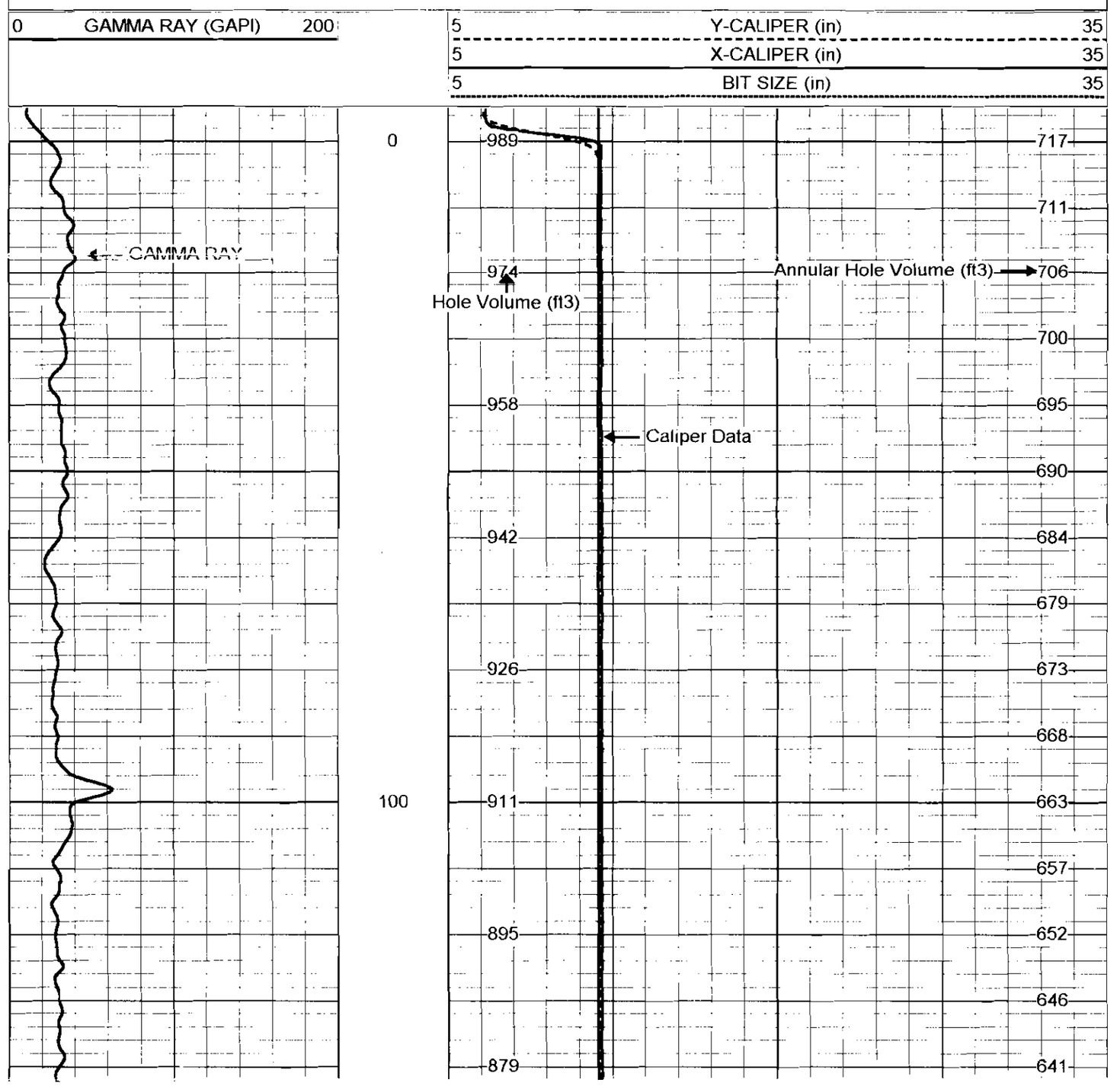
223
213
205
196
187
179
171
164
156
147
128
93
87
83
77
72
66
61
56
51
45
40
35
28
23
GAMMA RAY
X-CALIPER

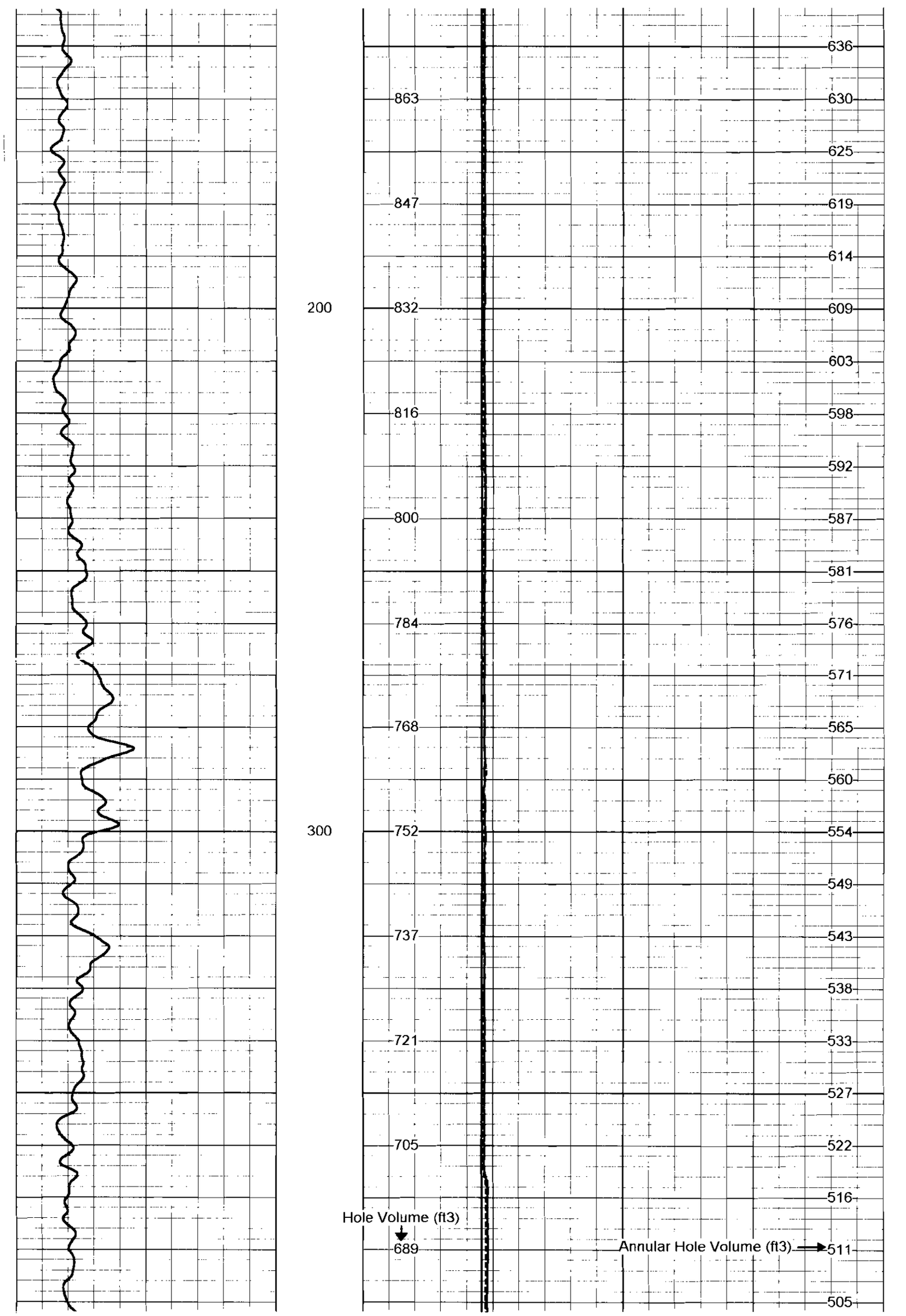


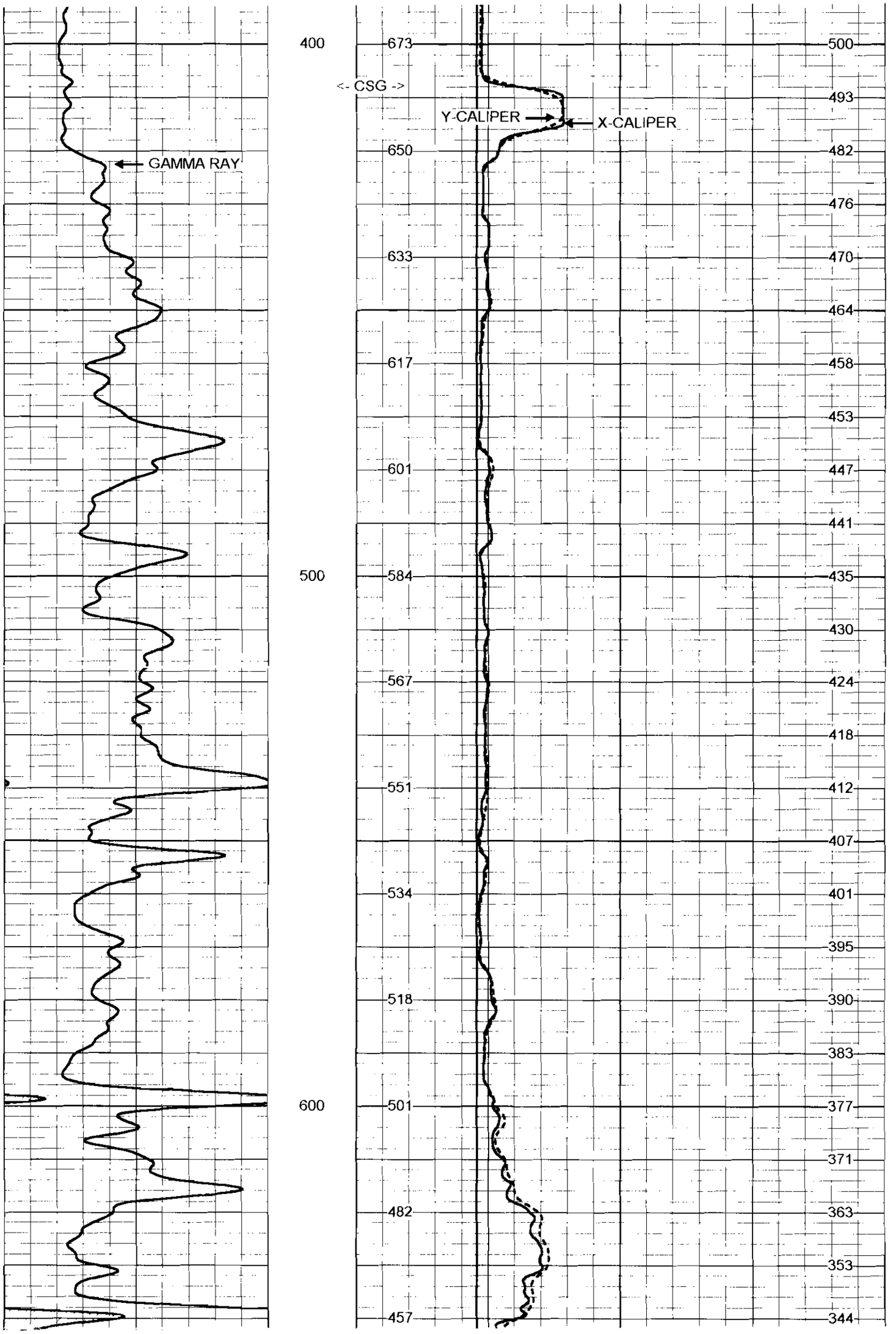
MV Geophysical

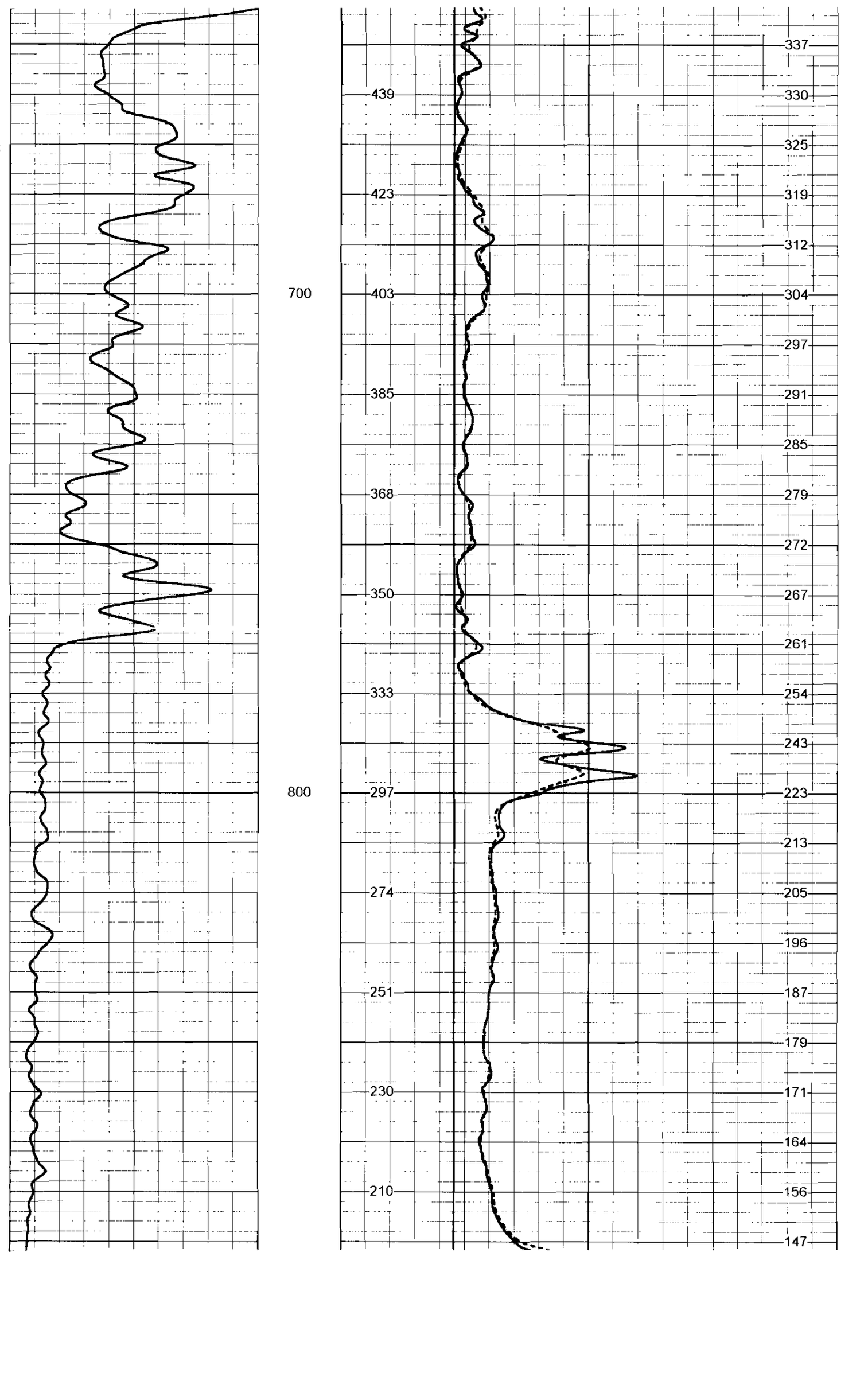
MAIN PASS

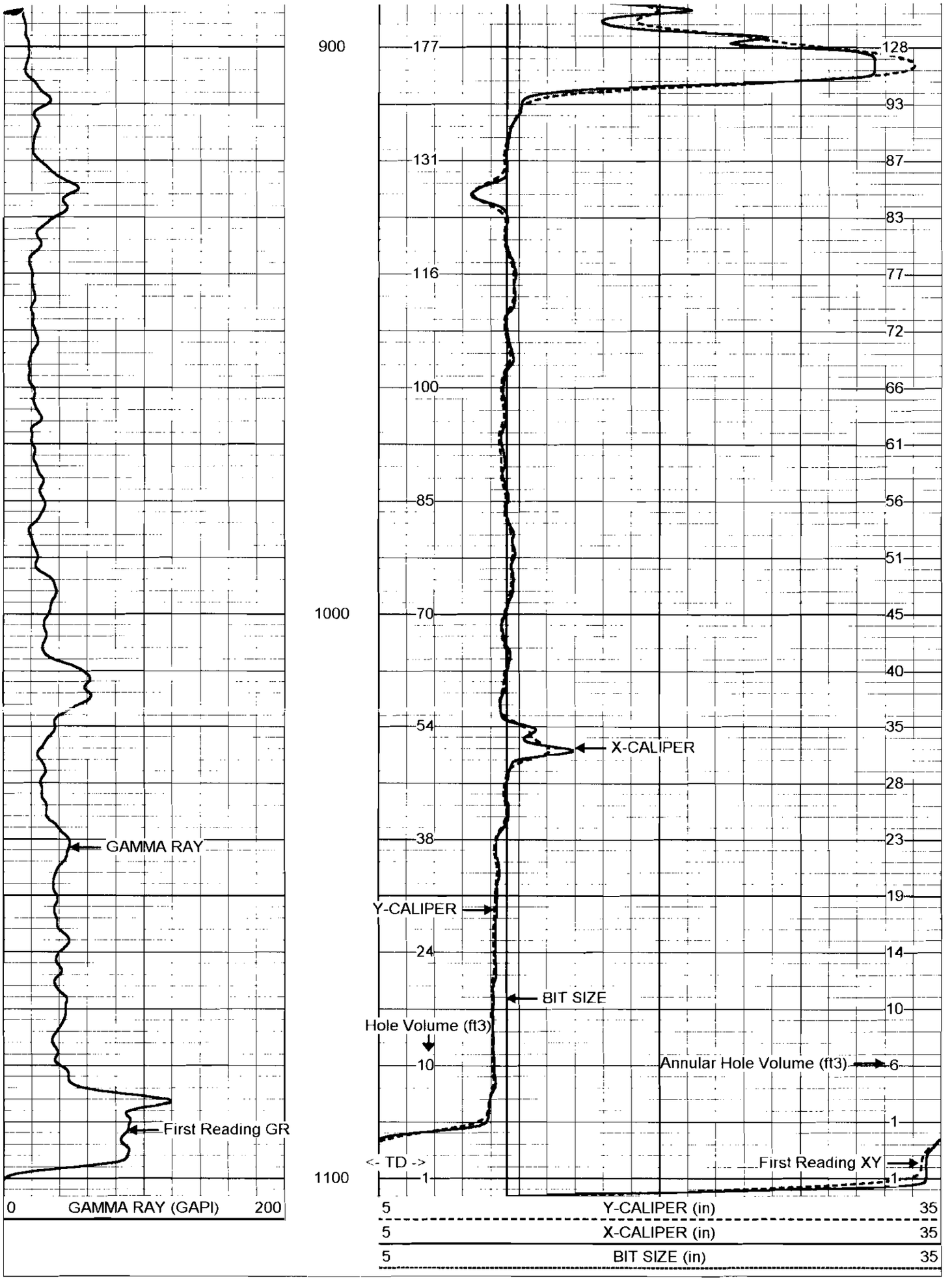
Database File:	fguaetw1.db
Dataset Pathname:	MAIN
Presentation Format:	xy535-25.prs
Dataset Creation:	Tue Jun 05 11:04:10 2007
Charted by:	Depth in Feet scaled 1:240




200
300
863
847
832
816
800
784
768
752
737
721
705
689
636
630
625
619
614
609
603
598
592
587
581
576
571
565
560
554
549
543
538
533
527
522
516
511
505
Hole Volume (ft3)
Annular Hole Volume (ft3)


400
500
600
GAMMA RAY
<- CSG ->
Y-CALIPER
X-CALIPER
673
650
633
617
601
584
567
551
534
518
501
482
457
500
493
482
476
470
464
458
453
447
441
435
430
424
418
412
407
401
395
390
383
377
371
363
353
344


700
800
439
423
403
385
368
350
333
297
274
251
230
210
337
330
325
319
312
304
297
291
285
279
272
267
261
254
243
223
213
205
196
187
179
171
164
156
147

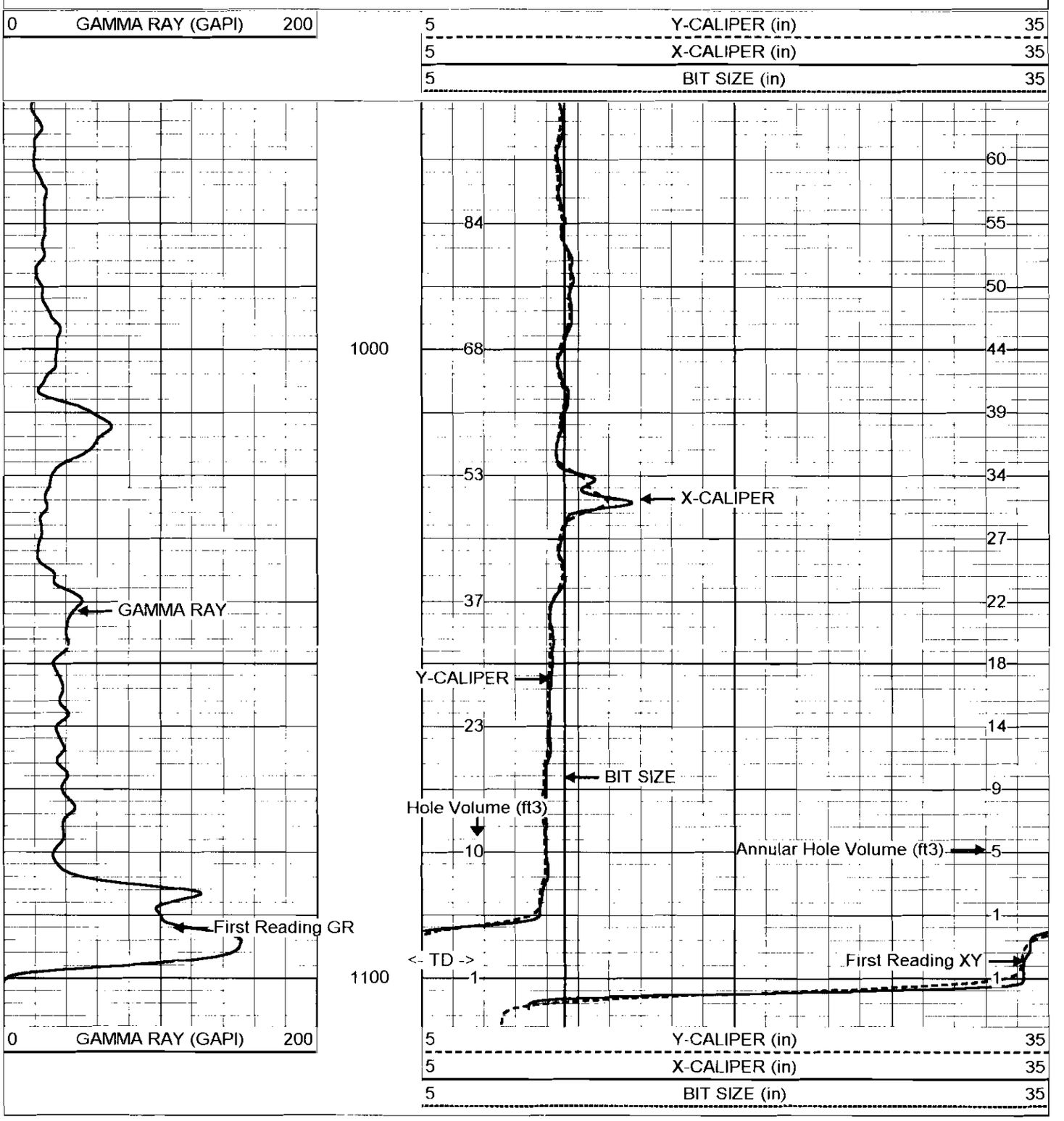


MV

REPEAT SECTION

Geophysical

Database File:	fguaetw1.db
Dataset Pathname:	repeat
Presentation Format:	xy535-25.prs
Dataset Creation:	Tue Jun 05 10:05:56 2007
Charted by:	Depth in Feet scaled 1:240



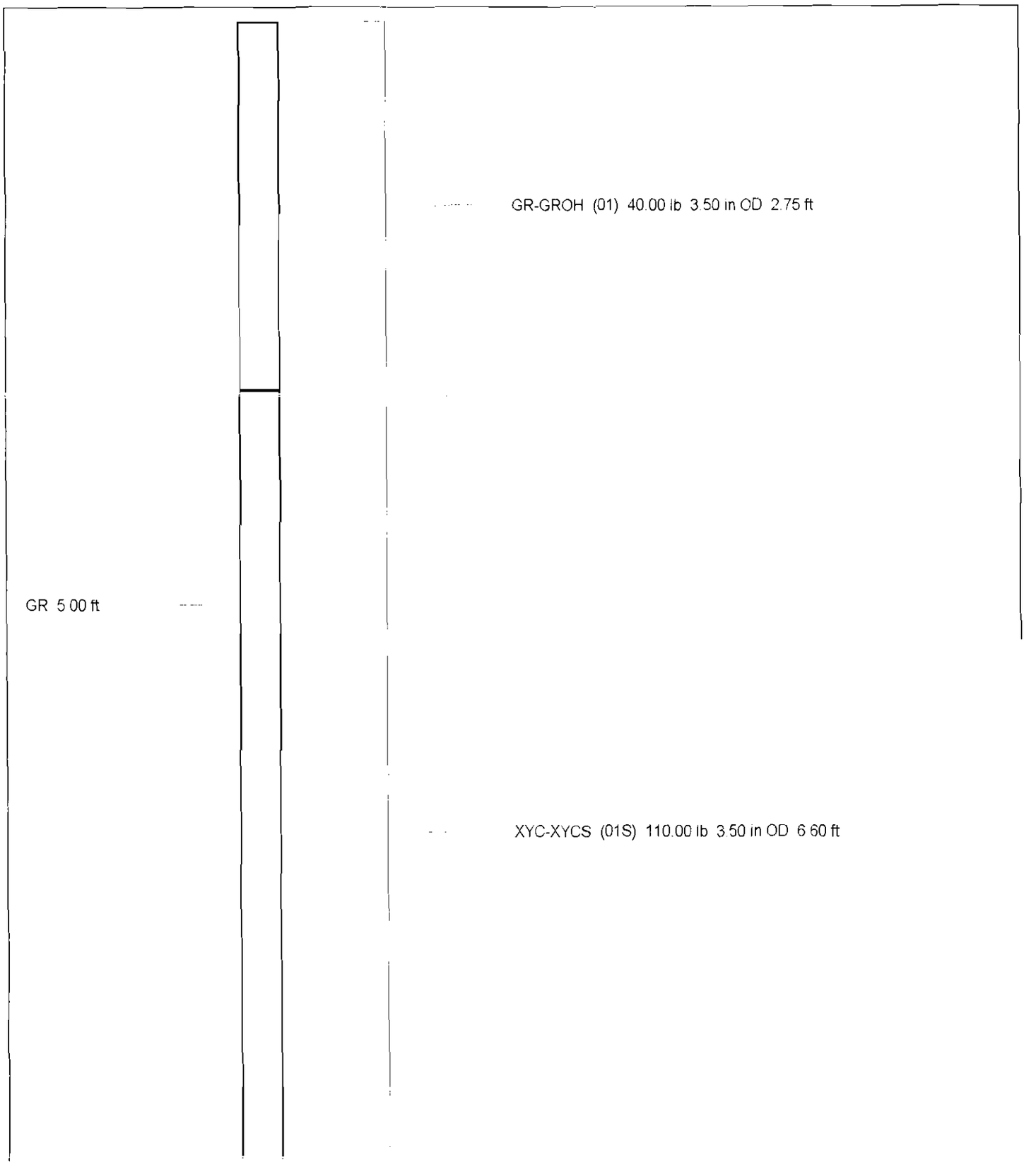
XY Caliper Calibration Report

Serial Number:	01S		
Tool Model:	XYCS		
Performed:	Tue Jun 05 10:29:16 2007		
Small Ring:	12	in	
Large Ring:	33	in	
	X Caliper	Y Caliper	
Reading with Small Ring:	1208.6	1214.5	cps
Reading with Large Ring:	2004.2	1983	cps

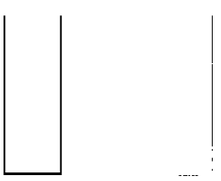
Gain:	0.0263952	0.027326
Offset:	-19.9012	-21.1874

Gamma Ray Calibration Report

Serial Number:	01	
Tool Model:	GROH	
Performed:	Tue Jun 05 09:24:47 2007	
Calibrator Value:	120	GAPI
Background Reading:	4.568	cps
Calibrator Reading:	123.266	cps
Sensitivity:	1.01097	GAPI/cps



XCAL 0.50 ft
YCAL 0.50 ft



Dataset:	run1/pass2
Total Length:	9.35 ft
Total Weight:	150 00 lb
O.D.	3.50 in

MV Geophysical

DUAL INDUCTION LL3 / SP LOG

Company Connect Consulting Inc.
Well ETW-1
Field Lehigh Acres
County Lee
State/Prv Florida

Company	Connect Consulting Inc.
Well	ETW-1
Field	Lehigh Acres
County	Lee
State/Prv	Florida
Location	FGUA WTP Site 2 at Mirror Lake
Other Services	XY/GR.DIL FLOW.FCT DHTV

Permanent Datum	G.L.	Elevation	~31'
Log Measured From	G.L.		
Drilling Measured From	G.L.		
Elevation	K.B.	D.F.	G.L. ~31'

Date	5-JUN-2007
Run Number	ONE
Depth Driller	1110'
Depth Logger	1094'
Bottom Logged Interval	1092'
Top Log Interval	408'
Open Hole Size	11.875"
Type Fluid	H2O
Density / Viscosity	NA/NA
Max Recorded Temp.	see FCT log
Estimated Cement Top	NA
Time Well Ready	10:00 6/5/2007
Time Logger on Bottom	11:30 6/5/2007
Equipment Number	MVGS-1
Location	Ft. Myers
Recorded By	S.Miller
Witnessed By	J.McGrath (LSS) D.Robertson (CCI)

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	11.875"	420'	1110' 1097' Logger				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	12"	12" ID	SURFACE	415' 408' Logger
Prot. String				
Production String				
Liner				
Invoice No	2007150		5X	* FINAL PRINT *

<<< Fold Here >>>

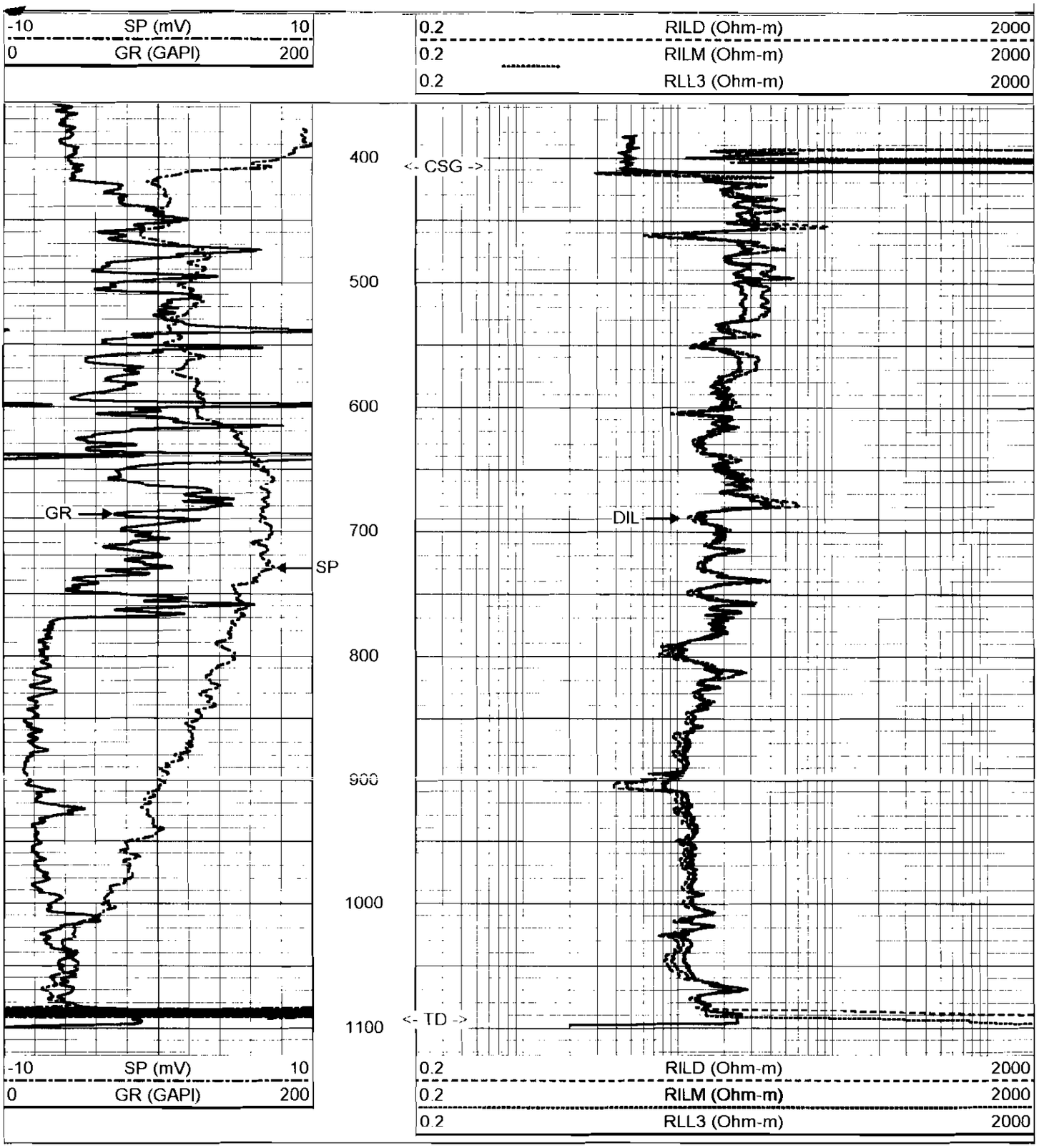
Comments

Rw=2.736 ohm-m @ 86.0 degF

MV Geophysical

MAIN PASS

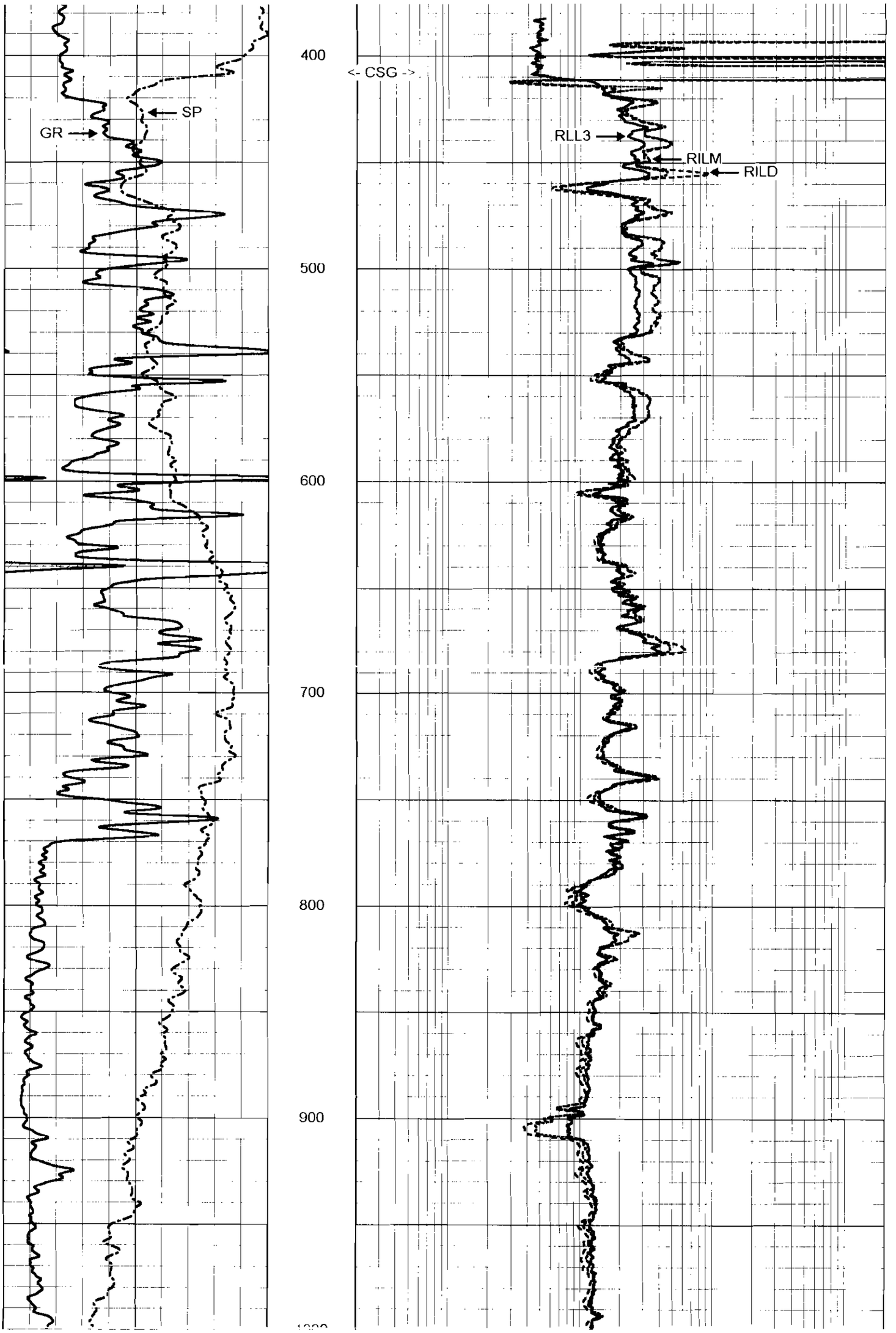
Database File:	fguaetw1.db
Dataset Pathname:	MAIN
Presentation Format:	dil1200.prs
Dataset Creation:	Tue Jun 05 11:04:10 2007
Charted by:	Depth in Feet scaled 1:1200

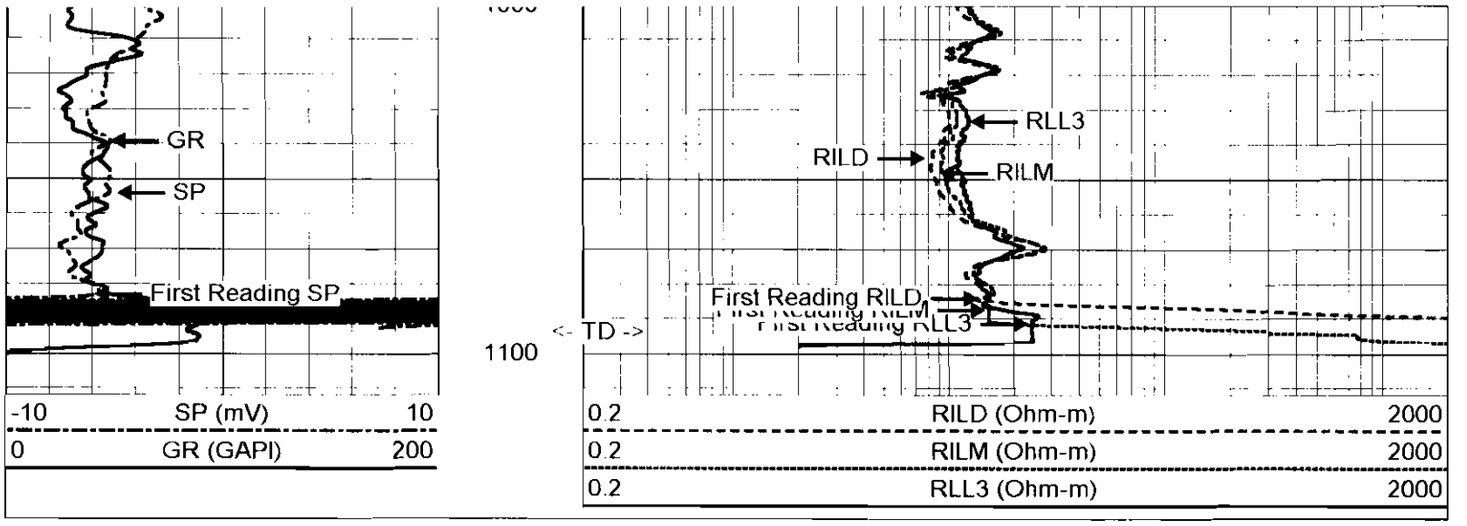


MV Geophysical

MAIN PASS

Database File:	fguaetw1.db
Dataset Pathname:	MAIN
Presentation Format:	dil200.prs
Dataset Creation:	**Tue Jun** 05 11:04:10 2007
Charted by:	Depth in Feet scaled 1:600

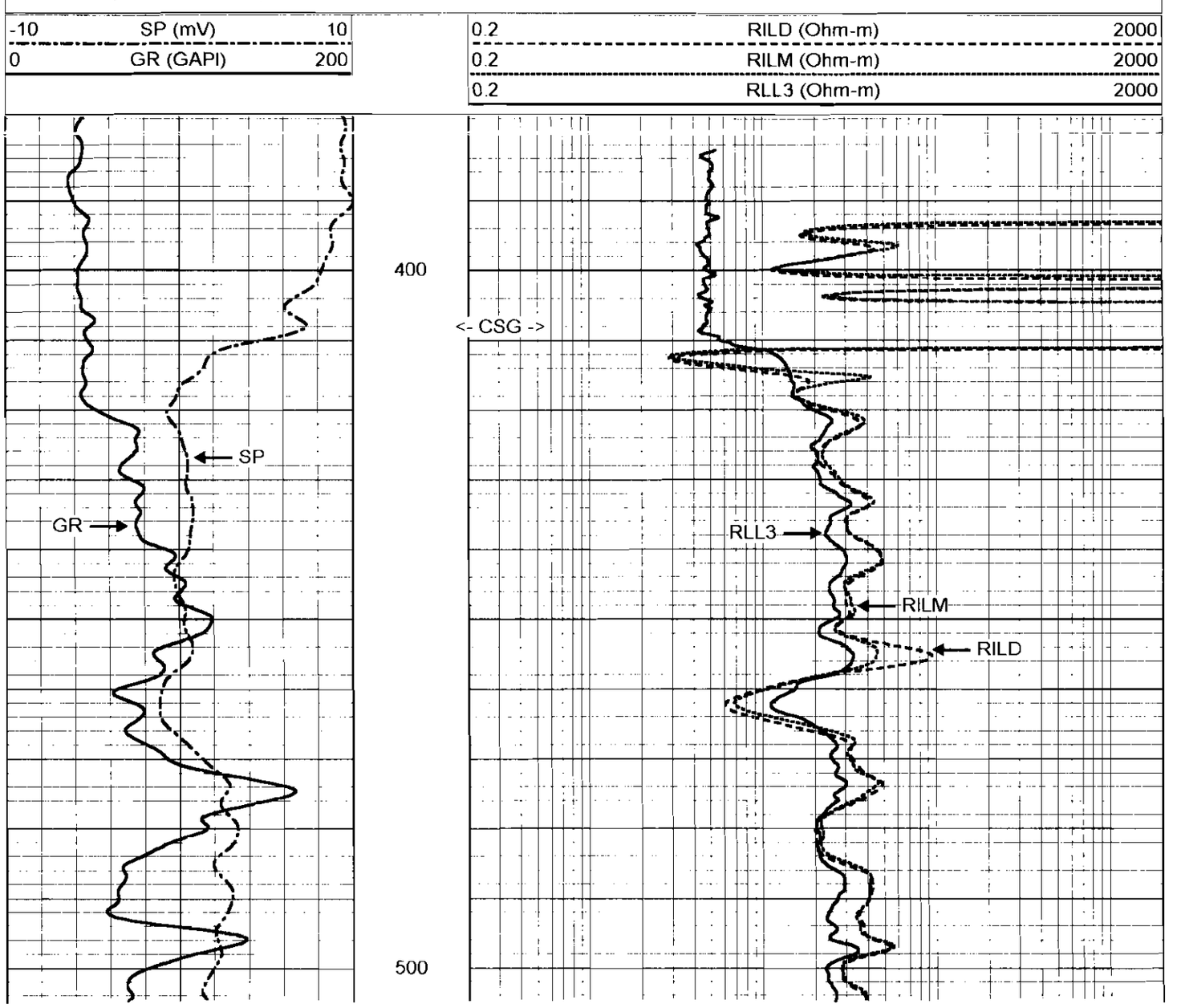

GR
SP
400
<- CSG ->
RLL3
RILM
RILD
500
600
700
800
900

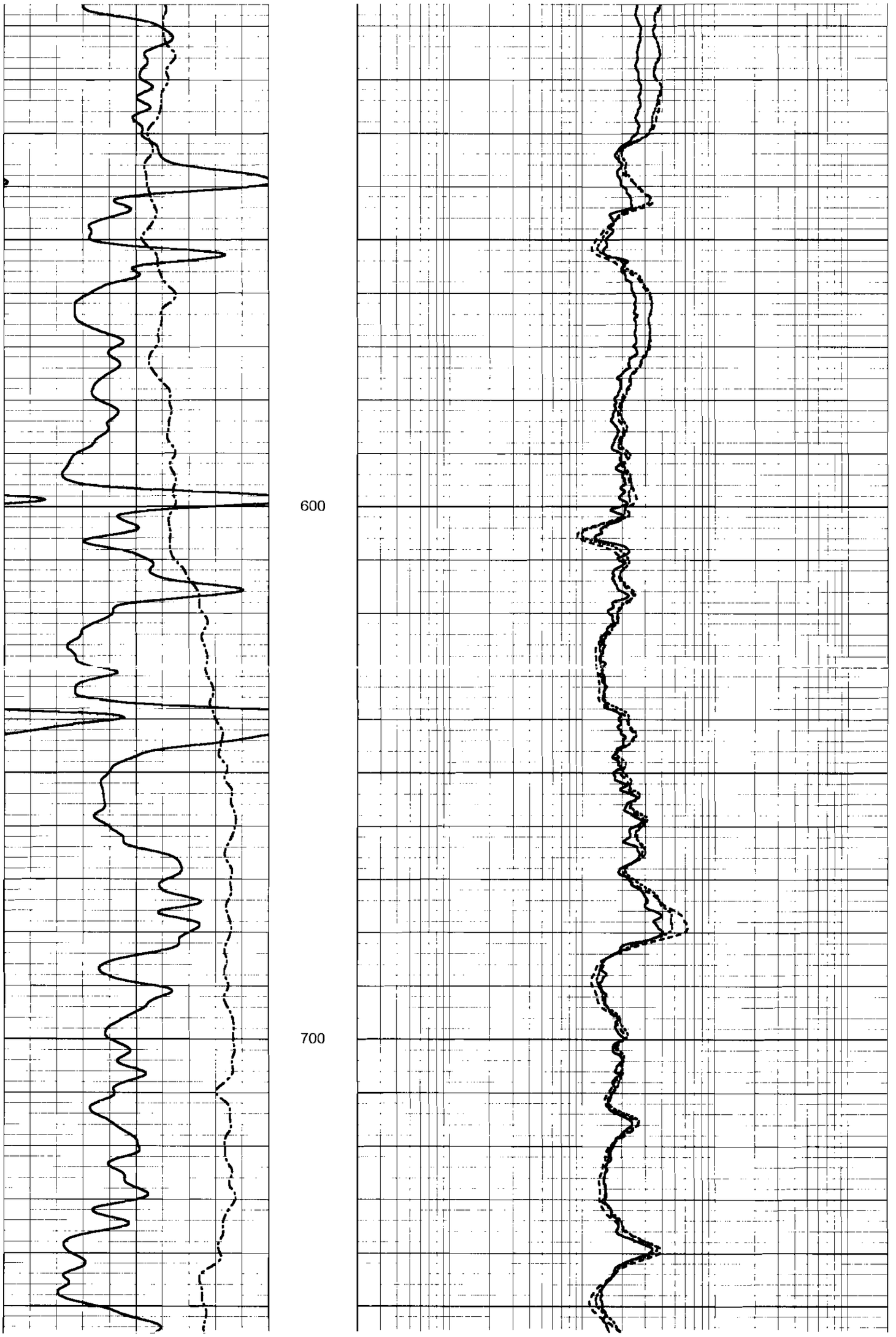


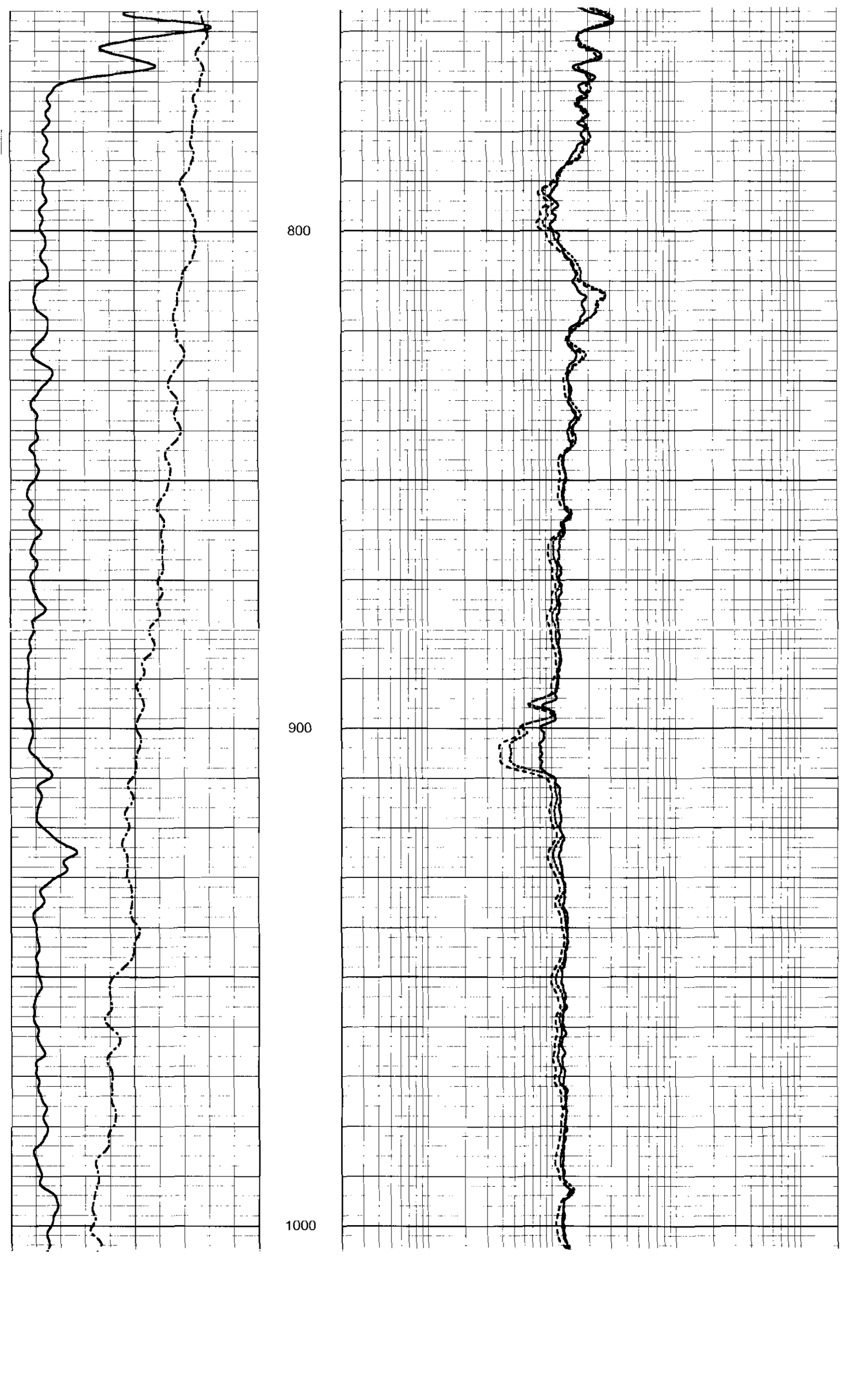
MV Geophysical

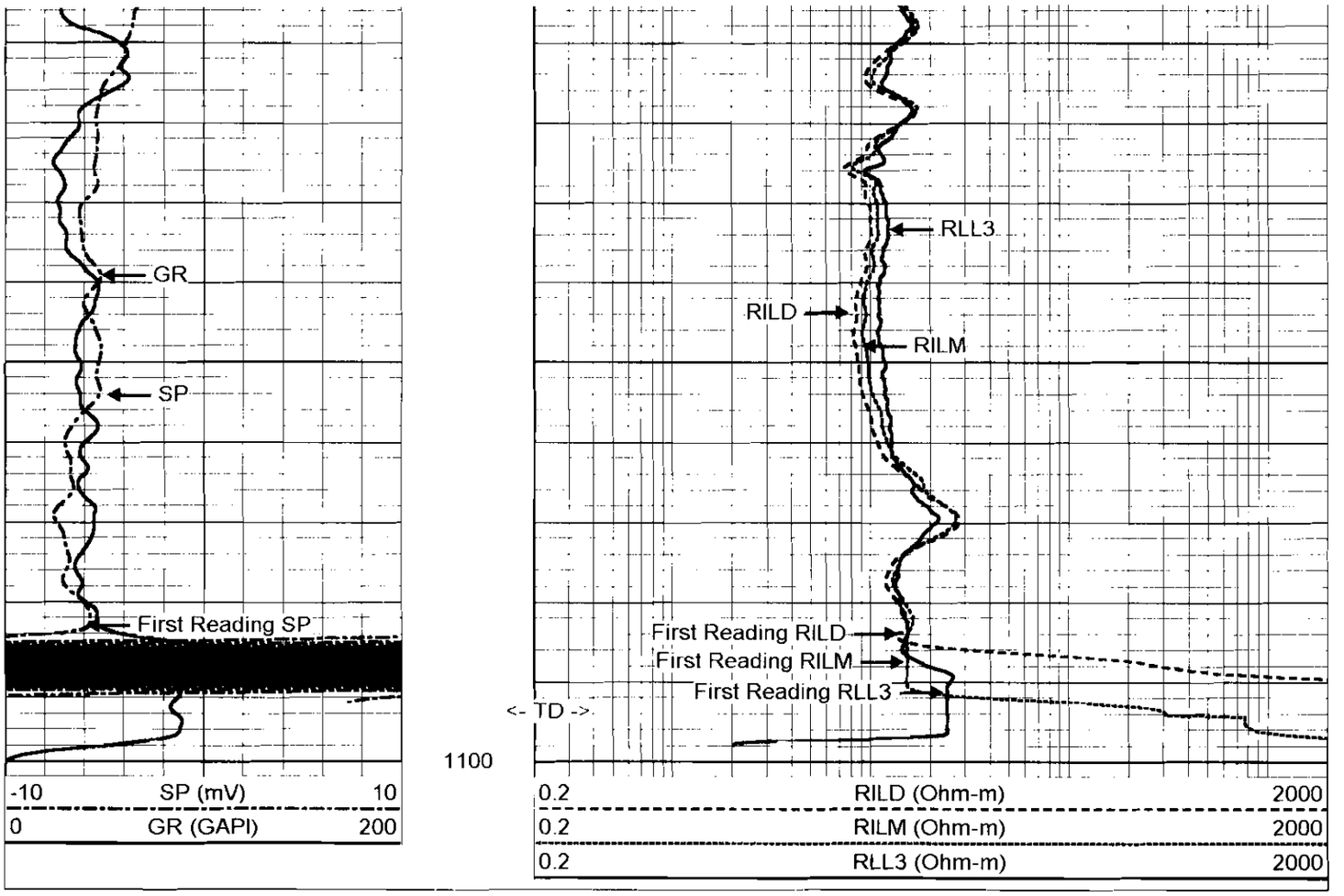
MAIN PASS

Database File:	fguaetw1.db
Dataset Pathname:	MAIN
Presentation Format:	dil200.prs
Dataset Creation:	Tue Jun 05 11:04:10 2007
Charted by:	Depth in Feet scaled 1:240




600
700

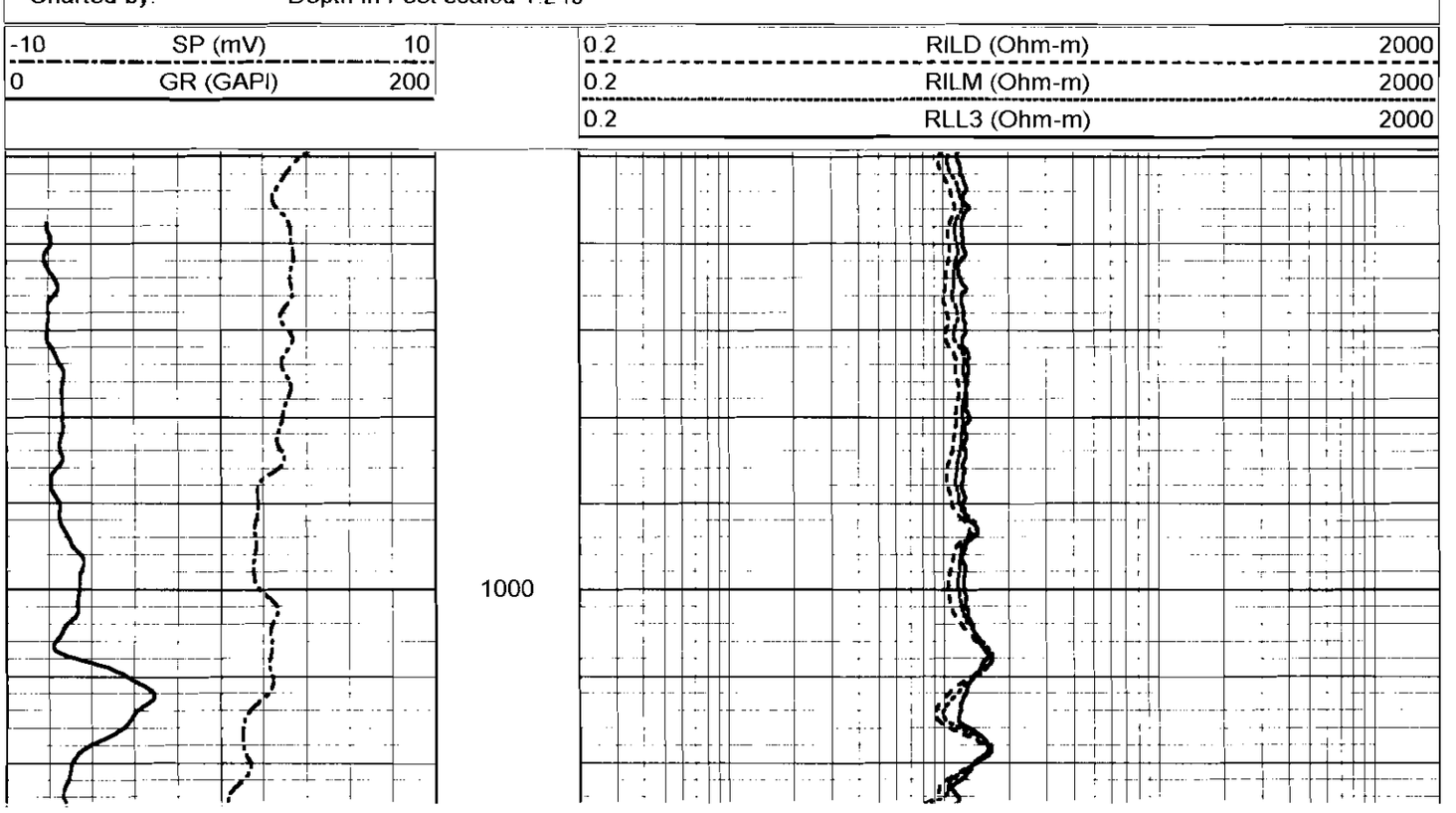

800
900
1000

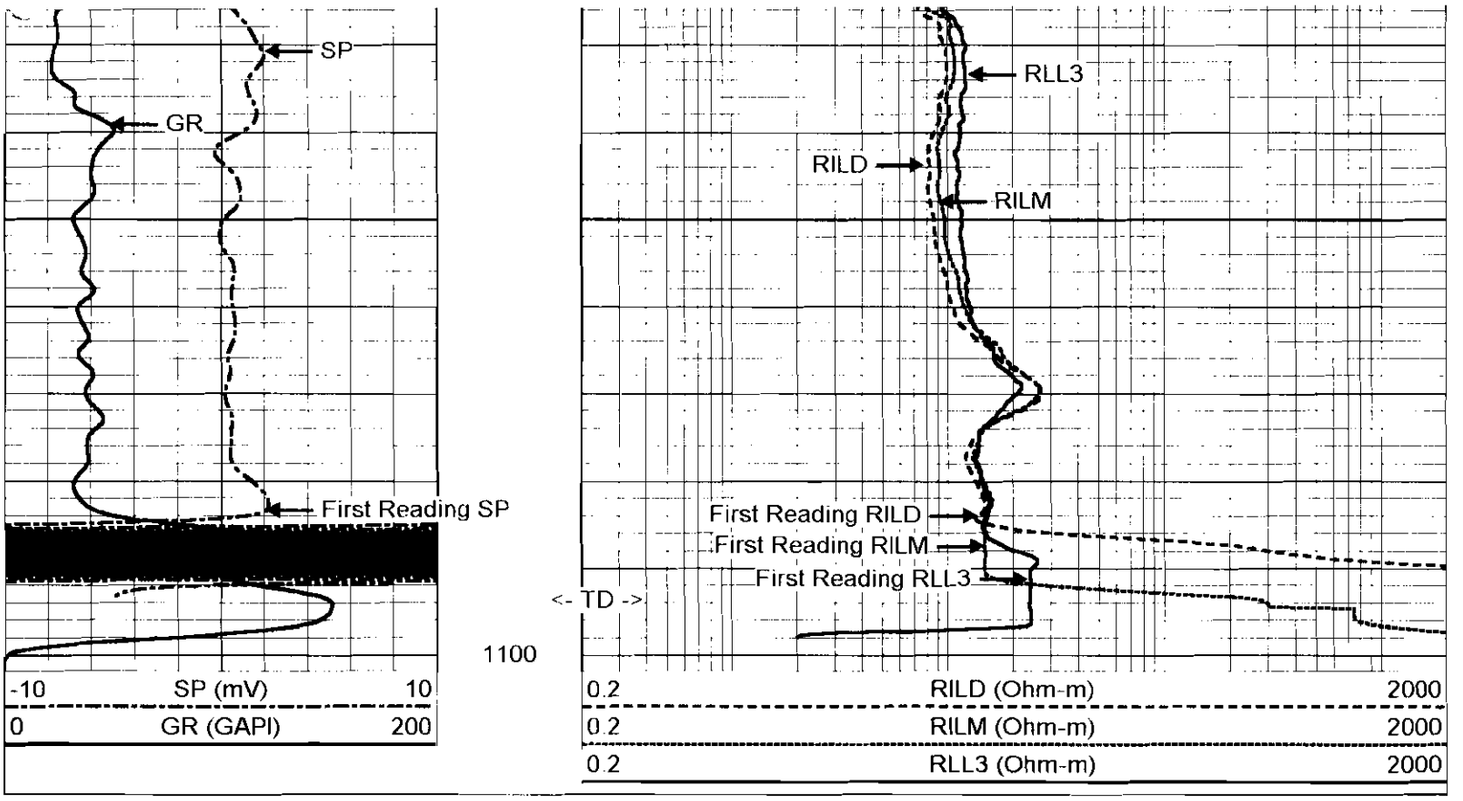


REPEAT SECTION

MV Geophysical

Database File:	fguaetw1.db
Dataset Pathname:	repeat
Presentation Format:	dil200.prs
Dataset Creation:	Tue Jun 05 10:05:56 2007
Charted by:	Depth in Feet scaled 1:240





Dual Induction Calibration Report

Serial-Model:	5390-R
Surface Cal Performed:	Sun Jan 16 21:49:43 2005
Downhole Cal Performed:	Wed Oct 19 12:32:57 2005
After Survey Verification Performed:	Wed Oct 19 12:58:55 2005

Surface Calibration

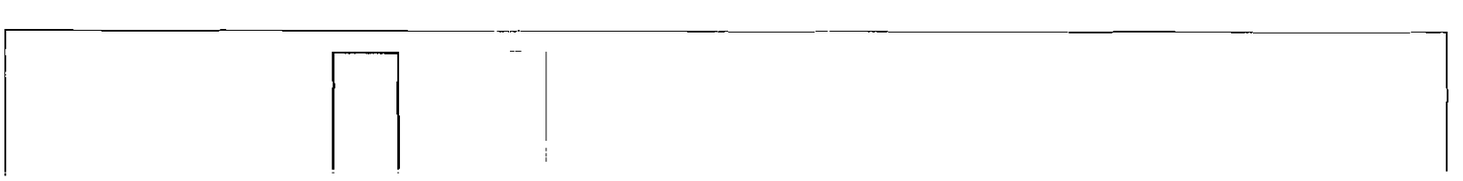
	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.050	0.646	V	0.000	400.000	mmho-m	671.771	-33.646
Medium	0.001	0.732	V	0.000	464.000	mmho-m	634.710	-0.492
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.641	V	0.000	400.000	mmho-m	634.996	-7.104
Medium	-0.009	0.738	V	0.000	464.000	mmho-m	620.900	5.734

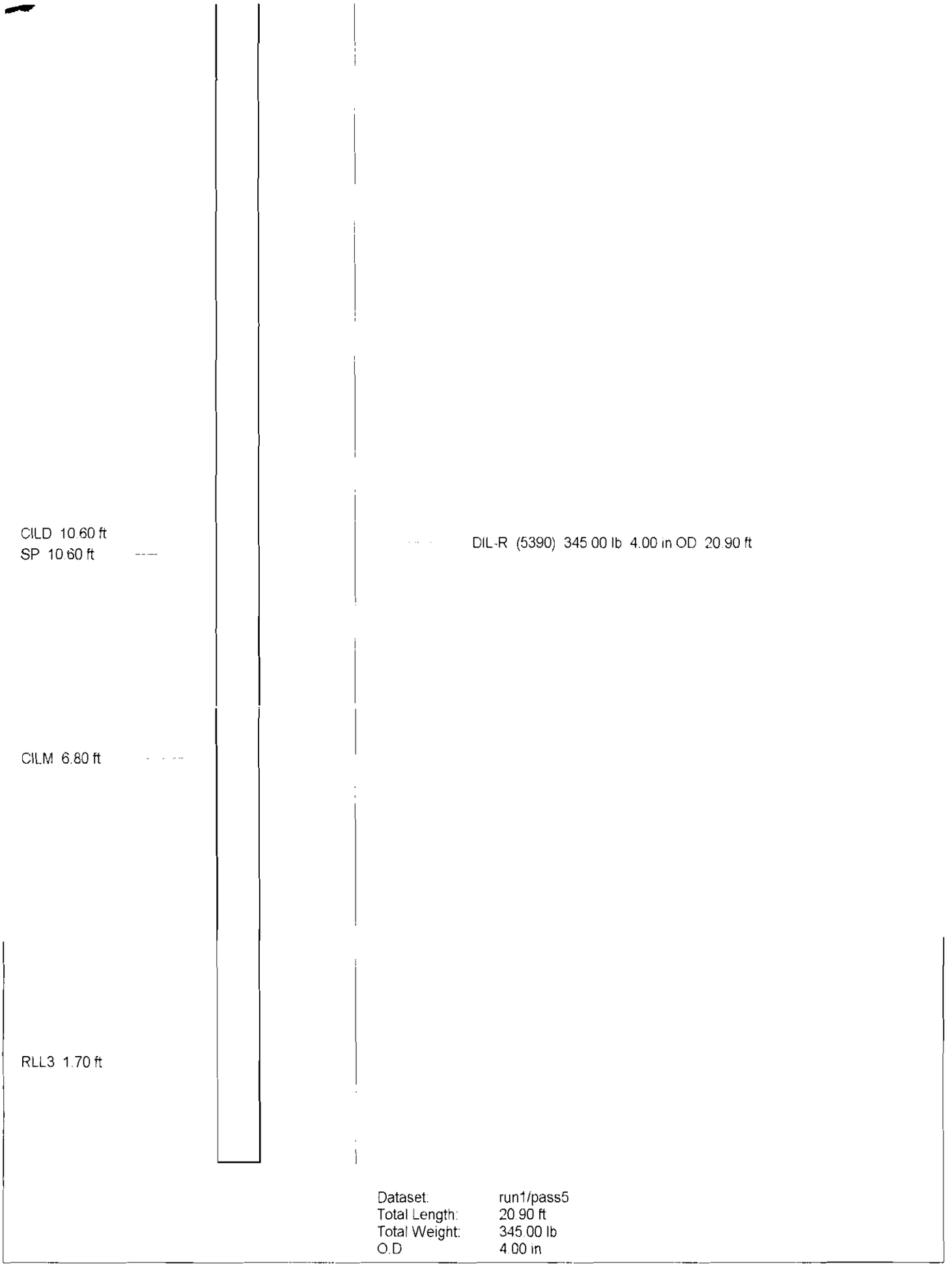
Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-26.659	398.163	mmho-m	-26.130	397.036	mmho-m	0.996	0.425
Medium	-7.097	468.715	mmho-m	-6.353	467.967	mmho-m	0.997	0.722
Shallow	2.509	0.019	V	494.500	2.000	Ohm-m	197.790	-1.721

After Survey Verification

	Readings			Targets			Results	
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	-27.012	397.367	mmho-m	-26.659	398.163	mmho-m	0.996	0.425
Medium	-7.085	467.858	mmho-m	-7.097	468.715	mmho-m	0.997	0.722
Shallow	494.011	1.606	Ohm-m	494.500	2.000	Ohm-m	1.000	0.393




CILD 10.60 ft
SP 10.60 ft
DIL-R (5390) 345.00 lb 4.00 in OD 20.90 ft
CILM 6.80 ft
RLL3 1.70 ft
Dataset: run1/pass5
Total Length: 20.90 ft
Total Weight: 345.00 lb
O.D 4.00 in

MV Geophysical

FLUID CONDUCTIVITY TEMPERATURE LOG

Company Connect Consulting Inc.
Well ETW-1
Field Lehigh Acres
County Lee
State/Prv Florida

Company Connect Consulting Inc.
Well ETW-1
Field Lehigh Acres
County Lee
State/Prv Florida

Location: FGUA WTP Site 2 at Mirror Lake

Other Services: XY/GR,DIL FLOW,FCT DHTV

Permanent Datum	G.L.	Elevation ~31'	Elevation
Log Measured From	G.L.		K.B.
Drilling Measured From	G.L.		D.F.
			G.L. ~31'

Date	5-JUN-2007
Run Number	ONE
Depth Driller	1110'
Depth Logger	1094'
Bottom Logged Interval	1094'
Top Log Interval	355'
Open Hole Size	11.875"
Type Fluid	H2O
Density / Viscosity	NA/NA
Max. Recorded Temp.	see FCT log
Estimated Cement Top	NA
Time Well Ready	10:00 6/5/2007
Time Logger on Bottom	12:30 6/5/2007
Equipment Number	MVGS-1
Location	Ft. Myers
Recorded By	S.Miller
Witnessed By	J.McGrath (LSS) D.Robertson (CCI)

Borehole Record					Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To
ONE	11.875"	420'	1110'				
			1097' Logger				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	12"	12" ID	SURFACE	415'
Prot. String				408' Logger
Production String				
Liner				
Invoice No.	2007150		5X	* FINAL PRINT *

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Comments

Static and Dynamic DOWN passes were performed.
Cw=3655 uS/cm @ 86.0 degF (Dynamic Sample). Q =~300 gpm.

FLUID RESISTIVITY CALIBRATION REPORT (Performed: 22-APR-07 10:45))

uS/cm	CPS
4018.4	2824.25
8828.5	2660.58
14891.2	2234.36

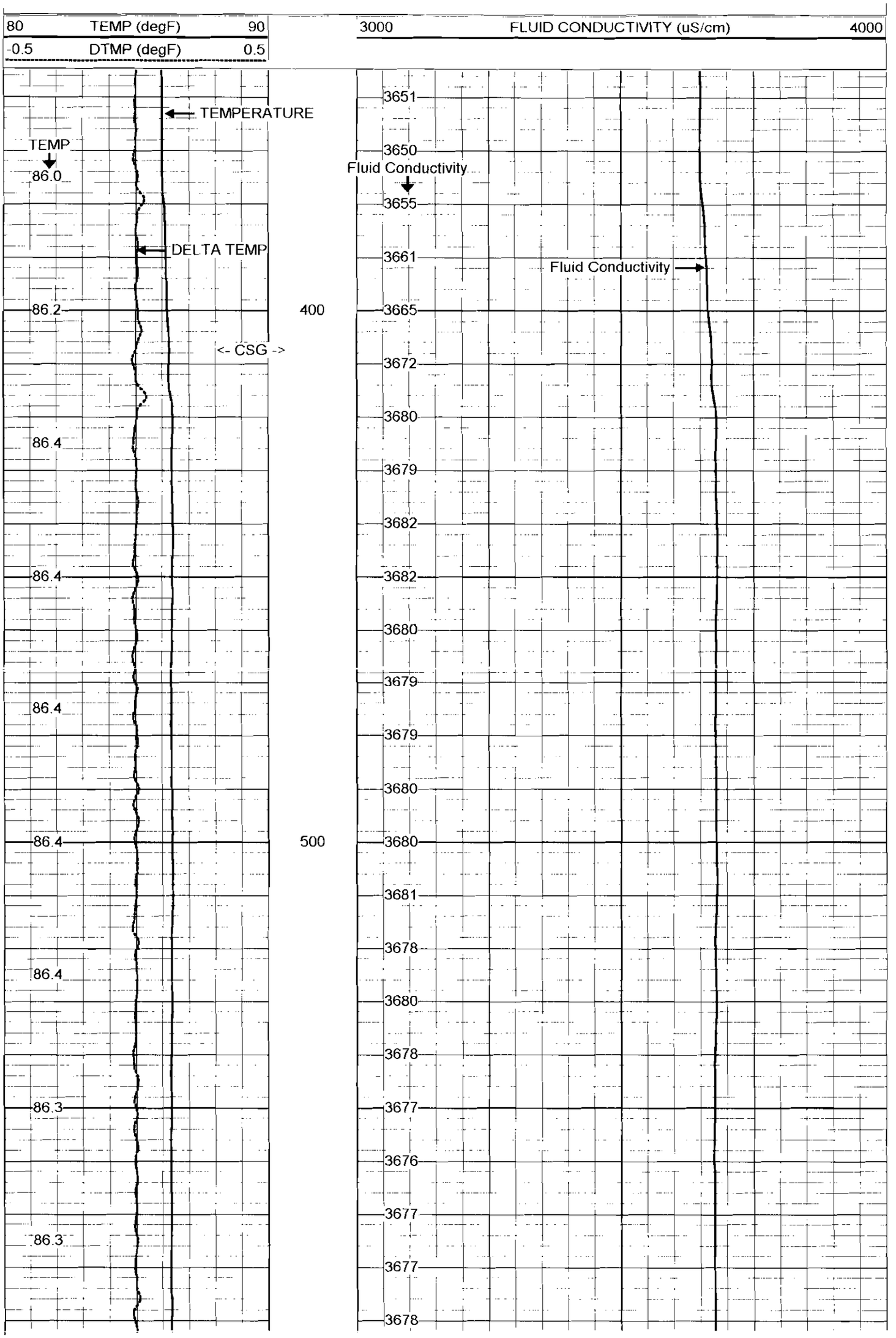
TEMPERATURE CALIBRATION REPORT (Performed: 22-APR-07 10:15)

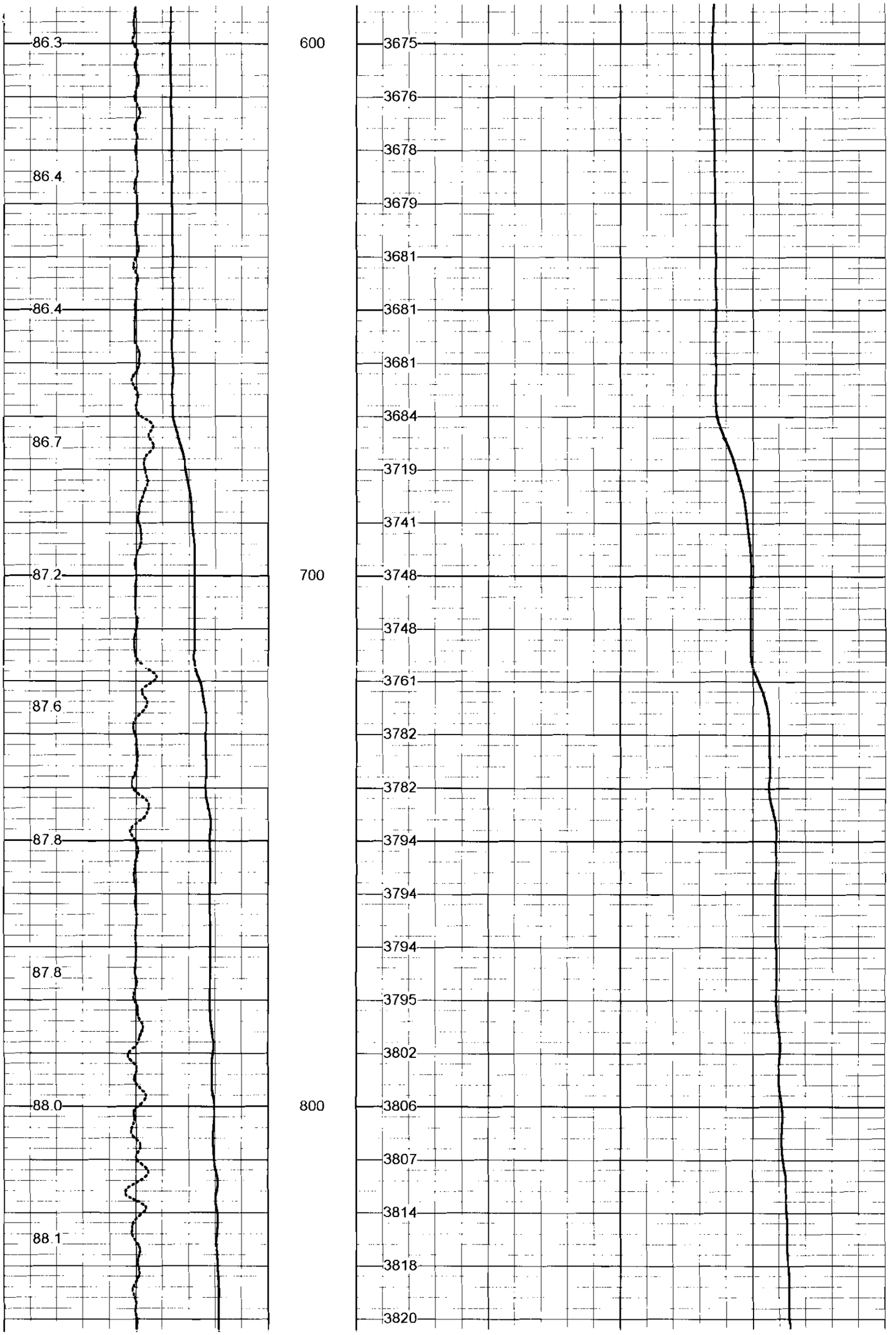
DEG-F	CPS
34.8	2349.64
142.2	6966.21

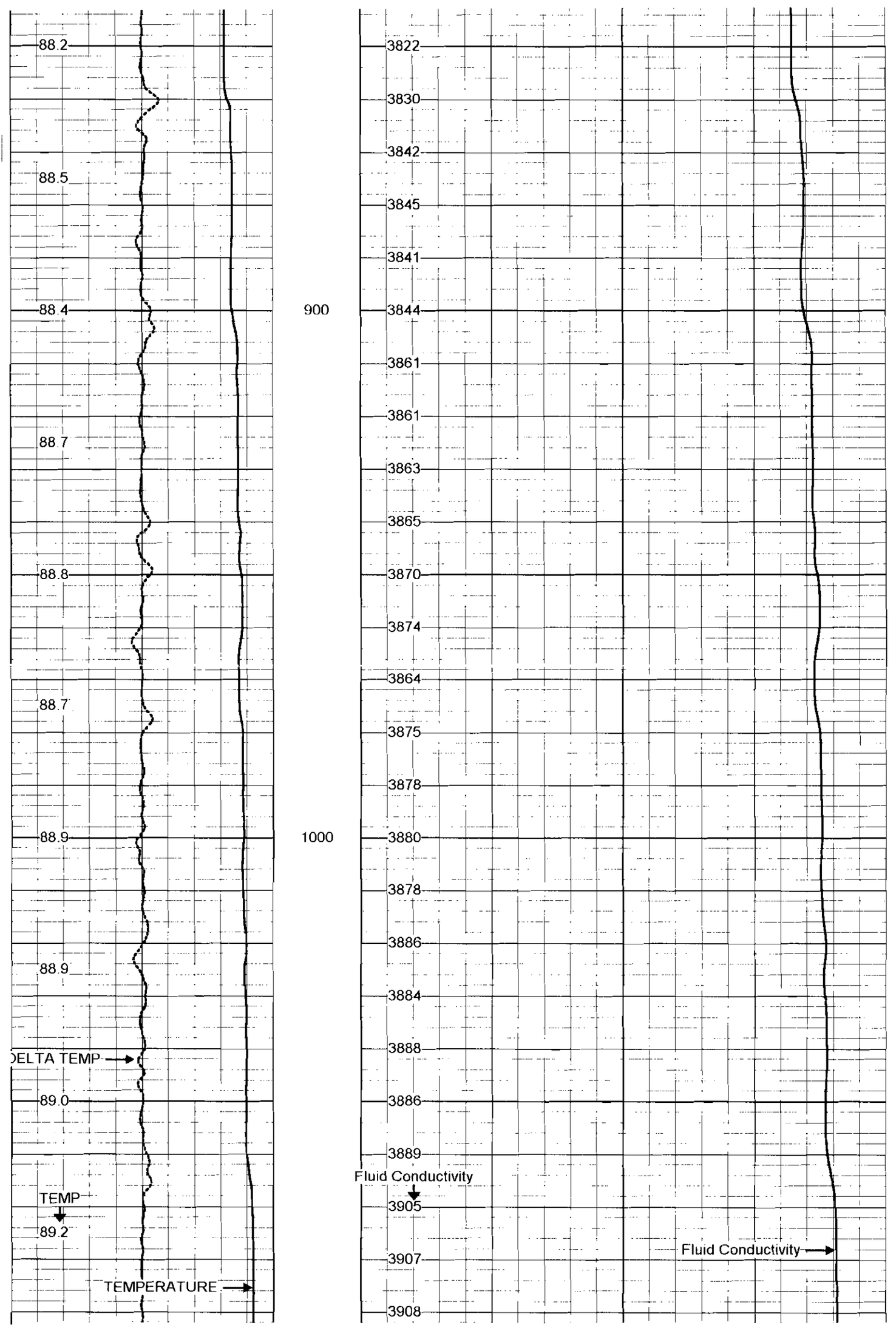
DYNAMIC FCT DOWN

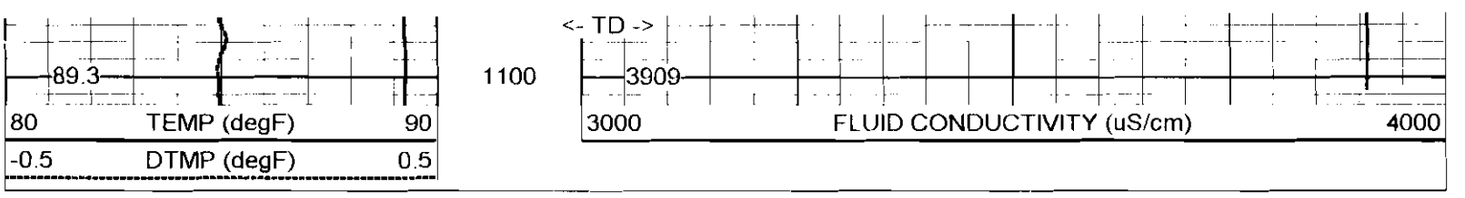
MV Geophysical

Database File: fguaetw1.db
Dataset Pathname: DFCT
Presentation Format: fctfgua4.prs
Dataset Creation: Tue Jun 05 13:06:46 2007
Charted by: Depth in Feet scaled 1:240


80
TEMP (degF)
90
-0.5
DTMP (degF)
0.5
3000
FLUID CONDUCTIVITY (uS/cm)
4000
TEMPERATURE
TEMP
86.0
DELTA TEMP
86.2
<- CSG ->
86.4
86.4
86.4
86.4
86.3
86.3
400
500
3651
3650
Fluid Conductivity
3655
3661
Fluid Conductivity
3665
3672
3680
3679
3682
3682
3680
3679
3679
3680
3680
3681
3678
3680
3678
3677
3676
3677
3677
3678


86.3
86.4
86.4
86.7
87.2
87.6
87.8
87.8
88.0
88.1
600
700
800
3675
3676
3678
3679
3681
3681
3681
3684
3719
3741
3748
3748
3761
3782
3782
3794
3794
3794
3795
3802
3806
3807
3814
3818
3820

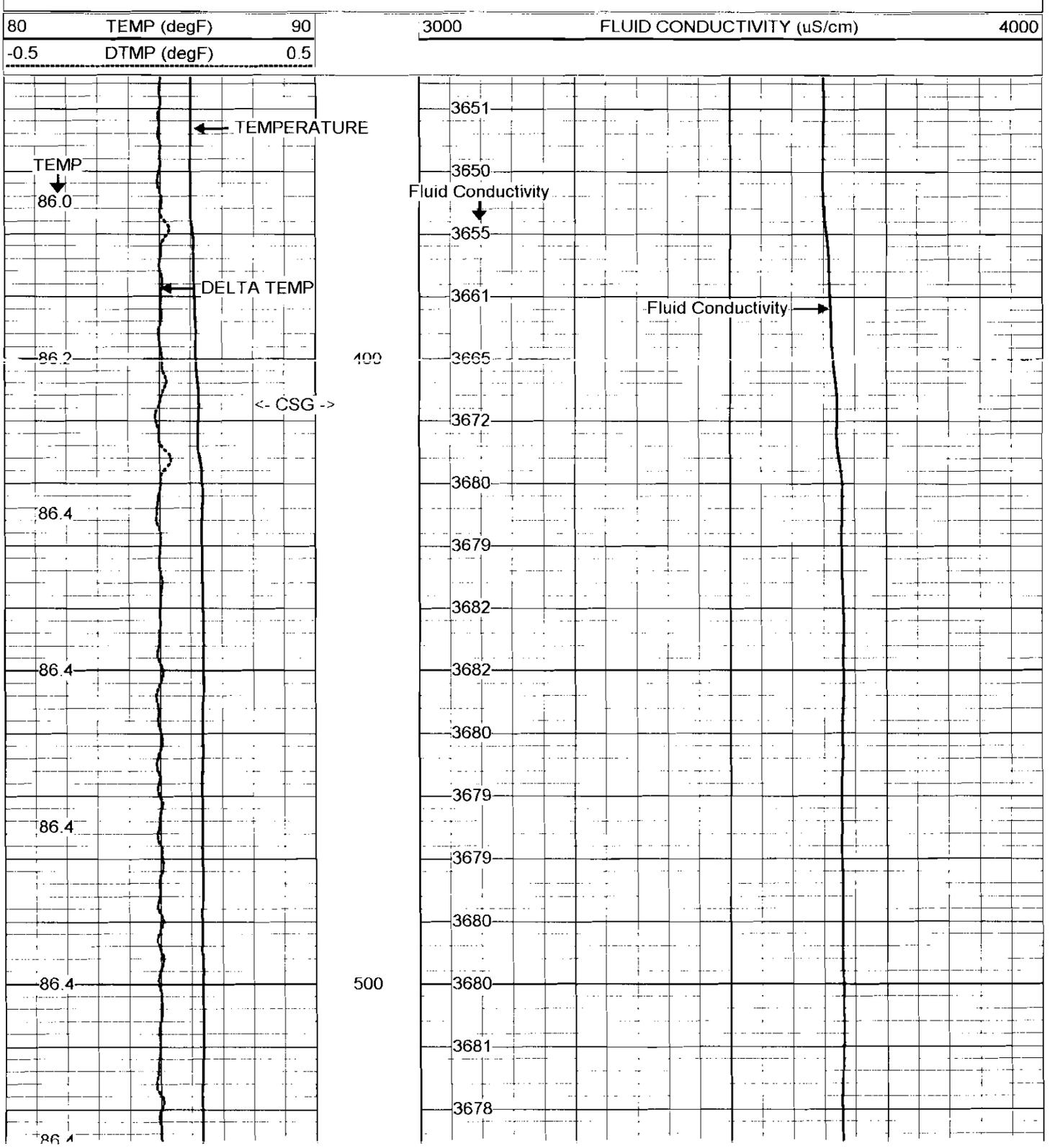

88.2
88.5
88.4
88.7
88.8
88.7
88.9
88.9
DELTA TEMP
89.0
TEMP
89.2
TEMPERATURE
900
1000
3822
3830
3842
3845
3841
3844
3861
3861
3863
3865
3870
3874
3864
3875
3878
3880
3878
3886
3884
3888
3886
3889
Fluid Conductivity
3905
3907
3908
Fluid Conductivity

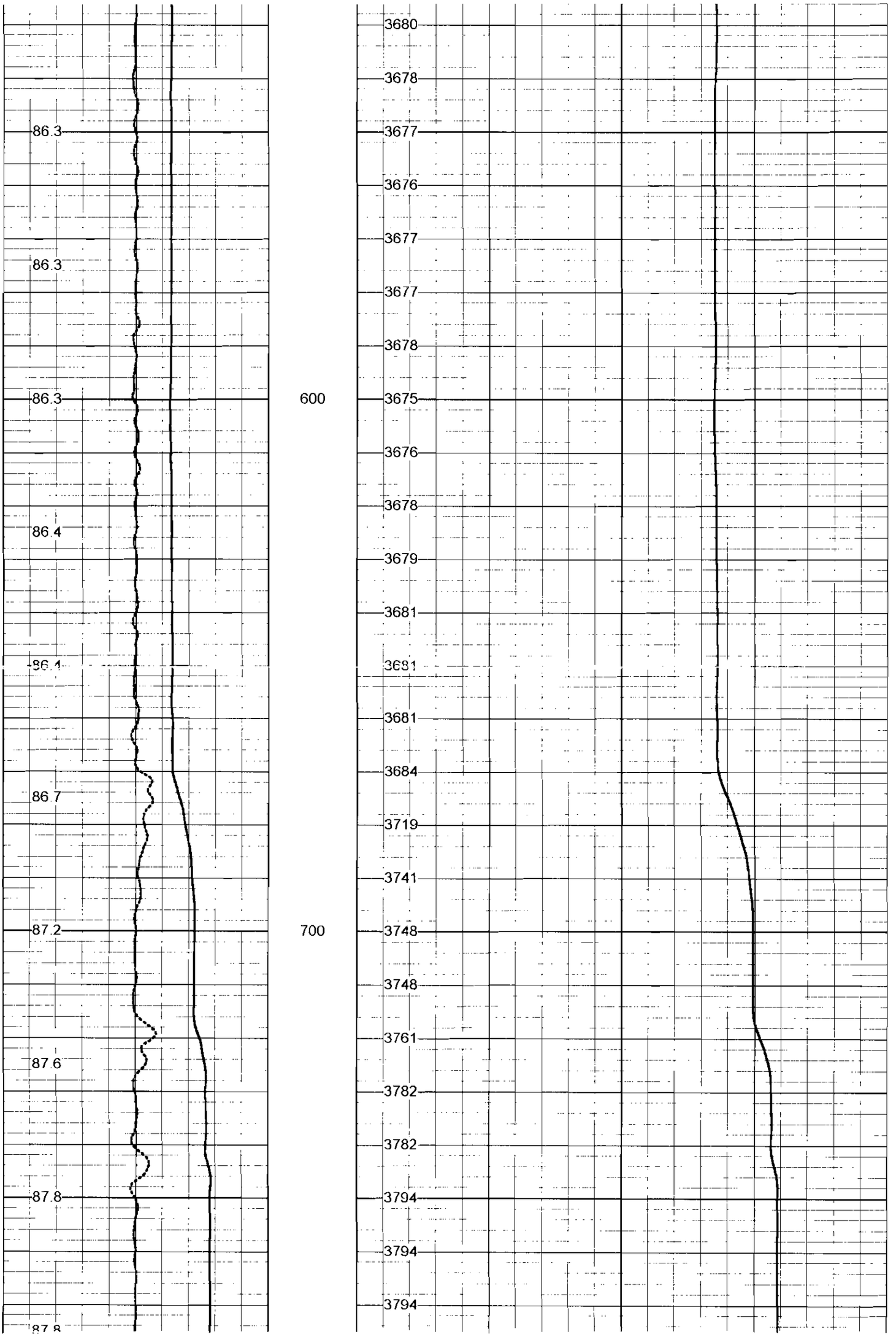


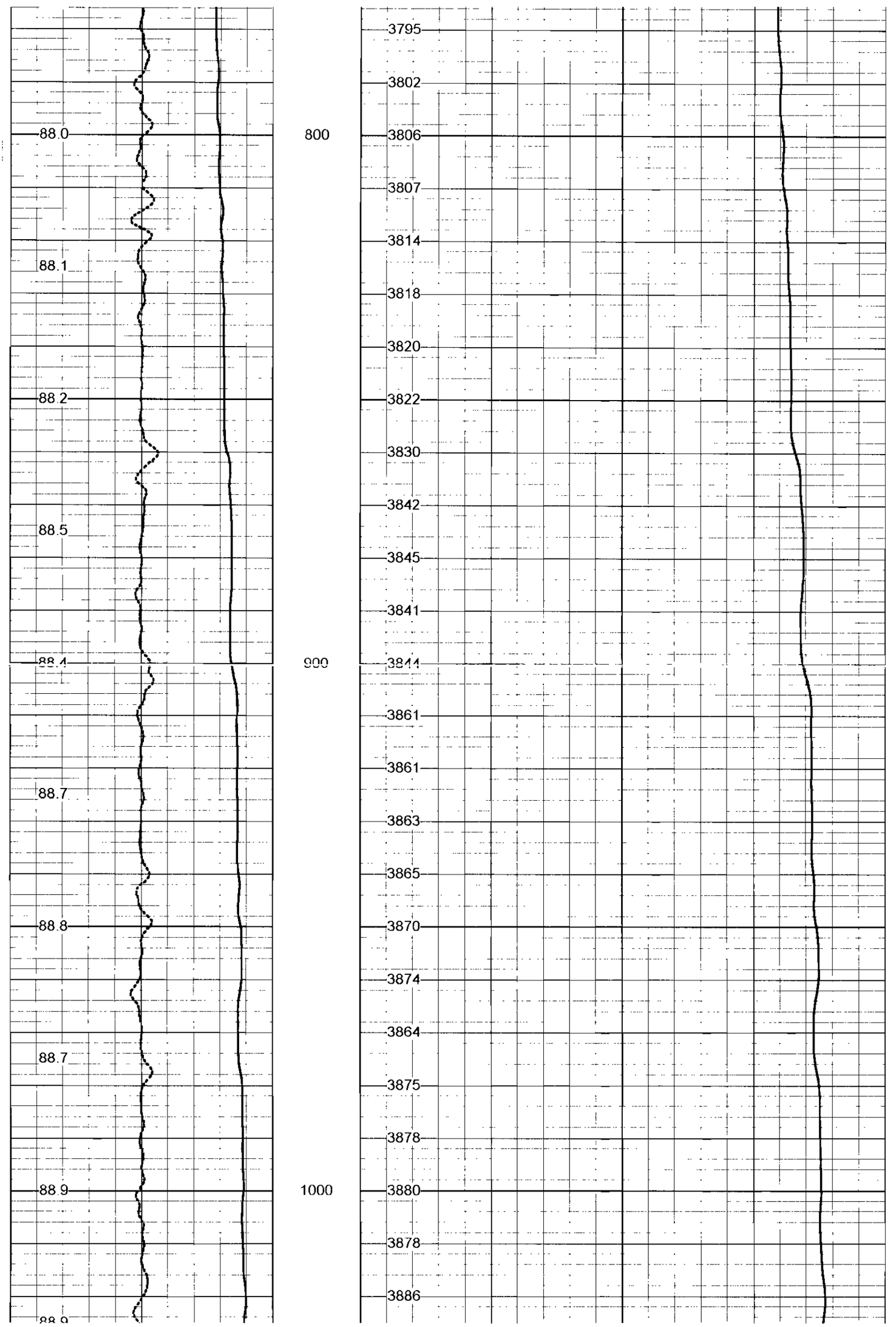
MV Geophysical

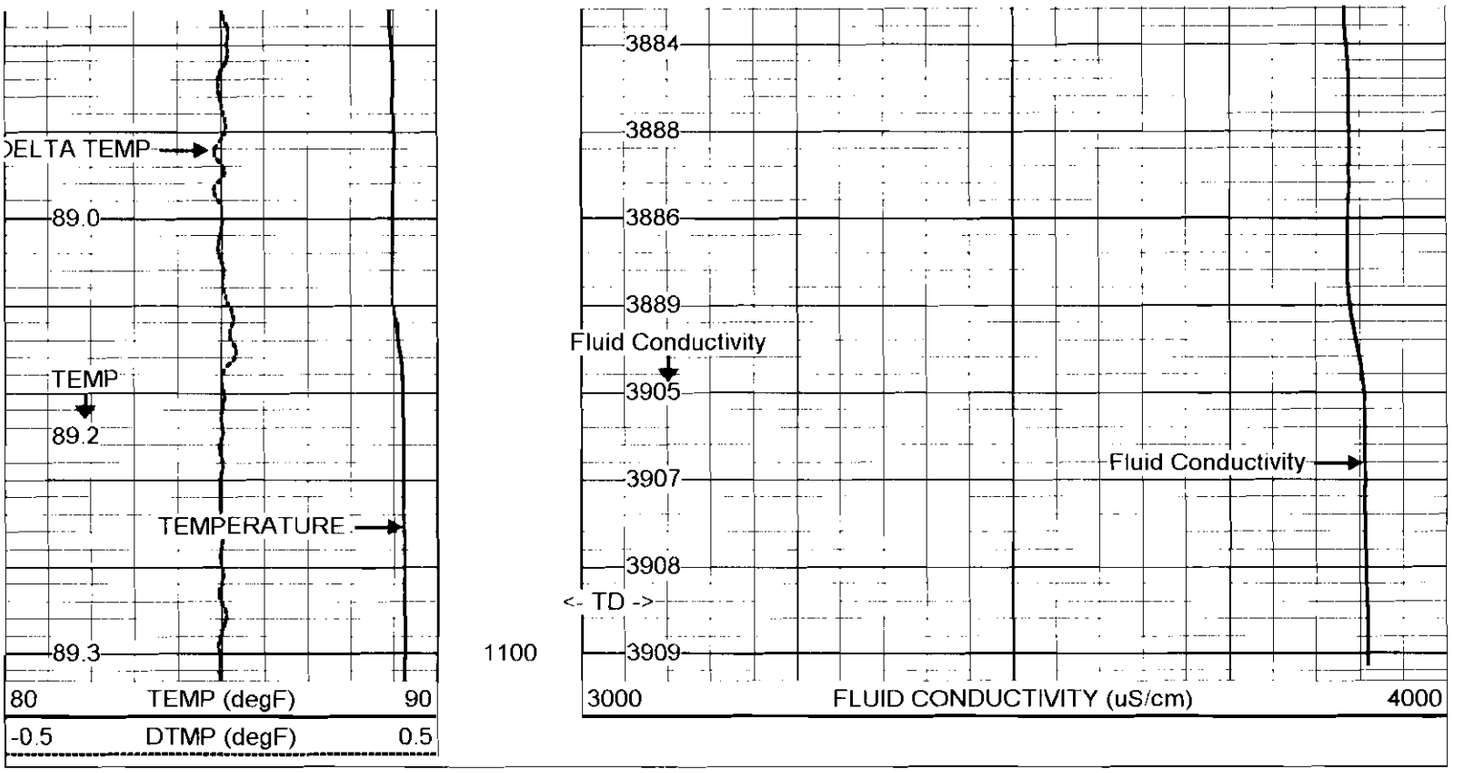
DYNAMIC FCT DOWN

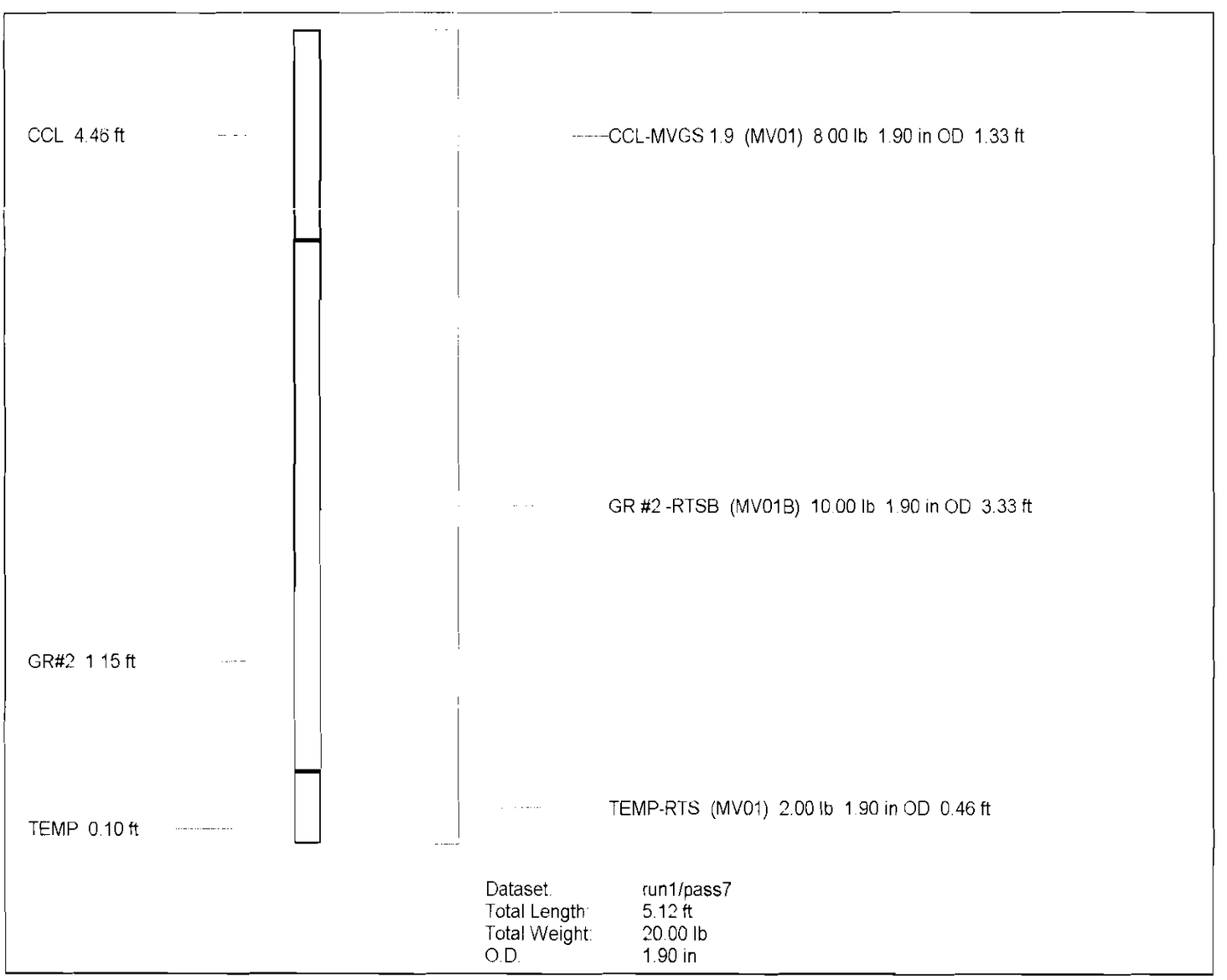
Database File:	fguaetw1.db
Dataset Pathname:	DFCT
Presentation Format:	fctfgua4.prs
Dataset Creation:	Tue Jun 05 13:06:46 2007
Charted by:	Depth in Feet scaled 1:240




86.3
86.3
86.3
86.4
86.1
86.7
87.2
87.6
87.8
600
700
3680
3678
3677
3676
3677
3677
3678
3675
3676
3678
3679
3681
3681
3681
3684
3719
3741
3748
3748
3761
3782
3782
3794
3794
3794


88.0
88.1
88.2
88.5
88.4
88.7
88.8
88.7
88.9
88.9
800
900
1000
3795
3802
3806
3807
3814
3818
3820
3822
3830
3842
3845
3841
3841
3861
3861
3863
3865
3870
3874
3864
3875
3878
3880
3878
3886


DELTA TEMP
89.0
TEMP
89.2
TEMPERATURE
89.3
80
TEMP (degF)
90
-0.5
DTMP (degF)
0.5
1100
3884
3888
3886
3889
Fluid Conductivity
3905
3907
3908
<- TD ->
3909
Fluid Conductivity
3000
FLUID CONDUCTIVITY (uS/cm)
4000


CCL 4.46 ft
CCL-MVGS 1.9 (MV01) 8.00 lb 1.90 in OD 1.33 ft
GR #2 -RTSB (MV01B) 10.00 lb 1.90 in OD 3.33 ft
GR#2 1.15 ft
TEMP 0.10 ft
TEMP-RTS (MV01) 2.00 lb 1.90 in OD 0.46 ft
Dataset: run1/pass7
Total Length: 5.12 ft
Total Weight: 20.00 lb
O.D. 1.90 in

Company Connect Consulting Inc.
Well ETW-1
Field Lehigh Acres
County Lee
State/Prv Florida

MV Geophysical

FLOWMETER LOG

Company	Connect Consulting Inc.
Well	ETW-1
Field	Lehigh Acres
County	Lee
State/Prv	Florida
Location	FGUA WTP Site 2 at Mirror Lake
Other Services	XY/GR,DIL FLOW,FCT DHTV

Permanent Datum	G.L.	Elevation ~31'	Elevation
Log Measured From	G.L.		K.B.
Drilling Measured From	G.L.		D.F.
			G.L. ~31'

Date	5-JUN-2007
Run Number	ONE
Depth Driller	1110'
Depth Logger	1094'
Bottom Logged Interval	1094'
Top Log Interval	355'
Open Hole Size	11.875"
Type Fluid	H2O
Density / Viscosity	NA/NA
Max. Recorded Temp.	see FCT log
Estimated Cement Top	NA
Time Well Ready	10:00 6/5/2007
Time Logger on Bottom	14:00 6/5/2007
Equipment Number	MVGS-1
Location	Ft. Myers
Recorded By	S.Miller
Witnessed By	J McGrath (LSS) D.Robertson (CCI)

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	11.875"	420'	1110' 1097' Logger				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	12"	12" ID	SURFACE	415' 408' Logger
Prot. String				
Production String				
Liner				
Invoice No	2007150		5X	* FINAL PRINT *

<<< Fold Here >>>

Comments

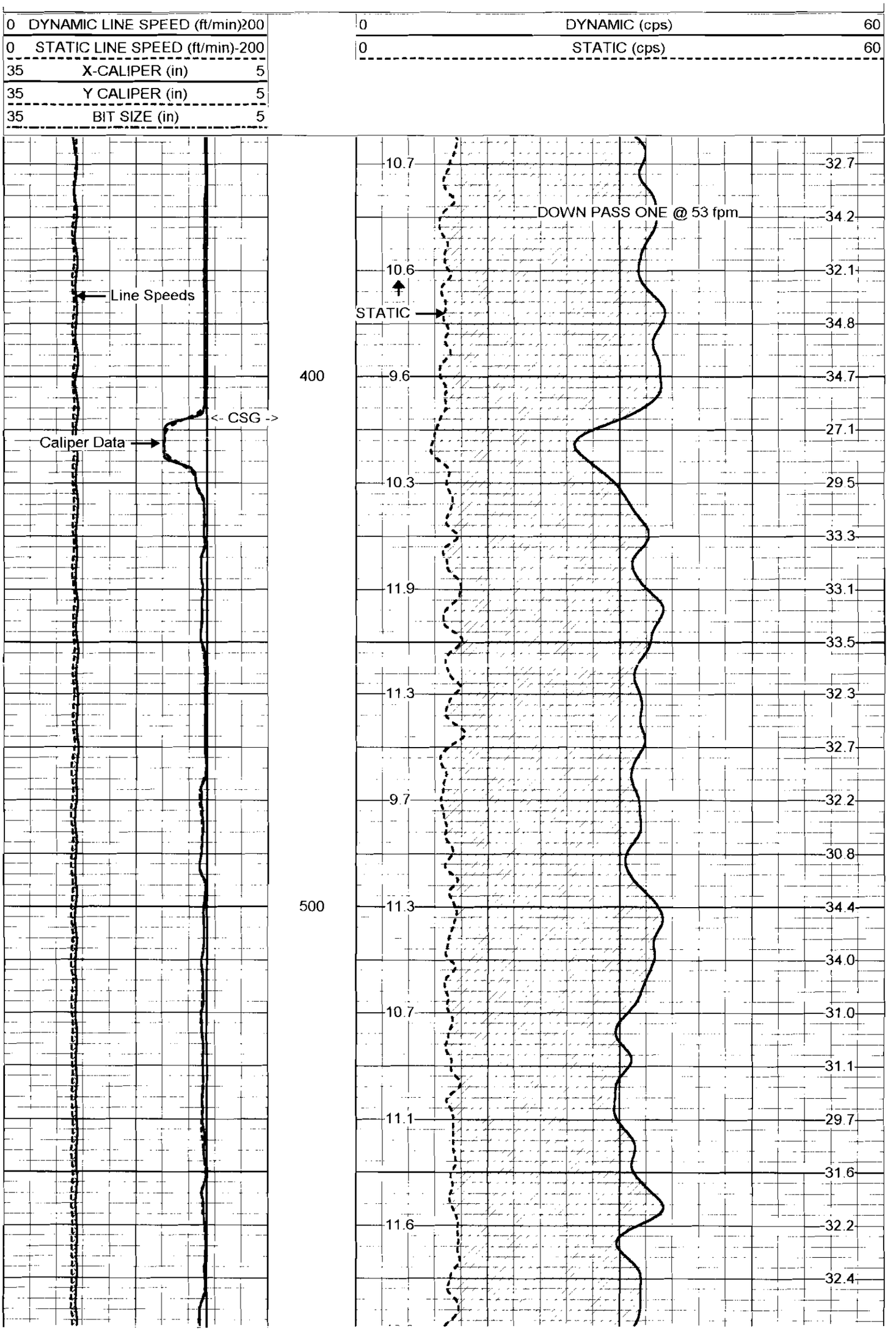
STATIC and DYNAMIC down passes were made at 53 fpm.

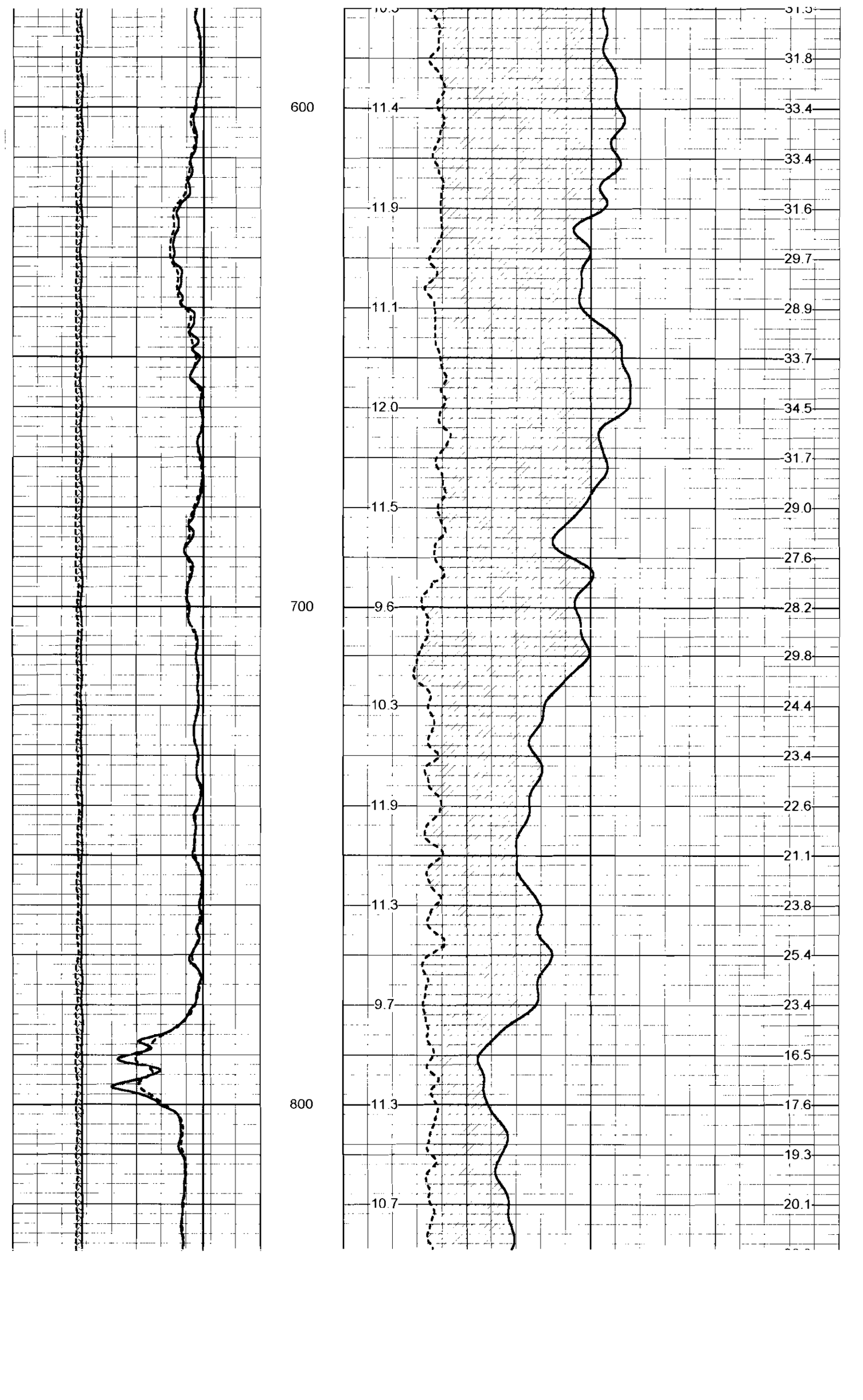
Q =~300 gpm

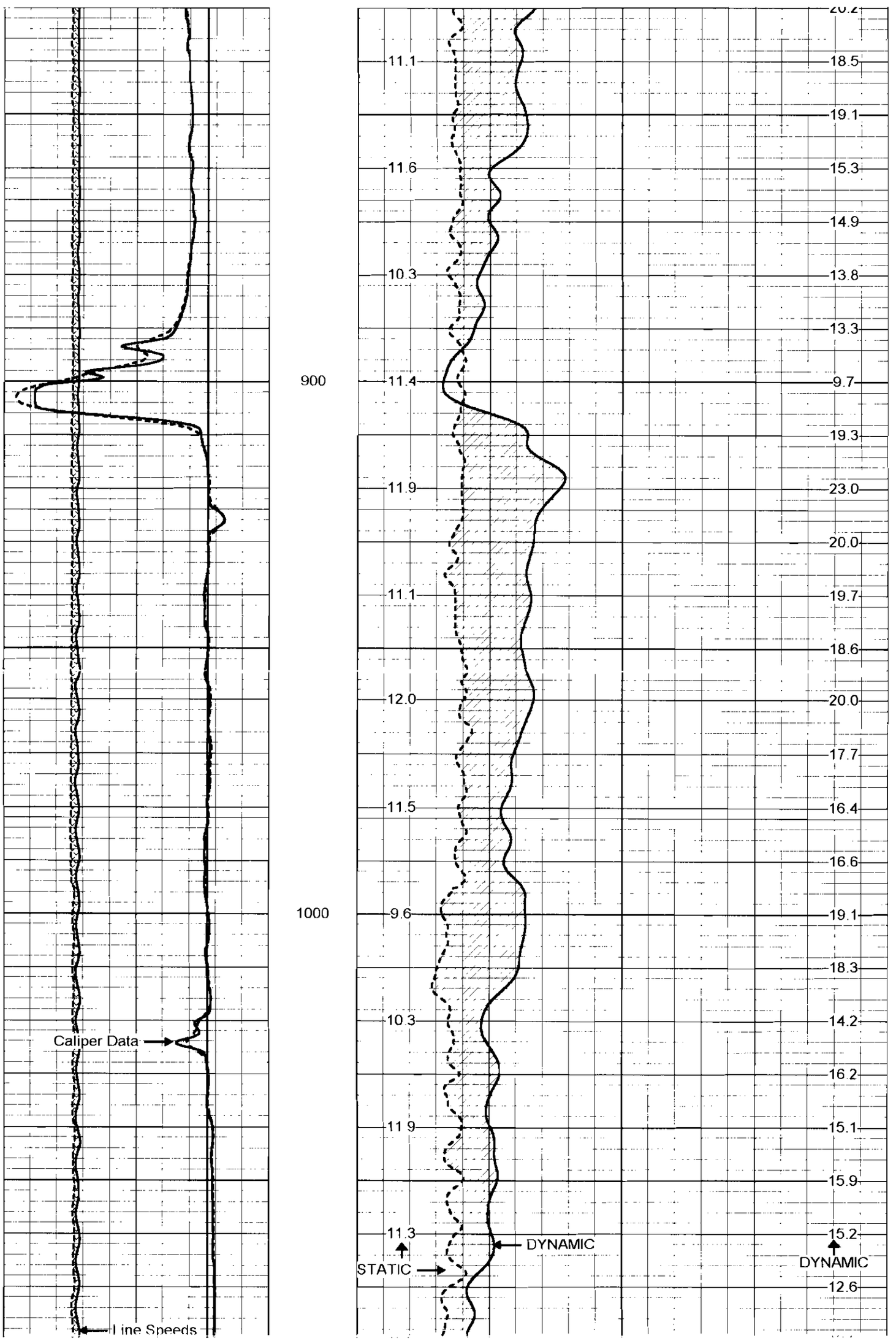
MV Geophysical

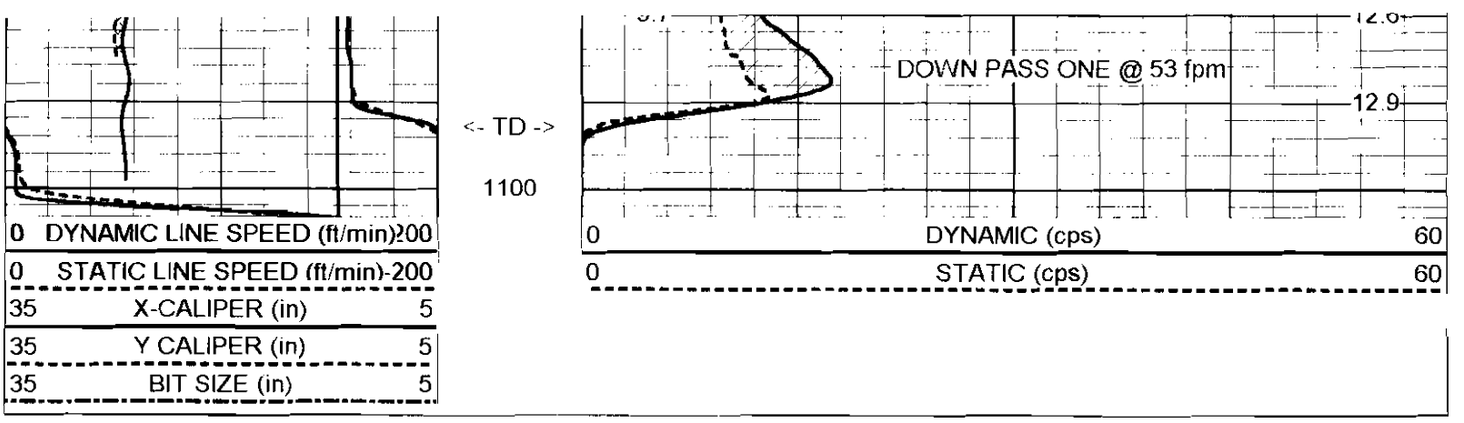
S/D DOWN @ 53 fpm

Database File:	fguaetw1.db
Dataset Pathname:	Sd50
Presentation Format:	qfgua4.prs
Dataset Creation:	Tue Jun 05 14:17:09 2007
Charted by:	Depth in Feet scaled 1:240


0 DYNAMIC LINE SPEED (ft/min) 200
0 STATIC LINE SPEED (ft/min) -200
35 X-CALIPER (in) 5
35 Y CALIPER (in) 5
35 BIT SIZE (in) 5
0 DYNAMIC (cps) 60
0 STATIC (cps) 60
Line Speeds
<- CSG ->
Caliper Data
400
500
DOWN PASS ONE @ 53 fpm
STATIC
10.7
10.6
9.6
10.3
11.9
11.3
9.7
11.3
10.7
11.1
11.6
32.7
34.2
32.1
34.8
34.7
27.1
29.5
33.3
33.1
33.5
32.3
32.7
32.2
30.8
34.4
34.0
31.0
31.1
29.7
31.6
32.2
32.4


600
700
800
11.4
11.9
11.1
12.0
11.5
9.6
10.3
11.9
11.3
9.7
11.3
10.7
31.8
33.4
33.4
31.6
29.7
28.9
33.7
34.5
31.7
29.0
27.6
28.2
29.8
24.4
23.4
22.6
21.1
23.8
25.4
23.4
16.5
17.6
19.3
20.1

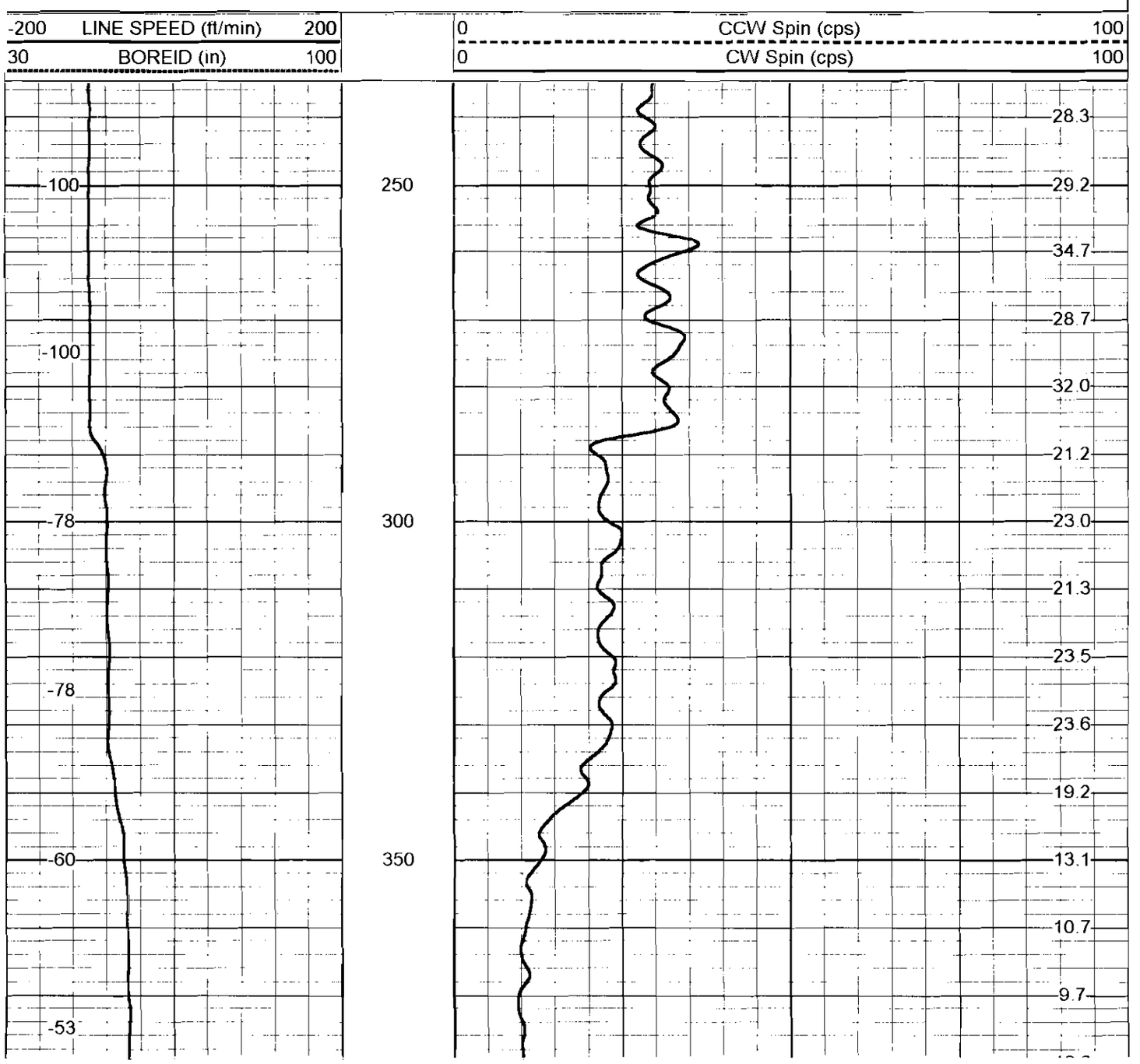

900
1000
Caliper Data
Line Speeds
11.1
11.6
10.3
11.4
11.9
11.1
12.0
11.5
9.6
10.3
11.9
11.3
STATIC
DYNAMIC
15.2
DYNAMIC
12.6
20.2
18.5
19.1
15.3
14.9
13.8
13.3
9.7
19.3
23.0
20.0
19.7
18.6
20.0
17.7
16.4
16.6
19.1
18.3
14.2
16.2
15.1
15.9

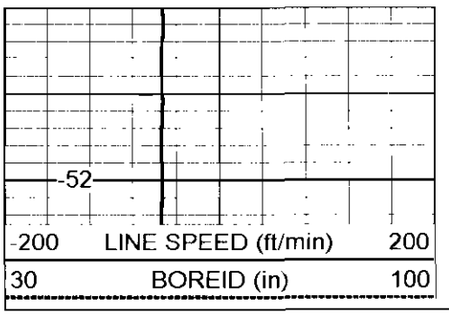


MV Geophysical

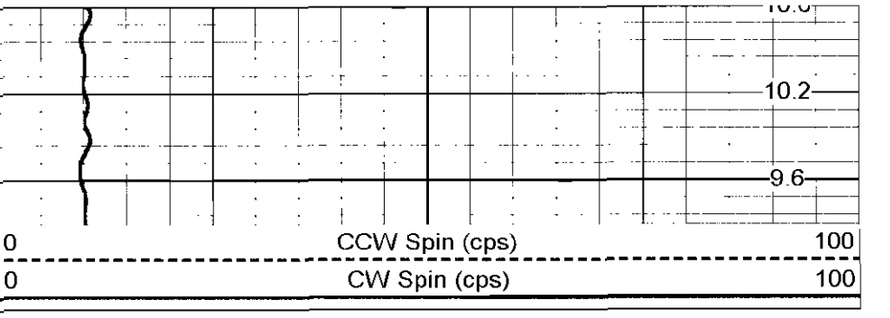
Q Calibration Down

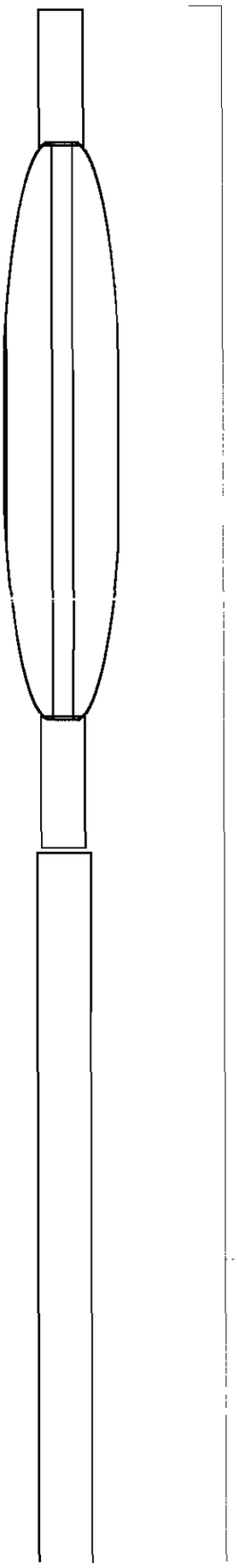
Database File: fguaetw1.db
Dataset Pathname: pass9
Presentation Format: flow.prs
Dataset Creation: **Tue Jun 05** 13:26:30 2007 by Log VER_5.3
Charted by: Depth in Feet scaled 1:240





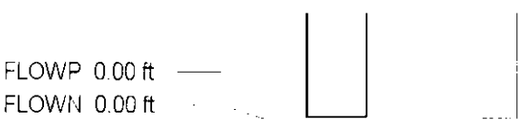
400





CENT-5FOOTSB (5FTSB) 50.00 lb 1.69 in OD 5.00 ft

FLOW-LARGE (65) 35.00 lb 3.75 in OD 4.80 ft



Dataset:	run1/pass9
Total Length:	9.80 ft
Total Weight:	85.00 lb
O.D.	3.75 in

AQUIFER DATA SYSTEMS

GAMMA RAY/CALIPER

COMPANY CONNECT CONSULTING INC.
WELL ID ETW-1
FIELD FGUA LEHIGH ACRES WTP#2
COUNTRY LEE STATE FLORIDA

CO
WELL
FLD
CTY
STE
FILING No

LOCATION

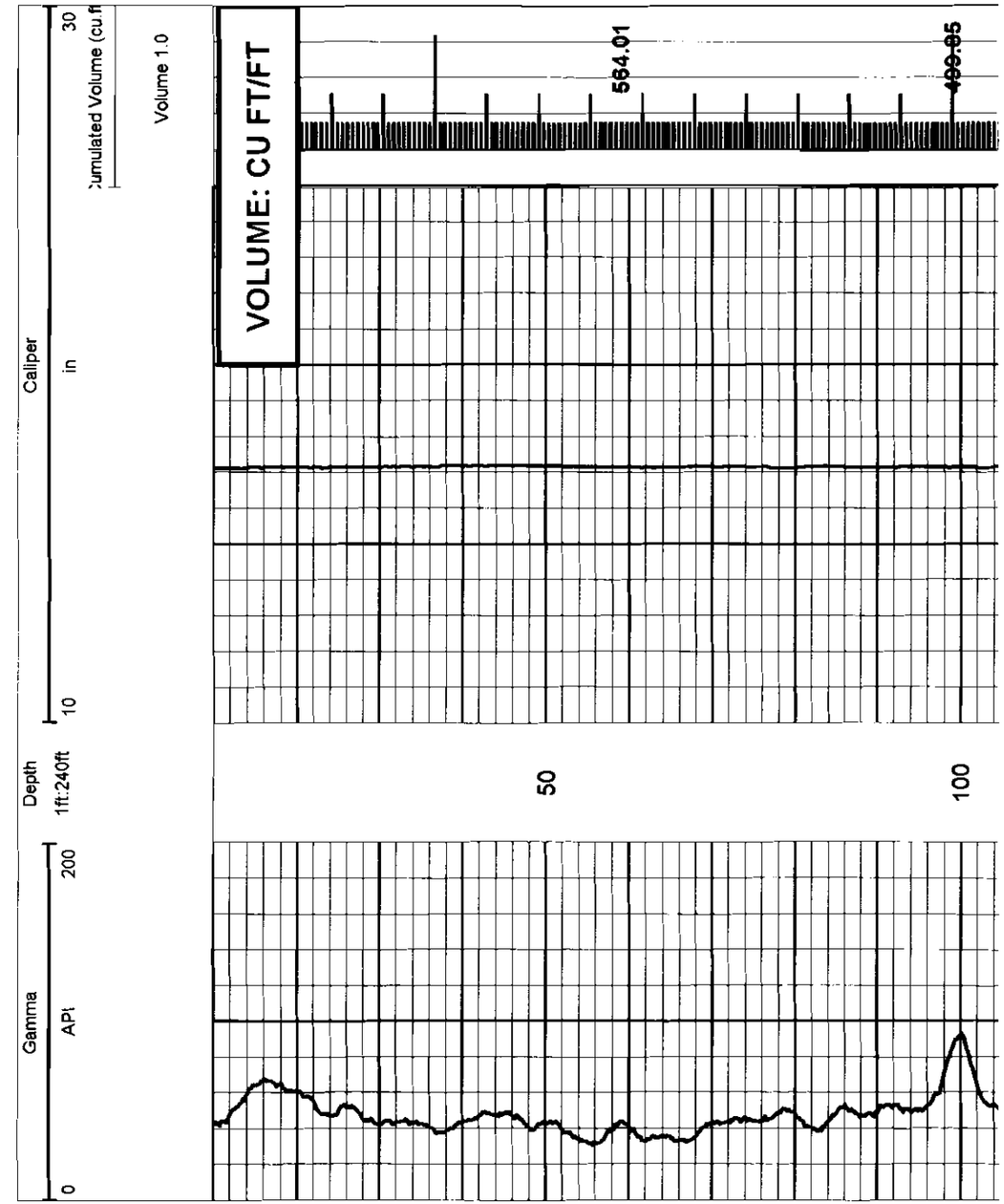
SEC TWP RGE

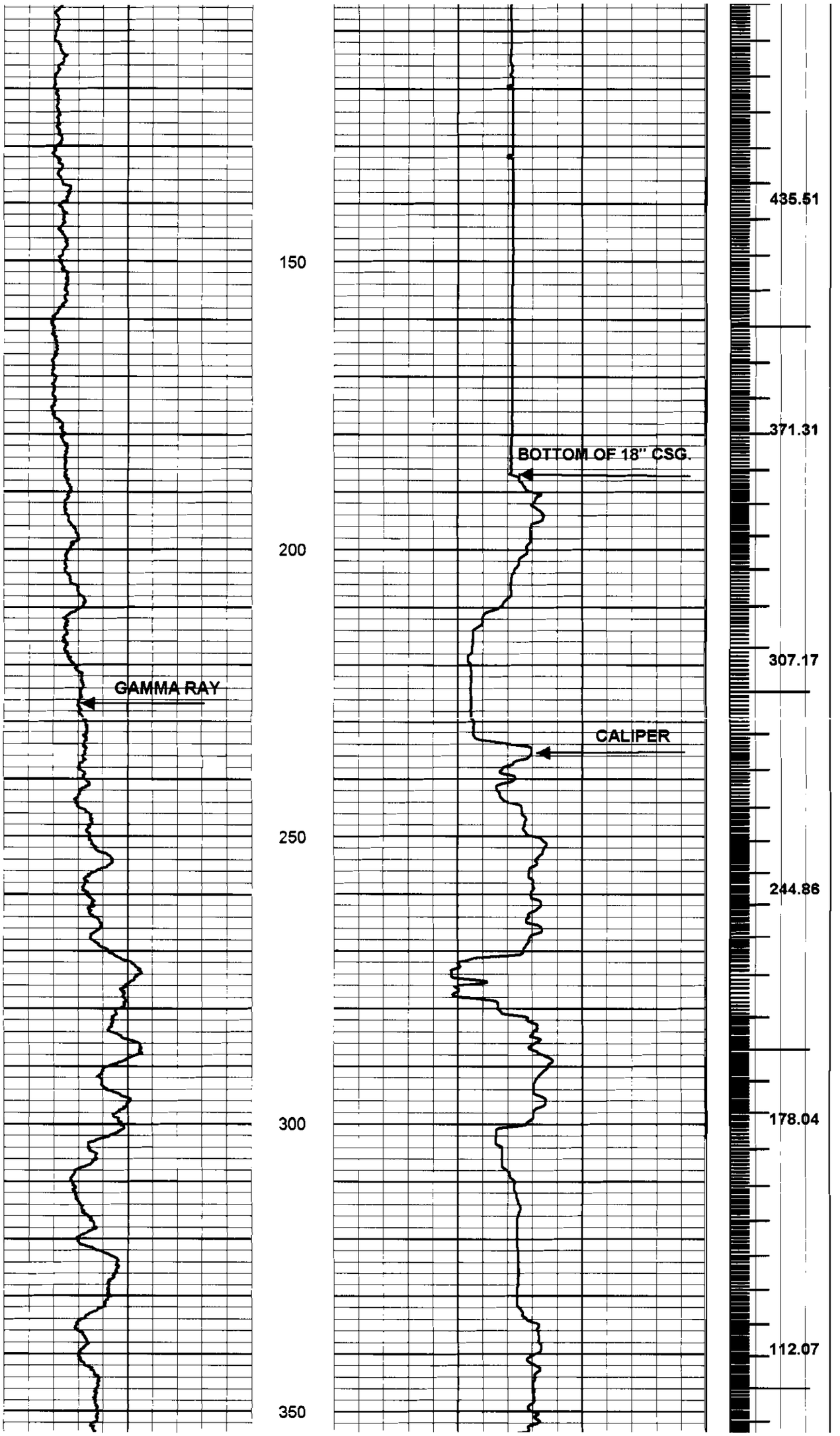
OTHER SERVICES

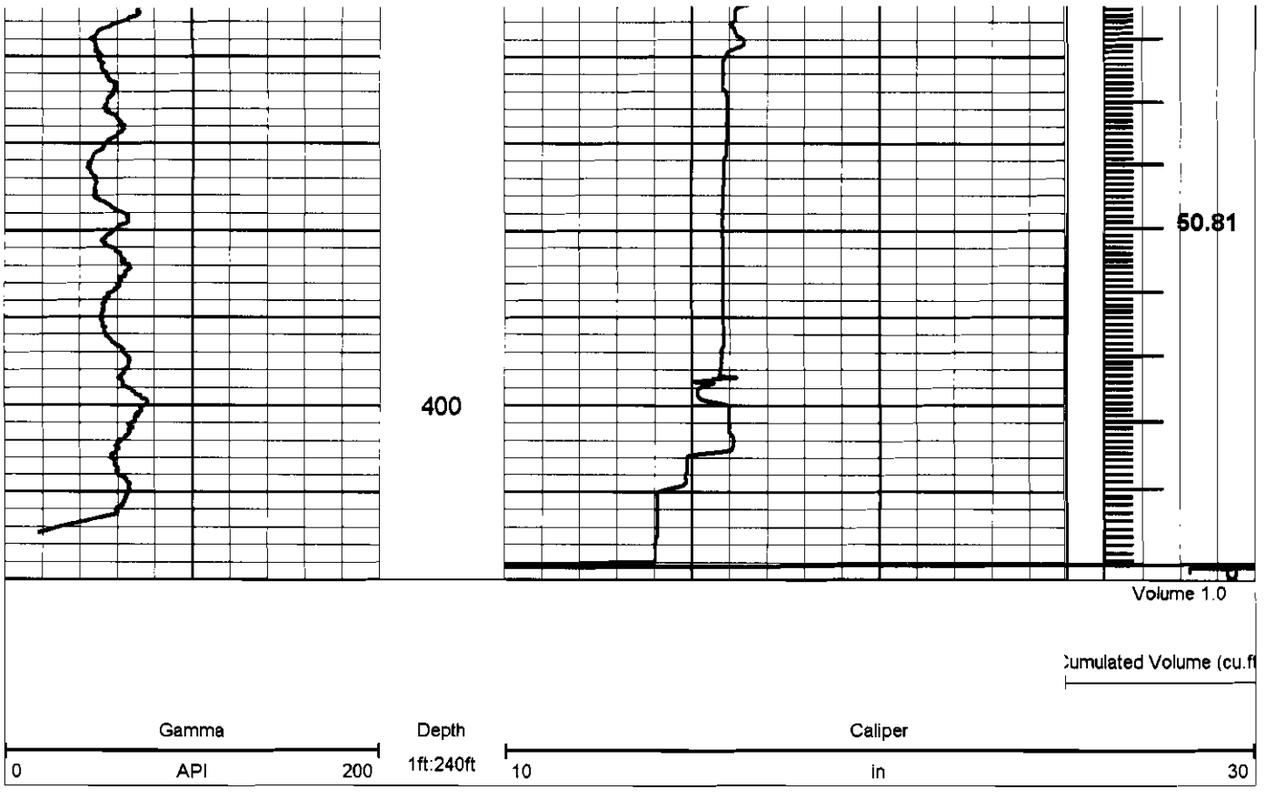
PERMANENT DATUM	GROUND LEVEL	ELEVATION	K.B.
LOG MEAS. FROM	TOC	ABOVE PERM. DATUM	D.F.
DRILLING MEAS. FROM	TOC		G.L.

DATE	5-10-07	TYPE FLUID IN HOLE	MUD
RUN No	ONE	SALINITY	
TYPE LOG	GR-CALIPEFR	DENSITY	
DEPTH-DRILLER	420'	LEVEL	
DEPTH-LOGGER	420'	MAX. REC. TEMP.	
BTM LOGGED INTERVAL	420'		
TOP LOGGED INTERVAL	10'		
OPERATING RIG TIME	1 HOUR		
RECORDED BY	D. WILSON		
WITNESSED BY	DAVID ROBERTSON.-CCI		

RUN	BOREHOLE RECORD			CASING RECORD			
NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
1	29"	SURF.	41'	24"		SURF.	41'
2	23"	41'	187'	18"		SURF.	187'
3	17"	187'	420				




150
200
250
300
350
GAMMA RAY
BOTTOM OF 18" CSG.
CALIPER
435.51
371.31
307.17
244.86
178.04
112.07


400
50.81
0
Volume 1.0
Cumulated Volume (cu.ft
Gamma
0
API
200
Depth
1ft:240ft
Caliper
10
in
30

Appendix C
Borehhole Television Survey

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Appendix D
Lithologic Log

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Water Resource Consultants

Lithologic Log

CCI Connect Consulting, Inc.
Water Resource Consultants

Client Name	Malcolm Pirnie/FGUA	Date	April 11 – May 26, 2007	Page 1 / 2
Project Name	Mirror Lakes Wellfield Expansion	Weather		
Project Location	Lehigh Acres, Lee Co., Florida	Report By	David Robertson / James McGrath	
Well / Boring ID	Exploratory Test Well ETW-1			
Drilling Contractor	Parsons Well Drilling			
Drilling Method	Mud Rotary to ~600 ft. Reverse Air to TD at 1,110 ft.			

Depth (ft)	Description
0-5	Sand, light gray (N7), medium to fine grained, subangular to subrounded: minor shell
5-25	Limestone, very pale orange (10YR 8/2), micritic – biomicritic: minor molds/casts
25-35	Marl, yellowish gray (5Y 8/2), soft
35-45	Clay, yellowish gray (5Y 7/2) , moderately soft: minor sand, phosphate, and limestone
45-58	Clay, grayish olive (10Y 4/2), stiff, softer with depth: minor phosphate
58-70	Limestone, light greenish gray (5GY 8/1), biomicritic, moderately hard: minor sand, phosphate, shell, and clay stringers with depth
70-75	Sandy Limestone, yellowish gray (5Y 7/2): minor shell and phosphate
75-105	Semi-consolidated Sandstone and Shell, yellowish gray (5Y 7/2): very fine grained subrounded sand, phosphate
105-110	Shelly Sand, light greenish gray (5GY 8/1), fine to coarse grained, subrounded: minor sandstone, phosphate, and pebbles
110-125	Clayey Sand, grayish green (10GY 5/2) to greenish gray (5GY 6/1), medium to coarse grained, subangular to subrounded: phosphate
125-130	Sandy clay, greenish gray (5GY 6/1): phosphate
130-162	Clayey Sand, greenish gray (5GY 6/1), medium to coarse grained, subangular to subrounded: phosphate, more clay from 140 to 153 ft
162-186	Sandy Limestone, very pale orange (10YR 8/2) to yellowish gray (5Y 8/1): moderately soft from 162-175 ft., then hard to 187 ft. (Base of surficial aquifer)
186-220	Sandy Clay, greenish gray (5GY 6/1), stiff
220-230	Limestone, light grey, very fine to fine quartz sand
230-250	Sandy Clay, light olive grey, sandy, increasing phosphate content with depth
250-270	Sandy Clay, light olive to light grey, trace phosphatic minerals
270-310	Sandy Clay, light olive grey, significant quartz sand, phosphates, shell and limestone fragments
310-325	Limestone, very pale orange, coralline, sandy, slightly phosphatic, secondary mineralization
325-370	Sandy Clay, olive grey, minor limestone fragments, phosphatic grains, quartz sand grains
370-410	Limestone, light olive grey, sandy, clay content increasing with depth
410-450	Clay, light grey, sandy, minor limestone fragments, minor quartz sand, trace phosphates
450-470	Limestone, light olive grey, sandy, contains quartz sand, phosphatic minerals, increasing clay content with depth

Lithologic Log

CCI Connect Consulting, Inc.
Water Resource Consultants

Client Name	Malcolm Pirnie/FGUA	Date	April 11 – May 26, 2007	Page 2 / 2
Project Name	Mirror Lakes Wellfield Expansion	Weather		
Project Location	Lehigh Acres, Lee Co., Florida	Report By	David Robertson / James McGrath	
Well / Boring ID	Exploratory Test Well ETW-1			
Drilling Contractor	Parsons Well Drilling			
Drilling Method	Mud Rotary to ~600 ft. Reverse Air to TD at 1,110 ft.			

Depth (ft)	Description
470-480	Clay, grey, sandy, phosphatic, some limestone fragments
480-520	Limestone, light grey, sandy, phosphatic, vuggy, clay from 510-520
520-550	Clay, light grey, phosphatic content ~20%, limestone content decreasing with depth, trace quartz sand
550-560	Clay, dark olive green/grey, slightly phosphatic, trace quartz sand and limestone fragments
560-570	Limestone, light grey, clayey, moderate phosphate content
570-610	Clay, light grey, sandy, limestone content increasing with depth, phosphate content decreasing
610-660	Limestone, olive grey, clayey, trace phosphate minerals, clay content decreasing from ~50% at 610 feet to trace at 640 feet
660-680	Limestone/Dolostone, very pale orange, lime mud, vuggy, abundant foraminifera, increasing phosphatic content with depth
680-700	Dolostone, light to dark grey, phosphate content ~5-10%
700-710	Limestone, very pale orange, large foraminifera, calcilutite
710-750	Dolostone, light grey, chalky, foraminifera, phosphatic content ~5-10%
750 - 790	Limestone/Sandstone, medium grey, medium grain calcarenite, very fine to fine quartz sand, subangular, phosphates and shell fragments present
790-810	Limestone/Sandstone, light brown, friable, calcarenite, appears tight, but drills easily, trace phosphates
810-820	Limestone, light brown, sandy, very fine to fine quartz sand, no phosphatic minerals noted
820-910	Limestone, very pale orange, sandy, fine grain quartz sand, no phosphatic minerals noted
910-924	Sand, very pale orange, very fine grain, subangular to subrounded, well sorted, contains variety of carbonate debris; lime mud noted from ~915-924 feet beneath sand
924-940	Limestone, very pale orange, calcarenite, trace quartz sand, shell fragments
940-1020	Limestone, very pale orange to light grey, calcarenite, pelletoid inclusions, slightly dolomitic
1020-1060	Limestone, very pale orange, slightly chalky, lime mud, no foraminifera, secondary mineralization
1060-1080	Limestone, very pale orange, calcarenite
1080-1090	Limestone, very pale orange, calcarenite trending to calcilutite
1090-1110	Limestone, very pale orange, lime mud, abundant shell fragments, calcilutite, foraminifera.

Appendix E
Laboratory Analytical Data

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Water Resource Consultants

Appendix E – Laboratory Analytical Data

US BIOSYSTEMS

ANALYTICAL RESULTS
[illegible]

[illegible]

DAVID ROGERSON
CONNECT CONSULTING INC
[illegible]

DAVID ROGERSON
CONNECT CONSULTING INC
[illegible]

Project No: 003932, CONNECT CONSULTING, INC. Inv. No: 19430
Job Name: FGUA LEHIGH ACRES WTP # 2 TEST FLORIDAN WELL
Job Id

Collected by: Customer Supplied

Laboratory Sample #	Client Sample #
L232192-1	FTW-1

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to own NELAC requirements.
Flags: ND or U-below MDL; IL-meets internal lab limits;MI-matrix interference; NA-not applicable.
Flags: TFR-Property tube; NFL-no free liquids; DRY = dry wt; ASIS = wet wt; C(#) See attached USB code
FLDEP Flags: J(#)-estimated 1.surr. fail 2.no known QC req. 3:QC fail SR or SRPD; 4:matrix int. 5: sprague fld. protocol; E-exceeds calibration; Q-holding time exceeded.
FLDEP Flags: T value<MDL; Y present in blank; X-improper preservation; B concerns exceed range;I estimated value;between the MDL and PQL;
Lab certification IDs: [illegible] FL6240; NC 444; SC 96031001; [illegible] 200026; VA 00456; [illegible]; TN 02965; [illegible]
[illegible]
Lab ID's: ADEH 40852; USDA Soil Permit # S-36240, the above results relate only to the samples

US Biosystems 323 N 25th Avenue Boca Raton, FL 33431 (888)682-6227

Page 1 of 3 Serial Number: 65216

Respectfully submitted,

Sherree Baker
Project Manager

Appendix E – Laboratory Analytical Data

ANALYTICAL RESULTS
Printed: 08/07/07 12:51pm

Project No: 003932, COMECT CONSULTING, INC
Job Name: FGUA LEHIGH ACRES WTP # 2 TEST FLORIDAN WELL
Job Id:

Inv. No: 191350

Sample Number: L232192-1
Sample Description: ETW-1
Samp. Date/Time/Temp: 07/14/07 02:30pm NA C
Receive Date: 07/14/07
Sampled By: Customer Sampled
Received Temp: 3 C Iced (Y/N): Y

Parameter	Method	Result		DIL	MDL	PQL	Prep Date,Time	Test Date, Time,Analyst	
Metals Analysis									
ALUMINUM	3010/6010B	0.255	mg/l	1	0.056	0.10	07/16 00:00	07/18 03:49	JG
ALUMINUM DISSOLVED	3010/6010B	U	mg/l	1	0.056	0.10	07/16 00:00	07/18 03:54	JG
BARIUM	3010/6010B	0.0288	mg/l	1	0.0026	0.010	07/16 00:00	07/18 03:49	JG
CALCIUM	3010/6010B	148	mg/l	1	0.080	0.10	07/16 00:00	07/18 03:49	JG
IRON	3010/6010B	0.184 I	mg/l	1	0.075	0.20	07/16 00:00	07/18 03:49	JG
IRON DISSOLVED	3010/6010B	U	mg/l	1	0.075	0.20	07/16 00:00	07/18 03:54	JG
POTASSIUM	3010/6010B	31.4	mg/l	1	0.17	0.70	07/16 00:00	07/18 03:49	JG
MAGNESIUM	3010/6010B	143	mg/l	1	0.036	0.080	07/16 00:00	07/18 03:49	JG
MANGANESE	3010/6010B	U	mg/l	1	0.0022	0.010	07/16 00:00	07/18 03:49	JG
MANGANESE DISSOLVED	3010/6010B	U	mg/l	1	0.0022	0.010	07/16 00:00	07/18 03:54	JG
SODIUM	3010/6010B	581	mg/l	1	0.064	0.25	07/16 00:00	07/18 03:49	JG
SILICA	3010/6010B	18.6	mg/l	1	0.16	0.64	07/16 00:00	07/18 03:49	JG
SILICA DISSOLVED	3010/6010B	16.1	mg/l	1	0.074	0.64	07/16 00:00	07/18 03:54	JG
STRONTIUM	3010/6010B	17.2	mg/l	1	0.0036	0.015	07/16 00:00	07/18 03:49	JG
Dissolved Gases									
CARBON DIOXIDE (VAPORTECH)	M1.01	4.1	mg/l	1	0.40	0.40	N/A	07/23 12:00	SUB
Ion Chromatography									
FLUORIDE	300.0	0.46A	mg/l	1	0.030	0.20	N/A	07/14 23:27	SM
NITRATE (AS N)	300.0	U	mg/l	1	0.0056	0.050	N/A	07/14 23:27	SM
SULFATE	300.0	436. V	mg/l	50	0.12	25	N/A	07/21 19:35	SM
Bicarbonate Alkalinity									
BICARBONATE ALKALINITY	SM4500C02D	146	mg/l	1	2.0	2.0	N/A	07/19 08:30	SA
Carbonate Alkalinity									
CARBONATE ALKALINITY	SM4500C02D	U	mg/l	1	2.0	2.0	N/A	07/19 08:30	SA
Chloride									
CHLORIDE	325.2	1360 V	mg/l	10	1.3	10	N/A	07/16 16:23	ZE

Serial Number: 652161

Appendix E – Laboratory Analytical Data

ANALYTICAL RESULTS

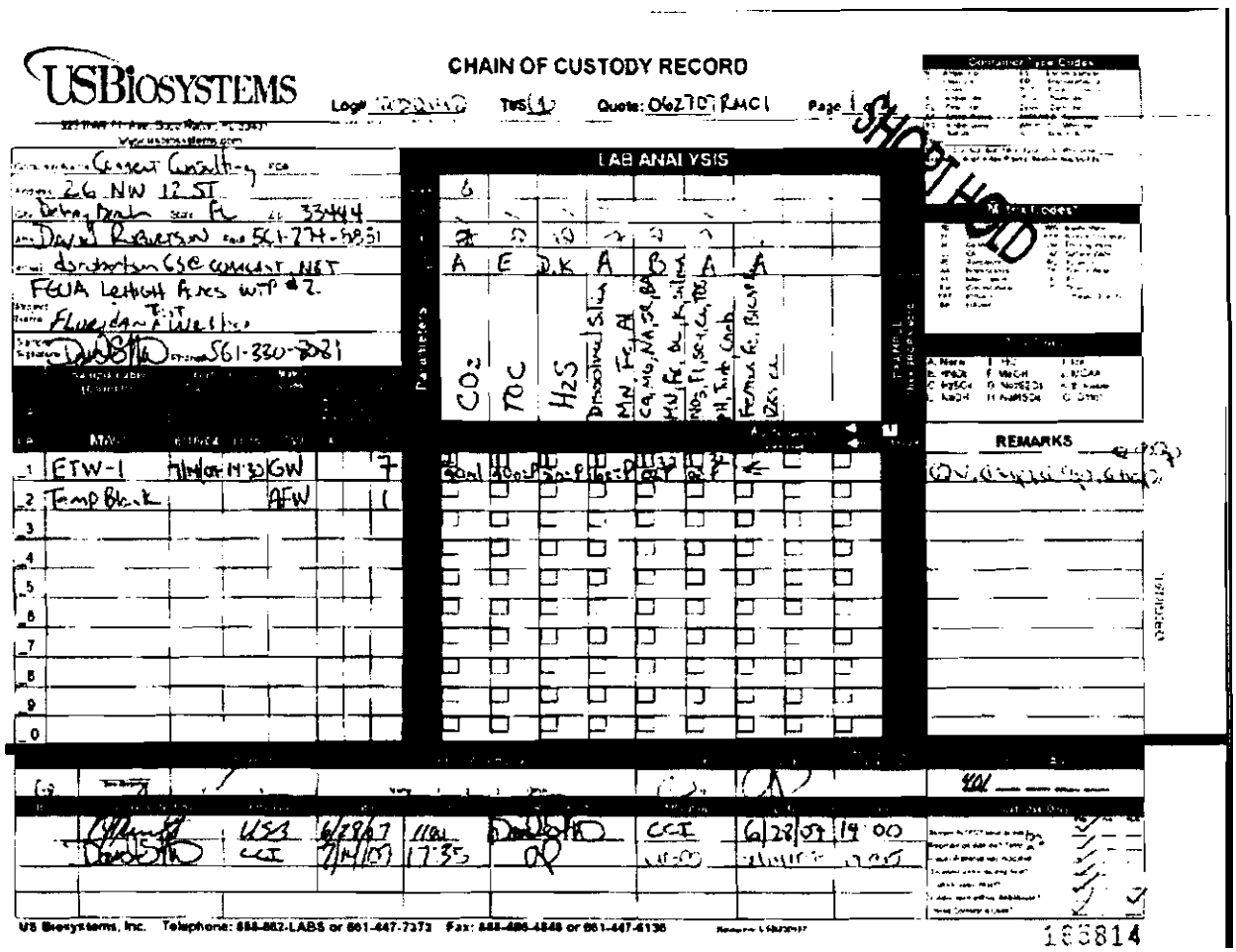
Printed: 08/02/07 12:51pst

Project No: 003337, CONNECT CONSULTING, INC
Job Name: FGUA LEHIGH ACRES WTP # 2 TEST FLORIDIAN WELL
Job Id:

Inv. No: 191360

Sample Number: L232192-1
Sample Description: ETW-1
Sample Date/Time: 07/24/07 02:30pm
Receive Date: 07/24/07
Sampled By: Customer Sampled

Parameter	Method	Result		DL	MDL	LOQ	Prep Date, Time	Test Date, Time,Analyst
Total Chlorine CHLORINE TOTAL, LAB	330.5	1.0	mg/l	1	0.10	0.20	N/A	07/25 09:00 SA
Ferrous Iron FERROUS IRON	SM4500-Fe-B	1.0	mg/l	1	0.171	0.20	N/A	07/25 10:00 STK
Hydrogen Sulfide TOTAL SULFIDE AS S	376.1	5.20	mg/l	1	0.80	1.0	N/A	07/17 14:05 ZT
pH PH, LAB	SW4500-H	7.66	units	1	0.10	0.20	N/A	07/23 17:30 TP
Total Dissolved Solids TOTAL DISSOLVED SOLIDS	160.1	2800	mg/l	4	28	40	N/A	07/19 17:00 SA
Total Organic Carbon TOTAL ORGANIC CARBON	415.1	2.12	mg/l	1	0.75	1.0	N/A	07/20 01:30 STK
Turbidity TURBIDITY	180.1	2.00	ntu	1	0.054	0.10	N/A	07/18 12:00 TOO



ANALYTICAL RESULTS
Printed: 08/10/07 05:07pm

Project No: 003932, CONNECT CONSULTING, INC
Job Name: FGUA LEHIGH ACRES WTP # 2
Job Id

Inv No: 195357

Sample Number: 1233771 1
Sample Description: Flw-1
Samp Date/Time/Temp: 07/18/07 02:30pm N4 C
Receive Date: 08/07/07
Sampled by: Customer Sampled

Parameter	Method	Result		DIL	MDL	PQL	Prep Date,Time	Test Date, Time,Analyst
Phosphorus PHOSPHORUS	365.1	0.0177	mg/l	1	0.0053	0.010	N/A	08/10 00:00

USBIOSYSTEMS

3231 NW 7th Ave, Boca Raton, FL 33431

CHAIN OF COMPUSTODY RECORD

Re-ACC Re-ACC

Log # | T# | Quote ______ | Page __ of __

Company Name: Connect Consulting
Address: 56 NW 12 St.
City: Delray Beach, FL 33444
Attn: David Robertson
Project Name: FGUA Lehigh Acres WTP #2

LAB ANALYSIS

Parameters: Total Phosphorus Re-ACC

	Sample ID	Date	Time	Matrix		
1	ETW-1	07/18/07	1430	GW	X	1
2						
3						
4						
5						
6						
7						
8						
9						
0						

REMARKS

Re-ACC

Matrix Codes

Relinquished: USBS 8/10/07 14:26 — Received: USBS 8/10/07 14:26

US Biosystems, Inc. Telephone: 888-852-LABS or 561-447-7373 Fax: 888-456-4846 or 561 447 6136

168919

RFI - Response

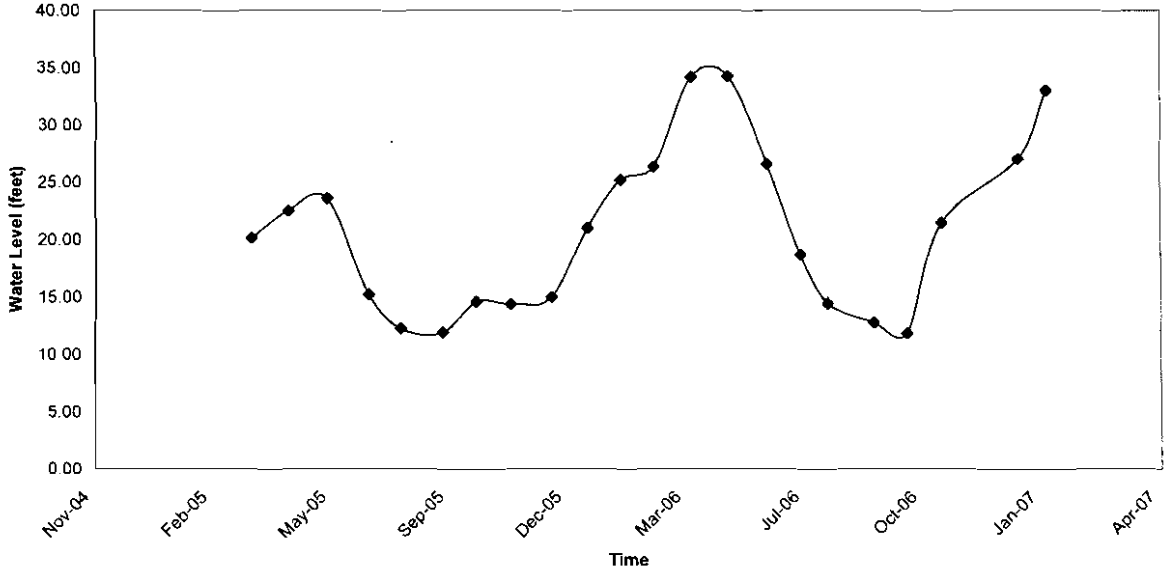
CCI
Connect
Consulting, Inc.
Water Resource Consultants

RFI Response - Questions No. 3, 5

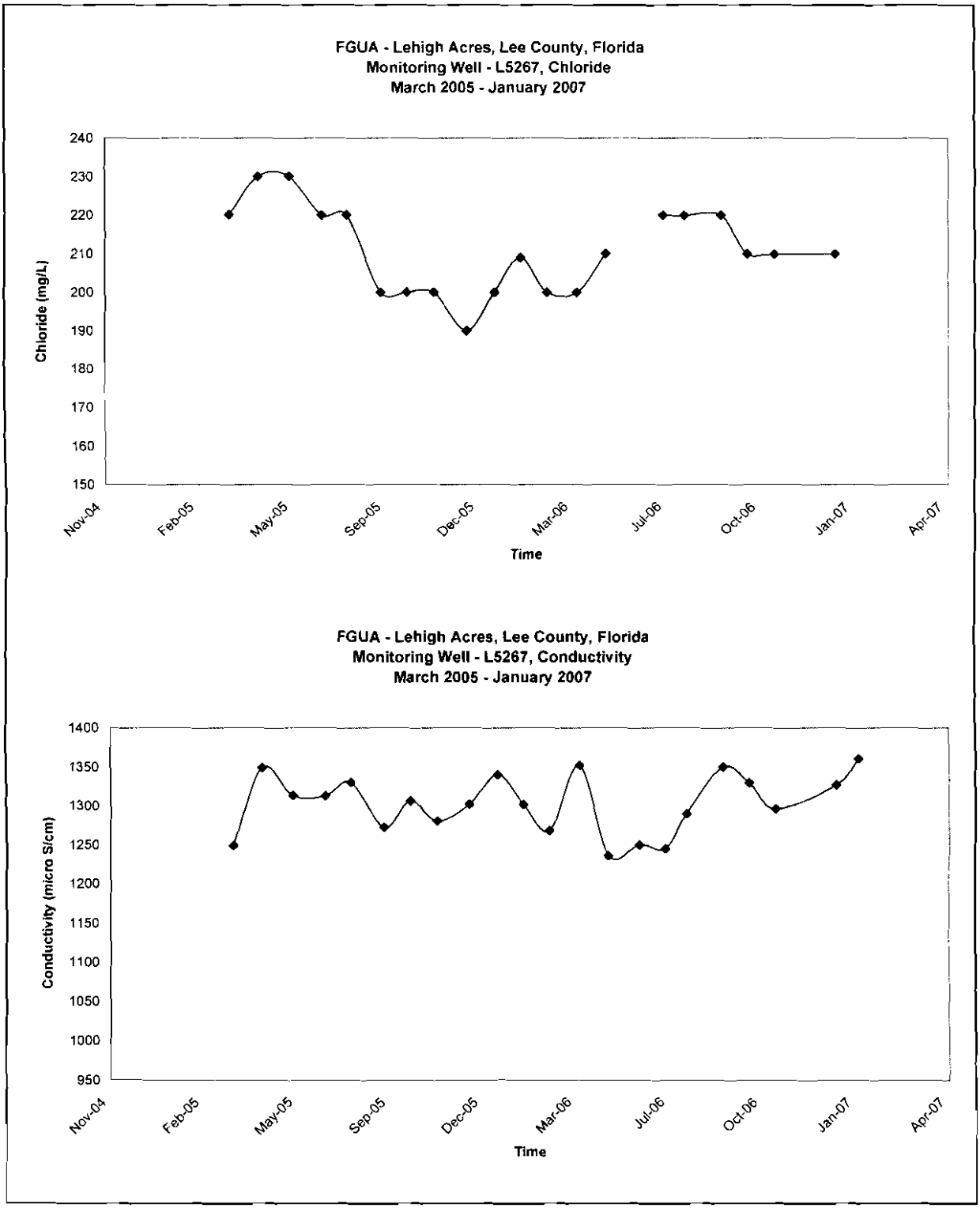
Monitoring Well No.	L5267
Total Depth	222 ft
Diameter	4 in
TOC	0.6 AGL

Date	Water Depth (decimal) ft	Chloride mg/L	Conductivity $\mu S/cm$
November 2, 2002	15.75		
December 4, 2002	19.83		
December 31, 2002	20.00		
March 21, 2005	20.17	220	1249
April 21, 2005	22.50	230	1349
May 24, 2005	23.58	230	1313
June 28, 2005	15.25	220	1313
July 25, 2005	12.25	220	1330
August 30, 2005	11.88	200	1272
September 27, 2005	14.54	200	1306
October 26, 2005	14.31	200	1280
November 30, 2005	14.96	190	1302
December 30, 2005	21.00	200	1340
January 27, 2006	25.13	209	1302
February 24, 2006	26.33	200	1268
March 28, 2006	34.17	200	1352
April 28, 2006	34.21	210	1236
May 31, 2006	26.56		1250
June 28, 2006	18.67	220	1245
July 21, 2006	14.42	220	1290
August 29, 2006	12.75	220	1350
September 26, 2006	11.83	210	1330
October 25, 2006	21.44	210	1296
December 29, 2006	27.00	210	1327
January 22, 2007	33.00		1360

FGUA - Lehigh Acres, Lee County, Florida
Monitoring Well - L5267, Water Level
March 2005 - January 2007



RFI Response - Questions No. 3, 5

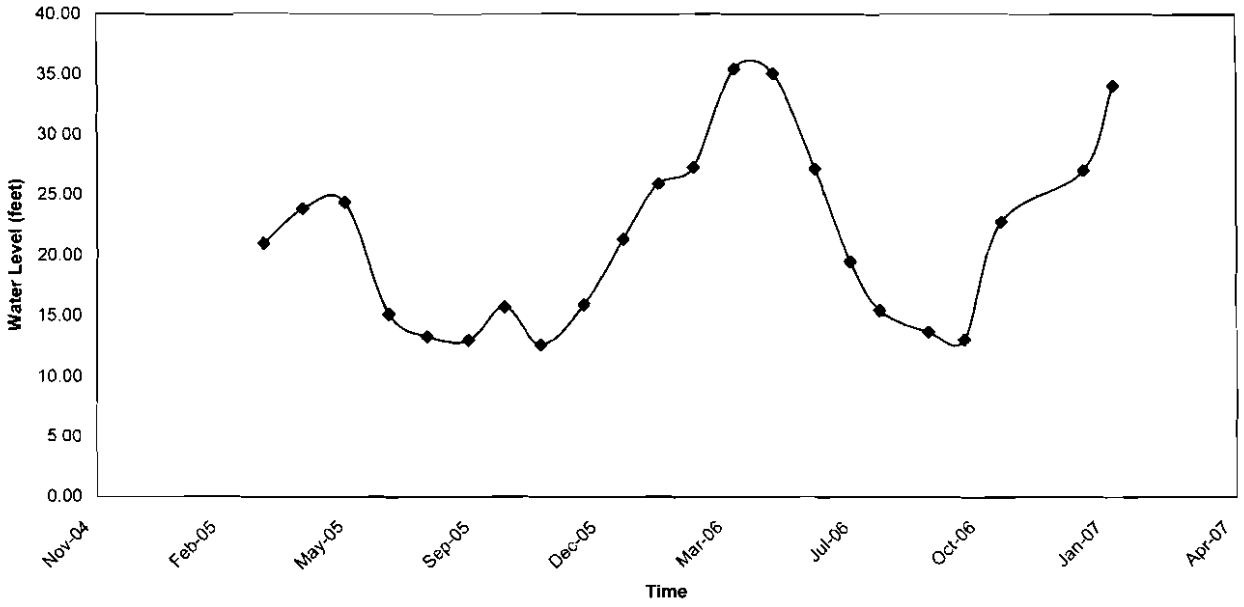


RFI Response - Questions No. 3, 5

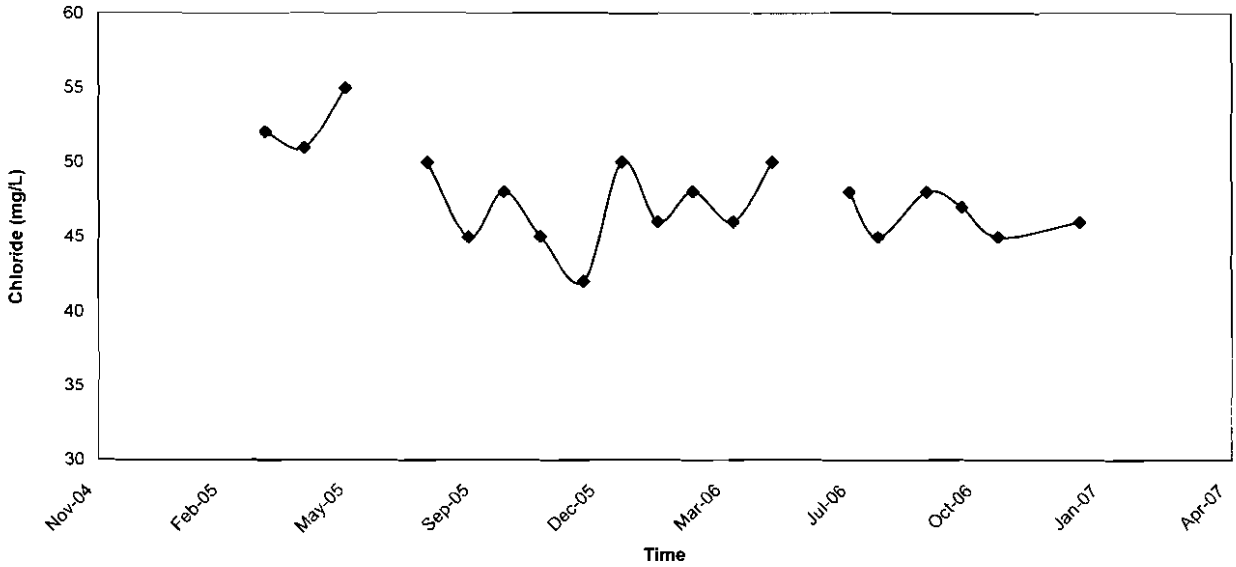
Monitoring Well No.	**L5268**
Total Depth	120 ft
Diameter	4 in
TOC	1.8 AGL

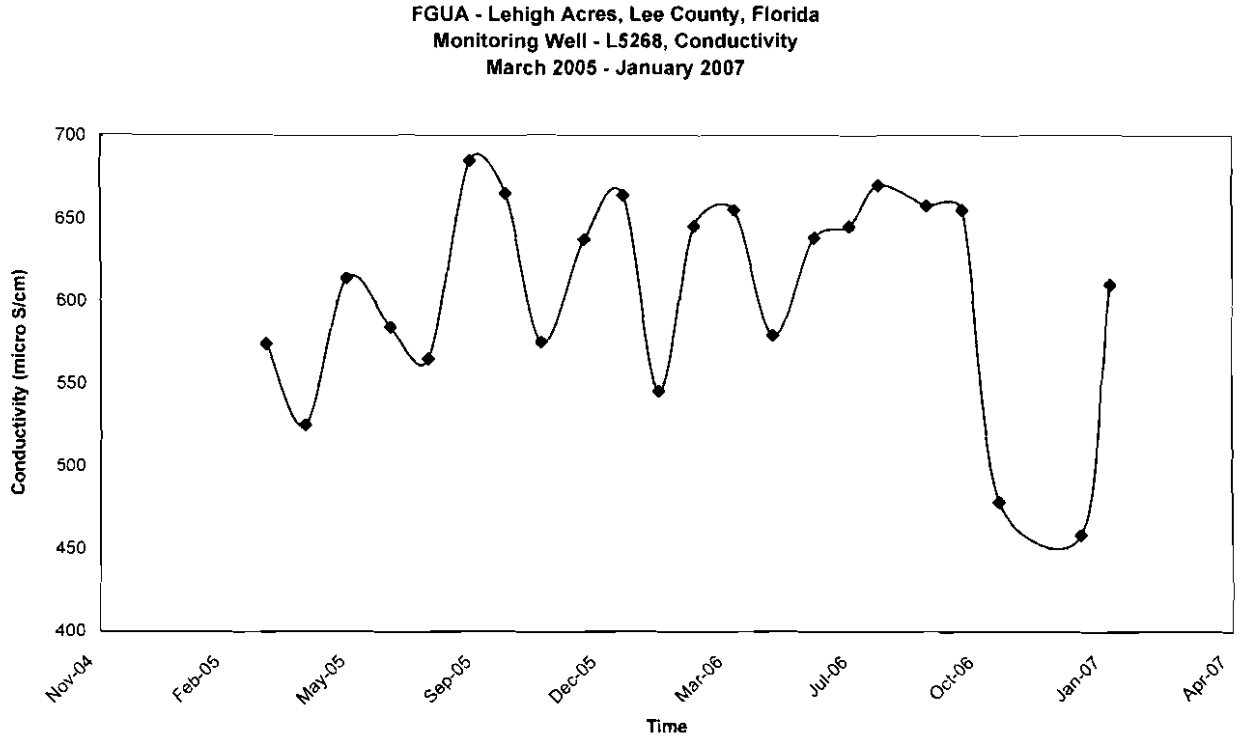
Date	Water Depth (decimal) ft	Chloride *mg / L*	Conductivity *µS / cm*
September 30, 2002	10		
November 1, 2002	16.88		
December 4, 2002	20.25		
December 31, 2002	20.50		
March 21, 2005	21.00	52	574
April 21, 2005	23.83	51	525
May 24, 2005	24.33	55	614
June 28, 2005	15.08		584
July 28, 2005	13.21	50	565
August 30, 2005	12.96	45	685
September 27, 2005	15.71	48	665
October 26, 2005	12.58	45	575
November 29, 2005	15.88	42	637
December 30, 2005	21.29	50	664
January 27, 2006	25.92	46	545
February 24, 2006	27.29	48	645
March 28, 2006	35.42	46	655
April 28, 2006	35.04	50	579
May 31, 2006	27.13		638
June 28, 2006	19.50	48	645
July 21, 2006	15.42	45	670
August 29, 2006	13.67	48	658
September 26, 2006	13.00	47	655
October 25, 2006	22.75	45	478
December 29, 2006	27.00	46	458
January 22, 2007	34.00		610

FGUA - Lehigh Acres, Lee County, Florida
Monitoring Well - L5268, Water Level
March 2005 - January 2007



RFI Response - Questions No. 3, 5



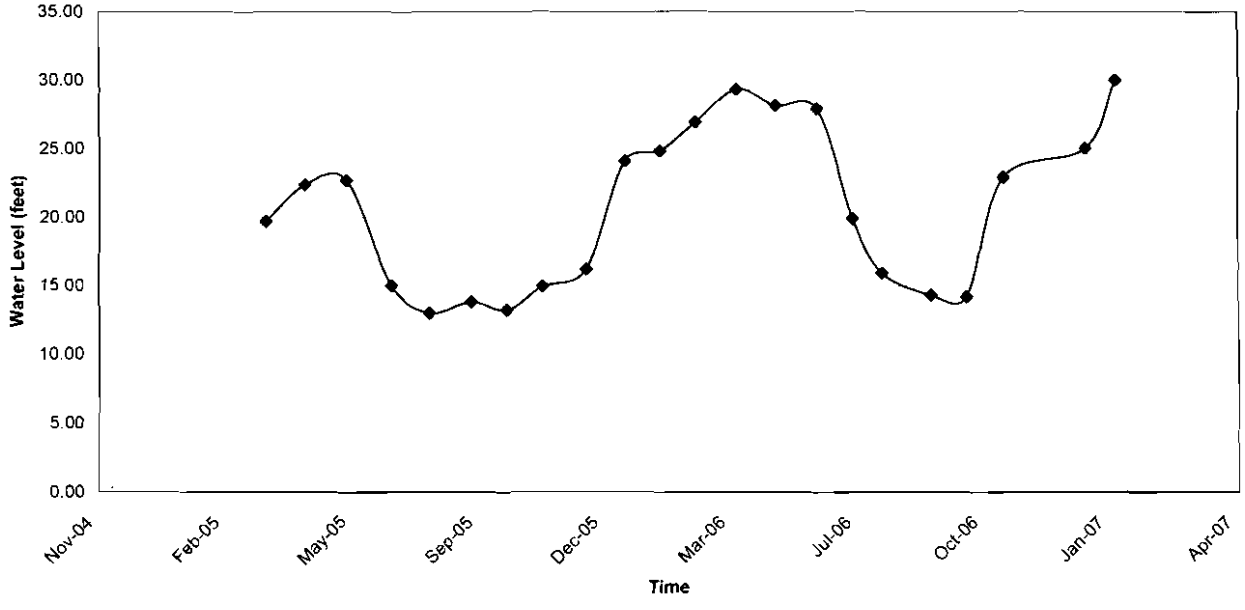


RFI Response - Questions No. 3, 5

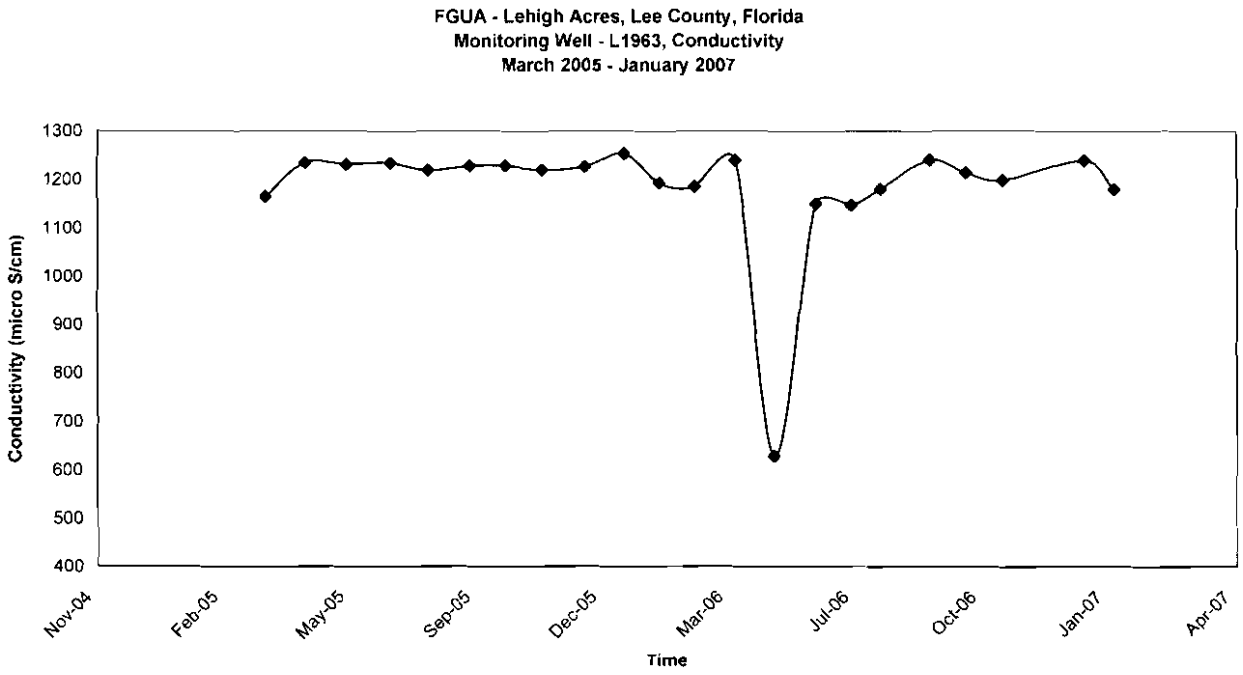
Monitoring Well No.	**L1963**
Total Depth	74 ft
Diameter	8 in
TOC	2.41 AGL

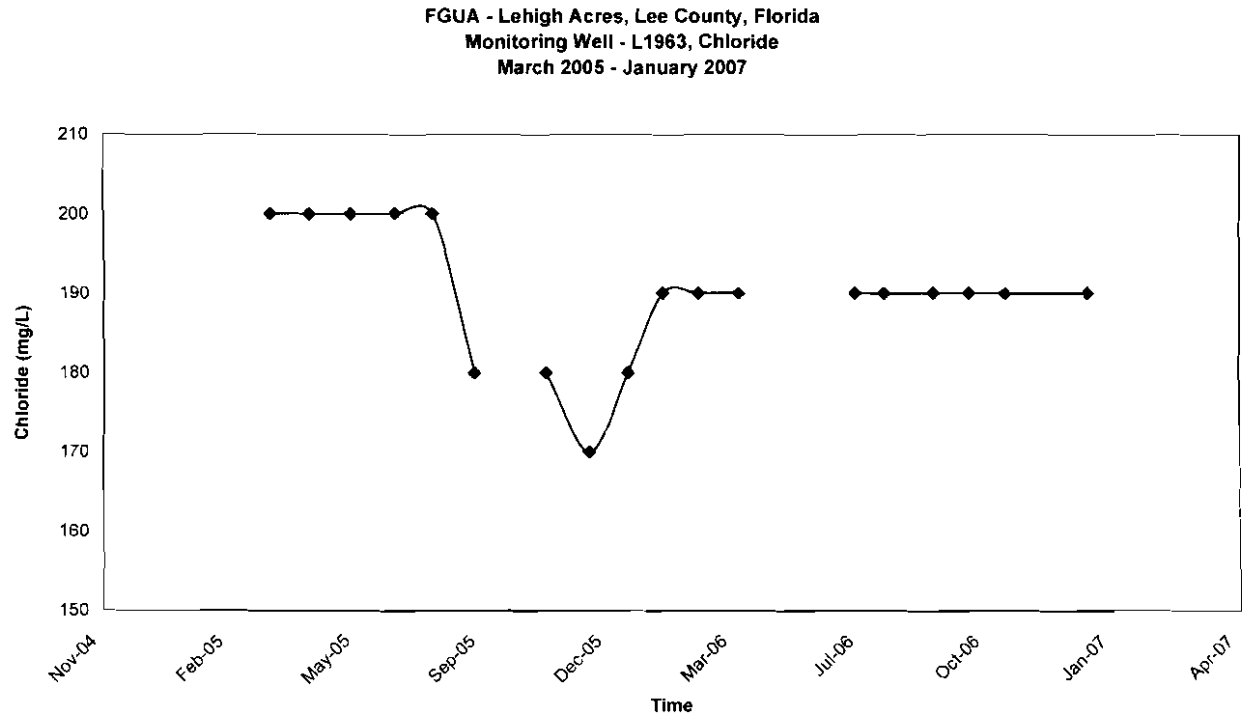
Date	Water Depth (decimal) ft	Chloride mg/L	Conductivity $\mu S/cm$
September 30, 2002	12.25		
November 1, 2002	0.00		
December 4, 2002	19.17		
December 31, 2002	18.67		
March 21, 2005	19.67	200	1165
April 21, 2005	22.33	200	1236
May 24, 2005	22.67	200	1232
June 28, 2005	14.98	200	1234
July 28, 2005	13.00	200	1220
August 30, 2005	13.79	180	1228
September 27, 2005	13.17		1228
October 26, 2005	14.96	180	1220
November 29, 2005	16.21	170	1227
December 30, 2005	24.08	180	1254
January 27, 2006	24.83	190	1192
February 24, 2006	26.94	190	1186
March 28, 2006	29.29	190	1240
April 28, 2006	28.17		628
May 31, 2006	27.92		1150
June 28, 2006	19.92	190	1148
July 21, 2006	15.92	190	1180
August 29, 2006	14.29	190	1242
September 26, 2006	14.17	190	1215
October 25, 2006	22.92	190	1199
December 29, 2006	25.00	190	1240
January 22, 2007	30.00		1180

FGUA - Lehigh Acres, Lee County, Florida
Monitoring Well - L1963, Water Level
March 2005 - January 2007



RFI Response - Questions No. 3, 5





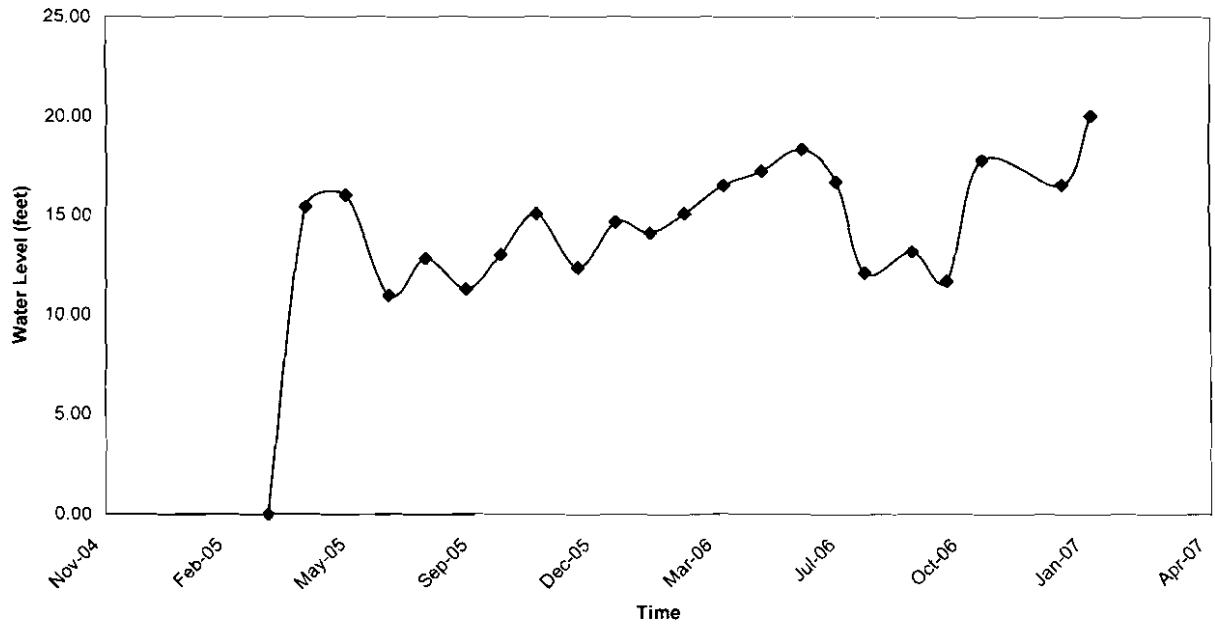
RFI Response - Questions No. 3, 5

Monitoring Well No. L1418

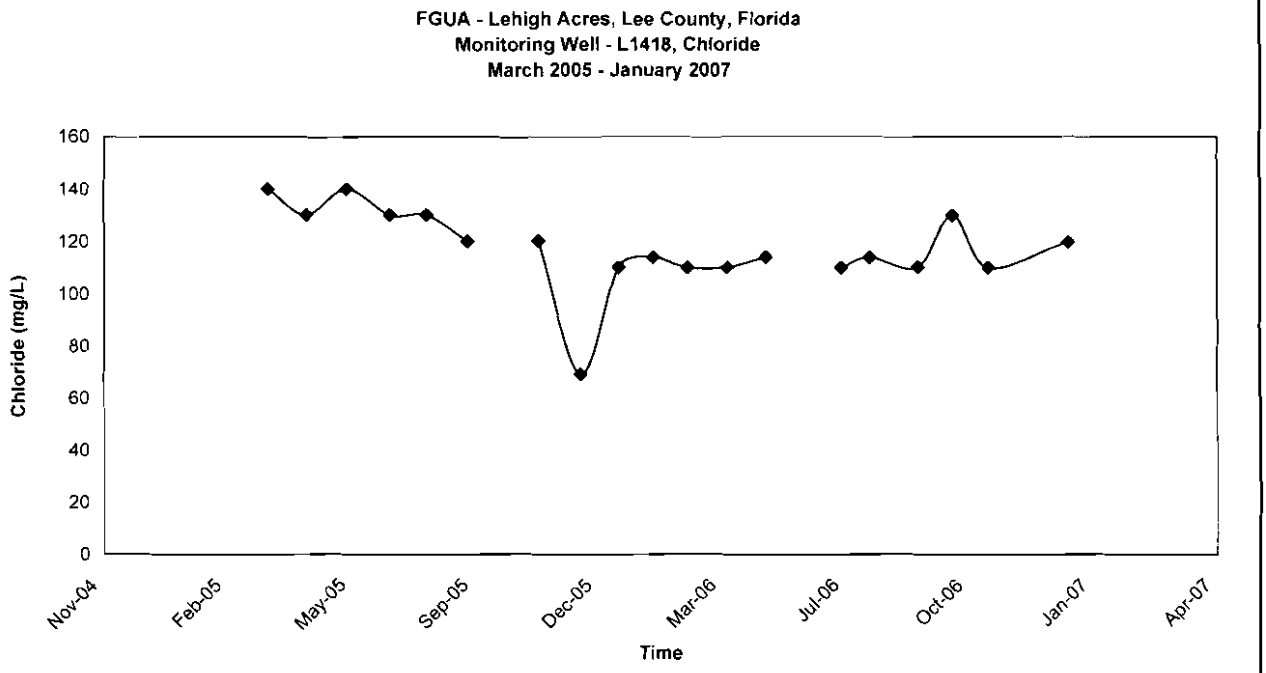
Total Deptl 62 ft
Diameter 4 in
TOC 1.5 AGL

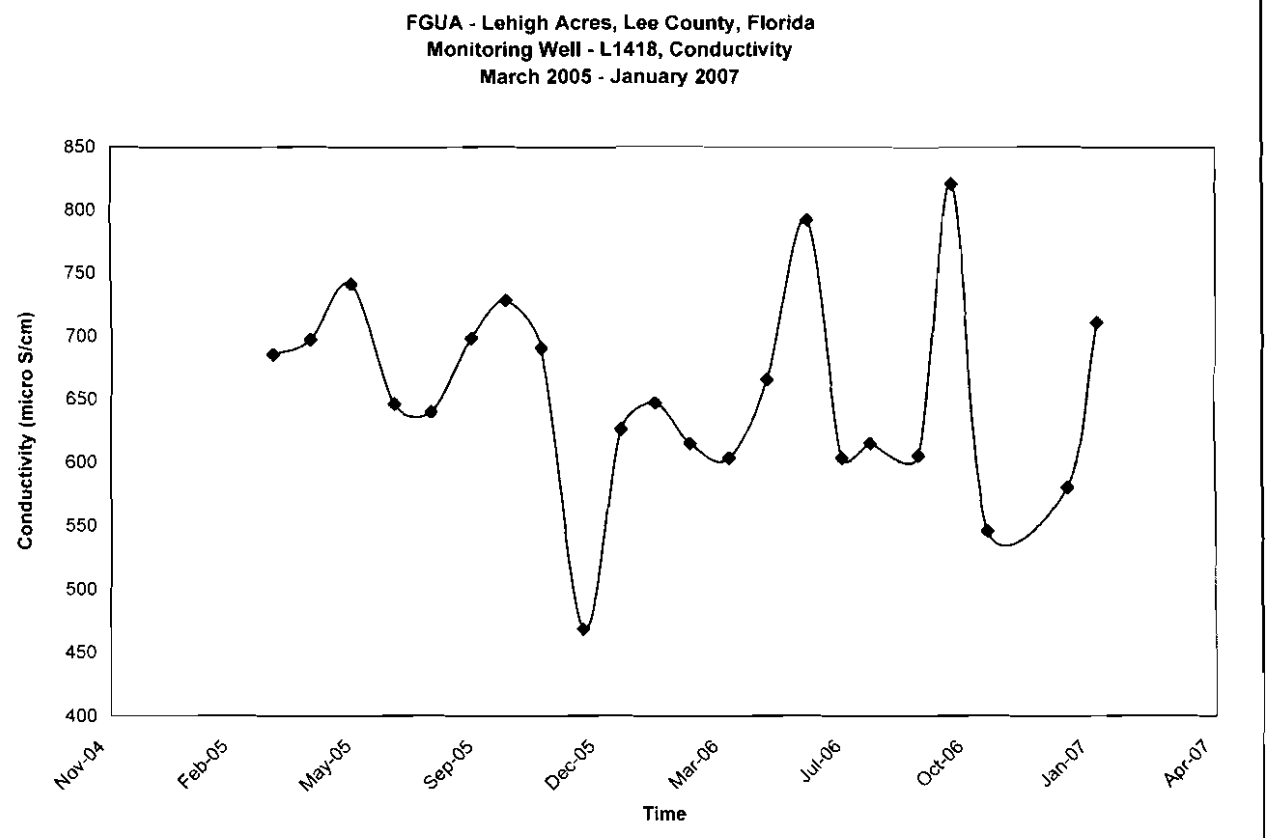
Date	Water Depth (decimal) ft	Chloride mg / L	Conductivity µS / cm
September 30, 2002	9.71		
November 1, 2002	10.75		
December 4, 2002	12.83		
December 31, 2002	10.75		
March 21, 2005	0.00	140	685
April 21, 2005	15.42	130	697
May 24, 2005	16.00	140	741
June 28, 2005	10.96	130	646
July 28, 2005	12.79	130	640
August 30, 2005	11.29	120	698
September 27, 2005	13.00		728
October 26, 2005	15.08	120	690
November 29, 2005	12.33	69	468
December 30, 2005	14.67	110	626
January 27, 2006	14.08	114	647
February 24, 2006	15.08	110	615
March 28, 2006	16.50	110	603
April 28, 2006	17.21	114	665
May 31, 2006	18.33		792
June 28, 2006	16.67	110	603
July 21, 2006	12.10	114	615
August 29, 2006	13.17	110	605
September 26, 2006	11.71	130	821
October 25, 2006	17.75	110	546
December 29, 2006	16.50	120	580
January 22, 2007	20.00		710

FGUA - Lehigh Acres, Lee County, Florida
Monitoring Well - L1418, Water Level
March 2005 - January 2007

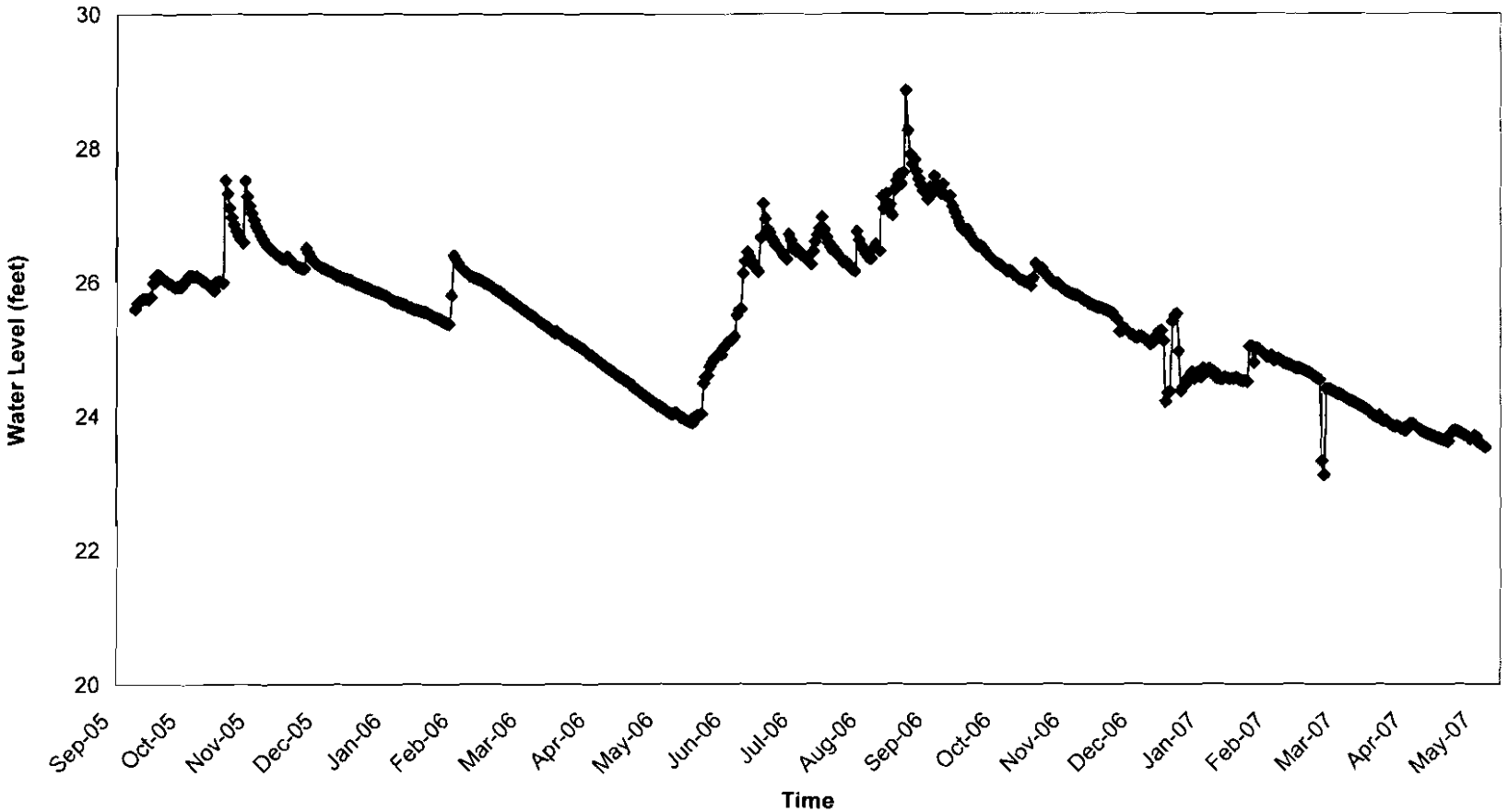


RFI Response - Questions No. 3, 5





FGUA WTP #2 - Mirror Lakes Wellfield
Lehigh Acres, Lee County, Florida
Water Table MW Elevation Data
September 2005 - May 2007



fgua FLORIDA GOVERNMENTAL UTILITY AUTHORITY	FLORIDA GOVERNMENTAL UTILITY AUTHORITY LEHIGH WUP – RFI RESPONSE **WATER TABLE WATER LEVELS IN THE AREA OF WTP NO. 2**	MALCOLM PIRNIE, INC. **RFI Questions No. 3, 5**

Water Table Monitoring Well, WTP No. 2 site

In-Situ Inc. MiniTroll Pro

Report generated:	5/21/2007		13:41:42
Report from file:	..\SN20649 2005-09-13 090350 CUP-Shallow.bin		
Win-Situ® Version	4.57.0.0		
Serial number:	20649		
Firmware Version	3.09		
Unit name:	miniTROLL		
Test name:			CUP-Shallow
Test defined on:	9/13/2005		6:21:51
Test scheduled for:	9/13/2005		8:30:00
Test started on:	9/13/2005		9:03:50
Test stopped on:	N/A		N/A

Data gathered using Linear testing

Time between data points:	Seconds.		
Number of data samples:	616		

TOTAL DATA SAMPLES 616

Channel number [1]

Measurement type:	Temperature		
Channel name:	OnBoard Temp		

Channel number [2]

Measurement type:	Pressure		
Channel name:	OnBoard Pressure		
Sensor Range:	30 PSIG.		
Sensor Offset:	0.000 psi		
Density:			1.000 g/cm3
Latitude:	45 degrees		
Elevation:	0.000 meters (0.000 feet)	casing elevation=32.49 ft.	
Mode:	TOC		
User-defined reference:	0	25.595 ft. = 0 ft. elevation	Feet H2O
Referenced on:	test start		
Pressure head at reference:	15.557		Feet H2O

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure Feet H2O	Water Table Elevation
9/13/2005	9:03:50	9:03:50	0	81.77	0	25.595
9/14/2005	9:03:50	9:03:50	86400	81.39	-0.08	25.675
9/15/2005	9:03:50	9:03:50	172800	81.03	-0.119	25.714
9/16/2005	9:03:50	9:03:50	259200	80.73	-0.14	25.735
9/17/2005	9:03:50	9:03:50	345600	80.48	-0.156	25.751
9/18/2005	9:03:50	9:03:50	432000	80.3	-0.153	25.748
9/19/2005	9:03:50	9:03:50	518400	80.19	-0.144	25.739
9/20/2005	9:03:50	9:03:50	604800	80.1	-0.176	25.771
9/21/2005	9:03:50	9:03:50	691200	80.44	-0.387	25.982
9/22/2005	9:03:50	9:03:50	777600	80.62	-0.494	26.089
9/23/2005	9:03:50	9:03:50	864000	80.53	-0.515	26.11
9/24/2005	9:03:50	9:03:50	950400	80.37	-0.496	26.091
9/25/2005	9:03:50	9:03:50	1036800	80.21	-0.46	26.055
9/26/2005	9:03:50	9:03:50	1123200	80.07	-0.432	26.027
9/27/2005	9:03:50	9:03:50	1209600	79.98	-0.414	26.009
9/28/2005	9:03:50	9:03:50	1296000	79.92	-0.386	25.981
9/29/2005	9:03:50	9:03:50	1382400	79.83	-0.367	25.962

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure Feet H2O	Water Table Elevation
11/30/2005	9:03:50	9:03:50	6739200	79.35	-0.912	26.507
12/1/2005	9:03:50	9:03:50	6825600	79.35	-0.841	26.436
12/2/2005	9:03:50	9:03:50	6912000	79.37	-0.775	26.37
12/3/2005	9:03:50	9:03:50	6998400	79.37	-0.724	26.319
12/4/2005	9:03:50	9:03:50	7084800	79.37	-0.69	26.285
12/5/2005	9:03:50	9:03:50	7171200	79.35	-0.665	26.26
12/6/2005	9:03:50	9:03:50	7257600	79.3	-0.641	26.236
12/7/2005	9:03:50	9:03:50	7344000	79.3	-0.617	26.212
12/8/2005	9:03:50	9:03:50	7430400	79.24	-0.609	26.204
12/9/2005	9:03:50	9:03:50	7516800	79.21	-0.59	26.185
12/10/2005	9:03:50	9:03:50	7603200	79.19	-0.573	26.168
12/11/2005	9:03:50	9:03:50	7689600	79.19	-0.559	26.154
12/12/2005	9:03:50	9:03:50	7776000	79.15	-0.539	26.134
12/13/2005	9:03:50	9:03:50	7862400	79.12	-0.516	26.111
12/14/2005	9:03:50	9:03:50	7948800	79.12	-0.495	26.09
12/15/2005	9:03:50	9:03:50	8035200	79.08	-0.49	26.085
12/16/2005	9:03:50	9:03:50	8121600	79.08	-0.469	26.064
12/17/2005	9:03:50	9:03:50	8208000	79.01	-0.452	26.047
12/18/2005	9:03:50	9:03:50	8294400	79.01	-0.447	26.042
12/19/2005	9:03:50	9:03:50	8380800	78.99	-0.435	26.03
12/20/2005	9:03:50	9:03:50	8467200	78.96	-0.432	26.027
12/21/2005	9:03:50	9:03:50	8553600	78.9	-0.416	26.011
12/22/2005	9:03:50	9:03:50	8640000	78.87	-0.393	25.988
12/23/2005	9:03:50	9:03:50	8726400	78.83	-0.374	25.969
12/24/2005	9:03:50	9:03:50	8812800	78.78	-0.36	25.955
12/25/2005	9:03:50	9:03:50	8899200	78.76	-0.354	25.949
12/26/2005	9:03:50	9:03:50	8985600	78.72	-0.33	25.925
12/27/2005	9:03:50	9:03:50	9072000	78.69	-0.315	25.91
12/28/2005	9:03:50	9:03:50	9158400	78.69	-0.305	25.9
12/29/2005	9:03:50	9:03:50	9244800	78.63	-0.295	25.89
12/30/2005	9:03:50	9:03:50	9331200	78.58	-0.273	25.868
12/31/2005	9:03:50	9:03:50	9417600	78.53	-0.258	25.853
1/1/2006	9:03:50	9:03:50	9504000	78.47	-0.246	25.841
1/2/2006	9:03:50	9:03:50	9590400	78.44	-0.238	25.833
1/3/2006	9:03:50	9:03:50	9676800	78.38	-0.23	25.825
1/4/2006	9:03:50	9:03:50	9763200	78.33	-0.213	25.808
1/5/2006	9:03:50	9:03:50	9849600	78.29	-0.2	25.795
1/6/2006	9:03:50	9:03:50	9936000	78.19	-0.175	25.77
1/7/2006	9:03:50	9:03:50	10022400	78.19	-0.146	25.741
1/8/2006	9:03:50	9:03:50	10108800	78.1	-0.132	25.727
1/9/2006	9:03:50	9:03:50	10195200	78.08	-0.117	25.712
1/10/2006	9:03:50	9:03:50	10281600	78.08	-0.107	25.702
1/11/2006	9:03:50	9:03:50	10368000	77.97	-0.1	25.695
1/12/2006	9:03:50	9:03:50	10454400	77.88	-0.084	25.679
1/13/2006	9:03:50	9:03:50	10540800	77.88	-0.076	25.671
1/14/2006	9:03:50	9:03:50	10627200	77.85	-0.065	25.66
1/15/2006	9:03:50	9:03:50	10713600	77.74	-0.038	25.633
1/16/2006	9:03:50	9:03:50	10800000	77.67	-0.026	25.621
1/17/2006	9:03:50	9:03:50	10886400	77.65	-0.014	25.609
1/18/2006	9:03:50	9:03:50	10972800	77.61	0.008	25.587
1/19/2006	9:03:50	9:03:50	11059200	77.49	0.008	25.587
1/20/2006	9:03:50	9:03:50	11145600	77.47	0.017	25.578
1/21/2006	9:03:50	9:03:50	11232000	77.42	0.03	25.565
1/22/2006	9:03:50	9:03:50	11318400	77.42	0.044	25.551
1/23/2006	9:03:50	9:03:50	11404800	77.31	0.049	25.546
1/24/2006	9:03:50	9:03:50	11491200	77.31	0.063	25.532
1/25/2006	9:03:50	9:03:50	11577600	77.22	0.086	25.509
1/26/2006	9:03:50	9:03:50	11664000	77.15	0.108	25.487
1/27/2006	9:03:50	9:03:50	11750400	77.13	0.131	25.464
1/28/2006	9:03:50	9:03:50	11836800	77.04	0.141	25.454
1/29/2006	9:03:50	9:03:50	11923200	77.06	0.151	25.444

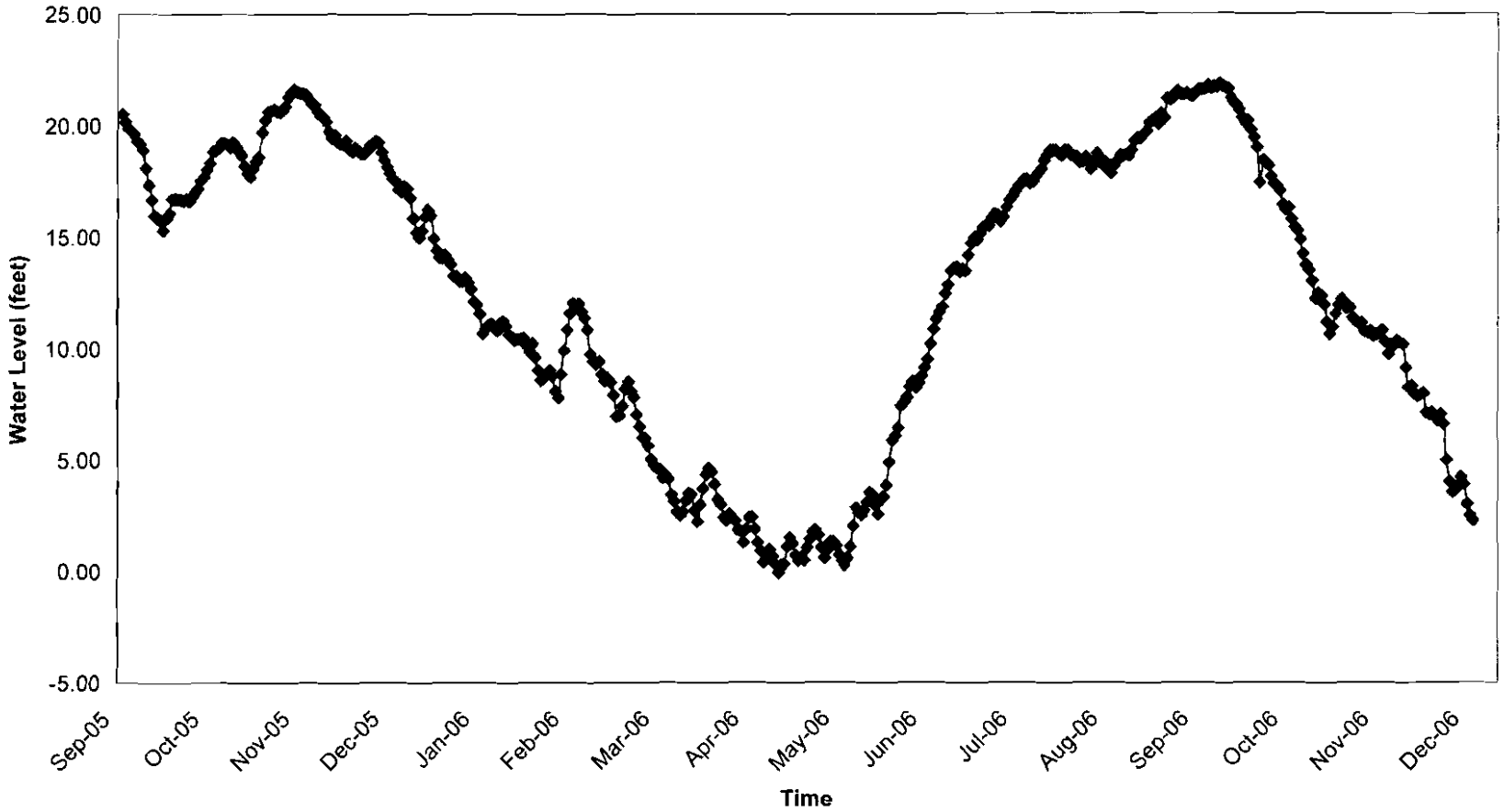
Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure Feet H2O	Water Table Elevation
4/1/2006	9:03:50	9:03:50	17280000	75.52	0.526	25.069
4/2/2006	9:03:50	9:03:50	17366400	75.52	0.544	25.051
4/3/2006	9:03:50	9:03:50	17452800	75.57	0.564	25.031
4/4/2006	9:03:50	9:03:50	17539200	75.54	0.589	25.006
4/5/2006	9:03:50	9:03:50	17625600	75.57	0.608	24.987
4/6/2006	9:03:50	9:03:50	17712000	75.54	0.637	24.958
4/7/2006	9:03:50	9:03:50	17798400	75.57	0.661	24.934
4/8/2006	9:03:50	9:03:50	17884800	75.59	0.686	24.909
4/9/2006	9:03:50	9:03:50	17971200	75.61	0.698	24.897
4/10/2006	9:03:50	9:03:50	18057600	75.61	0.727	24.868
4/11/2006	9:03:50	9:03:50	18144000	75.68	0.755	24.84
4/12/2006	9:03:50	9:03:50	18230400	75.7	0.785	24.81
4/13/2006	9:03:50	9:03:50	18316800	75.73	0.806	24.789
4/14/2006	9:03:50	9:03:50	18403200	75.77	0.834	24.761
4/15/2006	9:03:50	9:03:50	18489600	75.77	0.861	24.734
4/16/2006	9:03:50	9:03:50	18576000	75.82	0.885	24.71
4/17/2006	9:03:50	9:03:50	18662400	75.82	0.908	24.687
4/18/2006	9:03:50	9:03:50	18748800	75.86	0.932	24.663
4/19/2006	9:03:50	9:03:50	18835200	75.91	0.954	24.641
4/20/2006	9:03:50	9:03:50	18921600	75.91	0.983	24.612
4/21/2006	9:03:50	9:03:50	19008000	75.95	1.009	24.586
4/22/2006	9:03:50	9:03:50	19094400	76.02	1.028	24.567
4/23/2006	9:03:50	9:03:50	19180800	76.04	1.052	24.543
4/24/2006	9:03:50	9:03:50	19267200	76.02	1.072	24.523
4/25/2006	9:03:50	9:03:50	19353600	76.07	1.095	24.5
4/26/2006	9:03:50	9:03:50	19440000	76.09	1.124	24.471
4/27/2006	9:03:50	9:03:50	19526400	76.16	1.137	24.458
4/28/2006	9:03:50	9:03:50	19612800	76.18	1.168	24.427
4/29/2006	9:03:50	9:03:50	19699200	76.2	1.197	24.398
4/30/2006	9:03:50	9:03:50	19785600	76.25	1.219	24.376
5/1/2006	9:03:50	9:03:50	19872000	76.34	1.246	24.349
5/2/2006	9:03:50	9:03:50	19958400	76.34	1.271	24.324
5/3/2006	9:03:50	9:03:50	20044800	76.38	1.297	24.298
5/4/2006	9:03:50	9:03:50	20131200	76.4	1.319	24.276
5/5/2006	9:03:50	9:03:50	20217600	76.45	1.345	24.25
5/6/2006	9:03:50	9:03:50	20304000	76.47	1.368	24.227
5/7/2006	9:03:50	9:03:50	20390400	76.52	1.39	24.205
5/8/2006	9:03:50	9:03:50	20476800	76.54	1.418	24.177
5/9/2006	9:03:50	9:03:50	20563200	76.56	1.442	24.153
5/10/2006	9:03:50	9:03:50	20649600	76.59	1.455	24.14
5/11/2006	9:03:50	9:03:50	20736000	76.61	1.479	24.116
5/12/2006	9:03:50	9:03:50	20822400	76.63	1.505	24.09
5/13/2006	9:03:50	9:03:50	20908800	76.68	1.531	24.064
5/14/2006	9:03:50	9:03:50	20995200	76.7	1.554	24.041
5/15/2006	9:03:50	9:03:50	21081600	76.74	1.576	24.019
5/16/2006	9:03:50	9:03:50	21168000	76.77	1.573	24.022
5/17/2006	9:03:50	9:03:50	21254400	76.77	1.549	24.046
5/18/2006	9:03:50	9:03:50	21340800	76.79	1.581	24.014
5/19/2006	9:03:50	9:03:50	21427200	76.84	1.607	23.988
5/20/2006	9:03:50	9:03:50	21513600	76.86	1.626	23.969
5/21/2006	9:03:50	9:03:50	21600000	76.88	1.642	23.953
5/22/2006	9:03:50	9:03:50	21686400	76.93	1.662	23.933
5/23/2006	9:03:50	9:03:50	21772800	76.97	1.679	23.916
5/24/2006	9:03:50	9:03:50	21859200	76.99	1.689	23.906
5/25/2006	9:03:50	9:03:50	21945600	77.02	1.708	23.887
5/26/2006	9:03:50	9:03:50	22032000	76.99	1.611	23.984
5/27/2006	9:03:50	9:03:50	22118400	77.06	1.586	24.009
5/28/2006	9:03:50	9:03:50	22204800	77.15	1.587	24.008
5/29/2006	9:03:50	9:03:50	22291200	77.22	1.565	24.03
5/30/2006	9:03:50	9:03:50	22377600	78.24	1.115	24.48
5/31/2006	9:03:50	9:03:50	22464000	78.6	1.019	24.576

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure Feet H2O	Water Table Elevation
8/1/2006	9:03:50	9:03:50	27820800	79.26	-0.726	26.321
8/2/2006	9:03:50	9:03:50	27907200	79.17	-0.687	26.282
8/3/2006	9:03:50	9:03:50	27993600	79.19	-0.702	26.297
8/4/2006	9:03:50	9:03:50	28080000	79.1	-0.646	26.241
8/5/2006	9:03:50	9:03:50	28166400	79.06	-0.62	26.215
8/6/2006	9:03:50	9:03:50	28252800	79.01	-0.588	26.183
8/7/2006	9:03:50	9:03:50	28339200	78.99	-0.561	26.156
8/8/2006	9:03:50	9:03:50	28425600	79.8	-1.161	26.756
8/9/2006	9:03:50	9:03:50	28512000	79.78	-1.036	26.631
8/10/2006	9:03:50	9:03:50	28598400	79.64	-0.946	26.541
8/11/2006	9:03:50	9:03:50	28684800	79.62	-0.89	26.485
8/12/2006	9:03:50	9:03:50	28771200	79.53	-0.824	26.419
8/13/2006	9:03:50	9:03:50	28857600	79.46	-0.775	26.37
8/14/2006	9:03:50	9:03:50	28944000	79.33	-0.756	26.351
8/15/2006	9:03:50	9:03:50	29030400	79.21	-0.745	26.34
8/16/2006	9:03:50	9:03:50	29116800	79.46	-0.912	26.507
8/17/2006	9:03:50	9:03:50	29203200	79.53	-0.967	26.562
8/18/2006	9:03:50	9:03:50	29289600	79.44	-0.899	26.494
8/19/2006	9:03:50	9:03:50	29376000	79.3	-0.865	26.46
8/20/2006	9:03:50	9:03:50	29462400	80.69	-1.679	27.274
8/21/2006	9:03:50	9:03:50	29548800	80.82	-1.489	27.084
8/22/2006	9:03:50	9:03:50	29635200	81.14	-1.723	27.318
8/23/2006	9:03:50	9:03:50	29721600	81.12	-1.538	27.133
8/24/2006	9:03:50	9:03:50	29808000	81.37	-1.553	27.148
8/25/2006	9:03:50	9:03:50	29894400	81.18	-1.4	26.995
8/26/2006	9:03:50	9:03:50	29980800	81.39	-1.785	27.38
8/27/2006	9:03:50	9:03:50	30067200	81.3	-1.914	27.509
8/28/2006	9:03:50	9:03:50	30153600	81.25	-2.005	27.6
8/29/2006	9:03:50	9:03:50	30240000	81.32	-1.867	27.462
8/30/2006	9:03:50	9:03:50	30326400	81.68	-2.038	27.633
8/31/2006	9:03:50	9:03:50	30412800	80.55	-3.262	28.857
9/1/2006	9:03:50	9:03:50	30499200	81	-2.657	28.252
9/2/2006	9:03:50	9:03:50	30585600	81.61	-2.304	27.899
9/3/2006	9:03:50	9:03:50	30672000	81.82	-2.152	27.747
9/4/2006	9:03:50	9:03:50	30758400	81.82	-2.22	27.815
9/5/2006	9:03:50	9:03:50	30844800	81.93	-2.048	27.643
9/6/2006	9:03:50	9:03:50	30931200	81.93	-1.937	27.532
9/7/2006	9:03:50	9:03:50	31017600	81.86	-1.852	27.447
9/8/2006	9:03:50	9:03:50	31104000	81.77	-1.764	27.359
9/9/2006	9:03:50	9:03:50	31190400	81.7	-1.721	27.316
9/10/2006	9:03:50	9:03:50	31276800	81.64	-1.635	27.23
9/11/2006	9:03:50	9:03:50	31363200	81.52	-1.817	27.412
9/12/2006	9:03:50	9:03:50	31449600	81.52	-1.715	27.31
9/13/2006	9:03:50	9:03:50	31536000	81.5	-1.98	27.575
9/14/2006	9:03:50	9:03:50	31622400	81.55	-1.855	27.45
9/15/2006	9:03:50	9:03:50	31708800	81.57	-1.781	27.376
9/16/2006	9:03:50	9:03:50	31795200	81.57	-1.716	27.311
9/17/2006	9:03:50	9:03:50	31881600	81.52	-1.86	27.455
9/18/2006	9:03:50	9:03:50	31968000	81.48	-1.69	27.285
9/19/2006	9:03:50	9:03:50	32054400	81.55	-1.672	27.267
9/20/2006	9:03:50	9:03:50	32140800	81.59	-1.683	27.278
9/21/2006	9:03:50	9:03:50	32227200	81.46	-1.53	27.125
9/22/2006	9:03:50	9:03:50	32313600	81.37	-1.445	27.04
9/23/2006	9:03:50	9:03:50	32400000	81.27	-1.369	26.964
9/24/2006	9:03:50	9:03:50	32486400	81.16	-1.302	26.897
9/25/2006	9:03:50	9:03:50	32572800	81.05	-1.242	26.837
9/26/2006	9:03:50	9:03:50	32659200	80.94	-1.182	26.777
9/27/2006	9:03:50	9:03:50	32745600	80.75	-1.152	26.747
9/28/2006	9:03:50	9:03:50	32832000	80.71	-1.182	26.777
9/29/2006	9:03:50	9:03:50	32918400	80.48	-1.115	26.71
9/30/2006	9:03:50	9:03:50	33004800	80.37	-1.051	26.646

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure Feet H2O	Water Table Elevation
12/1/2006	9:03:50	9:03:50	38361600	79.6	0.043	25.552
12/2/2006	9:03:50	9:03:50	38448000	79.55	0.054	25.541
12/3/2006	9:03:50	9:03:50	38534400	79.53	0.069	25.526
12/4/2006	9:03:50	9:03:50	38620800	79.51	0.125	25.47
12/5/2006	9:03:50	9:03:50	38707200	79.4	0.167	25.428
12/6/2006	9:03:50	9:03:50	38793600	79.24	0.344	25.251
12/7/2006	9:03:50	9:03:50	38880000	79.21	0.34	25.255
12/8/2006	9:03:50	9:03:50	38966400	79.33	0.293	25.302
12/9/2006	9:03:50	9:03:50	39052800	79.37	0.308	25.287
12/10/2006	9:03:50	9:03:50	39139200	79.4	0.341	25.254
12/11/2006	9:03:50	9:03:50	39225600	79.46	0.375	25.22
12/12/2006	9:03:50	9:03:50	39312000	79.51	0.385	25.21
12/13/2006	9:03:50	9:03:50	39398400	79.58	0.408	25.187
12/14/2006	9:03:50	9:03:50	39484800	79.6	0.428	25.167
12/15/2006	9:03:50	9:03:50	39571200	79.6	0.406	25.189
12/16/2006	9:03:50	9:03:50	39657600	79.6	0.408	25.187
12/17/2006	9:03:50	9:03:50	39744000	79.6	0.428	25.167
12/18/2006	9:03:50	9:03:50	39830400	79.58	0.452	25.143
12/19/2006	9:03:50	9:03:50	39916800	79.58	0.499	25.096
12/20/2006	9:03:50	9:03:50	40003200	79.58	0.535	25.06
12/21/2006	9:03:50	9:03:50	40089600	79.55	0.502	25.093
12/22/2006	9:03:50	9:03:50	40176000	79.55	0.473	25.122
12/23/2006	9:03:50	9:03:50	40262400	79.53	0.394	25.201
12/24/2006	9:03:50	9:03:50	40348800	79.53	0.339	25.256
12/25/2006	9:03:50	9:03:50	40435200	79.51	0.327	25.268
12/26/2006	9:03:50	9:03:50	40521600	79.49	0.476	25.119
12/27/2006	9:03:50	9:03:50	40608000	79.12	1.382	24.213
12/28/2006	9:03:50	9:03:50	40694400	78.38	1.255	24.34
12/29/2006	9:03:50	9:03:50	40780800	78.47	1.233	24.362
12/30/2006	9:03:50	9:03:50	40867200	79.21	0.195	25.4
12/31/2006	9:03:50	9:03:50	40953600	79.33	0.104	25.491
1/1/2007	9:03:50	9:03:50	41040000	79.35	0.079	25.516
1/2/2007	9:03:50	9:03:50	41126400	79.33	0.639	24.956
1/3/2007	9:03:50	9:03:50	41212800	78.67	1.225	24.37
1/4/2007	9:03:50	9:03:50	41299200	78.67	1.175	24.42
1/5/2007	9:03:50	9:03:50	41385600	78.78	1.136	24.459
1/6/2007	9:03:50	9:03:50	41472000	78.9	1.038	24.557
1/7/2007	9:03:50	9:03:50	41558400	79.01	1.001	24.594
1/8/2007	9:03:50	9:03:50	41644800	79.1	0.952	24.643
1/9/2007	9:03:50	9:03:50	41731200	79.03	1.044	24.551
1/10/2007	9:03:50	9:03:50	41817600	79.08	0.964	24.631
1/11/2007	9:03:50	9:03:50	41904000	79.08	0.946	24.649
1/12/2007	9:03:50	9:03:50	41990400	78.92	1.023	24.572
1/13/2007	9:03:50	9:03:50	42076800	79.08	0.894	24.701
1/14/2007	9:03:50	9:03:50	42163200	79.08	0.915	24.68
1/15/2007	9:03:50	9:03:50	42249600	79.06	0.942	24.653
1/16/2007	9:03:50	9:03:50	42336000	79.06	0.899	24.696
1/17/2007	9:03:50	9:03:50	42422400	79.01	0.93	24.665
1/18/2007	9:03:50	9:03:50	42508800	78.96	0.938	24.657
1/19/2007	9:03:50	9:03:50	42595200	78.87	1.033	24.562
1/20/2007	9:03:50	9:03:50	42681600	78.85	1.035	24.56
1/21/2007	9:03:50	9:03:50	42768000	78.81	1.055	24.54
1/22/2007	9:03:50	9:03:50	42854400	78.78	1.045	24.55
1/23/2007	9:03:50	9:03:50	42940800	78.78	1.026	24.569
1/24/2007	9:03:50	9:03:50	43027200	78.69	1.028	24.567
1/25/2007	9:03:50	9:03:50	43113600	78.6	1.048	24.547
1/26/2007	9:03:50	9:03:50	43200000	78.63	1.043	24.552
1/27/2007	9:03:50	9:03:50	43286400	78.65	1.041	24.554
1/28/2007	9:03:50	9:03:50	43372800	78.65	1.026	24.569
1/29/2007	9:03:50	9:03:50	43459200	78.63	1.05	24.545
1/30/2007	9:03:50	9:03:50	43545600	78.6	1.067	24.528

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure Feet H2O	Water Table Elevation
4/2/2007	9:03:50	9:03:50	48902400	76.7	1.618	23.977
4/3/2007	9:03:50	9:03:50	48988800	76.72	1.589	24.006
4/4/2007	9:03:50	9:03:50	49075200	76.74	1.653	23.942
4/5/2007	9:03:50	9:03:50	49161600	76.72	1.67	23.925
4/6/2007	9:03:50	9:03:50	49248000	76.72	1.663	23.932
4/7/2007	9:03:50	9:03:50	49334400	76.72	1.696	23.899
4/8/2007	9:03:50	9:03:50	49420800	76.74	1.725	23.87
4/9/2007	9:03:50	9:03:50	49507200	76.72	1.746	23.849
4/10/2007	9:03:50	9:03:50	49593600	76.74	1.762	23.833
4/11/2007	9:03:50	9:03:50	49680000	76.74	1.756	23.839
4/12/2007	9:03:50	9:03:50	49766400	76.79	1.77	23.825
4/13/2007	9:03:50	9:03:50	49852800	76.81	1.794	23.801
4/14/2007	9:03:50	9:03:50	49939200	76.79	1.811	23.784
4/15/2007	9:03:50	9:03:50	50025600	76.81	1.823	23.772
4/16/2007	9:03:50	9:03:50	50112000	76.86	1.731	23.864
4/17/2007	9:03:50	9:03:50	50198400	76.86	1.712	23.883
4/18/2007	9:03:50	9:03:50	50284800	76.84	1.711	23.884
4/19/2007	9:03:50	9:03:50	50371200	76.86	1.735	23.86
4/20/2007	9:03:50	9:03:50	50457600	76.88	1.762	23.833
4/21/2007	9:03:50	9:03:50	50544000	76.88	1.787	23.808
4/22/2007	9:03:50	9:03:50	50630400	76.93	1.809	23.786
4/23/2007	9:03:50	9:03:50	50716800	76.88	1.832	23.763
4/24/2007	9:03:50	9:03:50	50803200	76.93	1.848	23.747
4/25/2007	9:03:50	9:03:50	50889600	76.95	1.862	23.733
4/26/2007	9:03:50	9:03:50	50976000	76.93	1.877	23.718
4/27/2007	9:03:50	9:03:50	51062400	76.97	1.891	23.704
4/28/2007	9:03:50	9:03:50	51148800	77.02	1.906	23.689
4/29/2007	9:03:50	9:03:50	51235200	77.02	1.919	23.676
4/30/2007	9:03:50	9:03:50	51321600	77.04	1.933	23.662
5/1/2007	9:03:50	9:03:50	51408000	77.04	1.945	23.65
5/2/2007	9:03:50	9:03:50	51494400	77.04	1.958	23.637
5/3/2007	9:03:50	9:03:50	51580800	77.11	1.971	23.624
5/4/2007	9:03:50	9:03:50	51667200	77.13	1.983	23.612
5/5/2007	9:03:50	9:03:50	51753600	77.15	1.867	23.728
5/6/2007	9:03:50	9:03:50	51840000	77.2	1.828	23.767
5/7/2007	9:03:50	9:03:50	51926400	77.18	1.814	23.781
5/8/2007	9:03:50	9:03:50	52012800	77.2	1.82	23.775
5/9/2007	9:03:50	9:03:50	52099200	77.22	1.836	23.759
5/10/2007	9:03:50	9:03:50	52185600	77.29	1.856	23.739
5/11/2007	9:03:50	9:03:50	52272000	77.29	1.878	23.717
5/12/2007	9:03:50	9:03:50	52358400	77.29	1.893	23.702
5/13/2007	9:03:50	9:03:50	52444800	77.29	1.916	23.679
5/14/2007	9:03:50	9:03:50	52531200	77.31	1.944	23.651
5/15/2007	9:03:50	9:03:50	52617600	77.31	1.926	23.669
5/16/2007	9:03:50	9:03:50	52704000	77.33	1.89	23.705
5/17/2007	9:03:50	9:03:50	52790400	77.33	1.913	23.682
5/18/2007	9:03:50	9:03:50	52876800	77.38	2.003	23.592
5/19/2007	9:03:50	9:03:50	52963200	77.4	2.025	23.57
5/20/2007	9:03:50	9:03:50	53049600	77.42	2.05	23.545
5/21/2007	9:03:50	9:03:50	53136000	77.42	2.073	23.522
5/22/2007	13:37				2.085	23.51

FGUA WTP #2 Mirror Lakes Wellfield
Lehigh Acres, Lee County, Florida
Upper Sandstone Potentiometric Elevation
September 2005 - December 2006



fgua FLORIDA GOVERNMENTAL UTILITY AUTHORITY	FLORIDA GOVERNMENTAL UTILITY AUTHORITY LEHIGH WUP – RFI RESPONSE **UPPER SANDSTONE AQUIFER WATER LEVELS IN THE AREA OF WTP NO. 2**	MALCOLM PIRNIE, INC. **RFI Questions No. 3, 5**

Upper Sandstone Monitoring Well, WTP No. 2 site

In-Situ Inc. MiniTroll Pro

Report generated: 5/21/2007 15:31:31
Report from file: ...\SN20639 2005-09-06 160000 CUP.bin
Win-Situ® Version 4.57.0.0

Serial number: 20639
Firmware Version 3.09
Unit name: miniTROLL

Test name: CUP

Test defined on: 9/6/2005 12:27:14
Test scheduled for: 9/6/2005 16:00:00
Test started on: 9/6/2005 16:00:00
Test stopped on: ABEND

Data gathered using Linear testing
Time between data poin Seconds.
Number of data samples 466

TOTAL DATA SAMPLES 466

Channel number [1] casing elevation = 32.37 ft. NGVD
Measurement type: Temperature
Channel name: OnBoard Temp

Channel number [2]
Measurement type: Pressure
Channel name: OnBoard Pressure
Sensor Range: 30 PSIG.
Sensor Offset: 0.000 psi

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual Water Level (FT) (F-18.39)
9/6/2005	16:00:00	16:00:00	0	78.04	16.839	38.898	20.51
9/7/2005	16:00:00	16:00:00	86400	78.04	16.686	38.545	20.15
9/8/2005	16:00:00	16:00:00	172800	78.04	16.564	38.263	19.87
9/9/2005	16:00:00	16:00:00	259200	78.04	16.507	38.131	19.74
9/10/2005	16:00:00	16:00:00	345600	78.04	16.448	37.995	19.60
9/11/2005	16:00:00	16:00:00	432000	78.01	16.306	37.667	19.28
9/12/2005	16:00:00	16:00:00	518400	78.04	16.263	37.568	19.18
9/13/2005	16:00:00	16:00:00	604800	78.04	16.143	37.290	18.90
9/14/2005	16:00:00	16:00:00	691200	78.04	15.784	36.461	18.07
9/15/2005	16:00:00	16:00:00	777600	78.01	15.465	35.724	17.33
9/16/2005	16:00:00	16:00:00	864000	78.01	15.175	35.054	16.66
9/17/2005	16:00:00	16:00:00	950400	78.01	14.868	34.345	15.96
9/18/2005	16:00:00	16:00:00	1036800	78.01	14.805	34.200	15.81
9/19/2005	16:00:00	16:00:00	1123200	78.01	14.768	34.114	15.72
9/20/2005	16:00:00	16:00:00	1209600	78.01	14.565	33.645	15.26
9/21/2005	16:00:00	16:00:00	1296000	78.01	14.796	34.179	15.79
9/22/2005	16:00:00	16:00:00	1382400	78.01	14.901	34.421	16.03
9/23/2005	16:00:00	16:00:00	1468800	78.01	15.184	35.075	16.69
9/24/2005	16:00:00	16:00:00	1555200	78.01	15.192	35.094	16.70
9/25/2005	16:00:00	16:00:00	1641600	78.01	15.182	35.070	16.68
9/26/2005	16:00:00	16:00:00	1728000	78.01	15.175	35.054	16.66
9/27/2005	16:00:00	16:00:00	1814400	77.99	15.161	35.022	16.63
9/28/2005	16:00:00	16:00:00	1900800	78.01	15.188	35.084	16.69

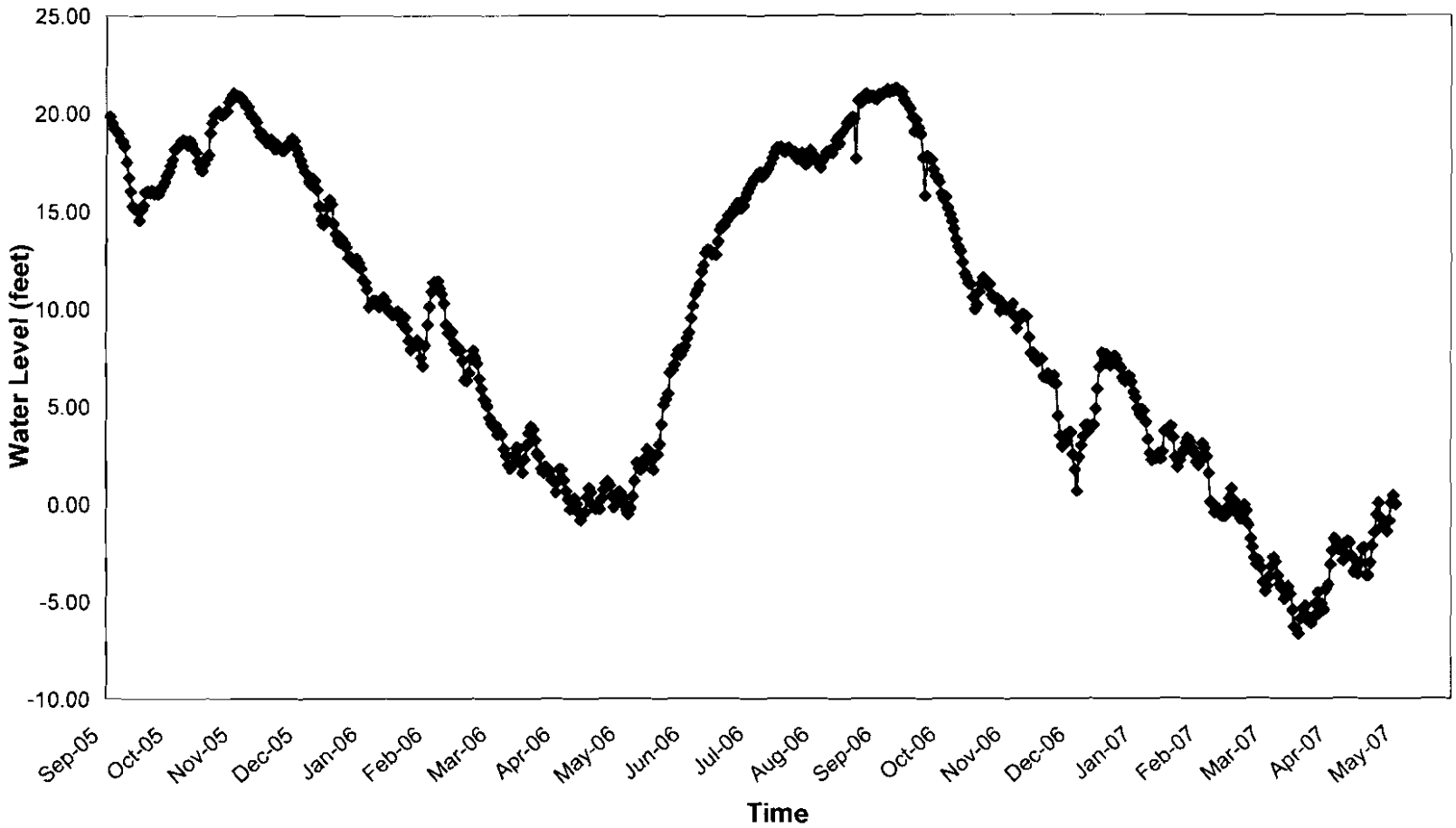
Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual Water Level (FT) (F-18.39)
11/26/2005	16:00:00	16:00:00	6998400	78.01	16.123	37.244	18.85
11/27/2005	16:00:00	16:00:00	7084800	78.01	16.07	37.122	18.73
11/28/2005	16:00:00	16:00:00	7171200	78.01	16.069	37.119	18.73
11/29/2005	16:00:00	16:00:00	7257600	78.01	16.118	37.233	18.84
11/30/2005	16:00:00	16:00:00	7344000	78.01	16.219	37.466	19.08
12/1/2005	16:00:00	16:00:00	7430400	78.01	16.23	37.491	19.10
12/2/2005	16:00:00	16:00:00	7516800	78.01	16.311	37.678	19.29
12/3/2005	16:00:00	16:00:00	7603200	78.01	16.281	37.609	19.22
12/4/2005	16:00:00	16:00:00	7689600	78.01	16.093	37.175	18.78
12/5/2005	16:00:00	16:00:00	7776000	78.04	15.947	36.838	18.45
12/6/2005	16:00:00	16:00:00	7862400	78.01	15.813	36.528	18.14
12/7/2005	16:00:00	16:00:00	7948800	78.04	15.7	36.267	17.88
12/8/2005	16:00:00	16:00:00	8035200	78.01	15.58	35.990	17.60
12/9/2005	16:00:00	16:00:00	8121600	78.04	15.533	35.881	17.49
12/10/2005	16:00:00	16:00:00	8208000	78.04	15.367	35.498	17.11
12/11/2005	16:00:00	16:00:00	8294400	78.01	15.322	35.394	17.00
12/12/2005	16:00:00	16:00:00	8380800	78.01	15.434	35.653	17.26
12/13/2005	16:00:00	16:00:00	8467200	78.04	15.379	35.525	17.14
12/14/2005	16:00:00	16:00:00	8553600	78.01	15.195	35.100	16.71
12/15/2005	16:00:00	16:00:00	8640000	78.04	14.808	34.206	15.82
12/16/2005	16:00:00	16:00:00	8726400	78.04	14.531	33.567	15.18
12/17/2005	16:00:00	16:00:00	8812800	78.04	14.435	33.345	14.95
12/18/2005	16:00:00	16:00:00	8899200	78.04	14.572	33.661	15.27
12/19/2005	16:00:00	16:00:00	8985600	78.04	14.831	34.260	15.87
12/20/2005	16:00:00	16:00:00	9072000	78.04	14.975	34.592	16.20
12/21/2005	16:00:00	16:00:00	9158400	78.04	14.863	34.334	15.94
12/22/2005	16:00:00	16:00:00	9244800	78.04	14.421	33.313	14.92
12/23/2005	16:00:00	16:00:00	9331200	78.04	14.191	32.781	14.39
12/24/2005	16:00:00	16:00:00	9417600	78.04	14.053	32.462	14.07
12/25/2005	16:00:00	16:00:00	9504000	78.04	14.046	32.446	14.06
12/26/2005	16:00:00	16:00:00	9590400	78.04	14.103	32.578	14.19
12/27/2005	16:00:00	16:00:00	9676800	78.06	14.013	32.370	13.98
12/28/2005	16:00:00	16:00:00	9763200	78.06	13.913	32.139	13.75
12/29/2005	16:00:00	16:00:00	9849600	78.06	13.687	31.617	13.23
12/30/2005	16:00:00	16:00:00	9936000	78.06	13.688	31.619	13.23
12/31/2005	16:00:00	16:00:00	10022400	78.06	13.591	31.395	13.01
1/1/2006	16:00:00	16:00:00	10108800	78.06	13.588	31.388	13.00
1/2/2006	16:00:00	16:00:00	10195200	78.06	13.666	31.568	13.18
1/3/2006	16:00:00	16:00:00	10281600	78.06	13.564	31.333	12.94
1/4/2006	16:00:00	16:00:00	10368000	78.06	13.434	31.033	12.64
1/5/2006	16:00:00	16:00:00	10454400	78.06	13.193	30.476	12.09
1/6/2006	16:00:00	16:00:00	10540800	78.06	13.134	30.340	11.95
1/7/2006	16:00:00	16:00:00	10627200	78.08	12.959	29.935	11.55
1/8/2006	16:00:00	16:00:00	10713600	78.08	12.568	29.032	10.64
1/9/2006	16:00:00	16:00:00	10800000	78.08	12.664	29.254	10.86
1/10/2006	16:00:00	16:00:00	10886400	78.08	12.738	29.425	11.03
1/11/2006	16:00:00	16:00:00	10972800	78.08	12.76	29.476	11.09
1/12/2006	16:00:00	16:00:00	11059200	78.08	12.669	29.265	10.88
1/13/2006	16:00:00	16:00:00	11145600	78.08	12.625	29.164	10.77
1/14/2006	16:00:00	16:00:00	11232000	78.08	12.777	29.515	11.12
1/15/2006	16:00:00	16:00:00	11318400	78.1	12.814	29.600	11.21
1/16/2006	16:00:00	16:00:00	11404800	78.08	12.716	29.374	10.98
1/17/2006	16:00:00	16:00:00	11491200	78.08	12.547	28.984	10.59
1/18/2006	16:00:00	16:00:00	11577600	78.1	12.505	28.887	10.50
1/19/2006	16:00:00	16:00:00	11664000	78.1	12.448	28.755	10.36
1/20/2006	16:00:00	16:00:00	11750400	78.1	12.467	28.799	10.41
1/21/2006	16:00:00	16:00:00	11836800	78.1	12.475	28.817	10.43
1/22/2006	16:00:00	16:00:00	11923200	78.1	12.495	28.863	10.47

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual Water Level (FT) (F-18.39)
3/22/2006	16:00:00	16:00:00	17020800	78.24	9.139	21.111	2.72
3/23/2006	16:00:00	16:00:00	17107200	78.22	8.921	20.608	2.22
3/24/2006	16:00:00	16:00:00	17193600	78.22	9.248	21.363	2.97
3/25/2006	16:00:00	16:00:00	17280000	78.22	9.559	22.081	3.69
3/26/2006	16:00:00	16:00:00	17366400	78.22	9.831	22.710	4.32
3/27/2006	16:00:00	16:00:00	17452800	78.22	9.955	22.996	4.61
3/28/2006	16:00:00	16:00:00	17539200	78.22	9.883	22.830	4.44
3/29/2006	16:00:00	16:00:00	17625600	78.24	9.638	22.264	3.87
3/30/2006	16:00:00	16:00:00	17712000	78.24	9.348	21.594	3.20
3/31/2006	16:00:00	16:00:00	17798400	78.22	9.25	21.368	2.98
4/1/2006	16:00:00	16:00:00	17884800	78.22	9.002	20.795	2.40
4/2/2006	16:00:00	16:00:00	17971200	78.22	8.945	20.663	2.27
4/3/2006	16:00:00	16:00:00	18057600	78.22	9.072	20.956	2.57
4/4/2006	16:00:00	16:00:00	18144000	78.24	9	20.790	2.40
4/5/2006	16:00:00	16:00:00	18230400	78.22	8.933	20.635	2.25
4/6/2006	16:00:00	16:00:00	18316800	78.22	8.766	20.249	1.86
4/7/2006	16:00:00	16:00:00	18403200	78.22	8.741	20.192	1.80
4/8/2006	16:00:00	16:00:00	18489600	78.22	8.52	19.681	1.29
4/9/2006	16:00:00	16:00:00	18576000	78.24	8.78	20.282	1.89
4/10/2006	16:00:00	16:00:00	18662400	78.22	9.006	20.804	2.41
4/11/2006	16:00:00	16:00:00	18748800	78.22	9.008	20.808	2.42
4/12/2006	16:00:00	16:00:00	18835200	78.22	8.782	20.286	1.90
4/13/2006	16:00:00	16:00:00	18921600	78.22	8.511	19.660	1.27
4/14/2006	16:00:00	16:00:00	19008000	78.22	8.353	19.295	0.91
4/15/2006	16:00:00	16:00:00	19094400	78.22	8.127	18.773	0.38
4/16/2006	16:00:00	16:00:00	19180800	78.24	8.279	19.124	0.73
4/17/2006	16:00:00	16:00:00	19267200	78.22	8.372	19.339	0.95
4/18/2006	16:00:00	16:00:00	19353600	78.22	8.235	19.023	0.63
4/19/2006	16:00:00	16:00:00	19440000	78.24	8.081	18.667	0.28
4/20/2006	16:00:00	16:00:00	19526400	78.22	7.916	18.286	-0.10
4/21/2006	16:00:00	16:00:00	19612800	78.22	8.063	18.626	0.24
4/22/2006	16:00:00	16:00:00	19699200	78.24	8.084	18.674	0.28
4/23/2006	16:00:00	16:00:00	19785600	78.22	8.429	19.471	1.08
4/24/2006	16:00:00	16:00:00	19872000	78.22	8.607	19.882	1.49
4/25/2006	16:00:00	16:00:00	19958400	78.22	8.495	19.623	1.23
4/26/2006	16:00:00	16:00:00	20044800	78.22	8.265	19.092	0.70
4/27/2006	16:00:00	16:00:00	20131200	78.22	8.168	18.868	0.48
4/28/2006	16:00:00	16:00:00	20217600	78.22	8.24	19.034	0.64
4/29/2006	16:00:00	16:00:00	20304000	78.22	8.167	18.866	0.48
4/30/2006	16:00:00	16:00:00	20390400	78.22	8.417	19.443	1.05
5/1/2006	16:00:00	16:00:00	20476800	78.22	8.59	19.843	1.45
5/2/2006	16:00:00	16:00:00	20563200	78.19	8.733	20.173	1.78
5/3/2006	16:00:00	16:00:00	20649600	78.19	8.764	20.245	1.85
5/4/2006	16:00:00	16:00:00	20736000	78.19	8.662	20.009	1.62
5/5/2006	16:00:00	16:00:00	20822400	78.19	8.421	19.453	1.06
5/6/2006	16:00:00	16:00:00	20908800	78.19	8.219	18.986	0.60
5/7/2006	16:00:00	16:00:00	20995200	78.19	8.383	19.365	0.97
5/8/2006	16:00:00	16:00:00	21081600	78.19	8.53	19.704	1.31
5/9/2006	16:00:00	16:00:00	21168000	78.19	8.527	19.697	1.31
5/10/2006	16:00:00	16:00:00	21254400	78.19	8.456	19.533	1.14
5/11/2006	16:00:00	16:00:00	21340800	78.19	8.279	19.124	0.73
5/12/2006	16:00:00	16:00:00	21427200	78.19	8.16	18.850	0.46
5/13/2006	16:00:00	16:00:00	21513600	78.19	8.075	18.653	0.26
5/14/2006	16:00:00	16:00:00	21600000	78.19	8.219	18.986	0.60
5/15/2006	16:00:00	16:00:00	21686400	78.17	8.441	19.499	1.11
5/16/2006	16:00:00	16:00:00	21772800	78.17	8.83	20.397	2.01
5/17/2006	16:00:00	16:00:00	21859200	78.17	9.189	21.227	2.84
5/18/2006	16:00:00	16:00:00	21945600	78.17	9.083	20.982	2.59

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual Water Level (FT) (F-18.39)
7/16/2006	16:00:00	16:00:00	27043200	78.04	15.485	35.770	17.38
7/17/2006	16:00:00	16:00:00	27129600	78.04	15.509	35.826	17.44
7/18/2006	16:00:00	16:00:00	27216000	78.04	15.609	36.057	17.67
7/19/2006	16:00:00	16:00:00	27302400	78.04	15.689	36.242	17.85
7/20/2006	16:00:00	16:00:00	27388800	78.04	15.764	36.415	18.02
7/21/2006	16:00:00	16:00:00	27475200	78.04	15.919	36.773	18.38
7/22/2006	16:00:00	16:00:00	27561600	78.04	16.028	37.025	18.63
7/23/2006	16:00:00	16:00:00	27648000	78.01	16.127	37.253	18.86
7/24/2006	16:00:00	16:00:00	27734400	78.01	16.126	37.251	18.86
7/25/2006	16:00:00	16:00:00	27820800	78.04	16.123	37.244	18.85
7/26/2006	16:00:00	16:00:00	27907200	78.01	16.062	37.103	18.71
7/27/2006	16:00:00	16:00:00	27993600	78.01	16.035	37.041	18.65
7/28/2006	16:00:00	16:00:00	28080000	78.01	16.125	37.249	18.86
7/29/2006	16:00:00	16:00:00	28166400	78.01	16.118	37.233	18.84
7/30/2006	16:00:00	16:00:00	28252800	78.01	16.047	37.069	18.68
7/31/2006	16:00:00	16:00:00	28339200	78.01	16.026	37.020	18.63
8/1/2006	16:00:00	16:00:00	28425600	78.01	16.007	36.976	18.59
8/2/2006	16:00:00	16:00:00	28512000	78.01	15.903	36.736	18.35
8/3/2006	16:00:00	16:00:00	28598400	78.01	15.91	36.752	18.36
8/4/2006	16:00:00	16:00:00	28684800	78.01	16.001	36.962	18.57
8/5/2006	16:00:00	16:00:00	28771200	77.99	15.892	36.711	18.32
8/6/2006	16:00:00	16:00:00	28857600	77.99	15.768	36.424	18.03
8/7/2006	16:00:00	16:00:00	28944000	77.99	15.911	36.754	18.36
8/8/2006	16:00:00	16:00:00	29030400	77.99	16.073	37.129	18.74
8/9/2006	16:00:00	16:00:00	29116800	77.97	15.994	36.946	18.56
8/10/2006	16:00:00	16:00:00	29203200	77.97	15.847	36.607	18.22
8/11/2006	16:00:00	16:00:00	29289600	77.99	15.906	36.743	18.35
8/12/2006	16:00:00	16:00:00	29376000	77.99	15.747	36.376	17.99
8/13/2006	16:00:00	16:00:00	29462400	77.99	15.685	36.232	17.84
8/14/2006	16:00:00	16:00:00	29548800	77.97	15.848	36.609	18.22
8/15/2006	16:00:00	16:00:00	29635200	77.97	15.941	36.824	18.43
8/16/2006	16:00:00	16:00:00	29721600	77.97	16.037	37.045	18.66
8/17/2006	16:00:00	16:00:00	29808000	77.97	16.019	37.004	18.61
8/18/2006	16:00:00	16:00:00	29894400	77.97	16.047	37.069	18.68
8/19/2006	16:00:00	16:00:00	29980800	77.97	16.024	37.015	18.63
8/20/2006	16:00:00	16:00:00	30067200	77.99	16.132	37.265	18.87
8/21/2006	16:00:00	16:00:00	30153600	77.97	16.307	37.669	19.28
8/22/2006	16:00:00	16:00:00	30240000	77.97	16.377	37.831	19.44
8/23/2006	16:00:00	16:00:00	30326400	77.99	16.37	37.815	19.42
8/24/2006	16:00:00	16:00:00	30412800	77.97	16.439	37.974	19.58
8/25/2006	16:00:00	16:00:00	30499200	77.97	16.512	38.143	19.75
8/26/2006	16:00:00	16:00:00	30585600	77.99	16.669	38.505	20.12
8/27/2006	16:00:00	16:00:00	30672000	77.97	16.714	38.609	20.22
8/28/2006	16:00:00	16:00:00	30758400	77.97	16.753	38.699	20.31
8/29/2006	16:00:00	16:00:00	30844800	77.97	16.643	38.445	20.06
8/30/2006	16:00:00	16:00:00	30931200	77.97	16.846	38.914	20.52
8/31/2006	16:00:00	16:00:00	31017600	77.97	16.763	38.723	20.33
9/1/2006	16:00:00	16:00:00	31104000	77.97	17.136	39.584	21.19
9/2/2006	16:00:00	16:00:00	31190400	77.97	17.113	39.531	21.14
9/3/2006	16:00:00	16:00:00	31276800	77.97	17.143	39.600	21.21
9/4/2006	16:00:00	16:00:00	31363200	77.97	17.251	39.850	21.46
9/5/2006	16:00:00	16:00:00	31449600	77.97	17.286	39.931	21.54
9/6/2006	16:00:00	16:00:00	31536000	77.97	17.208	39.750	21.36
9/7/2006	16:00:00	16:00:00	31622400	77.97	17.221	39.781	21.39
9/8/2006	16:00:00	16:00:00	31708800	77.97	17.243	39.831	21.44
9/9/2006	16:00:00	16:00:00	31795200	77.97	17.199	39.730	21.34
9/10/2006	16:00:00	16:00:00	31881600	77.97	17.189	39.707	21.32
9/11/2006	16:00:00	16:00:00	31968000	77.97	17.27	39.894	21.50

Date	Time		ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual Water Level (FT) (F-18.39)
11/9/2006	16:00:00	16:00:00	37065600	77.97	12.592	29.088	10.70
11/10/2006	16:00:00	16:00:00	37152000	77.97	12.623	29.159	10.77
11/11/2006	16:00:00	16:00:00	37238400	77.97	12.528	28.940	10.55
11/12/2006	16:00:00	16:00:00	37324800	77.97	12.554	29.000	10.61
11/13/2006	16:00:00	16:00:00	37411200	77.97	12.58	29.060	10.67
11/14/2006	16:00:00	16:00:00	37497600	77.97	12.637	29.191	10.80
11/15/2006	16:00:00	16:00:00	37584000	77.99	12.412	28.672	10.28
11/16/2006	16:00:00	16:00:00	37670400	77.99	12.171	28.115	9.73
11/17/2006	16:00:00	16:00:00	37756800	77.99	12.354	28.538	10.15
11/18/2006	16:00:00	16:00:00	37843200	77.99	12.346	28.519	10.13
11/19/2006	16:00:00	16:00:00	37929600	77.99	12.435	28.725	10.33
11/20/2006	16:00:00	16:00:00	38016000	77.99	12.402	28.649	10.26
11/21/2006	16:00:00	16:00:00	38102400	77.99	12.362	28.556	10.17
11/22/2006	16:00:00	16:00:00	38188800	77.99	11.904	27.498	9.11
11/23/2006	16:00:00	16:00:00	38275200	77.99	11.52	26.611	8.22
11/24/2006	16:00:00	16:00:00	38361600	77.99	11.551	26.683	8.29
11/25/2006	16:00:00	16:00:00	38448000	77.99	11.395	26.322	7.93
11/26/2006	16:00:00	16:00:00	38534400	77.99	11.353	26.225	7.84
11/27/2006	16:00:00	16:00:00	38620800	77.99	11.381	26.290	7.90
11/28/2006	16:00:00	16:00:00	38707200	77.99	11.414	26.366	7.98
11/29/2006	16:00:00	16:00:00	38793600	78.01	11.031	25.482	7.09
11/30/2006	16:00:00	16:00:00	38880000	78.01	10.995	25.398	7.01
12/1/2006	16:00:00	16:00:00	38966400	78.01	11.043	25.509	7.12
12/2/2006	16:00:00	16:00:00	39052800	78.01	10.949	25.292	6.90
12/3/2006	16:00:00	16:00:00	39139200	78.01	10.882	25.137	6.75
12/4/2006	16:00:00	16:00:00	39225600	78.01	11.012	25.438	7.05
12/5/2006	16:00:00	16:00:00	39312000	78.01	10.818	24.990	6.60
12/6/2006	16:00:00	16:00:00	39398400	78.01	10.11	23.354	4.96
12/7/2006	16:00:00	16:00:00	39484800	78.01	9.693	22.391	4.00
12/8/2006	16:00:00	16:00:00	39571200	78.01	9.495	21.933	3.54
12/9/2006	16:00:00	16:00:00	39657600	78.01	9.53	22.014	3.62
12/10/2006	16:00:00	16:00:00	39744000	78.01	9.604	22.185	3.80
12/11/2006	16:00:00	16:00:00	39830400	78.01	9.782	22.596	4.21
12/12/2006	16:00:00	16:00:00	39916800	78.04	9.643	22.275	3.89
12/13/2006	16:00:00	16:00:00	40003200	78.04	9.271	21.416	3.03
12/14/2006	16:00:00	16:00:00	40089600	78.04	9.053	20.912	2.52
12/15/2006	16:00:00	16:00:00	40176000	78.04	8.951	20.677	2.29
5/21/2007	16:00				8.818	20.370	1.98

FGUA WTP#2 Mirror Lakes Wellfield
Lehigh Acres, Lee County, Florida
Lower Sandstone Potentiometric Elevation
September 2005 - May 2007



fgua FLORIDA GOVERNMENTAL UTILITY AUTHORITY	FLORIDA GOVERNMENTAL UTILITY AUTHORITY LEHIGH WUP – RFI RESPONSE **LOWER SANDSTONE AQUIFER WATER LEVELS IN THE AREA OF WTP NO. 2**	MALCOLM PIRNIE, INC. **RFI Questions No. 3, 5**

Lower Sandstone Monitoring Well, WTP No. 2 site

In-Situ Inc. MiniTroll Pro

Report generated: 5/18/2007 13:46:58
Report from file: ...\SN20761 2005-09-06 160000 Test #1.bin
Win-Situ® Version 4.57.0.0

Serial number: 20761
Firmware Version 3.09
Unit name: miniTROLL

Test name: Test #1

Test defined on: 9/6/2005 14:27:26
Test scheduled for: 9/6/2005 16:00:00
Test started on: 9/6/2005 16:00:00
Test stopped on: ABEND

Data gathered using Linear testing
Time between data points: Seconds.
Number of data samples: 618

TOTAL DATA SAMPLES 618

Channel number [1] Casing Elevation= 31.34 feet
Measurement type: Temperature
Channel name: OnBoard Temp

Channel number [2]
Measurement type: Pressure
Channel name: OnBoard Pressure
Sensor Range: 30 PSIG.
Sensor Offset: 0.000 psi

Date	Time	Date + Time	ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual GW Elevation (FT) (F -19.84)
9/6/2005	16:00:00	16:00:00	0	78.13	17.189	39.71	19.87
9/7/2005	16:00:03	16:00:03	86403	78.11	17.027	39.33	19.49
9/8/2005	16:00:06	16:00:06	172806	78.11	16.914	39.07	19.23
9/9/2005	16:00:09	16:00:09	259209	78.13	16.859	38.94	19.10
9/10/2005	16:00:12	16:00:12	345612	78.11	16.803	38.81	18.97
9/11/2005	16:00:15	16:00:15	432015	78.42	16.657	38.48	18.64
9/12/2005	16:00:18	16:00:18	518418	78.17	16.622	38.40	18.56
9/13/2005	16:00:21	16:00:21	604821	78.17	16.511	38.14	18.30
9/14/2005	16:00:24	16:00:24	691224	78.17	16.161	37.33	17.49
9/15/2005	16:00:27	16:00:27	777627	78.15	15.822	36.55	16.71
9/16/2005	16:00:30	16:00:30	864030	78.15	15.517	35.84	16.00
9/17/2005	16:00:33	16:00:33	950433	78.15	15.19	35.09	15.25
9/18/2005	16:00:36	16:00:36	1036836	78.15	15.123	34.93	15.09
9/19/2005	16:00:39	16:00:39	1123239	78.15	15.1	34.88	15.04
9/20/2005	16:00:42	16:00:42	1209642	78.15	14.866	34.34	14.50
9/21/2005	16:00:45	16:00:45	1296045	78.15	15.107	34.90	15.06
9/22/2005	16:00:48	16:00:48	1382448	78.13	15.2	35.11	15.27
9/23/2005	16:00:51	16:00:51	1468851	78.13	15.5	35.81	15.97
9/24/2005	16:00:54	16:00:54	1555254	78.15	15.52	35.85	16.01
9/25/2005	16:00:57	16:00:57	1641657	78.13	15.496	35.80	15.96
9/26/2005	16:01:00	16:01:00	1728060	78.13	15.527	35.87	16.03
9/27/2005	16:01:03	16:01:03	1814463	78.13	15.476	35.75	15.91
9/28/2005	16:01:06	16:01:06	1900866	78.13	15.509	35.83	15.99
9/29/2005	16:01:09	16:01:09	1987269	78.13	15.455	35.70	15.86
9/30/2005	16:01:12	16:01:12	2073672	78.13	15.544	35.91	16.07

Date	Time	Date + Time	ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual GW Elevation (FT) (F -19.84)
11/30/2005	16:04:15	16:04:15	7344255	78.11	16.565	38.27	18.43
12/1/2005	16:04:18	16:04:18	7430658	78.11	16.574	38.29	18.45
12/2/2005	16:04:21	16:04:21	7517061	78.11	16.685	38.54	18.70
12/3/2005	16:04:24	16:04:24	7603464	78.11	16.626	38.41	18.57
12/4/2005	16:04:27	16:04:27	7689867	78.11	16.467	38.04	18.20
12/5/2005	16:04:30	16:04:30	7776270	78.11	16.332	37.73	17.89
12/6/2005	16:04:33	16:04:33	7862673	78.11	16.192	37.40	17.56
12/7/2005	16:04:36	16:04:36	7949076	78.11	16.067	37.11	17.27
12/8/2005	16:04:39	16:04:39	8035479	78.11	15.942	36.83	16.99
12/9/2005	16:04:42	16:04:42	8121882	78.11	15.902	36.73	16.89
12/10/2005	16:04:45	16:04:45	8208285	78.13	15.728	36.33	16.49
12/11/2005	16:04:48	16:04:48	8294688	78.11	15.673	36.20	16.36
12/12/2005	16:04:51	16:04:51	8381091	78.11	15.797	36.49	16.65
12/13/2005	16:04:54	16:04:54	8467494	78.13	15.749	36.38	16.54
12/14/2005	16:04:57	16:04:57	8553897	78.13	15.559	35.94	16.10
12/15/2005	16:05:00	16:05:00	8640300	78.13	15.185	35.08	15.24
12/16/2005	16:05:03	16:05:03	8726703	78.11	14.892	34.40	14.56
12/17/2005	16:05:06	16:05:06	8813106	78.13	14.771	34.12	14.28
12/18/2005	16:05:09	16:05:09	8899509	78.11	14.892	34.40	14.56
12/19/2005	16:05:12	16:05:12	8985912	78.13	15.155	35.01	15.17
12/20/2005	16:05:15	16:05:15	9072315	78.11	15.323	35.40	15.56
12/21/2005	16:05:18	16:05:18	9158718	78.11	15.224	35.17	15.33
12/22/2005	16:05:21	16:05:21	9245121	78.13	14.79	34.16	14.32
12/23/2005	16:05:24	16:05:24	9331524	78.11	14.567	33.65	13.81
12/24/2005	16:05:27	16:05:27	9417927	78.11	14.407	33.28	13.44
12/25/2005	16:05:30	16:05:30	9504330	78.11	14.395	33.25	13.41
12/26/2005	16:05:33	16:05:33	9590733	78.11	14.462	33.41	13.57
12/27/2005	16:05:36	16:05:36	9677136	78.13	14.373	33.20	13.36
12/28/2005	16:05:39	16:05:39	9763539	78.11	14.278	32.98	13.14
12/29/2005	16:05:42	16:05:42	9849942	78.11	14.039	32.43	12.59
12/30/2005	16:05:45	16:05:45	9936345	78.11	14.044	32.44	12.60
12/31/2005	16:05:48	16:05:48	10022748	78.11	13.95	32.22	12.38
1/1/2006	16:05:51	16:05:51	10109151	78.11	13.921	32.16	12.32
1/2/2006	16:05:54	16:05:54	10195554	78.11	14.024	32.40	12.56
1/3/2006	16:05:57	16:05:57	10281957	78.11	13.935	32.19	12.35
1/4/2006	16:06:00	16:06:00	10368360	78.11	13.797	31.87	12.03
1/5/2006	16:06:03	16:06:03	10454763	78.11	13.551	31.30	11.46
1/6/2006	16:06:06	16:06:06	10541166	78.11	13.488	31.16	11.32
1/7/2006	16:06:09	16:06:09	10627569	78.11	13.331	30.79	10.95
1/8/2006	16:06:12	16:06:12	10713972	78.08	12.95	29.91	10.07
1/9/2006	16:06:15	16:06:15	10800375	78.11	12.999	30.03	10.19
1/10/2006	16:06:18	16:06:18	10886778	78.11	13.087	30.23	10.39
1/11/2006	16:06:21	16:06:21	10973181	78.08	13.096	30.25	10.41
1/12/2006	16:06:24	16:06:24	11059584	78.11	13.013	30.06	10.22
1/13/2006	16:06:27	16:06:27	11145987	78.11	12.959	29.94	10.10
1/14/2006	16:06:30	16:06:30	11232390	78.11	13.09	30.24	10.40
1/15/2006	16:06:33	16:06:33	11318793	78.08	13.17	30.42	10.58
1/16/2006	16:06:36	16:06:36	11405196	78.11	13.084	30.22	10.38
1/17/2006	16:06:39	16:06:39	11491599	78.11	12.913	29.83	9.99
1/18/2006	16:06:42	16:06:42	11578002	78.11	12.838	29.66	9.82
1/19/2006	16:06:45	16:06:45	11664405	78.11	12.782	29.53	9.69
1/20/2006	16:06:48	16:06:48	11750808	78.11	12.799	29.57	9.73
1/21/2006	16:06:51	16:06:51	11837211	78.11	12.819	29.61	9.77
1/22/2006	16:06:54	16:06:54	11923614	78.11	12.846	29.67	9.83
1/23/2006	16:06:57	16:06:57	12010017	78.11	12.708	29.36	9.52
1/24/2006	16:07:00	16:07:00	12096420	78.11	12.566	29.03	9.19
1/25/2006	16:07:03	16:07:03	12182823	78.11	12.711	29.36	9.52
1/26/2006	16:07:06	16:07:06	12269226	78.11	12.465	28.79	8.95
1/27/2006	16:07:09	16:07:09	12355629	78.11	12.208	28.20	8.36
1/28/2006	16:07:12	16:07:12	12442032	78.11	11.999	27.72	7.88

Date	Time	Date + Time	ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual GW Elevation (FT) (F -19.84)
3/30/2006	16:10:15	16:10:15	17712615	78.11	9.699	22.40	2.56
3/31/2006	16:10:18	16:10:18	17799018	78.11	9.632	22.25	2.41
4/1/2006	16:10:21	16:10:21	17885421	78.11	9.363	21.63	1.79
4/2/2006	16:10:24	16:10:24	17971824	78.11	9.277	21.43	1.59
4/3/2006	16:10:27	16:10:27	18058227	78.11	9.405	21.73	1.89
4/4/2006	16:10:30	16:10:30	18144630	78.11	9.361	21.62	1.78
4/5/2006	16:10:33	16:10:33	18231033	78.11	9.292	21.46	1.62
4/6/2006	16:10:36	16:10:36	18317436	78.11	9.12	21.07	1.23
4/7/2006	16:10:39	16:10:39	18403839	78.11	9.097	21.01	1.17
4/8/2006	16:10:42	16:10:42	18490242	78.11	8.848	20.44	0.60
4/9/2006	16:10:45	16:10:45	18576645	78.11	9.093	21.00	1.16
4/10/2006	16:10:48	16:10:48	18663048	78.11	9.359	21.62	1.78
4/11/2006	16:10:51	16:10:51	18749451	78.11	9.34	21.58	1.74
4/12/2006	16:10:54	16:10:54	18835854	78.11	9.116	21.06	1.22
4/13/2006	16:10:57	16:10:57	18922257	78.11	8.864	20.48	0.64
4/14/2006	16:11:00	16:11:00	19008660	78.11	8.693	20.08	0.24
4/15/2006	16:11:03	16:11:03	19095063	78.11	8.454	19.53	-0.31
4/16/2006	16:11:06	16:11:06	19181466	78.11	8.577	19.81	-0.03
4/17/2006	16:11:09	16:11:09	19267869	78.11	8.691	20.08	0.24
4/18/2006	16:11:12	16:11:12	19354272	78.11	8.576	19.81	-0.03
4/19/2006	16:11:15	16:11:15	19440675	78.11	8.397	19.40	-0.44
4/20/2006	16:11:18	16:11:18	19527078	78.11	8.212	18.97	-0.87
4/21/2006	16:11:21	16:11:21	19613481	78.11	8.361	19.31	-0.53
4/22/2006	16:11:24	16:11:24	19699884	78.11	8.388	19.38	-0.46
4/23/2006	16:11:27	16:11:27	19786287	78.11	8.721	20.15	0.31
4/24/2006	16:11:30	16:11:30	19872690	78.11	8.924	20.61	0.77
4/25/2006	16:11:33	16:11:33	19959093	78.11	8.833	20.40	0.56
4/26/2006	16:11:36	16:11:36	20045496	78.11	8.542	19.73	-0.11
4/27/2006	16:11:39	16:11:39	20131899	78.11	8.469	19.56	-0.28
4/28/2006	16:11:42	16:11:42	20218302	78.11	8.525	19.69	-0.15
4/29/2006	16:11:45	16:11:45	20304705	78.11	8.464	19.55	-0.29
4/30/2006	16:11:48	16:11:48	20391108	78.11	8.695	20.09	0.25
5/1/2006	16:11:51	16:11:51	20477511	78.08	8.896	20.55	0.71
5/2/2006	16:11:54	16:11:54	20563914	78.11	9.039	20.88	1.04
5/3/2006	16:11:57	16:11:57	20650317	78.11	9.08	20.97	1.13
5/4/2006	16:12:00	16:12:00	20736720	78.11	8.996	20.78	0.94
5/5/2006	16:12:03	16:12:03	20823123	78.11	8.744	20.20	0.36
5/6/2006	16:12:06	16:12:06	20909526	78.11	8.507	19.65	-0.19
5/7/2006	16:12:09	16:12:09	20995929	78.11	8.672	20.03	0.19
5/8/2006	16:12:12	16:12:12	21082332	78.08	8.824	20.38	0.54
5/9/2006	16:12:15	16:12:15	21168735	78.08	8.845	20.43	0.59
5/10/2006	16:12:18	16:12:18	21255138	78.11	8.736	20.18	0.34
5/11/2006	16:12:21	16:12:21	21341541	78.11	8.582	19.82	-0.02
5/12/2006	16:12:24	16:12:24	21427944	78.11	8.457	19.54	-0.30
5/13/2006	16:12:27	16:12:27	21514347	78.11	8.361	19.31	-0.53
5/14/2006	16:12:30	16:12:30	21600750	78.11	8.487	19.60	-0.24
5/15/2006	16:12:33	16:12:33	21687153	78.11	8.751	20.21	0.37
5/16/2006	16:12:36	16:12:36	21773556	78.08	9.092	21.00	1.16
5/17/2006	16:12:39	16:12:39	21859959	78.08	9.508	21.96	2.12
5/18/2006	16:12:42	16:12:42	21946362	78.08	9.37	21.64	1.80
5/19/2006	16:12:45	16:12:45	22032765	78.11	9.343	21.58	1.74
5/20/2006	16:12:48	16:12:48	22119168	78.08	9.435	21.79	1.95
5/21/2006	16:12:51	16:12:51	22205571	78.08	9.581	22.13	2.29
5/22/2006	16:12:54	16:12:54	22291974	78.08	9.793	22.62	2.78
5/23/2006	16:12:57	16:12:57	22378377	78.08	9.752	22.53	2.69
5/24/2006	16:13:00	16:13:00	22464780	78.08	9.544	22.05	2.21
5/25/2006	16:13:03	16:13:03	22551183	78.08	9.334	21.56	1.72
5/26/2006	16:13:06	16:13:06	22637586	78.08	9.631	22.25	2.41
5/27/2006	16:13:09	16:13:09	22723989	78.08	9.669	22.34	2.50
5/28/2006	16:13:12	16:13:12	22810392	78.08	9.892	22.85	3.01

Date	Time	Date + Time	ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual GW Elevation (FT) (F -19.84)
7/28/2006	16:16:15	16:16:15	28080975	78	16.46	38.02	18.18
7/29/2006	16:16:18	16:16:18	28167378	78	16.47	38.05	18.21
7/30/2006	16:16:21	16:16:21	28253781	77.97	16.4	37.88	18.04
7/31/2006	16:16:24	16:16:24	28340184	77.97	16.386	37.85	18.01
8/1/2006	16:16:27	16:16:27	28426587	77.97	16.379	37.84	18.00
8/2/2006	16:16:30	16:16:30	28512990	77.97	16.242	37.52	17.68
8/3/2006	16:16:33	16:16:33	28599393	77.97	16.244	37.52	17.68
8/4/2006	16:16:36	16:16:36	28685796	77.97	16.362	37.80	17.96
8/5/2006	16:16:39	16:16:39	28772199	77.97	16.241	37.52	17.68
8/6/2006	16:16:42	16:16:42	28858602	77.97	16.103	37.20	17.36
8/7/2006	16:16:45	16:16:45	28945005	77.97	16.218	37.46	17.62
8/8/2006	16:16:48	16:16:48	29031408	77.97	16.419	37.93	18.09
8/9/2006	16:16:51	16:16:51	29117811	77.97	16.337	37.74	17.90
8/10/2006	16:16:54	16:16:54	29204214	77.97	16.211	37.45	17.61
8/11/2006	16:16:57	16:16:57	29290617	77.97	16.252	37.54	17.70
8/12/2006	16:17:00	16:17:00	29377020	77.97	16.121	37.24	17.40
8/13/2006	16:17:03	16:17:03	29463423	77.97	16.031	37.03	17.19
8/14/2006	16:17:06	16:17:06	29549826	77.97	16.191	37.40	17.56
8/15/2006	16:17:09	16:17:09	29636229	77.97	16.259	37.56	17.72
8/16/2006	16:17:12	16:17:12	29722632	77.97	16.376	37.83	17.99
8/17/2006	16:17:15	16:17:15	29809035	77.97	16.391	37.86	18.02
8/18/2006	16:17:18	16:17:18	29895438	77.97	16.412	37.91	18.07
8/19/2006	16:17:21	16:17:21	29981841	77.97	16.352	37.77	17.93
8/20/2006	16:17:24	16:17:24	30068244	77.97	16.475	38.06	18.22
8/21/2006	16:17:27	16:17:27	30154647	77.97	16.625	38.40	18.56
8/22/2006	16:17:30	16:17:30	30241050	77.95	16.703	38.58	18.74
8/23/2006	16:17:33	16:17:33	30327453	77.97	16.57	38.28	18.44
8/24/2006	16:17:36	16:17:36	30413856	77.97	16.798	38.80	18.96
8/25/2006	16:17:39	16:17:39	30500259	77.95	16.874	38.98	19.14
8/26/2006	16:17:42	16:17:42	30586662	77.95	17.015	39.30	19.46
8/27/2006	16:17:45	16:17:45	30673065	77.95	17.069	39.43	19.59
8/28/2006	16:17:48	16:17:48	30759468	77.95	17.032	39.34	19.50
8/29/2006	16:17:51	16:17:51	30845871	77.95	17.153	39.62	19.78
8/30/2006	16:17:54	16:17:54	30932274	77.97	17.128	39.57	19.73
8/31/2006	16:17:57	16:17:57	31018677	77.95	16.242	37.52	17.68
9/1/2006	16:18:00	16:18:00	31105080	77.95	17.517	40.46	20.62
9/2/2006	16:18:03	16:18:03	31191483	77.95	17.468	40.35	20.51
9/3/2006	16:18:06	16:18:06	31277886	77.97	17.503	40.43	20.59
9/4/2006	16:18:09	16:18:09	31364289	77.97	17.63	40.73	20.89
9/5/2006	16:18:12	16:18:12	31450692	77.97	17.667	40.81	20.97
9/6/2006	16:18:15	16:18:15	31537095	77.95	17.581	40.61	20.77
9/7/2006	16:18:18	16:18:18	31623498	77.97	17.598	40.65	20.81
9/8/2006	16:18:21	16:18:21	31709901	77.97	17.619	40.70	20.86
9/9/2006	16:18:24	16:18:24	31796304	77.95	17.572	40.59	20.75
9/10/2006	16:18:27	16:18:27	31882707	77.95	17.543	40.52	20.68
9/11/2006	16:18:30	16:18:30	31969110	77.95	17.658	40.79	20.95
9/12/2006	16:18:33	16:18:33	32055513	77.97	17.663	40.80	20.96
9/13/2006	16:18:36	16:18:36	32141916	77.95	17.677	40.83	20.99
9/14/2006	16:18:39	16:18:39	32228319	77.97	17.709	40.91	21.07
9/15/2006	16:18:42	16:18:42	32314722	77.97	17.768	41.04	21.20
9/16/2006	16:18:45	16:18:45	32401125	77.95	17.709	40.91	21.07
9/17/2006	16:18:48	16:18:48	32487528	77.95	17.745	40.99	21.15
9/18/2006	16:18:51	16:18:51	32573931	77.97	17.739	40.98	21.14
9/19/2006	16:18:54	16:18:54	32660334	77.97	17.801	41.12	21.28
9/20/2006	16:18:57	16:18:57	32746737	77.95	17.762	41.03	21.19
9/21/2006	16:19:00	16:19:00	32833140	77.95	17.691	40.87	21.03
9/22/2006	16:19:03	16:19:03	32919543	77.95	17.701	40.89	21.05
9/23/2006	16:19:06	16:19:06	33005946	77.95	17.533	40.50	20.66
9/24/2006	16:19:09	16:19:09	33092349	77.97	17.454	40.32	20.48
9/25/2006	16:19:12	16:19:12	33178752	77.95	17.401	40.20	20.36

Date	Time	Date + Time	ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual GW Elevation (FT) (F -19.84)
11/25/2006	16:22:15	16:22:15	38449335	77.95	11.788	27.23	7.39
11/26/2006	16:22:18	16:22:18	38535738	77.95	11.735	27.11	7.27
11/27/2006	16:22:21	16:22:21	38622141	77.95	11.766	27.18	7.34
11/28/2006	16:22:24	16:22:24	38708544	77.95	11.798	27.25	7.41
11/29/2006	16:22:27	16:22:27	38794947	77.95	11.392	26.32	6.48
11/30/2006	16:22:30	16:22:30	38881350	77.95	11.389	26.31	6.47
12/1/2006	16:22:33	16:22:33	38967753	77.95	11.466	26.49	6.65
12/2/2006	16:22:36	16:22:36	39054156	77.95	11.328	26.17	6.33
12/3/2006	16:22:39	16:22:39	39140559	77.95	11.291	26.08	6.24
12/4/2006	16:22:42	16:22:42	39226962	77.95	11.413	26.36	6.52
12/5/2006	16:22:45	16:22:45	39313365	77.95	11.235	25.95	6.11
12/6/2006	16:22:48	16:22:48	39399768	77.95	10.531	24.33	4.49
12/7/2006	16:22:51	16:22:51	39486171	77.95	10.09	23.31	3.47
12/8/2006	16:22:54	16:22:54	39572574	77.95	9.851	22.76	2.92
12/9/2006	16:22:57	16:22:57	39658977	77.95	9.886	22.84	3.00
12/10/2006	16:23:00	16:23:00	39745380	77.95	9.966	23.02	3.18
12/11/2006	16:23:03	16:23:03	39831783	77.95	10.159	23.47	3.63
12/12/2006	16:23:06	16:23:06	39918186	77.95	10.159	23.47	3.63
12/13/2006	16:23:09	16:23:09	40004589	77.95	9.668	22.33	2.49
12/14/2006	16:23:12	16:23:12	40090992	77.95	9.327	21.55	1.71
12/15/2006	16:23:15	16:23:15	40177395	77.95	8.866	20.48	0.64
12/16/2006	16:23:18	16:23:18	40263798	77.93	9.599	22.17	2.33
12/17/2006	16:23:21	16:23:21	40350201	77.95	9.868	22.80	2.96
12/18/2006	16:23:24	16:23:24	40436604	77.95	10.072	23.27	3.43
12/19/2006	16:23:27	16:23:27	40523007	77.95	10.313	23.82	3.98
12/20/2006	16:23:30	16:23:30	40609410	77.95	10.325	23.85	4.01
12/21/2006	16:23:33	16:23:33	40695813	77.95	10.219	23.61	3.77
12/22/2006	16:23:36	16:23:36	40782216	77.95	10.305	23.80	3.96
12/23/2006	16:23:39	16:23:39	40868619	77.95	10.326	23.85	4.01
12/24/2006	16:23:42	16:23:42	40955022	77.95	10.677	24.66	4.82
12/25/2006	16:23:45	16:23:45	41041425	77.95	11.115	25.68	5.84
12/26/2006	16:23:48	16:23:48	41127828	77.95	11.599	26.79	6.95
12/27/2006	16:23:51	16:23:51	41214231	77.95	11.921	27.54	7.70
12/28/2006	16:23:54	16:23:54	41300634	77.95	11.871	27.42	7.58
12/29/2006	16:23:57	16:23:57	41387037	77.95	11.879	27.44	7.60
12/30/2006	16:24:00	16:24:00	41473440	77.95	11.746	27.13	7.29
12/31/2006	16:24:03	16:24:03	41559843	77.95	11.642	26.89	7.05
1/1/2007	16:24:06	16:24:06	41646246	77.95	11.703	27.03	7.19
1/2/2007	16:24:09	16:24:09	41732649	77.95	11.852	27.38	7.54
1/3/2007	16:24:12	16:24:12	41819052	77.95	11.791	27.24	7.40
1/4/2007	16:24:15	16:24:15	41905455	77.95	11.653	26.92	7.08
1/5/2007	16:24:18	16:24:18	41991858	77.95	11.591	26.78	6.94
1/6/2007	16:24:21	16:24:21	42078261	77.95	11.374	26.27	6.43
1/7/2007	16:24:24	16:24:24	42164664	77.95	11.305	26.11	6.27
1/8/2007	16:24:27	16:24:27	42251067	77.95	11.386	26.30	6.46
1/9/2007	16:24:30	16:24:30	42337470	77.95	11.418	26.38	6.54
1/10/2007	16:24:33	16:24:33	42423873	77.95	11.273	26.04	6.20
1/11/2007	16:24:36	16:24:36	42510276	77.95	11.059	25.55	5.71
1/12/2007	16:24:39	16:24:39	42596679	77.95	10.934	25.26	5.42
1/13/2007	16:24:42	16:24:42	42683082	77.95	10.694	24.70	4.86
1/14/2007	16:24:45	16:24:45	42769485	77.95	10.558	24.39	4.55
1/15/2007	16:24:48	16:24:48	42855888	77.95	10.669	24.65	4.81
1/16/2007	16:24:51	16:24:51	42942291	77.95	10.637	24.57	4.73
1/17/2007	16:24:54	16:24:54	43028694	77.95	10.381	23.98	4.14
1/18/2007	16:24:57	16:24:57	43115097	77.95	10.001	23.10	3.26
1/19/2007	16:25:00	16:25:00	43201500	77.95	9.69	22.38	2.54
1/20/2007	16:25:03	16:25:03	43287903	77.95	9.536	22.03	2.19
1/21/2007	16:25:06	16:25:06	43374306	77.95	9.585	22.14	2.30
1/22/2007	16:25:09	16:25:09	43460709	77.95	9.609	22.20	2.36
		16:25:12	43547112	77.95	9.699	22.40	2.56

Date	Time	Date + Time	ET (sec)	Chan[1] Temperatu Fahrenheit	Chan[2] Pressure PSI	Water Level Above Troll (FT) PSI x 2.31	Actual GW Elevation (FT) (F -19.84)
3/25/2007	16:28:15	16:28:15	48817695	77.95	6.63	15.32	-4.52
3/26/2007	16:28:18	16:28:18	48904098	77.95	6.74	15.57	-4.27
3/27/2007	16:28:21	16:28:21	48990501	77.95	6.579	15.20	-4.64
3/28/2007	16:28:24	16:28:24	49076904	77.95	6.222	14.37	-5.47
3/29/2007	16:28:27	16:28:27	49163307	77.95	5.845	13.50	-6.34
3/30/2007	16:28:30	16:28:30	49249710	77.95	5.787	13.37	-6.47
3/31/2007	16:28:33	16:28:33	49336113	77.95	5.68	13.12	-6.72
4/1/2007	16:28:36	16:28:36	49422516	77.95	6.03	13.93	-5.91
4/2/2007	16:28:39	16:28:39	49508919	77.95	6.246	14.43	-5.41
4/3/2007	16:28:42	16:28:42	49595322	77.95	6.305	14.56	-5.28
4/4/2007	16:28:45	16:28:45	49681725	77.95	6.078	14.04	-5.80
4/5/2007	16:28:48	16:28:48	49768128	77.95	5.967	13.78	-6.06
4/6/2007	16:28:51	16:28:51	49854531	77.95	5.922	13.68	-6.16
4/7/2007	16:28:54	16:28:54	49940934	77.95	6.054	13.98	-5.86
4/8/2007	16:28:57	16:28:57	50027337	77.95	6.368	14.71	-5.13
4/9/2007	16:29:00	16:29:00	50113740	77.95	6.609	15.27	-4.57
4/10/2007	16:29:03	16:29:03	50200143	77.95	6.162	14.23	-5.61
4/11/2007	16:29:06	16:29:06	50286546	77.95	6.36	14.69	-5.15
4/12/2007	16:29:09	16:29:09	50372949	77.95	6.231	14.39	-5.45
4/13/2007	16:29:12	16:29:12	50459352	77.95	6.674	15.42	-4.42
4/14/2007	16:29:15	16:29:15	50545755	77.95	6.781	15.66	-4.18
4/15/2007	16:29:18	16:29:18	50632158	77.95	7.234	16.71	-3.13
4/16/2007	16:29:21	16:29:21	50718561	77.95	7.54	17.42	-2.42
4/17/2007	16:29:24	16:29:24	50804964	77.95	7.809	18.04	-1.80
4/18/2007	16:29:27	16:29:27	50891367	77.95	7.733	17.86	-1.98
4/19/2007	16:29:30	16:29:30	50977770	77.95	7.57	17.49	-2.35
4/20/2007	16:29:33	16:29:33	51064173	77.95	7.575	17.50	-2.34
4/21/2007	16:29:36	16:29:36	51150576	77.95	7.321	16.91	-2.93
4/22/2007	16:29:39	16:29:39	51236979	77.95	7.468	17.25	-2.59
4/23/2007	16:29:42	16:29:42	51323382	77.95	7.75	17.90	-1.94
4/24/2007	16:29:45	16:29:45	51409785	77.95	7.723	17.84	-2.00
4/25/2007	16:29:48	16:29:48	51496188	77.95	7.408	17.11	-2.73
4/26/2007	16:29:51	16:29:51	51582591	77.95	7.076	16.35	-3.49
4/27/2007	16:29:54	16:29:54	51668994	77.95	7.158	16.53	-3.31
4/28/2007	16:29:57	16:29:57	51755397	77.95	7.035	16.25	-3.59
4/29/2007	16:30:00	16:30:00	51841800	77.95	7.263	16.78	-3.06
4/30/2007	16:30:03	16:30:03	51928203	77.95	7.58	17.51	-2.33
5/1/2007	16:30:06	16:30:06	52014606	77.95	7.6	17.56	-2.28
5/2/2007	16:30:09	16:30:09	52101009	77.95	6.999	16.17	-3.67
5/3/2007	16:30:12	16:30:12	52187412	77.95	6.988	16.14	-3.70
5/4/2007	16:30:15	16:30:15	52273815	77.95	7.282	16.82	-3.02
5/5/2007	16:30:18	16:30:18	52360218	77.95	7.648	17.67	-2.17
5/6/2007	16:30:21	16:30:21	52446621	77.95	7.956	18.38	-1.46
5/7/2007	16:30:24	16:30:24	52533024	77.93	8.349	19.29	-0.55
5/8/2007	16:30:27	16:30:27	52619427	77.93	8.602	19.87	0.03
5/9/2007	16:30:30	16:30:30	52705830	77.95	8.264	19.09	-0.75
5/10/2007	16:30:33	16:30:33	52792233	77.95	8.093	18.69	-1.15
5/11/2007	16:30:36	16:30:36	52878636	77.93	8.173	18.88	-0.96
5/12/2007	16:30:39	16:30:39	52965039	77.93	7.974	18.42	-1.42
5/13/2007	16:30:42	16:30:42	53051442	77.93	8.201	18.94	-0.90
5/14/2007	16:30:45	16:30:45	53137845	77.93	8.595	19.85	0.01
5/15/2007	16:30:48	16:30:48	53224248	77.93	8.759	20.23	0.39
5/16/2007	16:30:51	16:30:51	53310651	77.93	8.565	19.79	-0.05
5/21/2007	14:00	14:00:00			9.14	21.11	1.27

Lehigh Salt Water Monitoring Plan

The proposed salt water monitoring plan is sub-divided into three (3) parts to reflect the current and proposed Lehigh well field configurations. The three parts are identified as follows:

1. The existing WTP 1 Sandstone aquifer well field
2. The new WTP 2 Sandstone aquifer well field
3. The future, proposed brackish water aquifer well field

This plan addresses the first two (2) parts only. The brackish water aquifer well field, salt water monitoring plan will be developed after the exploratory well, the test/production wells, APT and ground water model/impact analysis are completed and the well field is designed and approved by SFWMD.

Table 1 lists the well construction details for the existing WTP 1 Sandstone aquifer well field.

Table 1- Existing WTP 1 Sandstone Aquifer Well Information

Well No.	Date Constructed	Rate (GPM)	Casing Depth (Ft.)	Total Depth (Ft.)
1	1955	150	50	65
2	1962	150	52	69
3	1970	150	58	68
4	1970	150	50	85
5	1962	150	54	66
6	1970	100	52	62
7	1970	200	57	85
8	1970	250	62	80
9	1970	200	63	80
10	1989	350	55	62
19	1999	200	55	90
20	1999	200	55	90
21	2004	200	55	90

The wells which compromise the WTP 1 Sandstone aquifer well field produce water from the upper Sandstone aquifer which occurs between 50 and 90 feet, below land surface (BLS). The primary concern with regards to saltwater intrusion and subsequent water quality degradation at this well field is from upconing from below. For this reason, the plan consists of constructing a new deep zone monitoring well, located in the approximate center of the well field, where the potential for upconing is the highest, as shown in **Figure 1**. The proposed new deep zone well will be constructed by installing a 4-inch PVC casing to 150 feet and completing the well open hole to a total depth of ~ 175 feet. Water levels will be measured and recorded in May and September each year. In addition, a water sample will be collected at the same time as water levels are measured and analyzed for Chlorides, Conductivity and Total Dissolved Solids.

Although the primary concern for salt water migration at this well field is from upconing, to address the potential for lateral migration of salt water, two (2) additional new monitoring wells are proposed to complete the plan. These wells will be constructed to base of the upper producing zone of the Sandstone aquifer, with wells cased to ~70 feet and completed open hole to ~ 90 feet-BLS. These wells will be located as shown in **Figure 1**. Water level and water quality sampling and analysis will conducted the same as the deep zone monitoring well, twice a year in May and September.

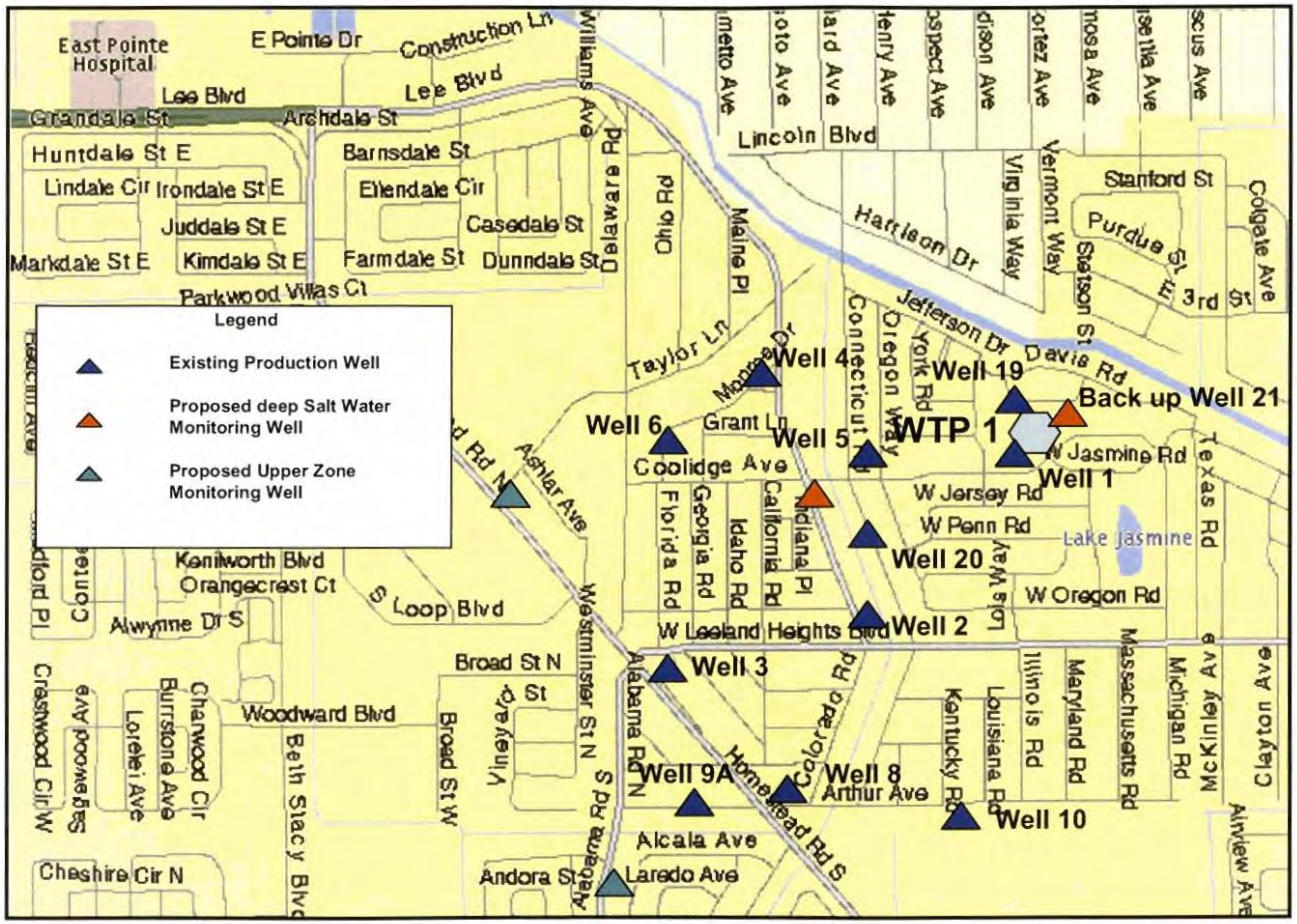


Figure 1- Proposed Salt Water Monitoring Plan- WTP 1 Sandstone Aquifer Well Field

Table 2 lists the well construction details for the new WTP 2 well field. Although these wells are still under construction, this table reflects the expected construction details and pumping rates for the three (3) wells which comprise the WTP 2 Sandstone aquifer well field

Table 2- WTP 2 Sandstone Aquifer Well Information

Well No.	Date Constructed	Rate (GPM)	Casing Depth (Ft.)	Total Depth (Ft.)
FGUA 1	2006	300	150	180
FGUA-2	2006	200	150	180
FGUA-3R	2006	200	165	180

The primary concern for salt water migration at this well field is by way of lateral migration from those areas within the lower Sandstone aquifer which contain naturally occurring higher concentrations of Chlorides. It is proposed to use existing test wells which were constructed in 2003 as part of a test well program which was conducted in the vicinity of the current WTP 2 (under construction). **Figure 2** illustrates the location of the wells which comprise the new WTP 2 Sandstone aquifer well field. **Figure 2** also shows the location of all of the test wells constructed during the 2003 test well program. During this program, two (2) separate test wells were constructed at each location. One well was completed into the upper producing zone (~50-90 feet-BLS) and one well completed into the lower producing zone (~150-180 feet-BLS) of the Sandstone aquifer. Water levels will be measured and recorded in May and September each year at these three (3) wells. In addition, a water sample will be collected at the same time and analyzed for Chlorides, Conductivity and Total Dissolved Solids.

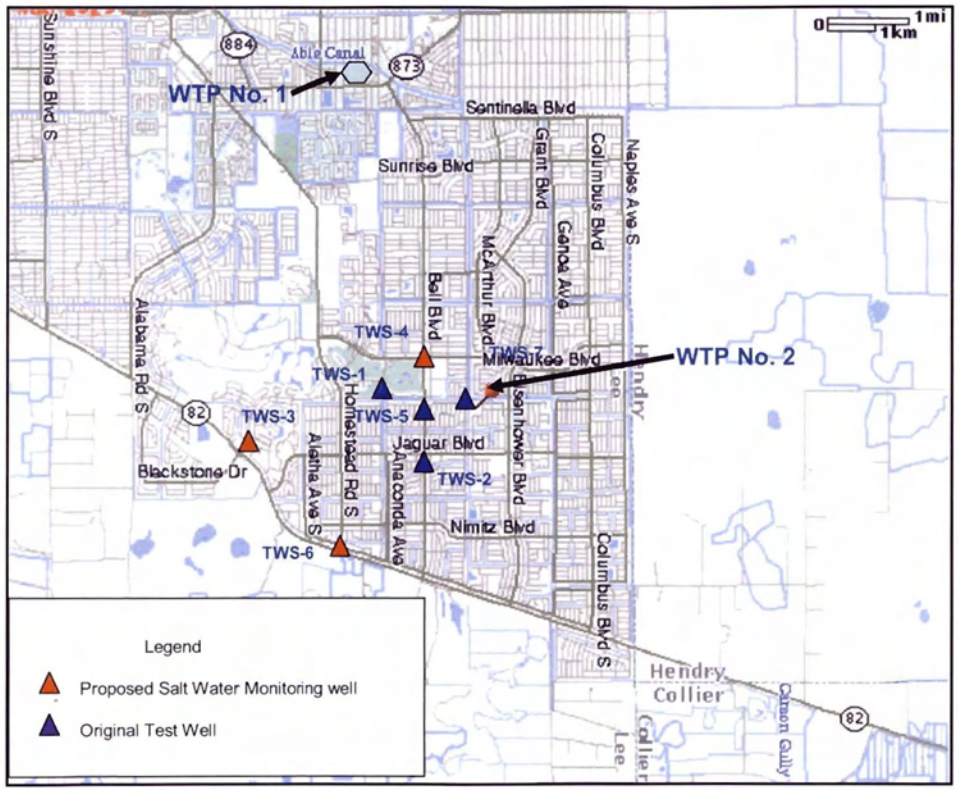


Figure 2 – Proposed Salt Water Monitoring Plan- South Well Field