CITY OF CLEWISTON

Water Treatment Plant
Concentrate Injection Well System

FDEP File No. 249635-001-UC

Well Completion Report
Volume I

JULY 2007

CDM

CLEW-IW-1
CLEWDZMW-1

CITY OF CLEWISTON

WATER TREATMENT PLAN

CONCENTRATE INJECTION WELL SYSTEM

WELL COMPLETION REPORT

FDEP FILE NO. 249635-001-UC

JULY 2007

7/3/07
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CERTIFICATIONS

City of Clewiston

Water Treatment Plant
Concentrate Injection Well System

Well Completion Report
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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to provide that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

OWNER'S CERTIFICATION

Kevin McCarthy
Director – Utilities Department

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Section 1
Introduction

1.1 Background Information

The Clewiston Water Treatment Plant (CWTP) will be a reverse osmosis (R.O.) desalination facility that will provide potable water to the City of Clewiston, replacing the current surface-water derived supply provided by the U.S. Sugar Corporation. The brackish feedwater for the R.O. plant will be obtained from wells completed in the upper Floridan aquifer. Concentrate from the desalination facility will be disposed of in a Class I injection well that was constructed at the Clewiston Wastewater Treatment Plant.

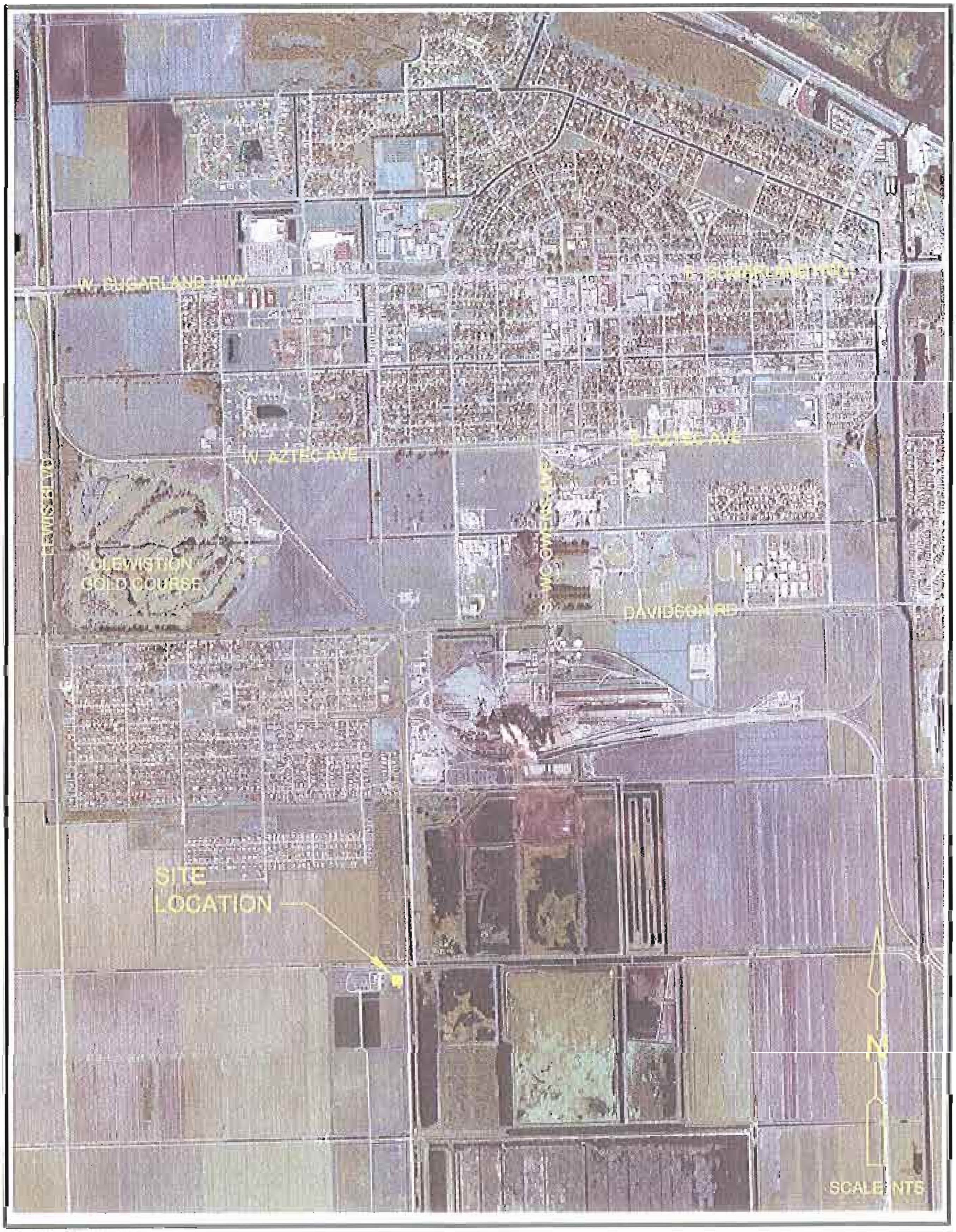
The desalination facility will have the capacity to treat 4.0 mgd of raw water with a recovery efficiency of 75 percent and a raw water blending rate of 7.5 percent. The estimated design concentrate wastestream flow rate will be approximately 0.92 mgd and the water will have a total dissolved solids concentration of approximately 14,000 to 20,000 mg/L. The CWTP injection well system was designed, permitted and constructed to provide capacity to dispose of the concentrate wastestream. The injection well system consists of a single injection well (IW-1) that is a tubing and packer design and a dual-zone monitor well (DZMW-1) which is located within 150 feet of the injection well. The injection zone is the so-called "Boulder Zone" of the Oldsmar Formation.

1.2 Scope

The Florida Department of Environmental Protection (FDEP) injection well construction permit for IW-1, FDEP permit no. 249635-001-UC, was issued on January 24, 2006. A copy of the construction permit is provided in **Appendix A**. Injection well IW-1 consists of a 16-inch diameter casing set at 2,749 feet below pad level (bpl) and a 10.72-inch diameter fiberglass injection tubing set to 2,742 feet bpl. The 10.72-inch diameter injection tubing was chosen to allow for future plant expansion, or the disposal of additional wastestreams, while still complying with the maximum permitted injection velocity of 10 feet per second (ft/sec), per Rule 62-528.415 (1,f,3) Florida Administrative Code (FAC). The design capacity for the well is 4.05 MGD.

The monitoring requirements for IW-will be met by DZMW-1, which is located within 150 feet of IW-1, as required by Rule 62-528.425 (1,G,3) FAC. A map showing the location of the CWTP is provided in **Figure 1-1**. A site plan showing the locations of wells IW-1 and DZMW-1 is provided in **Figure 1-2**.

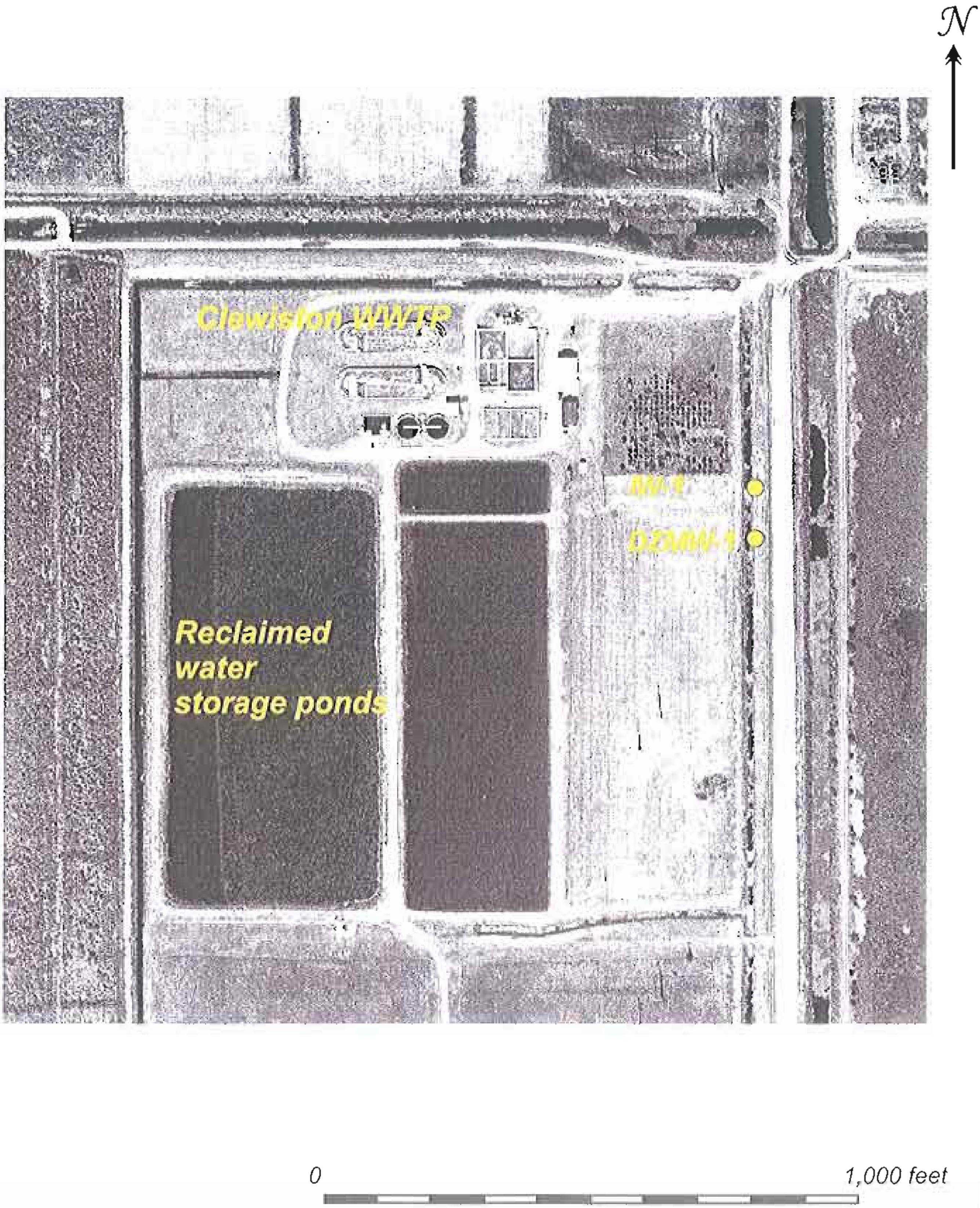
Construction of IW-1 began in April of 2006. Youngquist Brothers, Inc. was contracted to perform the drilling and testing of the well. The injection well was completed in September 2006. The injection test was subsequently run in November of 2006, after construction of DZMW-1 was complete and temporary piping was installed from the City's effluent disposal ponds to IW-1.



SOURCE: LABINS

Figure No. 1-1
Site Location Map
Clewiston, Florida

CDM



Source: Hendry County Property Appraiser

Projects/Clewiston/WTP/3-Injection Permit/Clewiston IW Figures4.cdr 3/16/05 MALIVA

Figure 1-2

Clewiston WTP Injection Well System
Aerial photograph showing injection well and monitor well locations

CDM provided design, permitting, and construction supervision services. The entire drilling and testing program was overseen by the FDEP Underground Injection Control (UIC) Technical Advisory Committee (TAC), which was composed of representatives from the FDEP, South Florida Water Management District (SFWMD), U.S. Environmental Protection Agency (USEPA), and the U.S. Geological Survey (USGS). Daily activity logs, weekly construction summaries, and other pertinent information were submitted weekly to the TAC. Copies of the weekly TAC letters, excluding attachments, are provided in **Appendix B** and copies of weekly construction summaries are included in **Appendix C**.

Construction and testing of injection well IW-1 were performed in accordance with Chapter 62-528 of the FAC (Underground Injection Control), the conditions of the FDEP construction permit, and the technical specifications prepared by CDM and approved by the TAC.

Section 2
Geology and Hydrogeology

The geology and hydrogeology of the Clewiston injection well site are summarized in **Figure 2-1**. The stratigraphy encountered during the drilling of injection well IW-1 and dual zone monitor well DZMW-1 was interpreted from well cuttings and geophysical logs obtained during well construction. The limestone classification system of Dunham (1962) was used to describe the cuttings and cores recovered from injection well IW-1. Colors were described verbally and numerically using the Munsell color system.

The approximate depths of formation boundaries can generally be identified from the well cuttings, which were collected at 10 foot intervals. Formation boundaries were more precisely identified using geophysical logs, as lithological changes were usually manifested by changes in geophysical log responses. A geologic column with construction data and a composite geophysical log for injection well IW-1 is provided in **Appendix D**. Lithology logs for IW-1 and DZMW-1 are included in **Appendix E**.

2.1 Geology and Hydrogeology

There are two major aquifer systems underlying eastern Hendry County and western Palm Beach County from land surface to a depth of approximately 3,500 ft bls; the Surficial aquifer system and the deeper artesian Floridan aquifer system. These two aquifer systems are separated by a confining sequence called the Intermediate Confining Unit. The Intermediate Confining Unit contains aquifers suitable for freshwater or brackish water supply in some areas of Florida, but is generally unproductive in the southeastern part of the state. Low transmissivity carbonate and evaporite strata underlie the Floridan aquifer system.

<u>Surficial Aquifer System</u>

The Surficial aquifer system in Florida is defined as the "permeable hydrogeologic unit contiguous with land surface that is comprised principally of unconsolidated clastic deposits" (Southeastern Geological Society Ad Hoc Committee, 1986). The Surficial Aquifer System comprises all materials from the water-table to the top of the Intermediate Confining Unit. The base of the Surficial Aquifer System is marked by a significant decrease in average hydraulic conductivity.

The Surficial aquifer system is highly heterogeneous in terms of both lithology and hydraulic conductivity. In eastern Hendry County, the Surficial Aquifer System consists predominantly of Pleistocene to late Pliocene-aged sands, sandstones, and shell beds. The Surficial Aquifer System at the Clewiston injection well site is approximately 210 feet thick.

Use of the surficial aquifer is limited in eastern Hendry County because surface water is readily available for agricultural irrigation. Lake Okeechobee has been the main

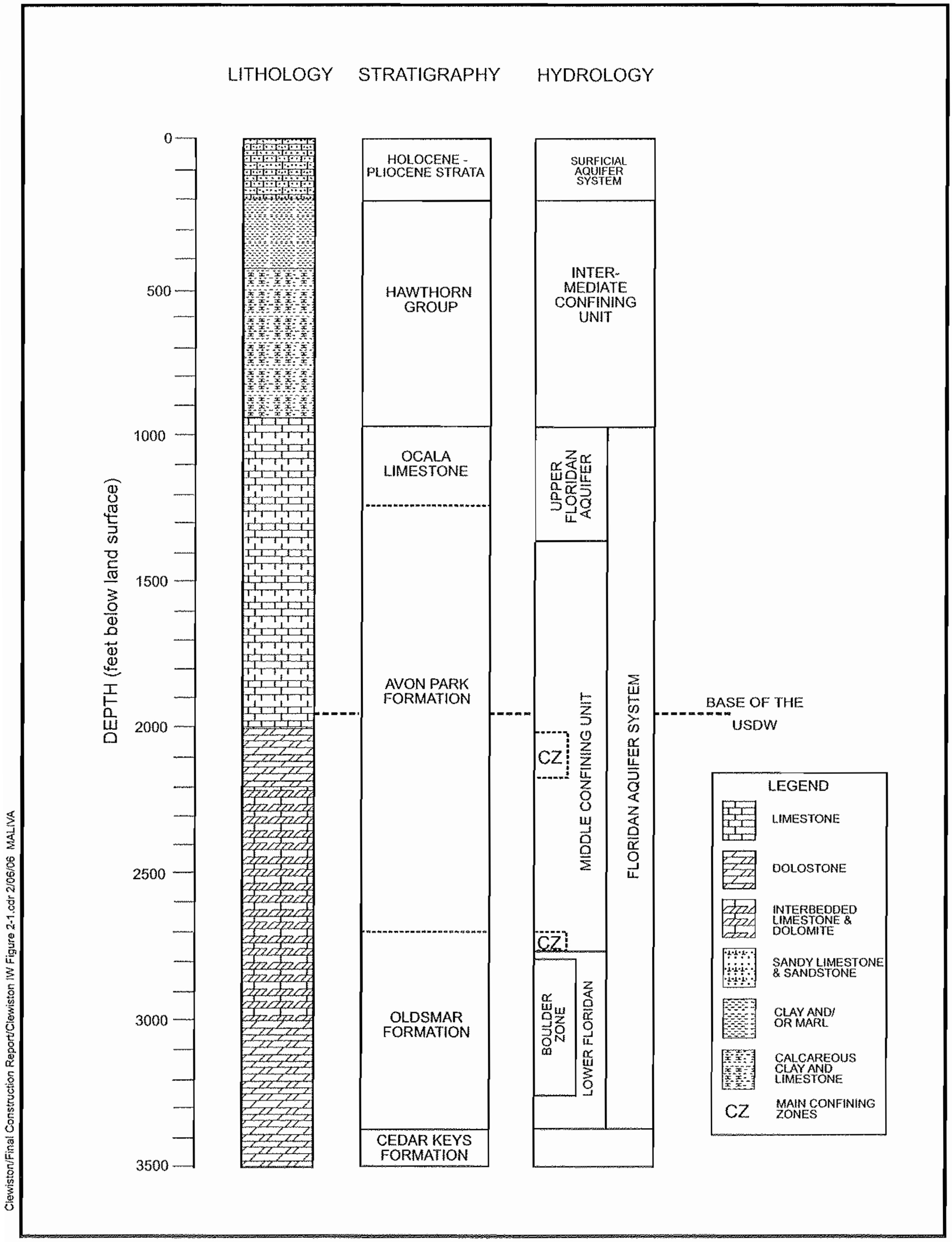


Figure 2-1
Clewiston WTP Injection Well System
Site hydrogeology

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potable water supply source. The Surficial aquifer system is used for residential water supply.

The Surficial aquifer system in the Clewiston area contains freshwater. However, some wells may have chloride concentrations exceeding 250 mg/L because of incomplete flushing of seawater that entered the aquifer during Pleistocene sea level highstands (Klein et al., 1964).

Intermediate Confining Unit

The Intermediate Confining Unit is defined as including "all rocks that lie between and collectively retard the exchange of water between the overlying Surficial Aquifer System and the underlying Floridan Aquifer System" (Southeastern Geological Society Ad Hoc Committee, 1986). In eastern Hendry County, the boundary between the Surficial Aquifer System and Intermediate Confining Unit essentially coincides with the top of the Hawthorn Group. The lithology of the Intermediate Confining Unit, which consists of the Hawthorn Group strata, is variable and includes clay, marl, fine-grained sand, siltstone, and limestone (Reese, 1994). The Intermediate Confining Unit strata tend to have high phosphate concentrations, which result in relatively high responses on gamma ray logs.

The base of the Intermediate Confining Unit occurs at approximately 990 ft bls at the injection well site and is marked by a downhole change to purer, lighter-colored limestones. The base of the Hawthorn Group is also typically marked by a pronounced attenuation in gamma ray activity (Reese, 1994; Reese and Memberg, 2000). The lowermost part of the basal Hawthorn unit, which at the Clewiston site occurs from 900 to approximately 990 feet bls, comprises the uppermost portion of the Floridan Aquifer System, if productive.

Floridan Aquifer System

The Floridan Aquifer System is one of the most productive aquifers in the United States and underlies all of Florida and parts of Georgia and South Carolina for a total area of about 100,000 square miles. The Floridan Aquifer System consists of an extensive sequence of thickly bedded Tertiary-aged limestones, and less abundantly dolomites, that are connected to varying degrees. The Floridan Aquifer System can be subdivided into three main units based on their relative permeabilities: the Upper Floridan Aquifer, the Middle Confining Unit, and the Lower Floridan Aquifer. The system in eastern Hendry County and western Palm Beach County consists of the Ocala Limestone, Avon Park Formation and Oldsmar Formation, and locally the Suwannee Limestone. The base of the Floridan Aquifer System is generally placed at the top of the uppermost evaporite (anhydrite) bed in the Cedar Keys Formation, which occurs at approximately 3,380 ft bls in the project site area, based on drill cuttings.

It is difficult to identify the boundaries between the Ocala Limestone, Avon Park Formation and Oldsmar Formation, as the Eocene-aged formations are chrono-stratigraphic (age-defined) units rather than rock-stratigraphic units (Miller, 1986). Typically, formation boundaries are placed at the nearest lithological change to the chronostratigraphic boundary, as determined from biostratigraphic (fossil) data. Reese and Memberg (2000) abandoned the traditional formation names and included all strata between the Hawthorn Group and Cedar Keys Formation in an informal "Eocene Group". Nevertheless, the traditional formation boundaries were used in this investigation.

The first occurrence of *Lepidocyclina ocalana,* an index fossil for the Ocala Limestone, was approximately 990 feet bls at the Clewiston injection well site. The Ocala Limestone was determined to be present from approximately 990 feet bls to 1,240 feet bls and tended to be mostly pale yellow to light gray fossiliferous grainstones.

The upper part of the Avon Park Formation commonly consists of microfossiliferous peloidal limestones that would be classified as peloid bioclast packstones and grainstones, with reference to the limestone classification system of Dunham (1962). Bioclasts are rounded, sand-sized fossil fragments that are typically deposited as carbonate sand. Brown dolostone beds are common in the lower half of the formation. The distinctive cone-shaped benthic foraminifera belong to the genus *Dictyoconus* and are characteristic of the Avon Park Formation, whereas the Ocala Limestone contains a distinctly different foraminifera fauna. The centimeter-sized echinoid *Neolaganum dali* was found by Vernon (1951) to be very abundant in the upper 50 ft of the Avon Park Formation in Florida peninsula wells. Based on the presence of *Neolaganum dali,* the top of the Avon Park Formation occurs at approximately 1,240 ft bls in the Clewiston injection well.

The boundary between the Upper Floridan Aquifer System and Middle Confining Unit occurs within the Avon Park Formation. The boundary is typically marked by a downhole decrease in hydraulic conductivity. Reese and Memberg (2000) and (Lukasiewicz, et al., 2001) placed the boundary in the Belle Glade area at approximately 1,450 ft bls. Based on the Clewiston geophysical logs, the boundary between the Upper Floridan Aquifer System and the Middle Confining Unit is located approximately 1,370 feet bls.

The boundary between the Middle Confining Unit and the Lower Floridan Aquifer is more problematic. This dolomitic unit, referred to as the 'Eocene Group dolomite unit' by Reese and Memberg (2000), is regional in extent. Where the dolostone are in part fractured, and thus have high transmissivities, the dolomitic unit has been considered to mark the top of the Lower Floridan Aquifer ((Lukasiewicz, et al., 2001). However, unfractured dolostones of the 'Eocene Group dolomite unit' typically have very low vertical hydraulic conductivities, and are thus effective vertical confining zones. The "Eocene Group dolomite unit' in southeast Florida is often the last effective confining strata below the base of the lowest USDW.

The Middle Confining Unit at the City of Clewiston injection well site was found to be intermittently fractured, however, the log data indicate that the fracture sets are not hydraulically connected. Two well developed zones of confinement were identified within this fractured unit: an interbedded limestone and dense, unfractured dolostone, which extends from 2,020 to 2,170 feet bls and a dense, unfractured dolostone, which is present from 2,700 to 2,748 feet bls.

The boundary between the Avon Park Formation and Oldsmar Formation occurs within the middle-confining unit, as interpreted above. The boundary is very difficult to pick based on lithology alone. However, the Avon Park–Oldsmar Formation boundary was determined to occur roughly at 2,700 ft bls based on available data.

The Lower Floridan Aquifer extends from the base of the Middle Confining Unit to the top of the base of the Floridan Aquifer System. The so-called "Boulder Zone" is the principal high transmissivity zone in the Lower Floridan Aquifer and has been used for the underground disposal of various types of liquid wastes since 1943. Transmissivities for some of the dolomites of the Boulder Zone have been reported to be as high as 2.46×10^7 ft^2/day (Singh and others, 1983).

The Boulder Zone and similar high transmissivity intervals in the Floridan Aquifer System (e.g., Avon Park high transmissivity zone in western peninsular Florida) can be identified by greatly enlarged hole sizes on caliper logs, exceedingly long sonic transit times, relatively low resistivity, and changes in temperature and flow meter log responses (Haberfeld, 1991; Maliva and Walker, 1998). The Boulder Zone consists mainly of fractured dolomites, in which large cavities develop during drilling as the result of borehole collapse (Safko and Hickey, 1992; Duerr, 1995; Maliva and Walker, 1998). The top of the Boulder Zone occurs at approximately 2,750 feet bls in the City of Clewiston injection well IW-1. This depth represents the top of the significantly fractured zone in the lower Oldsmar Formation.

2.2 Base of the USDW

An underground source of drinking (USDW) is defined as an aquifer with less than 10,000 mg/L of total dissolved solids (TDS; Rule 62-528.200 (60) FAC). The base of the lowest USDW at the City of Clewiston injection well IW-1 was determined to be located at approximately 1,950 ft bpl during the drilling and testing of injection well IW-1. The location of the base of the USDW was first identified through packer testing. The water quality results indicate that a concentration of 10,000 mg/L of TDS occurs between a depth of 1,940 and 1,990 feet bpl in the site vicinity. These depth boundaries represent the lower and upper limits, respectively, of the nearest packer test intervals.

The log-derived TDS (Rwa) log was derived from the dual induction log (DIL) and the sonic log porosity measurements. The Archie equation related to the formation factor was applied to calculate TDS values from these measurements. Please refer to Asquith (1982) for a further description of the mathematical relationships. The log derived TDS measurements are limited by the model assumptions, so there may be variations from data collected directly from packer testing. However, the log can be useful for interpolating TDS values between packer test intervals and therefore the base of the USDW (**Figure 2-2**). In the case of IW-1, based on the packer testing data and the log-derived TDS calculations, the base of the USDW occurs at approximately 1,950 feet bpl.

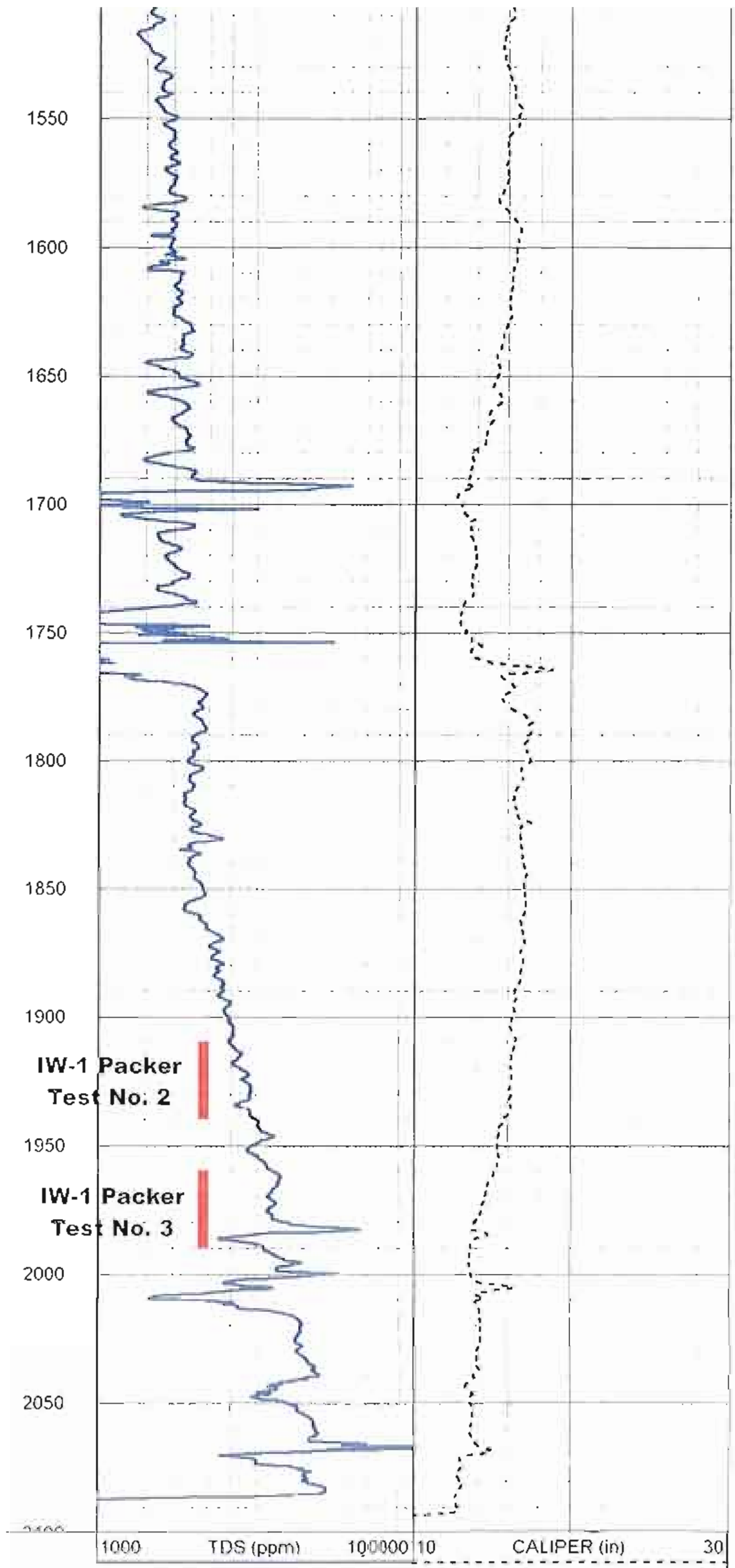

Figure 2-2
Clewiston WTP Injection Well System
Log-derived total dissolved solids

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Section 3
Injection Well System Design and Construction

3.1 Injection Well System Design

Injection well IW-1 and dual zone monitor well DZMW-1 were designed, constructed, and tested in accordance with the requirements of Chapter 62-528 FAC. The FDEP construction permit (No. 249635-001-UC), which was issued on January 24, 2006, is valid for five years.

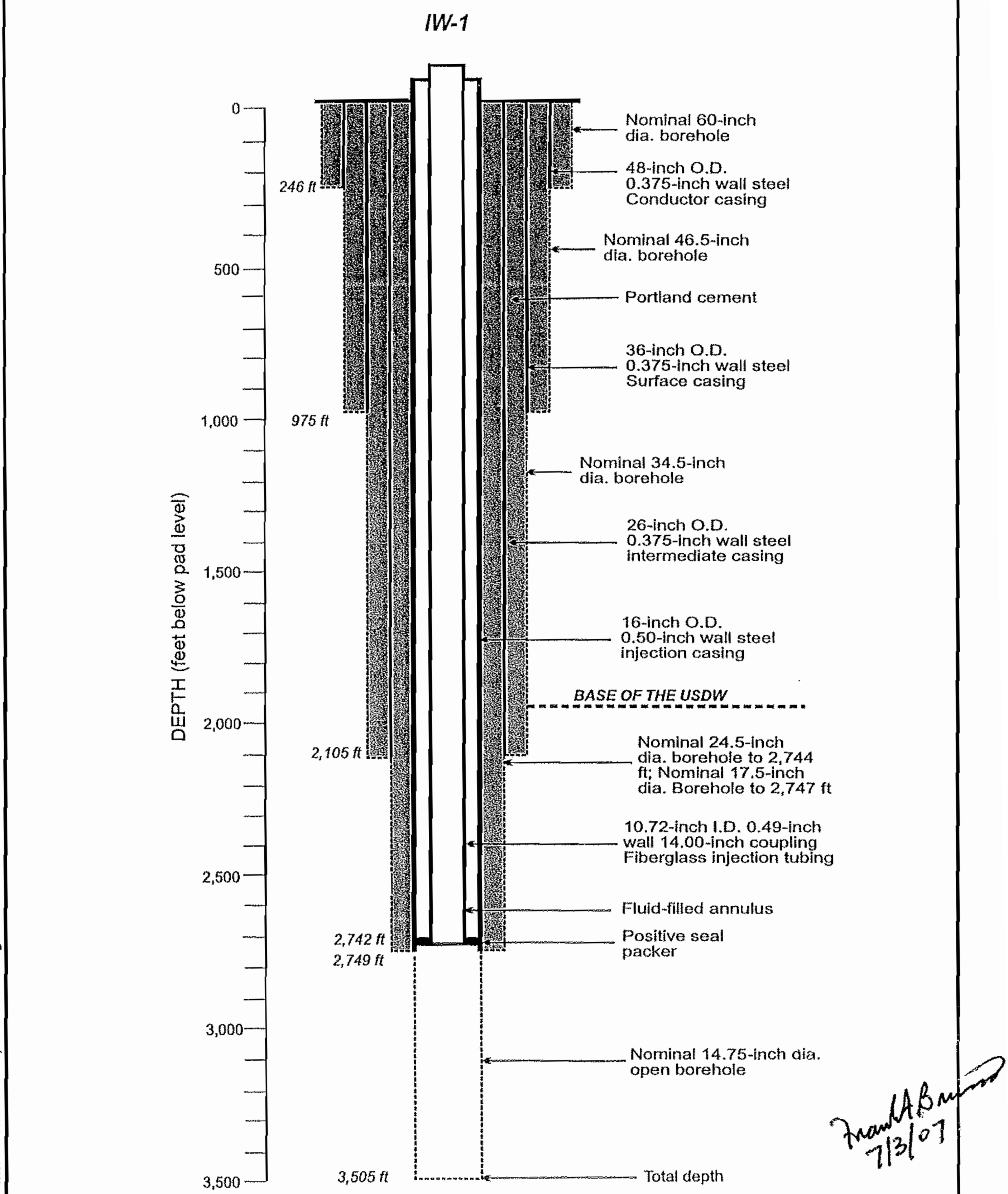
Well IW-1 was constructed with 11.7-inch diameter casing set to 2,742 ft bpl and is completed with a reamed 14 ¾ -inch diameter open hole extending down to approximately 3,505 ft bpl. The design capacity of IW-1 is 4.05 mgd of reverse osmosis concentrate, which is based on a casing diameter of 11.7 inches (10.72-inch inner diameter) and the maximum permitted injection velocity of 10 ft/s, per Rule 62-528.415 (1,f,3) FAC. Record drawing of the well construction is provided in **Figure 3-1.** A detailed construction description is provided below. The surveys of the IW-1 DZMW locations are provided in **Appendix F**.

3.2 Site Preparation

The drilling contractor, Youngquist Brothers, Inc., (YBI) was issued a Limited Notice to Proceed on March 27, 2006. Site work began on March 3, 2006, with the start of installation of temporary utilities.

Two temporary steel pads were installed to contain the drilling rig and mud system. The pads were located next to each other. The drilling pad was 49 ft by 44 ft in dimension. The mud system pad was 35 ft by 55 ft. Both the drilling pad and mud system pads were surrounded by a 2 ft high H-beam containment wall. A copy of the plans for the containment structures is included in Appendix F.

Four shallow (water-table aquifer) monitor wells were installed near the corners of the temporary pad complex on April 1, 2006. These wells were installed so that the water-table aquifer could be tested for increases in salinity resulting from spilled saline water during drilling of IW-1 and DZMW-1. The shallow monitor wells were approximately 20 feet deep and were constructed of 2-inch diameter schedule 40 PVC. The bottom 10 feet of the casing was machine-slotted screen (0.032-inch slot size), with solid riser to land surface. A quartz-sand filter pack was installed around the screen and the remaining annulus was cemented to land surface. The wells were sampled weekly by YBI for temperature, chloride, and specific conductivity. The laboratory analyses were performed by Florida-Spectrum Environmental Services, Inc. Water levels were measured in each well prior to sampling and three well volumes of water were purged from each well to ensure collection of representative groundwater samples.



Clewiston/Final Construction Report/Clewiston IW Figure 3-1.cdr 2/08/06 DAY

Figure 3-1
Clewiston WTP Injection Well System
As-built diagram of injection well IW-1

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3.3 Injection Well Construction

Drilling of injection well IW-1 began on April 10, 2006, when a 60-inch diameter hole was drilled through the surficial aquifer system to 253 ft bpl. Forty-eight inch diameter conductor casing was set to approximately 246 ft bpl.

The pilot hole for the 48-inch diameter conductor casing and pilot hole and reamed hole for the 36-inch diameter surface casing were drilled using the mud-rotary method. All subsequent borehole was drilled using the reverse-air rotary method.

The 36-inch diameter surface casing was set at 975 ft bpl to seal off the clays and marls of the Hawthorn Group. The 26-inch diameter intermediate casing was set at 2,101 feet bpl to case off all USDWs. The 16-inch diameter injection casing was set at the top of the injection zone at 2,749 ft bpl. The 11.7 inch diameter (10.72-inch I.D.) fiberglass injection tubing was set to 2,742 ft bpl. The casing seat depth for the injection casing is a hard dolostone located above the highest significant fracturing of the Boulder Zone. A chronology of the well construction and testing is provided in **Table 3-1**.

Table 3-1. Injection well IW-1 construction chronology

Date	Event
March 3 through April 9 , 2006	Mobilization, installation of temporary drilling pad and pit casing.
April 1, 2006	Installation of pad monitor wells.
April 10 - 12, 2006	Drilled nominal 60-inch diameter borehole to 253 ft bpl.
April 13, 2006	Performed geophysical logging of reamed hole.
April 13, 2006	Installed and cemented 48-inch diameter casing to 246 ft bpl.
April 14 - 16, 2006	Drilled nominal 12¼-inch diameter pilot hole to 1,000 ft bpl.
April 17, 2006	Performed geophysical logging of pilot hole.
April 17- 22, 2006	Reamed nominal 46 ½-inch diameter borehole to 979 feet bpl.
April 23, 2006	Performed geophysical logging of reamed hole.
April 23, 2006	Installed and grouted 36-inch diameter surface casing to 975 ft bpl .
April 26 - 30, 2006	Drilled nominal 12¼-inch diameter pilot hole to 1,880 ft bpl.

Table 3-1. Injection well IW-1 construction chronology	
Date	Event
April 30 - May 2, 2006	Performed geophysical logging and ran packer test no. 1 (1,850 to 1,880 ft bpl).
May 3, 2006	Drilled nominal 12¼-inch diameter pilot hole to 1,940 ft bpl.
May 3 - 5, 2006	Performed geophysical logging and ran packer test no. 2 (1,910 to 1,940 ft bpl).
May 6, 2006	Drilled nominal 12¼-inch diameter pilot hole to 1,990 ft bpl.
May 6 - 7, 2006	Performed geophysical logging and ran packer test no. 3 (1,960 to 1,990 ft bpl).
May 8 - 9, 2006	Drilled nominal 12¼-inch diameter pilot hole to 2,100 ft bpl.
May 9 - 10, 2006	Performed geophysical logging and ran packer test no. 4 (2,070 to 2,100 ft bpl).
May 11 - 12, 2006	Performed geophysical logging.
May 14 - 16, 2006	Grouted pilot hole
May 17 – 25, 2006	Reamed a nominal 34 ½-inch diameter borehole to 2,105 ft bpl.
May 26 – 27, 2006	Performed geophysical logging and installed 26-inch diameter intermediate casing to 2,101 ft bpl.
May 27 – 31, 2006	Grouted 26-inch diameter intermediate casing and performed temperature logging after each stage of cement.
May 31, 2006	Drilled nominal 12¼-inch diameter pilot hole to 2,120 ft bpl.
June 1, 2006	Obtained core 1 (2,120 to 2,134 ft bpl)
June 2 - 4, 2006	Drilled nominal 12¼-inch diameter pilot hole to 2,405 ft bpl.
June 5, 2006	Obtained core 2 (2,405 to 2,411.5 ft bpl)
June 6 - 7, 2006	Drilled nominal 12¼-inch diameter pilot hole to 2,530 ft bpl.
June 7, 2006	Performed geophysical logging for packer test no. 5 (2,480 to 2,532 ft bpl).

	Packer would not go below 2,310 ft bpl.
June 8, 2006	Re-drilled/cleaned out pilot hole for packer test no. 5.
June 9 - 10, 2006	Performed packer test no. 5 (2,510 to 2,532 ft bpl).
June 10– 11, 2006	Drilled nominal 12¼-inch diameter pilot hole to 2,600 ft bpl.
June 12, 2006	Attempt to core at 2,600 ft bpl. Stop at 2,602.25 due to slow rate of penetration.
June 12 – 13, 2006	Drilled nominal 12¼-inch diameter pilot hole to 2,653 ft bpl.
June 14, 2006	Obtained core no. 3 (2,653-2,663 ft bpl).
June 14 – 15, 2006	Drilled nominal 12¼- inch diameter pilot hole to 2,732 ft bpl.
June 15, 2006	Obtained core no. 4 (2,732-2,740 ft bpl)
June 16 – 18, 2006	Drilled nominal 12¼-inch diameter pilot hole to 2,933 ft bpl.
June 19, 2006	Obtained core no. 5 (2,933-2,939 ft bpl).
June 19 - 25, 2006	Drilled nominal 12¼- inch diameter pilot hole to 3,500 ft bpl.
June 26, 2006	Cleaned out borehole for geophysical logging
June 27 – 28, 2006	Performed geophysical logging
June 28 - 30, 2006	Performed packer test no. 6 (straddle packer from 2,110-2,129 ft bpl).
June 30 – July 2, 2006	Performed packer test no. 7 (straddle packer from 2,727-2,744 ft bpl).
July 2 – 3, 2006	Performed packer test no. 8 (straddle packer from 2,706-2,725 ft bpl).
July 4 – 9, 2006	Installed bridge plug at 2,730 ft bpl and cemented pilot hole from 1,994-2730 ft bpl.
July 9 – 20, 2006	Reamed nominal 24 ½-inch diameter borehole from 1,994-2,744 ft bpl.
July 20, 2006	Reamed nominal 17 ½ -inch diameter borehole from 2,744-2,747 ft bpl.
July 21-22, 2006	Reamed nominal 14 ¾ -inch diameter borehole from 2,747 – 2,841 ft bpl.
July 22-25, 2006	Repaired rig top head drive.

Table 3-1. Injection well IW-1 construction chronology

Date	Event
July 25–August 3, 2006	Reamed nominal 14 ¾-inch diameter hole to 3,505 ft bpl.
August 4 – 6, 2006	Performed geophysical logging. Installed 16-inch diameter casing to 2,749 ft bpl. Bottom of YBI packer is at 2,751 ft bpl.
August 6 – 15, 2006	Cemented 16-inch diameter casing to 386 ft bpl.
August 16, 2006	Ran cement bond log and completed cementing annulus between 16-inch and 26-inch diameter casings.
August 17 – 20, 2006	Circulated water to cool casing/cement. Performed preliminary pressure test on 16-inch diameter casing
August 21, 2006	Pressure tested the 16-inch diameter casing (witnessed by FDEP).
August 22 – 27, 2006	Ran 11.70-inch diameter fiberglass casing to 2,742 ft bpl.
August 28, 2006	Pumped 10,000 gallons of 1.1% solution of Baracor© 100 into annulus between the 16-inch and 11.70-inch diameter casings.
August 29– 31, 2006	Site prepared for possible hurricane activity; no site activities
August 31, 2006	Started demobilizing from IW-1. Rig is being moved to monitor well location.
September 1, 2006	Pressure tested the annulus between the 16-inch and the 11.70-inch casings.
September 25, 2006	Purged well and collected injection zone water quality sample.
September 28 – 29, 2006	Flushed well with fresh water. Ran radioactive tracer survey and high resolution temperature log.
October 2, 2006	Ran video survey, gamma ray log, and casing collar locator.
October 3, 2006	Ran radioactive tracer survey and high resolution temperature log.

November 8-11, 2006	Performed injection pre-test and injection test (24-hrs of background, 12-hr injection test and 24-hrs of recovery phases). Continue demobilizing from site.

3.3.1 Casing and Wellhead

The 48-inch and 36-inch diameter casings are spiral-welded carbon steel with a wall thickness of 0.375-inches that conform to API 5L Grade B, ASTM A 53 Grade B or Spiral Weld A 139 Grade B standards. The 26-inch diameter injection casing with a 0.500-inch diameter wall thickness is composed of seamless carbon steel that conforms to ASTM A 53 Grade B standards. Copies of the mill certificates are included in Appendix F and casing tally sheets are provided in **Appendix G**. A casing summary is provided in **Table 3-2**. Casing heat numbers were checked against the mill certificates prior to installation.

Table 3-2. Injection well IW-1 casing summary

Diameter (inches)	Wall (inches)	Depth (ft bpl)	Type	Source
48	0.375	246	ASTM A139 Grade B spiral weld	Georgia Tubular Products
36	0.375	975	ASTM A139 Grade B spiral weld	Georgia Tubular Products
26	0.375	2,101	ASTM A139 Grade B spiral weld, API 5L Grade X65/X70 PSL2.*	Georgia Tubular Products and Tenaris (Brazil)
16	0.500	2,749	Seamless, API 5L Grade B & X42, ASTM A53 Grade B	Valcovny trub Chomutov (Czech Republic)
11.70	0.49	2,742	Fiberglass reinforced epoxy resin composite	Tubular Fiberglass Corporation (Red Box)

* Grade X65/X70 PSL2 is a higher strength grade than the specified Grade B.

Casing ends were beveled for butt welding by certified welders. All casings were fitted with Halliburton-type (bow) centralizers, fabricated by YBI, by welding at 0, 90, 180, and 270 degrees around the casing at each position. Centralizers were installed at

20, 40, and 100 feet above the bottom of the casing, and at 100-foot intervals thereafter up to 100 feet from ground surface, or alternative intervals determined by examination of the caliper logs.

The final wellhead consists of a 12-inch diameter ball valve manufactured by DeZurik. Specifications for the ball valve are included in the draft O&M Manual.

3.3.2 Cementing Program

Casings were cemented in place with ASTM Type II (high sulfate resistance) Portland cement. With the exception of the 16-inch diameter casing, the first cement stage for each casing was pressure grouted; with all subsequent cement stages emplaced using the tremie method. Cement emplaced at the bottom 100 feet (approximately) of the surface casing and bottom 200 feet of the intermediate and final casings in the injection well were neat. The remainder of the annulus for each casing was cemented with 12% bentonite (gel) cement. A temperature log was run after each stage to verify the presence of cement throughout the interval and to locate the top of the cemented annulus. The top of the cement was also measured by tagging with cement tubing.

Calcium chloride was added to accelerate cement setting over intervals that were highly fractured. The amount of the additive did not exceed 3%

All cement stages for the 16-inch diameter injection casing were emplaced using the tremie method. An external cement packer (ECP) was used. A summary of the casing cement program is provided in **Table 3-3**. Copies of the cement stage logs and temperature log interpretations are included in **Appendix H**.

Table 3-3. Injection well IW-1 casing cement summary

Stage No.	Date	Cement Mixture	Barrels pumped	Cubic feet pumped	Sacks pumped	Tag Depth (ft bpl)	Feet of fill
48-inch diameter casing							
1	5/8/04	12% gel	201	1,127	512	PL	296
		Neat	133	747	633		
36-inch diameter casing							
1	4/23/04 - 4/24/04	12% gel	726	4,066	1,848	5.4	974
		Neat	201	1,125	952		
26-inch diameter casing							
1	5/27/06	Neat	140	784	664	1,892	209
2	5/28/06	12% gel	205	1,148	522	1,644	244
3	5/28/06	12% gel	200	1,120	509	1,405	239
4	5/29/06	12% gel	202	1,131	514	1,186	219
5	5/29/06	12% gel	166	930	423	981	205
6	5/30/06	12% gel	270	1,512	687	479	502
7	5/31/06	12% gel	270	1,512	687	1	478
16-inch diameter casing							
1	8/7/06	Neat +	2	11.2	9.5	2,750.5	0.5

		3% $CaCl_2$					
2	8/7/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,750.5	0
3	8/7/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,750.5	0
Gravel	8/7/06	Gravel	1.9	10.6	N/A	2,742	8
4	8/7/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,742	0
Gravel	8/8/06	Gravel	1.9	10.6	NA	2,742	0
5	8/8/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,742	0
Gravel	8/9/06	Gravel	4.8	26.9	NA	2,734	0
6	8/9/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,734	0
7	8/9/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,727	7
8	8/9/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,726.8	0.2
9	8/9/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,712	14.8
10	8/9/06	Neat + 3% $CaCl_2$	8	44.8	38	2,696	16
11	8/10/06	Neat + 3% $CaCl_2$	20	112	95	2,656	40
12	8/10/06	Neat + 3% $CaCl_2$	25	140	119	2,602	54
13	8/10/06	Neat + 3% $CaCl_2$	25	140	119	2,553	49
14	8/10/06	12% gel + 3% $CaCl_2$	50	280	127	2,460	93
15	8/11/06	12% gel + 3% $CaCl_2$	75	420	191	2,429	31
16	8/11/06	12% gel + 3% $CaCl_2$	30	168	76	2,390	39
17	8/12/06	12% gel + 3% $CaCl_2$	30	168	76	2,332	58
18	8/12/06	12% gel + 3% $CaCl_2$	40	224	102	2,322	10
19	8/12/06	12% gel + 3% $CaCl_2$	40	224	102	2,294	28
20	8/12/06	12% gel + 3% $CaCl_2$	30	168	76	2,255	39
21	8/13/06	12% gel + 3% $CaCl_2$	52	291	132	2,226	29
22	8/13/06	12% gel + 3% $CaCl_2$	45	252	115	2,185	41
23	8/14/06	12% gel + 3% $CaCl_2$	60	336	153	2,101	84
24	8/14/06	12% gel +	200	1,120	509	1,594	507

		3% $CaCl_2$					
25	8/14/06	12% gel + 3% $CaCl_2$	150	840	382	1,209	385
26	8/15/06	12% gel + 3% $CaCl_2$	160	896	407	794	415
27	8/15/06	12% gel + 3% $CaCl_2$	160	896	407	386	408
28	8/16/06	12% gel + 3% $CaCl_2$	143	801	364	7	379

3.3.3. Inclination Surveys

Inclination refers to the degree of deviation of the borehole from a true vertical alignment. The drilling of a straight, vertical borehole is critical for the proper setting and cementing of casings at their required depth. Inclination surveys were performed at 90-foot (2 drill pipe joint) intervals during the drilling of pilot holes and reamed holes for casings. The 90-foot survey interval met the FDEP deviation survey requirement (Rule 62-528.410 (3,a) FAC).

The FDEP requirement specifies that the maximum allowable inclination from the vertical at any portion of a hole or survey point is one degree. The Technical Specifications for the well construction also requires that the maximum allowable difference between any two successive survey points is 0.5 degree (30 minutes). The maximum inclination recorded during the drilling of injection well IW-1 was 0.5 degrees. Well IW-1 thus met the inclination survey requirements and has an acceptable vertical alignment. The inclination survey data are compiled in **Appendix I**.

3.3.4. Pad Monitor Well Data

The water quality and elevation monitoring data for the four pad monitor wells are compiled in **Appendix J**. The salinity in the monitor wells, as evaluated using specific conductivity and chloride concentration, has fluctuated over the monitoring periods, but there is no evidence that well construction activities have had a significant adverse impact on the water table aquifer of the project site.

3.4 Dual-Zone Monitor Well Construction

Drilling of dual zone monitor well DZMW-1 began on September 5, 2006, when a 38.5-inch diameter hole was drilled through the surficial aquifer system to 250 ft bpl. Twenty-eight inch diameter conductor casing was set to approximately 246 ft bpl. The pilot hole for the 28-inch diameter conductor casing and the pilot hole and reamed hole for the 20-inch diameter surface casing were drilled using the mud-rotary method. All subsequent borehole was drilled using the reverse-air rotary method. The 20-inch diameter surface casing was set at 970 ft bpl to seal off the clays and marls of the Hawthorn Group. The 12.75-inch diameter monitor casing was set at 1,950 feet bpl and marks the top of the upper monitor zone. The upper monitor zone interval, which is directly below the base of the USDW, is from 1,950 to 2,000 ft bpl. The 6.5-inch diameter fiberglass casing was set to a depth of 2,132 feet bpl. The lower monitor zone, sits directly below a confining zone, and is open from 2,132 to 2,200 ft bpl. A record drawing of the well construction is provided in **Figure 3-2**. A chronology of the well construction and testing is provided in **Table 3-4**.

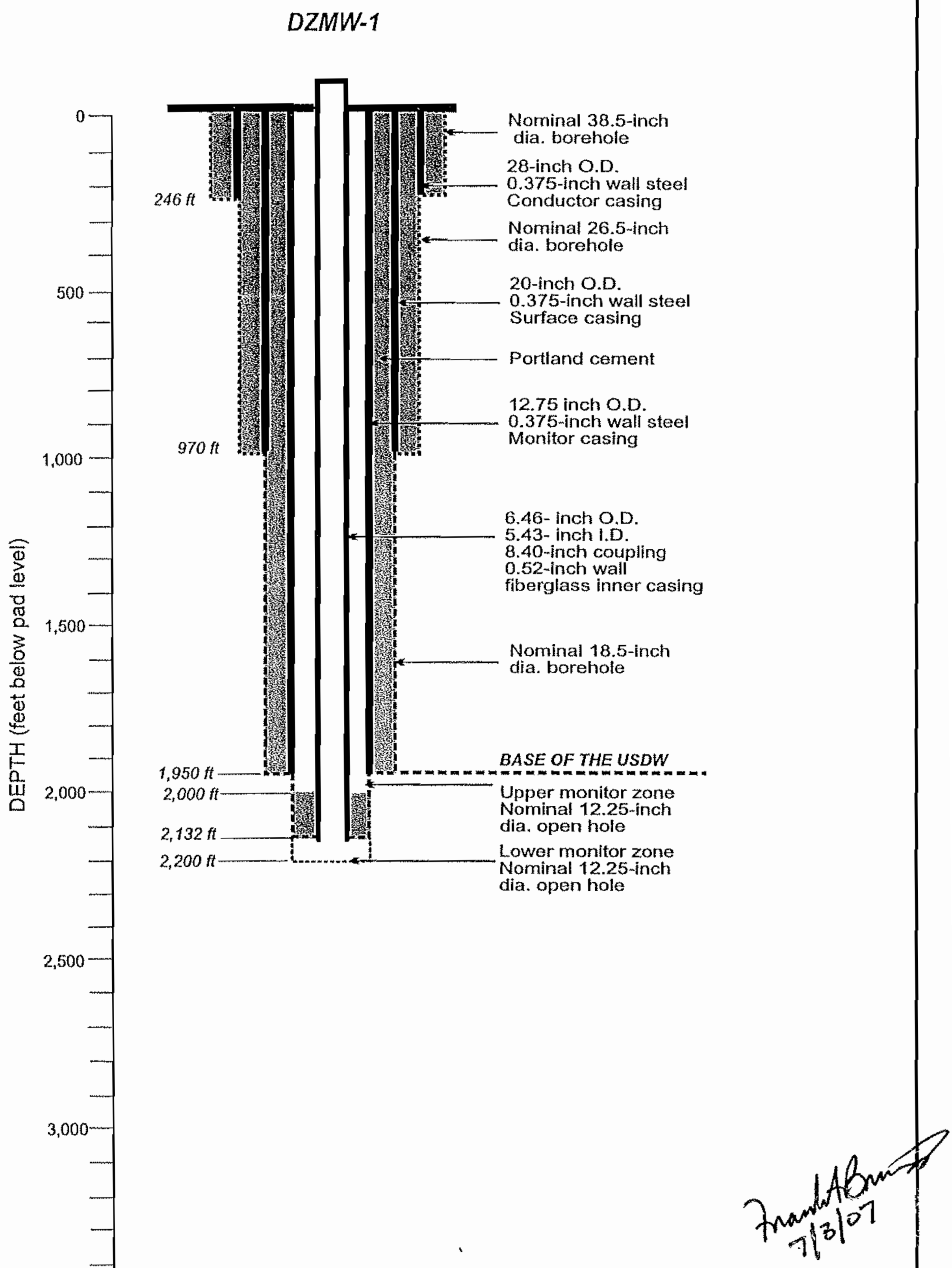

Figure 3-2
Clewiston WTP Injection Well System
As-built diagram of dual zone monitor well DZMW-1

CDM

Table 3-4. Dual Zone Monitor Well DZMW-1 construction chronology	
Date	Event
August 31-September 4, 2006	Mobilization, installation of temporary drilling pad and pit casing.
September 5-6, 2006	Drilled nominal 38 ½ -inch diameter borehole to 250 ft bpl.
September 7, 2006	Ran Caliper/Gamma Ray log. Installed and cemented 28-inch diameter casing to 246 ft bpl. Ran cement top temperature log.
September 8-10, 2006	Drilled 12 ¼-inch diameter pilot hole from 241 to 1,005 ft bpl.
September 10, 2006	Ran caliper, gamma ray, and dual induction log.
September 10-13, 2006	Reamed 26 ½-inch diameter hole from 250 to 975 ft bpl.
September 14, 2006	Installed 20-inch diameter casing to 970 ft bpl. Pressure grout annulus.
September 15, 2006	Ran temperature log. Set up for reverse-air drilling.
September 16-19, 2006	Tag top of cement at 968 ft bpl. Drilled 12 ¼ -inch diameter pilot hole from 968 to 2,000 ft bpl.
September 20, 2006	Ran caliper/gamma ray log. Set up for packer test no. 1 (1,950-2,000 ft bpl).
September 21, 2006	Performed packer test no. 1 (1,950-2,000 ft bpl).
September 22, 2006	Drilled 12 ¼-inch diameter pilot hole from 2,000 to 2,225 ft bpl.
September 23-24, 2006	Ran caliper, gamma ray, dual induction, and borehole compensated sonic with VDL.
September 25-26, 2006	Performed packer test no. 2 (2,169-2,225 ft bpl).
September 27-28, 2006	Reamed a nominal 18 ½-inch diameter borehole from 970 to 1,880 ft bpl.

September 28-October 5, 2006	No activities at DZMW-1 (performed MIT on IW-1). Awaiting FDEP approval of DZMW-1 monitor well zones.
October 5 – 8, 2006	Reamed nominal 18 ½-inch diameter borehole from 1,800 to 1,948 ft bpl. Reamed 12 ¼-inch diameter borehole from 1,948-2,205 ft bpl.
October 8, 2006	Ran caliper/gamma ray log.
October 9, 2006	Tagged bottom of borehole at 2,204 ft bpl. Installed cement plug at bottom of borehole by pumping 2 bbls cement.
October 10, 2006	Installed 12-inch diameter casing to 1,950 ft bpl.
October 10-12, 2006	Pumped 3 stages of cement and get no fill. Video logged the casing seat. YBI packer is sitting on piece of cement and not on ledge created when borehole reduces from 18 ½-inch diameter to 12 ¼-inch diameter.
October 13, 2006	Filled the open hole below the 12-inch diameter casing with gravel.
October 14-19, 2006	Cemented 12 ¼-inch diameter casing.
October 20, 2006	Ran cement top temperature log. Tagged top of cement at 225 ft bpl.
October 20-22, 2006	Reamed gravel below the 12-inch diameter casing.
October 22, 2006	Ran cement bond log.
October 23, 2006	Performed FDEP-witnessed pressure testing of 12-inch diameter casing. Completed cementing annulus between 12-inch and 20-inch diameter casings.
October 24, 2006	Ran cement top temperature log. Prepared for fiberglass casing run.
October 25, 2006	Installed 6.5-inch diameter fiberglass casing to 2,132 ft bpl. Performed preliminary pressure test of 6.5-inch diameter casing.
October 26-27,2006	Cemented 6.5-inch diameter casing from 2,132 to 2,000 ft bpl. Performed final pressure test of 6.5-inch diameter casing.
October 28, 2006	Ran sector bond log on DZMW-1. Began demobilizing.
October 31, 2006	Purged deep monitor zone of DZMW-1 (2,132-2,200 ft bpl).
November 1, 2006	Purged shallow monitor zone of DZMW-1 (1,950-2,000 ft bpl).

November 2, 2006	Completed purging shallow monitor zone of DZMW-1. Sampled shallow and deep monitor well zones. Sampled source water for injection test. Continued to demobilize.

3.4.1 Casing and Wellhead

The 28-inch, 20-inch, and 12-inch diameter casings are spiral-welded carbon steel with a wall thickness of 0.375-inches that conform to API 5L Grade B, ASTM A 53 Grade B or Spiral Weld A 139 Grade B standards. The 6.46-inch diameter inner casing with a 0.52-inch diameter wall thickness is composed of fiberglass reinforced epoxy resin composite. Copies of the mill certificates are included in Appendix F and casing tally sheets are provided in Appendix G. A casing summary is provided in **Table 3-5**. Casing heat numbers were checked against the mill certificates prior to installation.

Table 3-5. Dual Zone Monitor Well DZMW-1 casing summary

Diameter (inches)	Wall (inches)	Depth (ft bpl)	Type	Source
28	0.375	246	ASTM A139 Grade B spiral weld	Georgia Tubular Products
20	0.375	970	Electronic Resistance Welded (ERW) API 5L Grade B/X42 PSL2	Stupp & Mannesmann Line Pipe LP and Corinthian Pipeworks, SA (Greece)
12	0.375	1,950	ASTM A53B, API 5L Grade B/X42 PSL1	Shanghai Alison Steel Pipe Co., LTD (China)
6.46	0.52	2,132	Fiberglass reinforced epoxy resin composite	Tubular Fiberglass Corporation (Red Box)

Casing ends were beveled for butt welding by certified welders. All casings were fitted with Halliburton-type (bow) centralizers, fabricated by YBI, by welding at 0, 90, 180, and 270 degrees around the casing at each position. Centralizers were installed at 20, 40, and 100 feet above the bottom of the casing, and at 100-foot intervals thereafter up to 100 feet from ground surface, or alternative intervals determined by examination of the caliper logs.

The final wellhead consists of two ball valves of 1 ½-inch and 2-inch diameters. Specifications for the ball valves are provided in the draft O&M Manual.

3.4.2 Cementing Program

Casings were cemented in place with ASTM Type II (high sulfate resistance) Portland cement. The first cement stage for the 28-inch diameter and 20-inch diameter casings were pressure grouted, with all subsequent cement stages emplaced using the tremie method. The 12-inch diameter steel casing and the 6.46-inch diameter fiberglass casing were emplaced via the tremie method for all stages. Cement emplaced at the bottom 100 feet (approximately) of the conductor and surface casings and bottom 200 feet of the monitor and fiberglass inner casings in the injection well were neat. The remainder of the annulus for each casing was cemented with 12% bentonite (gel) cement. A temperature log was run after each stage to verify the presence of cement throughout the interval and to locate the top of the cemented annulus. The top of the cement was also measured by tagging with cement tubing.

A summary of the casing cement program is provided in **Table 3-6**. Copies of the cement stage logs and temperature log interpretations are included in Appendix H.

Table 3-6. Dual Zone Monitor Well DZMW-1 casing cement summary

Stage No.	Date	Cement Mixture	Barrels pumped	Cubic feet pumped	Sacks pumped	Tag Depth (ft bpl)	Feet of fill
28-inch diameter casing							
1	9/7/06	12% gel	166	930	423	PL	246
		Neat	86	482	408		
20-inch diameter casing							
1	9/14/06	12% gel	246	1,378	626	PL	970
		Neat	31	174	147		
12-inch diameter casing							
1	10/14/06	Neat + 3% $CaCl_2$	2	11	9	1,944	4
2	10/14/06	Neat + 3% $CaCl_2$	2	11	9	1,931	13
3	10/14/06	Neat	20	112	95	1,865	66
4	10/15/06	Neat	30	168	142	1,790	75
5	10/15/06	Neat	15	84	71	1,772	18
6	10/16/06	Neat	50	280	237	1,759	13
7	10/16/06	Neat	10	56	47	1,726	33
8	10/17/06	12% gel	30	168	76	1,650	76
9	10/17/06	12% gel	40	224	102	1,572	78
10	10/17/06	12% gel	40	224	102	1,463	109
11	10/18/06	12% gel	75	420	191	1,299	164
12	10/18/06	12% gel	80	448	204	1,103	196
13	10/18/06	12% gel	60	336	153	969	134
14	10/19/06	12% gel	65	364	166	780	189
15	10/19/06	12% gel	80	448	204	470	310
16	10/20/06	12% gel	60	336	153	228	242
17	10/23/06	12% gel	42	235	107	2	226

6.46-inch diameter fiberglass casing							
1	10/26/06	Neat + 3% $CaCl_2$	16	89.6	75.9	2,060	72
2	10/26/06	Neat + 3% $CaCl_2$	8	44.8	38.0	2,011	49
3	10/27/06	Neat + 3% $CaCl_2$	2	11.2	9.5	2,000	11

3.4.3. Inclination Surveys

Inclination refers to the degree of deviation of the borehole from a true vertical alignment. The drilling of a straight, vertical borehole is critical for the proper setting and cementing of casings at their required depth. Inclination surveys were performed at 90-foot (2 drill pipe joint) intervals during the drilling of pilot holes and reamed holes for casings. The 90 ft survey interval met the FDEP deviation survey requirement (Rule 62-528.410 (3,a) FAC).

The FDEP requirement specifies that the maximum allowable inclination from the vertical at any portion of a hole or survey point is one degree. The Technical Specifications for the well construction also requires that the maximum allowable difference between any two successive survey points is 0.5 degree (30 minutes). The maximum inclination recorded during the drilling of injection well IW-1 was 0.5 degrees. Well IW-1 thus met the inclination survey requirements and has an acceptable vertical alignment. The inclination survey data are compiled in Appendix I.

Section 4
Hydrogeological Testing Program

Data relating to the geology and hydrogeology of the penetrated strata were collected during the drilling of IW-1. The data were utilized to determine casing depths and to evaluate potential injection and confining zones.

4.1 Formation Zone Sampling

Two sets of cuttings were collected during the drilling of the pilot holes. The samples were collected at 10 foot intervals. One set of samples was shipped to the Florida Geological Survey and the other was archived by CDM. The cuttings were described on site by hydrogeologists using a hand lens or microscope. Selected sampled were tested for mineralogy using dilute hydrochloric acid and Alizarin red stain. The lithologic logs for Injection Well IW-1 and DZMW-1 are included in Appendix E.

4.2 Formation Fluid Sampling

Water samples were collected from the discharge line every 30 feet during reverse-air drilling of the pilot holes for injection well IW-1 and dual zone monitor well DZMW-1. The objectives of reverse-air discharge sampling were to obtain data on changes in salinity with depth. The reverse-air discharge samples for IW-1 (1,030 to 3,480 ft bpl) were analyzed for conductivity and chloride concentration. The samples were collected by YBI and analyzed by Florida Spectrum Environmental Services, Inc. The reverse-air discharge samples for DZMW-1 (1,100 to 2,200 ft bpl) were field tested for conductivity and chloride concentration. A compilation of the reverse-air discharge data is included in **Appendix K**.

The reverse-air discharge water quality data for a given depth is not necessarily representative of the formation water quality at that depth because of mixing with water produced higher in the borehole. Changes in the composition of the reverse-air discharge can provide qualitative information on formation water quality.

A water sample was collected from the completed injection well on September 25, 2006. Water samples were collected from the upper (1,950 - 2,000 ft bls) and lower (2,132 - 2,200 ft bls) monitoring zones of DZMW-1. The samples were analyzed for Florida primary and secondary drinking water standards per Rules 62-550.310 & 62.550.320 FAC (except dioxin, asbestos, acrylamide, and epichlorhydrin) and FDEP wastewater minimum criteria. Copies of the laboratory reports are included in Appendix K.

4.3 Coring Program

Five cores were collected between the base of the USDW and the injection zone during the drilling of the 12¼-inch diameter pilot hole of IW-1. The purpose of the coring program was to evaluate the confinement above the injection zone. The cores were taken using a 4-inch diameter, 20-foot long, carbide-tipped coring barrel. The driller was required to obtain at least 50% recovery from each selected coring interval. A summary of the coring program is provided in **Table 4-1.** Core sample descriptions are provided in **Appendix L.**

Table 4-1. IW-1 coring summary			
Core No.	Date Cored	Interval Cored (ft bpl)	Percent Recovery
1	June 1, 2006	2,120 - 2,134	50%
2	June 5, 2006	2,405 - 2,411	66%
3	June 1, 2004	2,653 - 2,663	60%
4	June 2, 2004	2,732 - 2,740	75%
5	June 3, 2004	2,933 - 2,939	75%

Three samples of core were selected by CDM for laboratory analyses to determine vertical and horizontal permeability, porosity, specific gravity, elastic modulus, and compressive strength. YBI subcontracted Ardaman & Associates, Inc. to perform the analyses. The results of the core analyses are summarized in **Table 4-2** and a copy of the laboratory report is included in Appendix K.

Table 4-2. IW-1 Core Analyses Summary					
Depth (ft bpl)	Orientation	Specific Gravity	Porosity	Permeability (cm/sec)	Permeab ility (ft/day)
2123	Vertical	2.72	0.24	$3.7 X 10^{-5}$	$1.0 X 10^{-1}$
	Horizontal		0.23	$4.7 X 10^{-5}$	$1.3 X 10^{-1}$
2407	Vertical	2.85	0.05	$9.9 X 10^{-11}$	$2.8 X 10^{-7}$
	Horizontal		0.05	$2.4 X 10^{-9}$	$6.8 X 10^{-6}$
2736	Vertical	2.76	0.19	$5.9 X 10^{-7}$	$1.7 X 10^{-3}$
	Horizontal		0.13	$3.9 X 10^{-7}$	$1.1 X 10^{-3}$

4.4 Geophysical Logging Program

Borehole geophysical surveys are performed by lowering sensing devices attached to a wireline into the borehole and recording various physical properties of the borehole. The geophysical logging program implemented during the construction and testing of IW-1 and DZMW-1 was designed to collect information on the hydrogeology of penetrated strata, data on borehole geometry and volume that would assist in the setting and cementing of casing strings and determining packer test intervals, and evaluating the integrity of the casing cements. All geophysical logs were run by Youngquist Brothers, Inc. Geophysical Logging Division. A CDM (or FMB and Associates, a CDM sub-consultant) field geologist witnessed all geophysical logging. A summary of the borehole geophysical logs run during the construction and testing of injection well IW-1 is provided in **Table 4-3**. A summary of the borehole geophysical logs run during the construction and testing of dual zone monitor well

DZMW-1 is provided in **Table 4-4**. Interpretations of the geophysical logs are included in **Appendix M**. Copies of the geophysical logs are included in **Volume 2** of this completion report.

Table 4-3. IW-1 summary of geophysical Logs			
Date	**Construction Phase**	**Depth (feet bpl)**	**Geophysical logs**
April 13, 2006	60-inch diameter borehole	0 –250	Caliper and gamma ray
April 17, 2006	12 ¼ -inch diameter pilot hole	250 – 1,000	Caliper, gamma ray, borehole compensated sonic with VDL, dual induction
April 23, 2006	46 ½-inch diameter borehole	250-979	Caliper and gamma ray
May 1, 2006	12 ¼-inch diameter pilot hole, before packer test 1	1,000- 1,880	Caliper and gamma ray
May 3, 2006	12 ¼-inch diameter pilot hole, before packer test 2	1,650 – 1,940	Caliper and gamma ray
May 6, 2006	12 ¼-inch diameter pilot hole, before packer test 3	1,700 – 1,990	Caliper and gamma ray
May 9, 2006	12 ¼-inch diameter pilot hole, before packer test 4	1,700 – 2,100	Caliper and gamma ray
May 11, 2006	12 ¼-inch diameter pilot hole	1,000 – 2,100	Caliper, gamma ray, borehole compensated sonic with VDL, dual induction: static and dynamic temperature, fluid resistivity and flowmeter; television survey
May 26, 2006	34 ½ -inch diameter borehole	900– 2,100	Caliper and gamma ray
May 28-31, 2006	Cementing 26-inch diameter casing	0 - 2,100	Temperature (after each cement stage)
June 7, 2006	12 ¼-inch diameter pilot hole, before packer test 5	2,050-2,530	Caliper and gamma ray
June 27-28, 2006	12 ¼-inch diameter pilot hole	2,100 - 3,500	Caliper, gamma ray, borehole compensated sonic with VDL, dual induction: static and dynamic

			temperature, fluid resistivity and flowmeter; television survey, borehole televiewer
August 4, 2006	24 ½-inch diameter reamed hole 1,994-2,744 ft bpl; 17 ½-inch diameter reamed hole 2,744-2,747 ft bpl; 14 ¾-inch diameter reamed hole 2,747-3,505 ft bpl	1,994 – 3,505	Caliper and gamma ray
August 10-17, 2006	Cementing 16-inch diameter casing	0 - 2,730	Temperature (after each cement stage)
August 16, 2006	Cementing 16-inch diameter casing	0-2,720	Cement bond log
October 3, 2006	Completed well	0 – 3,505	High resolution temperature, gamma ray, radioactive tracer survey

Table 4-4. DZMW-1 summary of geophysical Logs

Date	Construction Phase	Depth (feet bpl)	Geophysical logs
September 7, 2006	38 ½ -inch diameter borehole	0 – 250	Caliper and gamma ray
September 8, 2006	Cementing 28-inch diameter casing	0 - 250	Temperature
September 10, 2006	12 ¼-inch diameter pilot hole	250 – 1,000	Caliper, gamma ray, and dual induction
September 14, 2006	26 ½-inch diameter borehole	200 - 975	Caliper and gamma ray
September 15, 2006	Cementing 20-inch diameter casing	0 - 975	Temperature
September 20, 2006	12 ¼-inch diameter pilot hole, before packer test 1	950 – 2,000	Caliper and gamma ray
September 23, 2006	12 ¼-inch diameter pilot hole, before packer test 3	900-2,225	Caliper, gamma ray, dual induction, borehole compensated sonic with VDL.

Date	Construction Phase	Depth (feet bpl)	Geophysical logs
October 8, 2006	18 ½ -inch diameter borehole 1,800-1,948 feet bpl and 12 ¼ -inch diameter borehole 1,948-2,205 feet bpl	0 – 2,100	Caliper and gamma ray
October 15-20, 2006	Cementing 12-inch diameter casing	1,000 – 1,910	Temperature (after each cement stage)
October 22, 2006	Cementing 12-inch diameter casing	110 – 1,950	Cement bond log
October 24, 2006	Cementing 12-inch diameter casing	0 - 350	Temperature
October 26-27, 2006	Cementing 6.625-inch diameter FRP casing	1,500 – 2,125	Temperature (after each cement stage)
October 28, 2006	Cementing 6.625-inch diameter FRP casing	1,750 – 2,140	Sector bond log

4.5 Borehole Video Surveys

Three borehole video surveys were conducted during the course of injection well IW-1 construction and testing. The first borehole video survey was performed on the pilot hole from the bottom of the 36-inch diameter casing (from 1,057 ft bpl) to a depth of 2,065 feet bpl on May 12, 2006. A second video survey was performed from the bottom of the 26-inch diameter casing to a depth of 3,392 feet bpl. On October 2, 2006 the final video survey was performed on the injection well from ground surface to the total depth of the well (3,500 ft bpl). The purpose of the video surveys was to obtain information on the nature of the rocks penetrated and to evaluate the integrity of the casing. Of particular interest is the location of intervals of fractured rock that are potential flow zones. The borehole video surveys were performed by Youngquist Brothers, Inc. Geophysical Logging Division using a colored television camera that had both down-hole and side-view cameras. The surveys were witnessed in their entirety by CDM field geologists (or FMB and Associates field geologists, a CDM sub-consultant) and were subsequently reviewed in detail. Copies of the logs and the video surveys are included in Appendix M.

4.6 Packer Tests

4.6.1 Injection Well IW-1

Packer tests allow for the collection of formation water samples from discrete intervals. Five single-element (off-bottom) packer tests were performed on the pilot hole of injection well IW-1 from 1,850 to 2,532 ft bpl. Three straddle-packer tests were performed from 2,110 to 2,725 ft bpl. The first three packer tests, which tested intervals between 1,850 feet bpl to 1,990 feet bpl, were used to locate the base of the USDW. The remaining packer tests were run in order to obtain information on the water quality and hydraulics of confining strata located between the base of the lowest USDW and the top of the injection zone.

Single-packer tests were chosen over straddle packer tests whenever possible because leakage is less likely when only one packer element is used. Single packer tests are also run immediately after drilling through the tested interval, so there is a much lower possibility of significant contamination of the tested zone with borehole fluids.

The following procedures were used to perform the single packer tests:

1) A caliper log was run on the pilot hole to determine the optimal depth to set the packer. The target test interval was 30 feet thick.

2) An inflatable packer was connected to the end of the drill pipe and set at the depth determined from the caliper log (alternatively for the straddle packer tests, two inflatable packers were connected to drill pipe to effectively isolate the test zone). A submersible pump and pressure transducer were installed inside the drill pipe. A transducer was also set outside of the drill pipe to monitor for changes in pressure (head) that might be indicative of leakage around the packer. The pressure transducers were connected to a Hermit™ Model 3000 data logger.

3) The packer zone was developed using a combination of air lift and the submersible pump. At a minimum, the zone was developed until at least 3 volumes of water were purged from the zone and the specific conductance of the purge water stabilized. The pumping rate for the test was also determined from the specific capacity of the test zone during purging.

4) The water level (head) of the packer zone was allowed to recover.

5) The pumping phase of the test was started, which had a duration of 4 hours. The test was performed at a constant rate. At the end of the pumping phase, a water sample was collected for analysis for chloride, conductivity, sulfate, and total dissolved solids. The water sample was collected by YBI and analyzed by Florida- Spectrum Environmental Services, Inc.

6) The pump was turned off and recovery was monitored for either three hours or until water level (head) returned to background levels.

The hydraulic data for the packer test are summarized in **Table 4-5** and the water quality data are summarized in **Table 4-6**. Time-drawdown and time-recovery plots for the packer tests are provided in **Appendix N**. Water quality data laboratory reports from the packer tests are provided in Appendix K.

Table 4-5: IW-1 Summary of packer test hydraulic data

Test No.	Depth (ft bpl)	Pumping Rate (gpm)	Drawdown (ft)	Pumping Phase	
				Transmissivity (ft^2/day)	Average Hydraulic Conductivity (ft/day)
1	1,850 -1,880	7.3	128.4	4.7	0.16
2	1,910 -1,940	4.4	79.5	6.0	0.20
3	1,960 -1,990	111	9.8	99,600	3,320
4	2,070 – 2,100	21	104.1	13.2	0.44
5	2,510 – 2,532	73	1.4	22,840	1,038
6	2,110 – 2,129	14	80.5	9.1	0.48
7*	2,727 – 2,744	<0.5	260	n/a	n/a
8*	2,706 – 2,725	<0.5	300	n/a	n/a

*Only development of test zone occurred prior to the pumping phase, excessive drawdown at low pumping rates prohibited test continuation.

Table 4-6: IW-1 Summary of packer test water quality data

Test No.	Depth (ft bpl)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Specific Conductance (μmhos/cm)	Sulfate (mg/L)
1	1,850 -1,880	5,164	2,680	9,240	320
2	1,910 -1,940	9,056	4,550	15,600	368
3	1,960 -1,990	12,376	6,450	21,400	492
4	2,070- 2,100	24,236	15,950	40,200	1,128
5	2,510 – 2,532	35,440	22,200	62,500	2,315
6	2,110 – 2,129	30,000	33,800	51,700	2,120
7	2,727 – 2,744	n/a	n/a	n/a	n/a

8	2,706 – 2,725	n/a	n/a	n/a	n/a

n/a: no sample was taken because water level did not recover sufficiently after development to perform a packer test or collect a water sample.

4.6.2 Dual Zone Monitor Well DZMW-1

Two single-element packer tests were conducted on DZMW-1 to obtain information on the water quality and hydraulics of the proposed monitor zones and confirm that the selected zones could effectively function as monitor zones. The procedures used to perform the single element packer tests on DZMW-1 were identical to those emplaced for testing of IW-1.

The hydraulic data are summarized in **Table 4-7** and the water quality data are summarized in **Table 4-8**.

Table 4-7: DZMW-1 Summary of packer test hydraulic data

Test No.	Depth (ft bpl)	Pumping Rate (gpm)	Drawdown (ft)	Pumping Phase	
				Transmissivity (ft^2/day)	Average Hydraulic Conductivity (ft/day)
1	1,950 –2,000	180	11.43	12,915	258
2	2,169 –2,225	103	3.40	1,712	30.57

Table 4-8: DZMW-1 Summary of packer test water quality data

Test No.	Depth (ft bpl)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Specific Conductance (µmhos/cm)	Sulfate (mg/L)
1	1,950 –2,000	14,500	10,400	22,000	12,000
2	2,169 –2,225	32,000	17,600	46,800	2,300

Section 5
Confinement Analysis and Selection of Injection and Monitor Zones

5.1 Confinement Analysis

The general characteristics of high transmissivity zones in the Floridan aquifer system were described by Haberfeld (1991) and include the following:

- Greatly enlarged hole sizes on caliper logs,
- Exceedingly long sonic transit times,
- Very low resistivities, indicating high porosity and saline water,
- Changes on temperature logs,
- Flow in or flow out zones on flowmeter logs, and
- Caverns, cavities, and fractures evident on borehole videos.

High transmissivity intervals in the Floridan aquifer system are often composed of fractured dolostone, which has very low matrix hydraulic conductivity. Intervals likely to provide good vertical confinement are largely the opposite of those of high transmissivity intervals. The following criteria are characteristic of intervals interpreted as providing good vertical confinement:

- Low sonic transit times (preferably < 60 µsec/ft),
- Variable density log (VDL) patterns consisting of a strong (dark) continuous parallel bands that are either vertical, where lithology is relatively uniform, or have a "chevron" pattern where the formation consists of interbedded rock of different hardness,
- Low vertical hydraulic conductivities measured on core samples,
- Borehole diameters on caliper logs close to bit size,
- Relatively high resistivities, which in the middle and upper parts of the Floridan aquifer system are often indicative of tight dolostone beds,
- Absence of evidence of fractures or other flow conduits on video surveys, and borehole televiewer and fracture identification logs, and
- Low macroporosity (i.e., visible pore spaces) and high degree of cementation (hardness) as observed in microscopic examination of cuttings and core samples.

Intervals interpreted as having characteristics indicative of good vertical confinement met the above criteria, particularly the presence of dolostone beds with low sonic transit times. Intervals interpreted as providing poor vertical confinement contain common fractures and cavernous zones, as evidenced by borehole enlargement and very long sonic transit times. Intervals lacking both tight intervals and well-developed fracturing are considered to have characteristics indicative of moderate vertical confinement.

The strata between the base of the USDW and top of the injection zone were divided into two confinement units based on the injection well IW-1 data. The confinement for the City of Clewiston injection well system is summarized in **Table 5-1**.

Table 5-1: IW-1 – Summary of confining zones

Unit		I	II
Depths (ft bpl)		2,020– 2,170	2,700 – 2,748
Lithology		Microcrystalline to finely crystalline dolostone and dolomitic limestone (mudstone)	Fossiliferous peloidal limestone (packstone), and microcrystalline dolostone
Sonic transit times (main range)		95 – 105 µsec/ft	75 – 115 µsec/ft
Packer test hydraulic conductivity (ft/day) Well IW-1		0.44 (#4) 0.48 (#6)	Specific capacities for #7 and #8 were less than <0.002 gpm/ft
Core vertical permeability (ft/day) Well IW-1	**High**	1.0×10^{-1}	1.7×10^{-3}
	Low	1.0×10^{-1}	1.7×10^{-3}
	Median	1.0×10^{-1}	1.7×10^{-3}
	No.	1	1

Confining Unit I consists predominantly of moderately hard to very hard, dolomitic limestone and dolostones. The sonic transit times are mostly in the 95 to 105 µsec/ft range, which indicates porosities in the 25 to 40% range. Two packer tests were conducted within this confining zone, Packer Test No. 4 (2,070-2,100 ft bpl) and Packer Test No. 6 (2,110-2,129 ft bpl). The average hydraulic conductivities calculated for these packer tests were 0.44 and 0.48 ft/day, respectively for Packer Test No. 4 and Packer Test No. 6. Confining Unit I is interpreted to provide very good vertical confinement.

The dolostone strata present between approximately 2,170 feet bpl and 2,700 feet bpl are fractured to varying degrees. While flowmeter log data suggest that the interval from 2,170 to 2,560 feet bpl contributed approximately 80% to the dynamic flow of the well, the fracture sets do not appear to be vertically connected, as evidenced by the cross-flow shown on the flowmeter log. A sharp change in the counts per second (cps) rate can be found at 2,565 feet bpl, and more gradual variations are evident between 2,195 and 2,440 feet bpl. The occurrence of cross flow zones is interpreted to result from different hydraulic head levels between zones of fractures, with the relatively higher head zones discharging to the zones of lower hydraulic head.

Confining Unit II, which is located between 2,700 and 2,748 feet bpl, consists of fossiliferous, peloidal limestone and dolostone. This confining zone is located immediately above the injection zone. The sonic transit times in this zone are low, mostly between 75 and 115 µsec/ft, corresponding to porosities between 25 and 50%. The hydraulic conductivities of Unit II could not be calculated, as pumping of these packer test intervals (Packer Test No. 7 and No. 8) at very low rates (less than 0.5 gpm) resulted in excessive drawdown (greater than 250 feet) during development. However, specific capacities for Packer Test No. 7 (2,727-2,744 ft bpl) and No. 8 (2,706-2,725 ft bpl) were estimated and were less than 0.002 gpm/ft.

5.2 Injection Zone

The top of the injection zone of the lower Oldsmar Formation occurs at approximately 2,745 ft bpl in injection well IW-1. The shallowest flow zone in the injection zone occurs from 2,750 to 2,950 ft bpl, as evidenced by the flowmeter log response. Flow into the well from fractures is also evident on the borehole video at 2,768 ft bpl, 2,895 ft bpl, and 3,169 ft bpl. A quantitative interpretation of the flowmeter and caliper logs for the pilot hole indicates that approximately 20% of the flow entered the well from 2,750 to 2,950 ft bpl. In addition, a 15% contribution to the flow came from 3,055 to 3,190 ft bpl and 10% of the flow came from 3,190 to 3,380 ft bpl. The flowmeter log interpretation is presented in **Figure 5-1**.

The television survey of the injection zone confirms the data presented in the sonic log and variable density log and the caliper log, which showed that the dolomitic strata are dense and intermittently fractured. The rugose borehole walls are characterized by frequent vugs and cavities.

5.3 Monitor Zones

Based on data collected during construction and testing of IW-1 and DZMW-1, two monitor zones were selected, pursuant to permitting conditions, to monitor the long-term effectiveness of the natural confinement and detect whether upward fluid migration is occurring as a result of injection.

5.3.1 Upper Monitor Zone

Data collected during drilling of IW-1 indicated that the base of the USDW was located at approximately 1,950 feet bpl. IW-1 Packer Tests No. 2 and No. 3 bracketed the USDW, with water quality samples from Packer Test No. 2 (1,910 to 1,940 feet bpl) and Packer Test No. 3 (1,960 to 1,990 feet bpl) characterized by TDS concentrations of 9,056 mg/L and 12,376 mg/L, respectively. The specific capacity value associated with IW-1 Packer Test No. 2 was 0.05 gallons per minute per foot of drawdown (gpm/ft). The specific capacity calculated for IW-1 Packer Test No. 3 was greater,

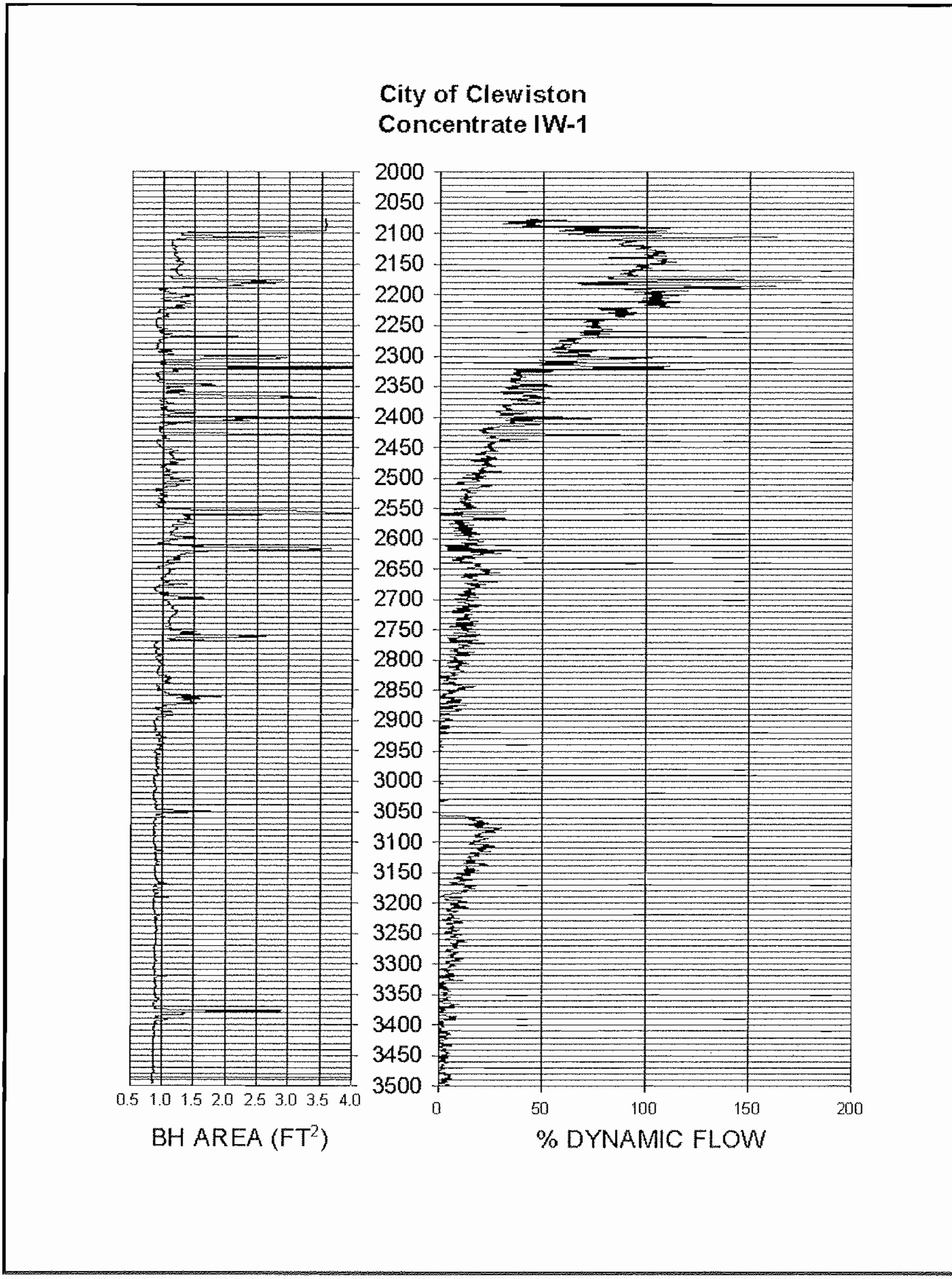

Figure 5-1
Clewiston WTP Injection Well System
Pilot hole flowmeter log interpretation (Courtesy of YBI, Inc)

CDM

measuring at 11.3 gpm/ft. Based on this data, and a general stratigraphic correlation between IW-1 and DZMW-1, the interval from 1,950 to 2,000 feet bpl was selected for additional testing during construction of DZMW-1.

Additional testing during construction of DZMW-1 confirmed the competence of this zone to function as the upper monitor zone for IW-1. The pertinent characteristics of this zone are described below:

- Lithologically, zone consists of hard limestones and dolomitic limestones with low to moderate intergranular macroporosity.
- A relatively in-gauge borehole, indicating that the interval is moderately to well indurated and does not appear prone to formation sloughing.
- Separation between shallow, medium and deep resistivity curves, suggesting permeability.
- A specific capacity of 15.7 gpm/ft (based on DZMW-1 Packer Test No. 1) and laboratory reported TDS concentration of 13,300 mg/L. Water quality data are available in Appendix K. Below the base of the USDW at 1,950 there is a rapid salinity change, as reflected in the log-derived TDS log.

The lithologic, packer test, and log data all indicate that the upper interval has suitable flow and water quality characteristics to serve as the upper monitor zone for the injection well system.

5.3.2 Lower Monitor Zone

Data collected during the drilling of IW-1 indicated that there are two well developed confining zones. These two zones are identified as being from 2,020 to 2,170 feet bpl and 2,700 to 2,750 feet bpl. The confining zones consist of dense, unfractured dolostone that exhibit very low permeability, based on hydraulic packer tests conducted as part of the IW-1 testing program. The lower monitor zone interval from 2,132 to 2,200 feet bpl was chosen as it lies between two well developed confining zones.

Testing during the construction of DZMW-1 confirmed that this interval would function effectively as the lower monitor zone. The relevant characteristics are summarized below:

- Lithologically, consists of hard, crystalline dolostones.
- A relatively in-gauge borehole at the casing setting depth, with fractures and cavities located within the monitor interval.
- Increasing separation of shallow, medium and deep resistivity curves with depth in the monitor zone.

- A specific capacity of 30.3 gpm/ft (based on Packer Test No. 2 (2,169 to 2,225 feet bpl)) and a laboratory derived TDS concentration of 33,800 mg/L. Water quality data are available in Appendix K.

Based on the data collected, the lower monitor zone has suitable flow and water quality characteristics to monitor for water quality changes below the base of the USDW. This zone is located between two well developed zones of natural confinement.

Section 6
Mechanical Integrity and Injection Tests

The mechanical integrity tests (MITs) performed on IW-1 were designed to analyze the integrity of the casing materials and the quality of the bond between the annular grout (cement) and the well casings. The MIT program consisted of the following tests:

- Cement temperature logs of the 26-inch and 16-inch diameter IW-1 casings and cement temperature logs of the 28-inch, 20-inch, and 12-inch diameter DZMW-1 casings.
- Pressure tests of the 16-inch diameter injection casing and 11.70-inch diameter injection tubing. Pressure tests of the 12-inch diameter monitor casing and the 6.46-inch diameter fiberglass inner casing of DZMW-1.
- Cement bond log of the 16-inch diameter injection casing of IW-1 and the 12-inch diameter monitor casing of DZMW-1.
- Borehole video survey of the 11.70-inch diameter injection tubing.
- High-resolution temperature log of the 11.70-inch diameter injection tubing.
- Radioactive tracer survey (RTS).

The injection test was conducted to evaluate whether or not the completed injection well can perform as designed. All of the MIT procedures were witnessed by CDM sub-consultants and were judged to have been completed in a satisfactory manner in accordance with the well construction and testing specifications and the FDEP well construction permit. The MIT and injection test procedures and results are described below.

6.1 Cement Top Temperature Logs

Cement top temperature logs were run after each cement stage (when multiple stages were pumped). The curing of cement is an exothermic reaction. The generated heat of hydration of cement emplaced in the annulus between the casing and formation can be readily detected and measured using a temperature probe run through the casing. If curing proceeds too rapidly, the temperature will "flash" resulting in a spike in the temperature log. Conversely, a significant drop in temperature across a section of casing may indicate the absence of cement in part of the annulus. None of the temperature logs contained anomalies that would suggest either gaps in the cement or inappropriate curing temperatures. Copies of the cement top temperature log interpretations are included in Appendix H.

6.2 Pressure Tests

6.2.1 Pressure Test of the 16-inch Diameter Injection Casing

The pressure test of the 16-inch diameter injection casing was performed on August 21, 2006. The test was witnessed by Dan Legett (FMB and Associates, a sub-consultant to CDM) and Walter (Doug) Wells (FDEP). The test was performed after completion of grouting of the casing. A temporary wellhead was installed at the top of the casing and a pressure gauge and relief valve were fitted to the wellhead. Air in the casing was bled off to eliminate the effect of air compression and expansion. A single element inflatable packer with a rubber sleeve was conveyed via two-inch diameter drill pipe to an approximate depth of 2,726 feet bpl (depth to the centerline of the packer). The packer setting depth was approximately 23 feet above the bottom of the 16-inch diameter casing.

The casing was pressurized with water to 158.1 pounds per square inch (psi) at the start of the test and the pressure over the course of one hour was recorded. The casing pressure after one hour dropped to 156.8 psi, a 1.3% decrease. The 16-inch diameter casing thus met the FDEP test-passing criteria of no more than 5% change in pressure after one hour (Rule 62-528.410 (7,c) FAC). Documentation of the pressure test and gauge calibration is included in **Appendix O**.

After the test was completed, approximately 15 gallons of bleed-off water were measured. The theoretical bleed-off volume is 12.5 gallons based on an isothermal compressibility of water of 3.2 X 10^5 psi at 25°C.

6.2.2 Pressure Test of the 11.70-inch Diameter Injection Tubing

The pressure test of the annulus between the 16-inch diameter injection casing and the 11.70-inch diameter injection tubing was performed on September 1, 2006. The test was witnessed by Andrew Miller (FMB and Associates, a sub-consultant to CDM) and Alyssa Mork and Eli Fleishauer of the FDEP. The test was performed after pumping approximately 10,000 gallons of a 1.1% solution of Baracor© 100 into the annulus between the 16-inch diameter injection casing and the 11.70-inch diameter injection tubing. A temporary wellhead was installed at the top of the casing and a pressure gauge and relief valve were fitted to the wellhead. Air in the casing was bled off to eliminate the effect of air compression and expansion. The YBI packer that the 11.70-inch diameter tubing landed on served as the bottom seal for the test (at 2,742 feet bpl).

The tubing was pressurized with water to 153.0 pounds per square inch (psi) at the start of the test and the pressure over the course of one hour was recorded. The casing pressure after one hour remained 153.0 psi, no decrease was detected. The 11.70-inch diameter fiberglass tubing thus met the FDEP test-passing criteria of no more than 5% change in pressure after one hour (Rule 62-528.410 (7,c) FAC). Documentation of the pressure test is included in Appendix 0.

After the test was completed, approximately 21 gallons of bleed-off water were measured.

6.2.3 Pressure Test of the 12-inch Diameter Monitor Casing

The pressure test of the 12-inch diameter monitor casing of DZMW-1 was performed on October 23, 2006. The test was witnessed by Jeff Pruitt (FMB and Associates, a sub-consultant to CDM) and Alyssa Mork (FDEP). The test was performed after grouting of the casing was complete to within 225 feet bpl. A temporary wellhead was installed at the top of the casing and a pressure gauge and relief valve were fitted to the wellhead. Air in the casing was bled off to eliminate the effect of air compression and expansion. A single element inflatable packer with a rubber sleeve was conveyed via two-inch diameter drill pipe to an approximate depth of 1,930.22 feet bpl (depth to the centerline of the packer). The packer setting depth was approximately 20 feet above the bottom of the 12-inch diameter monitor casing.

The casing was pressurized with water to 68.0 pounds per square inch (psi) at the start of the test and the pressure over the course of one hour was recorded. The casing pressure after one hour remained 68.0 psi. The 12-inch diameter casing thus met the FDEP test-passing criteria of no more than 5% change in pressure after one hour (Rule 62-528.410 (7,c) FAC). Documentation of the pressure test is included in Appendix N.

After the test was completed, approximately 4 gallons of bleed-off water were measured. The theoretical bleed-off volume is 2.4 gallons based on an isothermal compressibility of water of 3.2 X 10^5 psi at 25°C.

6.2.4 Pressure Test of the 6.625-inch Diameter Fiberglass Inner Casing

The pressure test of the 6.625-inch diameter fiberglass inner casing of DZMW-1 was performed on October 27, 2006. The test was witnessed by Jeff Pruitt (FMB and Associates, a subconsultant to CDM). The test was performed after grouting of the casing was complete. A temporary wellhead was installed at the top of the casing and a pressure gauge and relief valve were fitted to the wellhead. Air in the casing was bled off to eliminate the effect of air compression and expansion.

The casing was pressurized with water to 69.75 pounds per square inch (psi) at the start of the test and the pressure over the course of one hour was recorded. The casing pressure after one hour remained 69.75 psi. The 6.46-inch diameter casing thus met the FDEP test-passing criteria of no more than 5% change in pressure after one hour (Rule 62-528.410 (7,c) FAC). Documentation of the pressure test is included in Appendix O.

6.3 Cement Bond Logs

The cement bond log (CBL) is a type of geophysical log that is used to determine the quality of the cement bond between the casing and the cement grout, and between the cement and the formation, and to infer the presence of channels in the cement behind the casing (Nielsen and Aller, 1984). The cement bond log is performed by lowering the logging tool down the hole while transmitting an acoustic signal outwards towards the casing wall. The signal penetrates the casing, cement grout, and formation, and is reflected back to a receiver on the logging tool. The signal is recorded by the logging instrument and various qualities of the signal (described below) are displayed on the printout of the log.

Travel time

Travel time is the time that it takes for the signal to travel from the transmitter, through the casing fluid, casing, and back to the receiver. Travel time is useful for evaluating whether the logging tool was properly centered within the casing during the running of the CBL. Compression-water velocity in water is much slower than in the steel casing. If the logging tool drifted closer to the casing, then the travel path will be reduced, and thus the transit time will also be reduced. Constant tool centralization is critical to the obtainment of an interpretable CBL because an un-centered tool will produce erratic responses. A properly centered tool will result in a relatively straight travel time log with only minor deviations at casing joint locations.

Amplitude

The amplitude of the acoustic signal is a measurement of the energy lost by the signal as it passes through the casing into the cement grout. The rate of this attenuation is dependent upon the percent of bonded cement, the casing diameter, and the thickness and material of the casing wall. A casing that is completely un-cemented and in contact with formation fluid or drilling mud will cause the attenuation rate to be very small and the returning amplitude will be relatively high. In a casing section that is well bonded to the cement grout, the wave velocity difference between the casing and cement grout will cause significant attenuation of the acoustic signal and the returning amplitude will be relatively low. When the tool is properly centered, there will be a direct correlation between the amplitude response and the amount of cement bonded to the outer casing wall, as well as the quality of the bond.

Total Energy Display

The total energy display is displayed as a variable density log (VDL). The VDL is produced from the arrivals of the acoustic waves at a receiver. The VDL is used to qualitatively assess the bond between the cement and formation and to detect the presence of channels in the cement grout, which might allow fluids to migrate behind the casing wall. Poorly cemented sections of casing generally have strong casing signals, whereas casing signals are absent or weak in well-cemented sections of casing. Casing joints, which normally appear as W-shaped "chevron" patterns, should be clearly visible in un-cemented well casings, whereas the pattern is usually barely discernable in cemented casing. The CBL was run prior to cementing the upper 386 feet of the annulus surrounding the 16-inch diameter casing of IW-1 and prior to cementing the upper 225 feet of the 12-inch diameter monitor casing on DZMW-1.

Interpretation of Cement Bond Logs
The typical log responses were described by Nielsen and Aller (1984) for the four most common cement situations: (1) uncemented casing, (2) good casing bond and good formation bond, (3) good casing bond but poor formation bond, and (4) microannulus or channeling.

A combination of good casing and formation bonding is characterized by:

- Low amplitude readings,
- Weak casing arrivals on the VDL, and
- Strong formation arrivals if formation attenuation is not high.

6.3.1 Summary and Evaluation of the CBL of the 16-inch Diameter Injection Casing of IW-1

20 – 386 ft bpl	Uncemented casing. Travel time is approximately 530 μsec in casing, amplitude is between 8 and 44 mV, strong casing returns and casing joints are evident on the VDL.
386 –760 ft bpl	Travel times between 510 and 650 μsec. Weak casing returns on the VDL log and low amplitudes (< 10 mV) suggest very good bonding. Casing joints are very poorly visible.
760 - 800 ft bpl	Travel times between 510 and 530 μsec. Stronger casing returns and amplitudes than above (amplitudes 10 - 25 mV), which indicates moderately poor bonding.
800 – 1,050 ft bpl	Transit times between 560 and 650 μsec. Poor casing returns and very low amplitudes (1 mV or less). Casing joints are not evident. Very good cement bonding.
1,050 – 1,200 ft bpl	Travel times between 510 and 590 μsec. Weak casing returns with joints barely evident and low amplitudes (< 10 mV) indicate good bonding.
1,200 – 1,830 ft bpl	Travel times between 550 and 650 μsec. Weak casing returns on the VDL log and low amplitudes (< 5 mV) suggest very good bonding.

1,830 - 2,720 ft bpl	Travel times between 500 and 690 µsec. More variable transit times (positive spikes). Weak to moderate casing returns and generally low amplitudes indicate good cement bonding.

The results of the cement bond log run on the 16-inch diameter injection casing provide strong evidence that the casing was properly cemented and that there are no gaps in the annulus between the casing and formation that could be conduits for the migration of injected fluids.

6.3.2 Summary and Evaluation of the CBL of the 12-inch Diameter Monitor Casing of DZMW-1

120 - 225 ft bpl	Uncemented casing. Travel time is approximately 590 µsec in casing, amplitude is between 20 and 42 mV, strong casing returns and casing joints are evident on the VDL.
225– 540 ft bpl	Travel times between 610 and greater than 950 µsec. Weak casing returns on the VDL log and low amplitudes (mostly less than 10 mV, with a few small sections exceeding this) suggest very good bonding. Casing joints are not visible.
540 - 780 ft bpl	Travel times between 600 and 685 µsec. Slightly stronger casing returns and amplitudes than above (amplitudes 1 - 30 mV), casing joints are barely evident. Good cement bonding.
780 - 890 ft bpl	Transit times exceeding 950 µsec. Very weak casing returns and very low amplitudes (1 mV or less). Casing joints are not evident. Very good cement bonding.
890 - 1,950 ft bpl	More varilable transit times (positive spikes). Travel times between 590 and in excess of 950 µsec. Variable amplitudes, ranging from 1 mV to 55 mV. Weak to moderate casing returns and generally low amplitudes indicative of good cement bonding (sections of strong casing returns and high amplitudes are few).

The results of the cement bond log run on the 12-inch diameter monitor casing provide strong evidence that the casing was properly cemented and that there are no gaps in the annulus between the casing and formation that could serve as conduits and comprise the monitor well integrity or the ambient ground water quality.

6.3.3 Summary and Evaluation of the Sector Bond Log of the 6.625-inch Diameter Fiberglass Inner Casing of DZMW-1

1,750 - 2,000 ft bpl	Uncemented fiberglass casing. Travel time is approximately 360-380 μsec in casing, amplitude is between 10 and 90 mV, strong casing returns and casing joints are evident on the VDL and easily identifiable on the sector track.
2,000- 2,130 ft bpl	Travel times more variable, range between 610 and greater than 950 μsec. Weak casing returns on the VDL log and low amplitudes (mostly less than 10 mV, with a few small sections exceeding this) suggest very good bonding. Casing joints are not visible.

6.4 Borehole Video of the 11.70-inch Diameter Injection Tubing

A borehole video survey was performed on the 11.70-inch diameter injection tubing on October 2, 2006. The video survey procedures are discussed Section 4.5. The tubing appeared to be intact with no suggestion of any breaches or other defects that would suggest the absence of mechanical integrity.

6.5 High-Resolution Temperature Log

A high resolution temperature log was run on the completed well (3,510 ft bpl to pad level) on October 3, 2006. Sharp changes in temperature within the casing would suggest the presence of flow zones and thus breaches in the casing. The results of the temperature log are summarized below:

0 - 1,600 ft bpl	Gradual increase in temperature with depth from 83.2°F at 0 ft bpl to 87.9°F at 1,600 ft bpl.
1,600 - 2,100 ft bpl	Very little variation in temperature, which ranges between 87.9 and 88.4°F. No sharp temperature changes are evident anywhere in the casing.
2,100 - 2,400 ft bpl	Gradual temperature increase with depth from 88.4°F to 89.4°F.
2,400 - 3,270 ft bpl	Fairly stable temperatures between 89.4 and 90.0°F.
3,270- 3,500 ft bpl	Increase in temperature from 90.0°F at 3,270 to 91.6°F at 3,300 ft bpl. Very mild fluctuations (between 91.6 and 92.3°F) to total depth.

The high-resolution temperature log contains no anomalies that would suggest a lack of mechanical integrity.

6.6 Radioactive Tracer Survey

A radioactive tracer survey (RTS) was performed on the 16-inch diameter injection casing by Youngquist Brothers, Inc., Geophysical Logging Division, on October 3, 2006. The test was witnessed in its entirety by Andrew Miller of FMB and Associates (a subconsultant to CDM). The survey was performed under dynamic conditions to evaluate the integrity of the grout seal around the bottom of the 16-inch diameter casing. The integrity of the grout seal is critical to ensure that no upward migration of injected fluids occurs between the casing and borehole.

At least 8,100 gallons of freshwater were pumped into injection well IW-1 in preparation for the borehole video survey, which was performed on October 2, 2006.

The ejector/detector tool used for the RTS was equipped with an iodine-131 ejector, a casing collar locator (CCL), and three gamma ray detectors, which were located the following distances from the bottom of the tool:

Top gamma ray detector (GRT)	24.0 ft
Ejector port	13.5 ft
Middle gamma ray detector (GRM)	10.5 ft
Casing collar locator	9.6 ft
Bottom gamma ray detector (GRB)	1.2 ft

The procedures and results of the radioactive tracer survey are summarized below:

1. Background gamma ray log was run from approximately 3,500 ft bpl to pad level.

2. The bottom of the casing was detected using the casing collar locator at its correct depth of 2,750 ft bpl.

3. Performed Dynamic Test No. 1

   3a. Tool was positioned so that the ejector was located 5 feet above the bottom of the casing (2,745 ft bpl). The flow rate was set to 45 gpm, which is equivalent to an average flow rate of 4.9 ft/min inside the 16-inch diameter casing (15-inch I.D.).

   3b. After recording the gamma ray detector for 1 minute in stationary time drive mode, the first slug of tracer (2 millicurie of Iodine-131) was released. The detectors were run for an additional 60 minutes in time drive mode. Increased gamma ray activity was first detected in the middle detector (GRM) after 20 seconds and in the bottom detector after 110 seconds. The tracer was not detected by the upper detector (GRT). The calculated tracer velocity was 6.7 ft/min, based on the time to detection in GRB.

3c. After 60 minutes, logged up out of position (LOP) to 2,550 feet bpl.

Interpretation: Tracer was not detected above the bottom of the casing. There was no suggestion of migration of the tracer behind the casing.

4. Performed Dynamic Test No. 2

4a. Tool was positioned so that the ejector was located 5 feet above the bottom of the casing (2,745 ft bpl). A 45 gpm flow was established, which is equivalent to an average flow rate of 4.9 ft/min inside the 15-inch inner diameter casing.

4b. After recording the gamma ray detector for 1 minute in stationary time drive mode, a slug of tracer (2 millicurie of Iodine-131) was released. The detectors were run for an additional 20 minutes in time drive mode. Increased gamma ray activity was first detected in GRM after approximately 20 seconds and in GRB after 120 seconds. No increase in gamma ray activity was recorded in the GRT . The calculated tracer velocity was 6.2 ft/min, based on the time to detection in GRB.

4c. Logged up out of position to 2,550 ft bpl. Tracer was not detected above the bottom of the casing.

Interpretation: There was no evidence of migration of tracer behind the casing.

5. Performed Dynamic Test No. 3

5a. Tool was positioned so that the ejector was located 5 feet above the bottom of the casing (2,745 ft bpl). A 100 gpm flow was established, which is equivalent to an average flow rate of 10.9 ft/min inside the 15-inch inner diameter casing.

5b. After recording the gamma ray detector for 1 minute in stationary time drive mode, a slug of tracer (2 millicurie of Iodine-131) was released. The detectors were run for an additional 35 minutes in time drive mode. Increased gamma ray activities were first detected in GRM after approximately 5 seconds and in GRB after 40 seconds. Tracer was not detected in GRT. The calculated down hole tracer velocity was 18.5 ft/min, based on the time to detection in GRB.

5c. Logged up out of position to 2,550 ft bpl. Tracer was not detected above the bottom of the casing.

Interpretation: There was no evidence of migration of tracer behind the casing.

6. Performed final gamma ray log from 3,500 ft bpl to pad level. Ejected remainder of the I-131 (14.0 millicurie) at bottom or the injection zone (dumped tool at 3,480 ft bpl, 3,460 ft bpl, and 3,440 ft bpl). Casing staining is detected by both the GRB and GRM where the tool was dumped. The GRB, GRM, and GRT also detect a spike in the tracer concentration at approximately 2,800 to 2,810 feet bpl, indicating that the tracer entered fractures in this region of the injection zone. Iodine-131 tracer is not detected within the cased portion of the well (above 2,750 ft bpl) indicating that the tracer dump went into the injection zone.

The results of the RTS show no evidence that would suggest migration of fluid behind the casing. A good grout seal is likely present at the bottom of the 16-inch diameter injection casing.

6.7. Mechanical Integrity Testing Conclusions

The results of the mechanical integrity testing program implemented on injection well IW-1 indicate that the well has mechanical integrity. The testing results indicate that the casing is pressure tight and that there is adequate cementation in the annulus between the injection casing and the formation to prevent upward fluid migration through the annulus.

6.8. Injection Test

A constant rate injection test was performed on injection well IW-1 in order to evaluate the hydraulic characteristics of the well and the injection zone. During a constant rate injection test, the system is tested by pumping fluid at a rate equal to or greater than the expected maximum and permitted operating rate. The pumping rate is maintained as constant as feasibly possible throughout the injection phase of the test.

Prior to the start of the test, data control points were established to monitor the effects of injection on the injection well and the dual-zone monitor well zones. These control points included wellhead pressure and pressure (head) in both monitor zones. The control points and monitoring methods are summarized in **Table 6-1**.

Table 6-1: Injection test control points		
Control point/ monitored zone	Parameters monitored	Collection methods
Injection well IW-1 wellhead	Pressure	Pressure gauge & Pressure transducer
Monitor well, upper zone	Pressure	Pressure transducer
Monitor well, lower zone	Pressure	Pressure transducer
Barometric data	Atmospheric pressure	Pressure transducer
Flowmeter	Injection rate and total flow	Flowmeter (manually read)

6.8.1. Injection test procedures

The IW-1 injection test consisted of three phases: a background data collection phase, an injection phase, and a recovery phase. The background data collection phase was started on Tuesday, November 7, 2006. From 1100 hours to 1234 hours on Wednesday, November 8, 2006, a preliminary injection test was performed to determine operating pressures and pumping rates. The background data collection proceeded for an additional 27 hours following cessation of the preliminary injection test.

The injection phase was performed on Thursday, November 9, 2006, starting at 1600 hours and lasted for approximately 12 hours. Reclaimed water from on-site storage ponds was injected using a temporary pump station and piping to the injection well. The effluent is disinfected with chlorine via an inline injector pump prior to discharge to the retention ponds. The average flow rate during the 12 hour injection period was approximately 2,850 gpm (4.10 Mgd). The recovery phase began immediately after the completion of the injection test and continued through the morning of Sunday, November 11, 2006.

6.8.2. Injection test results

A plot of the injection test data is included in **Appendix N** along with a CD of raw data.

The background (static) wellhead pressure in injection well IW-1 ranged from 23 to 24 psi. The injection phase results are summarized in **Table 6-2**. Wellhead pressure, as measured on the wellhead pressure gauge, increased to approximately 58 psi during injection at 4.16 mgd, an increase of approximately 34 psi. Bottom hole pressure increased by approximately 23 psi. The difference between the increase in wellhead and bottom hole pressures are due to head losses within the injection well casing. No changes in pressures related to injection were detected in either the upper or lower zones of the dual-zone monitor well.

Table 6-2: Summary of injection test results (manual readings)				
Time (11/9/06-11/10/06)	Elapsed time Since start of injection (hours)	Elapsed time since start of monitoring (hours)	IW-1 Wellhead pressure (psi)	Injection rate (Mgd)
1620	0	49.32	Start of injection	
1630	0.17	49.49	57.5	4.2
1700	0.67	49.99	57.5	4.2
1720	1.00	50.32	57.5	4.2
1820	2.00	51.32	57.5	4.1
1900	2.67	51.99	57.5	4.1
2000	3.67	52.99	58.0	4.1
2100	4.67	53.99	58.0	4.1
2200	5.67	54.99	58.0	4.1
2300	6.67	55.99	58.0	4.1
0000	7.67	56.99	58.0	4.1
0100	8.67	57.99	58.5	4.1
0200	9.67	58.99	58.5	4.1
0300	10.67	59.99	58.5	4.1
0400	11.67	60.99	58.5	4.1
0420	12.00	61.32	58.5	4.1
0430	12.17	61.49	58.5	4.1
0433	12.22	61.54	Stopped injection	

6.8.3. Injection test conclusions

The injection test results indicate that injection well IW-1 can efficiently accept its design capacity of flow of 4.1 mgd. The increase in wellhead pressure at an average injection rate of 4.16 mgd was 34 psi and the maximum increase in bottom-hole pressure was 29 psi.

The specific injectivity of injection well IW-1, using the bottom hole pressure increase, is approximately 100 gpm/ft. The transmissivity of a confined aquifer can be estimated as 2000 times the specific injectivity (or specific capacity; Driscoll, 1986), which would give a value of 2.0 X 10^4 gpd/ft.

Section 7
Conclusions

Injection well IW-1 was completed with 11.7-inch diameter injection tubing set to 2,742 ft bpl and a nominal 14 ¾ -inch diameter open hole to approximately 3,505 ft bpl. The results of the mechanical integrity testing program indicate that the well has mechanical integrity. The casing is pressure tight and there is adequate cementation in the annulus between the injection casing and formation to prevent upward fluid migration through the annulus.

The results of the constant-rate injection test indicate that injection IW-1 can efficiently accept its design capacity of flow of 4.05 Mgd. At an average injection rate of 2,890 gpm (4.16 Mgd), the increase in wellhead pressure was 34 psi and the maximum increase in bottom hole pressure was 23 psi.

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APPENDIX A

Construction Permit

Department of Environmental Protection

Jeb Bush
Governor

South District
P.O. Box 2549
Fort Myers, Florida 33902-2549

Colleen Castille
Secretary

BY ELECTRONIC MAIL:

In the Matter of an
Application for Permit by:

January 24, 2006

Kevin McCarthy, Utilities Director
City of Clewiston
141 Central Ave.
Clewiston, FL 33440
kevin.mccarthy@clewiston-fl.gov

Hendry County – UIC/IW
FDEP File No. 249635-001-UC
City of Clewiston WTP
Reverse Osmosis IW-1
Class I Injection Well

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number 249635-001-UC to construct a Class I Injection Well (IW-1) system, issued pursuant to Section(s) 403.087, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Jon M. Iglehart
Director of
District Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this PERMIT and all copies were mailed before the close of business on January 24, 2006 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section.120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk   Date

JMI/JBM/rjl

Enclosure

Copies furnished to:

Charles Davault charles.davault@dep.state.fl.us
Frank Brinson brinsonfa@cdm.com
Nancy Marsh marsh.nancy@epa.gov
Steve Anderson sanderso@sfwmd.gov
Ron Reese rsreese@usgs.gov
Joe Haberfeld joe.haberfeld@dep.state.fl.us

Department of Environmental Protection

Jeb Bush
Governor

South District
P.O. Box 2549
Fort Myers, Florida 33902-2549

Colleen Castille
Secretary

BY ELECTRONIC MAIL:

PERMIT

PERMITTEE:

City of Clewiston
141 Central Avenue
Clewiston, FL 33440

Permit/Certification
Number: 249635-001-UC
Date of Issue: January 24, 2006
Expiration Date: January 23, 2011
County: Hendry
Latitude: 26° 43' 25" N
Longitude: 80° 56' 38" W
Section/Town/Range: 28/43S/34E
Project: Clewiston Reverse Osmosis WTP
IW-1 Class I Injection Well

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-520, 62-528, 62-550, and 62-660. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Construct one nominal 11 inch diameter tubing and packer Class I injection well (IW-1), with cemented 15" steel casing to approximately 2,900 feet below land surface (bls) and a total depth of approximately 3,500 feet bls. Injection is into the Oldsmar Formation for the primary means of disposal of non-hazardous reverse osmosis concentrate from the City of Clewiston Water Treatment Plant (CWTP) for an initial maximum disposal of 0.925 million gallons per day (MGD) at a maximum injection rate of 642 gpm based upon the results of a controlled injection test. The design capacity for the well is 4.05 MGD. The dual zone monitoring well (DZMW-1) will be completed from approximately 1950 to 2000 feet bls and from approximately 2250 to 2300 feet bls.

The Application to Construct/Operate/Abandon Class I, III, or V Injection well System, DEP Form 62-528.900(1), was received May 19, 2005, with supporting documents and additional information last received July 1, 2005. The Certificate of Demonstration of Financial Responsibility was approved October 4, 2005. The project is located at the Clewiston Wastewater Treatment Plant on Feed Lot Road, Hendry County, Florida.

Subject to Specific Conditions 1-14.

SPECIFIC CONDITIONS:

1. GENERAL CRITERIA

a. Any permit noncompliance constitutes a violation of the Safe Drinking Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

b. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

c. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

d. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.

e. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation or reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

f. When requested by the Department, the permittee shall furnish, within the time specified, any information needed to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

g. Signatories and Certification Requirements

(1) All reports and other submittals required to comply with this permit shall be signed by a person authorized under Rules 62-528.340(1) or (2), F.A.C.

(2) In accordance with Rule 62-528.340(4), F.A.C., all reports shall contain the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

h. The permittee shall notify the Department and obtain approval prior to any physical alterations or additions to the injection or monitor well, including removal of the well head.

i. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or injection activity that may result in noncompliance with permit requirements.

j. The permittee shall report any noncompliance that may endanger health or the environment, including:

(1) Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water; or

(2) Any noncompliance with a permit condition or malfunction of the injection system which

SPECIFIC CONDITIONS:

may cause fluid migration into or between underground sources of drinking water.

(3) Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

k. No underground injection is allowed that causes or allows movement of fluid into an underground source of drinking water.

l. The permittee shall retain all records of all monitoring information concerning the nature and composition of injected fluid until five years after completion of any plugging and abandonment procedures specified under Rule 62-528.435, F.A.C. The permittee shall deliver the records to the Department office that issued the permit at the conclusion of the retention period unless the permittee elects to continue retention of the records.

m. If injection is to continue beyond the expiration date of this permit the permittee shall apply for, and obtain an operation permit. If necessary to complete the two-year operational testing period, the permittee shall apply for renewal of the construction permit at least 60 days prior to the expiration date of this permit.

2. Site Requirements

a. A drilling pad shall be provided to collect spillage of contaminants and to support the heaviest load that will be encountered during drilling.

b. The disposal of drilling fluids, cuttings, formation water or waste shall be in a sound environmental manner that avoids violation of surface and ground water quality standards. The disposal method shall be approved by the Department prior to start of construction.

c. Specific drilling pad dimensions and design details shall be provided to and approved by the Department prior to commencing construction (and shortly after selection of drilling contractor).

d. The water table monitoring wells surrounding the injection well and monitor well pads shall be sampled and analyzed prior to drilling this injection well and then weekly thereafter. Sampling shall include specific conductance, pH, chloride, temperature and water level.

e. Pursuant to Rule 62-528.455(1)(c)6., F.A.C., a survey indicating the exact location in metes and bounds of all wells authorized by this permit shall be provided prior to issuance of an operating permit.

3. Construction and Testing Requirements

a. The permittee shall contact the Technical Advisory Committee (TAC) chairman so that he may schedule progress review meetings at appropriate times with the TAC, the U.S. Environmental Protection Agency (USEPA), and permittee for the purpose of reviewing the results of tests, geophysical logging, surveys, drilling records and construction problems.

b. All drilling shall be inside a blow out preventer upon penetration of the Floridan Aquifer.

c. Mechanical integrity testing is a two-part demonstration which includes a pressure test to demonstrate that no leaks are present in the casing, tubing or packer and a temperature or noise log and radioactive tracer survey to

SPECIFIC CONDITIONS:

demonstrate the absence of leaks behind the casing. Verification of pressure gauge calibration must be provided at the scheduled tests.

d. Department approval and Technical Advisory Committee (TAC) and USEPA review pursuant to F.A.C. Rule 62-528 is required for the following stages of construction:

(1) Intermediate casing seat selection for injection and monitor wells.

(2) Final casing seat selection for injection and monitor wells.

(3) Prior to conducting the 12-hour injection test with reclaimed water.

(4) Prior to operational (long term) testing with effluent.

(5) The permittee shall submit all necessary supporting documentation/data, with interpretation, to the TAC and USEPA for review.

e. The cementing program, as required in Section 62-528.410(5), Florida Administrative Code, shall be submitted to the Department, the USEPA, and the Technical Advisory Committee for review. Cementing shall not commence prior to approval being granted.

f. All temperature surveys (except for mechanical integrity demonstration) shall be run within 48 hours after cementing.

g. TAC meetings are scheduled on the 1st Tuesday of each month subject to a 5 working day prior notice and timely receipt of critical data by all TAC members and the USEPA. Emergency meetings may be arranged when justified to avoid undue construction delay.

h. The Permittee shall insure that safe internal pressures are maintained during the cementing of all casings.

i. The background water quality of the injection zone and monitoring zones shall be established prior to commencement of any injection testing. Parameters to be measured are the primary and secondary drinking water standards (except asbestos, dioxin, epichlorhydrin, and acrylamide) and the minimum criteria for municipal effluent.

j. The injection and monitor well(s) at the site shall be abandoned when no longer usable for their intended purpose, or when posing potential threat to the quality of the waters of the State. Within 180 days of well abandonment, the permittee shall submit to the Department, the USEPA, and the TAC the proposed plugging method, pursuant to Rule 62-528.435, F.A.C.

k. All salt used in well drilling shall be stored in an environmentally sound manner. Accurate records shall be kept on the amount of salt used.

l. All dual induction, sonic and caliper geophysical logs run on the pilot holes of the injection well and monitor wells shall be submitted with scales of one inch equals one hundred feet (1"=100'), two inches equals one hundred feet (2"=100'), and five inches equals one hundred feet (5"=100')

m. An engineering drawing showing the drill pad construction (including material used) and locations of the injection well, dual zone monitor well, and the water table monitor wells shall be provided for Department approval prior to pad construction and well construction.

4. <u>Quality Assurance/Quality Control Requirements</u>

SPECIFIC CONDITIONS:

a. This permit approval is based upon evaluation of the data contained in the application dated March 12, 2003, and the plans and/or specifications submitted in support of the application. Any proposed modifications to this permit shall be submitted in writing to the Underground Injection Control program manager, the TAC, and USEPA for review and clearance prior to implementation. Changes of negligible impact to the environment and staff time will be reviewed by the program manager, cleared when appropriate and incorporated into this permit. Changes or modifications other than those described above will require submission of a completed application and appropriate processing fee as per Rule 62-4.050, F.A.C.

b. A professional engineer registered pursuant to Chapter 471, Florida Statutes shall be retained throughout the construction period to be responsible for the construction operation and to certify the application, specifications, completion report and other related documents. The Department shall be notified immediately of any change of engineer.

c. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of permit applications and supporting documents that are submitted to the Department for public record shall be signed and sealed by the professional(s) who approved or prepared them.

d. The Department shall be notified immediately of any problems that may seriously hinder compliance with this permit, construction progress, or good construction practice. The Department may require a detailed written report describing the problem, remedial measures taken to assure compliance and measures taken to prevent recurrence of the problem.

e. Issuance of a Class I Test/Injection well construction and testing permit does not obligate the Department to authorize operation of the injection well system, unless the wells qualify for an operation permit applied for by the permittee and issued by the Department.

5. Reporting Requirements

a. All reports and surveys required by this permit must be submitted concurrently to all the members of the TAC and the USEPA. The TAC and USEPA consists of representatives from these agencies:

Florida Department of Environmental Protection
South District
P.O. Box 2549
Fort Myers, FL 33902-2549

Florida Department of Environmental Protection
Bureau of Water Facilities Regulation
UIC Program, MS 3530
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

South Florida Water Management District
P.O. Box 24860
West Palm Beach, FL 33416-4860

United States Environmental Protection Agency, Region IV
UIC Section
61 Forsythe Street, SW
Atlanta, Georgia 30303-8909

United States Geological Survey
9100 NW 36th Street, Suite 107
Miami, FL 33178

SPECIFIC CONDITIONS:

b. Members of the TAC and the USEPA shall receive a weekly summary of the daily log kept by the contractor. The reporting period shall run for seven (7) days and reports shall be mailed within 48 hours of the last day of the reporting period. The report shall include but is not limited to the following:

(1) Description of daily footage drilled by diameter of bit or size of hole opener or reamer being used;

(2) Description of formation and depth encountered; and specific conductance of water samples collected during drilling. Description of work during installation and cementing of casings; include amounts of casing and actual cement used versus calculated volume required.

(3) Lithological description of drill cuttings collected every ten (10) feet or at every change in formation. Description of work and type of testing accomplished, geophysical logging, pumping tests, deviation survey results, and coring results.

(4) Description of any construction problems that develop and their status to include a description of what is being done or has been done to correct the problem.

(5) Description of the amount of salt used.

(6) Results of any water quality analyses performed as required by this permit, including pad monitor wells

(7) Copies of the driller's log are to be submitted with the weekly summary.

c. The Department must be notified seventy-two (72) hours prior to all testing for mechanical integrity on the injection well. Testing should begin during daylight hours Monday through Friday.

d. Annotated copies of geophysical logs, lithologic descriptions and logs and water quality data (from drilling and packer tests) must be submitted to TAC and the USEPA, with interpretation, for intermediate and final casing seat selection approvals by the Department.

e. An interpretation of all test results must be submitted with all test data and geophysical logs.

f. After completion of construction and testing, a final report, certified by a P.E. and P.G., shall be submitted to the Department, the TAC, and the USEPA. The report shall include, but not be limited to, all information and data collected under Rule 62-528.450(2) and Rule 62-528.450(3), F.A.C., with appropriate interpretations. Mill certificates for the casing(s) shall be included in this report. To the extent possible, the transmissivity of the injection zone and maximum injection rate within safe pressure limits shall be estimated.

6. The construction permit includes a period of temporary injection operation for the purposes of long term testing. Prior to commencement of operational testing:

a. Construction of the injection well shall be complete and the permittee shall submit a notice of completion of construction certified by a P.E. to the Department.

b. Each well shall first be tested for integrity of construction, and shall be followed by a short-term injection test of such duration to allow for the prediction of the operating pressure.

c. The permittee shall submit the following information to each member of the Technical Advisory Committee:

(1) A copy of the borehole television survey(s)

SPECIFIC CONDITIONS:

(2) Geophysical logs

(3) Mechanical integrity test data

(4) Data obtained during the short term injection testing conducted pursuant to Rules 62-528.405(3)(a) and 62-528.410(7)(e), and 62-528.450(3)(a)2., F.A.C.

(5) Confining zone data

(6) Background water quality data for the injection and monitor zones

(7) Wastestream analysis

(8) As-built well construction specifications

(9) Draft operation and maintenance manual with emergency procedures

(10) Other data obtained during well construction needed by the Department to evaluate whether the well will operate in compliance with Department rules.

d. The emergency discharge method shall be fully operational and no emergency discharge shall occur until the permittee has obtained all necessary permits.

e. Any corrective action required under Rule 62-528.300(5)(c)2., F.A.C., has been completed.

f. Written authorization shall be obtained from the Department. Authorization shall be for up to two years or the expiration date of the construction permit, whichever is less, and is nonrenewable. The authorization shall specify the conditions under which operational testing is approved. The authorization shall include:

(1) Injection pressure limitation

(2) Injection flow rate limitation

(3) Monthly specific injectivity testing

(4) Reporting requirements, and

(5) An expiration date for the operational testing period not to exceed two years.

g. Before authorizing operational testing the Department shall conduct an inspection of the facility to determine if the conditions of the permit have been met.

7. Operational Testing Requirements

a. Operational Testing Conditions - Injection Well System

(1) The injection system shall be monitored in accordance with rule 62-528.425(1)(g) and 62-528.430(2), F.A.C.

(2) The following injection well performance data shall be recorded and reported at the frequency indicated from the injection well instrumentation in the Monthly Operating Report as indicated below. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
The permittee shall use continuous indicating and recording devices to monitor injection flow rate and injection pressure and annular pressure. In the case of operational failure of any of these instruments for a period of more

SPECIFIC CONDITIONS:

than 48 hours, the permittee shall report to the Department in writing the remedial action to be taken and the date when the failure will be corrected.

INJECTION WELL IW-I. The proposed specifications for the injection wells are as follows:

Casing Diameter (OD)	Depth (bls) Cased	Open Hole (bls)
48"Steel	250'	
36"Steel	1000'	
26" Steel	2100'	
16" Steel	2900'	
11.2" FRP Tbg	2850'	2850-3500'

Parameters	Reporting Frequency
Injection Pressure (p.s.i)	Daily/Monthly
Maximum Injection Pressure	Daily/Monthly
Minimum Injection Pressure	Daily/Monthly
Average Injection Pressure	Daily/Monthly
Flow Rate (g.p.m.)	Daily/Monthly
Maximum Flow Rate	Daily/Monthly
Average Flow Rate	Daily/Monthly
Minimum Flow Rate	Daily/Monthly
Annular Pressure (p.s.i.)	Daily/Monthly
Maximum Annular Pressure	Daily/Monthly
Minimum Annular Pressure	Daily/Monthly
Average Annular Pressure	Daily/Monthly
Annular Fluid added/removed (gallons)	Daily/Monthly
Annular Pressure added/removed (p.s.i.)	Daily/Monthly
Total Volume WTP Concentrate Injected (gallons)	Daily
Total Volume WTP Concentrate Injected (gallons)	Monthly

Injectate Water Quality

WTP Concentrate Water Quality

TKN (mg/L)	Monthly
pH (std. units)	Monthly
Specific Conductance (μmhos/cm)	Monthly
Chloride (mg/L)	Monthly

Sulfate (mg/L)	Monthly
Field Temperature (deg. C)	Monthly
Total Dissolved Solids (mg/L)	Monthly
Sodium (mg/L)	Monthly
Calcium (mg/L)	Monthly
Potassium (mg/L)	Monthly

SPECIFIC CONDITIONS:

Magnesium (mg/L)	Monthly
Iron (mg/L)	Monthly
Bicarbonate (mg/L)	Monthly
Gross Alpha	Monthly
Radium 226	Monthly
Radium 228	Monthly
Primary and Secondary Drinking Standards**	

** These analyses shall be provided prior to operational testing or testing with concentrate.

b. Operational Testing Conditions - Monitor Well System.

(1) The monitor well system will consist of one Dual Zone Monitor Well as described below:

Well Number	Casing Dia. (OD)	Depth (bls) Cased	Open Hole(bls)
DZMW-1	28" Steel	250'	
	20" Steel	1000'	
	12.75" Steel	1950'	1950-2000'
	6.46" FRP	2250'	2250-2300'

(2) All monitor wells shall be monitored in accordance with rule 62-528.425 and 62-528.430, F.A.C. The following monitor well performance data shall be recorded and reported at the frequency indicated from the monitor well instrumentation in the Monthly Operating Report as indicated below. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The permittee shall use continuous indicating and recording devices to monitor the monitor zone pressures or water levels. In the case of operational failure of any of these instruments for a period of more than 48 hours, the permittee shall report to the Department in writing the remedial action to be taken and the date when the failure will be corrected.

DZMW-1 Parameters	Reporting Frequency
Maximum Water Level/Pressure (Ft. NGVD/psi)	Daily/Monthly
Minimum Water Level/Pressure	Daily/Monthly
Average Water Level/Pressure	Monthly

Water Quality

TKN (mg/L)	Weekly
Specific Conductance (μmhos/cm)	Weekly
Total Dissolved Solids (mg/L)	Weekly
pH (std. units)	Weekly

Chloride (mg/L)	Weekly
Sulfate (mg/L)	Weekly
Field Temperature (°C)	Weekly
Sodium (mg/L)	Monthly
Calcium (mg/L)	Monthly
Potassium (mg/L)	Monthly

SPECIFIC CONDITIONS:

Magnesium (mg/L)	Monthly
Iron (mg/L)	Monthly
Bicarbonate (mg/L)	Monthly
Gross Alpha	Monthly (deep monitor zone only)
Radium 226	Monthly (deep monitor zone only)
Radium 228	Monthly (deep monitor zone only)

(3) Water quality data may be reduced to monthly analyses after a minimum six months of data if the conditions of Rule 62-528.450(3)(d), F.A.C., have been met and with Department approval.

c. The permittee shall calibrate all pressure gauge(s), flow meter(s), chart recorder(s), and other related equipment associated with the injection well system on a semi-annual basis. The permittee shall maintain all monitoring equipment and shall ensure that the monitoring equipment is calibrated and in proper operating condition at all times. Laboratory equipment, methods, and quality control will follow EPA guidelines as expressed in Standard Methods for the Examination of Water and Wastewater. The pressure gauge(s), flow meter(s), and chart recorder(s) shall be calibrated using standard engineering methods.

d. The permittee shall submit monthly to the Department the results of all injection well and monitor well data required by this permit no later than the last day of the month immediately following the month of record. The results shall be sent to the Department of Environmental Protection, P.O. Box 2549, Fort Myers, Florida 33902-2549. A copy of this report shall also be sent to the Department of Environmental Protection, Underground Injection Control Program, MS 3530, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

e. The Engineer of Record or designated qualified representative must be present for the start-up operations and the Department must be notified in writing of the date operational testing commenced for the well.

8. Abnormal Events

a. In the event the permittee is temporarily unable to comply with any conditions of this permit due to breakdown of equipment, power outages, destruction by hazard of fire, wind, or by other cause, the permittee shall notify the Department. Notification shall be made in person, by telephone or by electronic mail within 24 hours of breakdown or malfunction to the UIC Program staff, South District office.

b. A written report of any noncompliance referenced in 1) above shall be submitted to the South District office within five days after its occurrence. The report shall describe the nature and cause of the breakdown or malfunction, the steps being taken or planned to be taken to correct the problem and prevent its reoccurrence, emergency procedures in use pending correction of the problem, and the time when the facility will again be operating in accordance with permit conditions.

9. Emergency Disposal

a. All applicable federal, state and local permits must be in place to allow for any alternate discharges due to emergency or planned outage conditions.

b. Any changes in emergency disposal methods must be submitted for Technical Advisory Committee (TAC) and USEPA review and Department approval.

c. The permittee shall notify the Department within 24 hours whenever an emergency discharge has occurred (Rule 62-528.415(4)(c)1., F.A.C.). Written notification shall be provided to the Department within 5 days after each occurrence. The Permittee shall indicate the location and duration of the discharge and the volume of fluid discharged.

10. Financial Responsibility

SPECIFIC CONDITIONS:

a. The permittee shall maintain the resources necessary to close, plug and abandon the injection and associated monitor wells, at all times (Rule 62-528.435(9), F.A.C.).

b. The permittee shall review annually the plugging and abandonment cost estimates. The permittee shall resubmit documentation necessary to demonstrate financial responsibility using the revised cost estimates on or before March 31 of each year.

c. In the event that the mechanism used to demonstrate financial responsibility should become invalid for any reason, the permittee shall notify the Department of Environmental Protection in writing within 14 days of such invalidation. The permittee shall, within 30 days of said notification, submit to the Department for approval, new financial documentation in order to comply with Rule 62-528.435(9), F.A.C., and the conditions of this permit.

11. Mechanical Integrity

a. Injection is prohibited until the permittee affirmatively demonstrates that the well has mechanical integrity. Prior to operational testing the permittee shall establish, and thereafter maintain, mechanical integrity of the well at all times.

b. If the Department determines that the injection well lacks mechanical integrity, written notice shall be given to the permittee.

c. Unless the Department requires the immediate cessation of injection, within 48 hours of receiving written notice from the department that the well lacks mechanical integrity the permittee shall cease injection into the well unless the Department allows continued injection pursuant to (d) below.

d. The Department may allow the permittee to continue operation of a well that lacks mechanical integrity if the permittee demonstrates that fluid movement into or between underground sources of drinking water is not occurring.

12. The permittee is reminded of the necessity to comply with the pertinent regulations of any other regulatory agency, as well as any county, municipal, and federal regulations applicable to the project. These regulations may include, but not limited to, those of the Federal Emergency Management Agency in implementing flood control measures. This permit should not be construed to imply compliance with the rules and regulations of other regulatory agencies.

13. The permittee shall be aware of and operate under the general conditions in Rule 62-528.307(1)(a) through (x) and Rule 62-528.307(2)(a) through (f), F.A.C. These general conditions are binding upon the permittee and enforceable pursuant to Chaper 403 of the Florida Statutes.

14. In order to add municipal effluent to the wastestream, the permittee must submit an application for either a major permit modification or a new construction permit depending on the time remaining of the two year time limitation for operational testing (Rule 62-528.450(3)(b), F.A.C.).

Note: In the event of an emergency the permittee shall contact the Department by calling (850) 488-1320. During normal business hours, the permittee shall call (239) 332-6975.

PERMITTEE:
City of Clewiston

Permit/Cert. No.: 249635-001-UC
Date of Issue: January 24, 2006
Expiration Date: January 23, 2011

SPECIFIC CONDITIONS:

Issued this 24th day of January

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Jon M. Iglehart
Director of
District Management

JMI/JBM/rjl

APPENDIX B

Technical Advisory Committee Cover Letter

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

November 17, 2006

David Rhodes, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-1
Weekly Construction Report (Week 32)
November 9 through November 16, 2006
FDEP File No. 249635-001-UC

Dear Mr. Rhodes:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1, and dual zone monitor well, DZMW-1. This report covers the reporting period from November 9 at 1900 hours through November 16, 2006 at 1900 hours. Work performed during the reporting period included the 12-hour injection test, which concluded on November 10, 2006 at 0430 and collecting 24-hours of recovery data. No further well construction or testing activities are planned for IW-1 or DZMW-1 and currently YBI is completing surface work and piping. This will be the last weekly report.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Nancy Marsh, USEPA
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

November 10, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-1
Weekly Construction Report (Week 31)
November 2 through November 9, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1, and dual zone monitor well, DZMW-1. This report covers the reporting period from November 2 at 1900 hours through November 9, 2006 at 1900 hours. Work performed during the reporting period included setting up for the 12-hour injection test, performing an injection pre-test to establish the flow rate and determine whether the equipment was functioning properly, collecting background data, and starting the 12-hour injection test, which was completed at approximately 0430 this morning (Friday, November 10, 2006).

Activities scheduled for week 32 include collecting 24-hours of recovery data and continuing to demobilize.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Nancy Marsh, USEPA
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

November 3, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-1
Weekly Construction Report (Week 30)
October 26 through November 2, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1, and dual zone monitor well, DZMW-1. This report covers the reporting period from October 26, 2006 at 1900 hours through November 2, 2006 at 1900 hours. Work performed during the reporting period included cementing the annular space surrounding the 6.5-inch diameter fiberglass casing, pressure testing the casing, developing the upper and lower monitor zones, and collecting samples for analysis of primary and secondary drinking water standards.

Activities scheduled for week 31 include performing the 12-hour injection test. The request for the 12-hour injection test will be submitted under separate cover.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Nancy Marsh, USEPA
Stew Magenheimer, CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

October 27, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-1
Weekly Construction Report (Week 29)
October 19 through October 26, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from October 19, 2006 at 1900 hours through October 26, 2006 at 1900 hours. Work performed during the reporting period included cementing the annulus surrounding the 12-inch diameter casing, pressure testing the 12-inch diameter casing, reaming the gravel emplaced below the 12-inch diameter casing, and installing the 6.5-inch diameter fiberglass casing.

Activities scheduled for Week 30 include continued cementing of the annular space surrounding the 6.5-inch diameter casing, pressure testing the casing, and developing the upper and lower monitor zones.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Nancy Marsh, USEPA
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

October 20, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-1
Weekly Construction Report (Week 28)
October 12 through October 19, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from October 12, 2006 at 1900 hours through October 19, 2006 at 1900 hours. Three stages of cement and three stages of PVC/gravel were emplaced with no observed fill. A video survey of the casing seat revealed that the YBI packer was not sitting on the ledge created when the 18 ½-inch borehole reduces to a 12 ¼ -inch diameter borehole at 1,950 feet bpl, but instead was seated on a piece of cement (likely from the annulus of the 20-inch casing). Therefore, YBI decided to fill the open hole below the 12-inch diameter casing with gravel. Fifteen stages of cement were then pumped into the annular space surrounding the 12-inch diameter casing, with the top of cement stage 14 tagged at 780 feet bpl.

Activities scheduled for Week 29 include continued cementing of the annular space surrounding the 12-inch diameter casing, cleaning the gravel out of the open hole/casing, running a cement bond log, pressure testing the 12-inch diameter casing, and installing the final fiberglass casing to a depth of 2,140 feet bpl.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP; Nancy Marsh, USEPA; Steve Anderson, SFWMD; Stew Magenheimer, CDM; Kevin McCarthy, City of Clewiston

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

October 12, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-1
Weekly Construction Report (Week 27)
October 5 through October 12, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from October 5, 2006 at 1900 hours through October 12, 2006 at 1900 hours. Work performed during the reporting period included reaming an 18 ½ -inch diameter hole to 1,948 feet below pad level (bpl), re-drilling a 12 ¼-inch diameter hole from 1,948 to 2,205 feet bpl, installing the 12-inch diameter intermediate casing to 1,950 feet bpl, and pumping three stages of cement.

Activities scheduled for Week 28 include continued cementing of the annular space surrounding the 12-inch diameter casing and installation of the final fiberglass casing to a depth of 2,140 feet bpl.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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tel: 561 689-3336
fax: 561 689-9713

October 6, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 26)
September 28 through October 5, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from September 28, 2006 at 1900 hours through October 5, 2006 at 1215 hours. Work performed during the reporting period included performing the video survey and the radioactive tracer survey on the injection well.

Activities scheduled for Week 27 include reaming the DZMW-1 to the appropriate sizes and depths to accommodate the installation of the 12 ¾ -inch diameter intermediate casing and the 6.46-inch diameter final casing. Installation and grouting of the casing will also take place. The FDEP approved monitor zones are 1,950-2,000 feet bpl and 2,145-2,195 feet bpl, for the upper and lower monitor zones, respectively.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

September 29, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 25)
September 21 through September 28, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from September 21, 2006 at 1900 hours through September 28, 2006 at 1900 hours. Work performed during the reporting period included drilling a nominal 12 ¼ -inch diameter pilot hole from 2,000 feet below pad level (bpl) to 2,225 feet bpl, performing two packer tests: packer test 1 (1950-2,000 feet bpl) and packer test 2 (2,169-2,225 feet bpl), geophysical logging, and reaming the pilot hole to a nominal 18 ½-inch diameter borehole from 970 to 1,800 feet bpl. In addition, water quality samples were collected from the injection zone of IW-1.

Activities scheduled for Week 26 include performing the video survey and the radioactive tracer survey on the injection well. In addition, following approval of the proposed monitoring zones for DZMW-1, which will be submitted early next week under separate cover, installation of the intermediate and final casing will take place.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

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West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

September 22, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 24)
September 14 through September 21, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from September 14, 2006 at 1900 hours through September 21, 2006 at 1900 hours.

Work performed during the reporting period included drilling a nominal 12 ¼ -inch diameter pilot hole from 968 feet below pad level (bpl) to 2,000 feet bpl, geophysical logging, and performing a packer test on the interval from 1,950 to 2,000 feet bpl. Development of the injection well also began. Activities scheduled for Week 25 include drilling a 12 ¼-inch diameter pilot hole to approximately 2,220 feet bpl, performing a second packer test on DZMW-1, geophysical logging, and reaming a nominal 20-inch diameter hole to the intermediate casing setting depth. Water quality samples will also be collected from the injection zone of the injection well and analyzed for primary and secondary drinking water standards.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

September 15, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 23)
September 7 through September 14, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from September 7, 2006 at 1900 hours through September 14, 2006 at 1900 hours.

Work performed during the reporting period included drilling a nominal 12 ¼ -inch diameter pilot hole from 241 feet below pad level (bpl) to 1,005 feet bpl, geophysical logging, reaming a nominal 26 ½ -inch diameter hole to 975 feet bpl, installing 20-inch diameter casing to a setting depth of 970 feet bpl, and grouting. Activities scheduled for Week 24 include drilling a 12 ¼-inch diameter pilot hole to approximately 2,000 feet bls, geophysical logging, packer testing the upper monitor zone, and reaming a nominal 20-inch diameter borehole to the top of the upper monitor zone.

Water quality results from water samples collected from the perimeter monitor wells on September 7, 2006 can not be reported at this time. The instructions for a 72-hour turnaround time were inadvertently omitted from the chain of custody. Results from week 23 perimeter monitor well sampling will be reported next week, along with week 24 results.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc: Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

September 8, 2006

Alyssa Mork
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 22)
August 31 through September 7, 2006
FDEP File No. 249635-001-UC

Dear Ms. Mork:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from August 31, 2006 at 1900 hours through September 7, 2006 at 1900 hours.

Work performed during the reporting period included pressure testing the annular space between the 16-inch diameter injection tubing and the 11.70-inch diameter fiberglass injection casing, setting up the drill rig at the monitor well location, drilling a nominal 38 ½-inch diameter hole from ground surface to 250 feet below pad level (bpl), geophysical logging, installing 38 ½-diameter steel conductor casing to a depth of 245.8 feet bpl, and pressure grouting the conductor casing. Activities scheduled for Week 23 include drilling a 12 ¼-inch diameter pilot hole to approximately 1,000 feet bls, reaming the 12 ¼ -inch diameter pilot hole to a nominal 28-inch diameter hole, and installing approximately 1,000 feet of 20-inch diameter surface casing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

September 1, 2006

Doug Wells
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 21)
August 24 through August 31, 2006
FDEP File No. 249635-001-UC

Dear Mr. Wells:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from August 24, 2006 at 1900 hours through August 31, 2006 at 1430 hours.

Work performed during the reporting period included installation of the remaining 90 joints (2,580 feet) of 11.70-inch diameter fiberglass injection tubing and a stainless steel header, pumping Baracor into the annular space between the 11.70-inch diameter injection tubing and 16-inch diameter injection casing, and performance of a preliminary pressure test of the annulus between the injection casing and injection tubing. Activities scheduled for Week 22 include pressure testing the annular space between the injection tubing and the injection casing and mobilizing the drill rig to the monitoring well location.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

August 25, 2006

Doug Wells
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 20)
August 17 through August 24, 2006
FDEP File No. 249635-001-UC

Dear Mr. Wells:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from August 17, 2006 at 1900 hours through August 24, 2006 at 1600 hours.

Work performed during the reporting period included pressure testing the 16-inch diameter injection casing and installation of five joints of 11.70-inch diameter fiberglass injection tubing. Activities scheduled for Week 21 include completing the installation of the fiberglass injection tubing and pressure testing of the tubing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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August 18, 2006

Doug Wells
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 19)
August 10 through August 17, 2006
FDEP File No. 249635-001-UC

Dear Mr. Wells:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from August 10, 2006 at 1900 hours through August 17, 2006 at 1300 hours.

Work performed during the reporting period included continued cementing of the 16-inch diameter injection casing. Thirteen stages of cement were pumped (stages 14 through 28). The cement bond log was run prior to the final stage of cementing. Activities scheduled for Week 20 include pressure testing of the 16-inch diameter injection casing and installation of the 11.70-inch diameter fiberglass injection tubing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

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fax: 561 689-9713

August 11, 2006

Doug Wells
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 18)
August 3 through August 10, 2006
FDEP File No. 249635-001-UC

Dear Mr. Wells:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from August 3, 2006 at 1900 hours through August 10, 2006 at 1900 hours.

Work performed during the reporting period included reaming of the 12 ¼-inch diameter pilot hole to a nominal 14 ¾ -inch diameter hole from 3,493 feet bpl to 3,505 feet below pad level (bpl), geophysical logging, installation of the 16-inch diameter injection casing to 2,749 feet bpl, and 13 stages of cementing (top of cement stage 12 tagged at 2,602 feet bpl). Activities scheduled for Week 19 include continued cementing of the 16-inch diameter casing and pressure testing of the 16-inch diameter injection casing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

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August 4, 2006

Doug Wells
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 17)
July 27 through August 3, 2006
FDEP File No. 249635-001-UC

Dear Mr. Wells:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from July 27, 2006 at 1900 hours through August 3, 2006 at 1900 hours.

Work performed during the reporting period included reaming of the 12 ¼-inch diameter pilot hole to a nominal 14 ¾ -inch diameter hole from 2,990 feet bpl to 3,495 feet below pad level (bpl). Activities scheduled for Week 18 include reaming the pilot hole to total depth (3,500 feet bpl), geophysical logging, and installation of the 16-inch diameter final casing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM
1601 Belvedere Road, Suite 211 South
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July 28, 2006

Doug Wells
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 16)
July 20 through July 27, 2006
FDEP File No. 249635-001-UC

Dear Mr. Wells:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from July 20, 2006 at 1900 hours through July 27, 2006 at 1900 hours.

Work performed during the reporting period included reaming of the 12 ¼-inch diameter pilot hole to a nominal 17 ½ -inch diameter hole from 2,744 feet bpl to 2,747 feet bpl, at which point the bit was changed and a nominal 14 ¾ -inch diameter hole was reamed from 2,747 feet bpl to 2,990 feet bpl. On Saturday, July 22, 2006 the top head drive broke and there was a pause in drilling while repairs were made. Reaming resumed on Wednesday evening, July 25, 2006. Activities scheduled for Week 17 include continued reaming of the pilot hole to total depth (3,500 feet bpl), geophysical logging, and installation of the 16-inch diameter final casing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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fax: 561 689-9713

July 21, 2006

Doug Wells
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 15)
July 13 through July 20, 2006
FDEP File No. 249635-001-UC

Dear Mr. Wells:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from July 13, 2006 at 1900 hours through July 20, 2006 at 1900 hours.

Work performed during the reporting period included reaming of the 12 ¼-inch diameter pilot hole to a 24 ½-inch diameter hole from 2,297 feet bpl to 2,744 feet bpl. Activities scheduled for Week 16 include continued reaming of the 12 ¼-inch diameter pilot hole to a nominal 17 ½ -inch diameter hole from 2,744 feet bpl to 2,747 feet bpl, at which point the bit will be changed and a nominal 14 ¾ -inch diameter hole will be reamed to total depth (3,500 feet bpl). The 16-inch diameter final casing is also anticipated to be set to a depth of 2,745 feet bpl within the next week.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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July 14, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 14)
July 6 through July 13, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from July 6, 2006 at 1900 hours through July 13, 2006 at 1215 hours.

Work performed during the reporting period included cementing of the 12 ¼-inch diameter pilot hole from 2,480 feet below pad level (bpl) to 2,103 feet bpl and reaming a 24 ½-inch diameter hole from 2,103 feet bpl to 2,294 feet bpl. Activities scheduled for Week 15 include continued reaming of the pilot hole to a nominal 24 ½-inch diameter hole to an approximate depth of 2, 750 feet bpl to accommodate installation of the 16-inch diameter casing (to be set at a depth of 2,745 feet bpl).

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM
1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
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fax: 561 689-9713

July 7, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 13)
June 29 through July 6, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from June 29, 2006 at 1900 hours through July 6, 2006 at 1900 hours.

Work performed during the reporting period included the performance of three straddle packer tests, packer test no. 6 (2,110-2,129 feet bpl), packer test no. 7 (2,727-2,744 feet bpl) and packer test no. 8 (2,706-2,725 feet bpl) and cementing of the pilot hole from 2,713 to 2,513 feet bpl. Activities scheduled for Week 14 include continued cementing of the pilot hole from 2,513 feet bpl to the intermediate casing depth of 2,100 feet bpl, and reaming of the 12 ¼-inch pilot hole to a nominal 26-inch diameter hole to casing setting depth. A request for approval of the 16-inch diameter casing setting depth will be submitted under separate cover.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

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June 30, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 12)
June 22 through June 29, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from June 22, 2006 at 1900 hours through June 29, 2006 at 1900 hours.

Work performed during the reporting period included continued drilling of the 12 ¼ -inch diameter pilot hole from 3,101 feet bpl to a total depth of 3,500 feet bpl, geophysical logging of the open hole interval from 2,100 feet bpl to 3,500 feet bpl, and development of the straddle packer zone (packer no. 6) from 2,110 to 2,129 feet bpl. Activities scheduled for week 13 include performance of packer test no. 6 and two additional packer tests, packer test no. 7 (2,576-2,595 feet bpl) and packer test no. 8 (2,727-2,744 feet bpl), cementing of the pilot hole, and reaming a nominal 26-inch diameter hole to casing setting depth. A request for approval of the 16-inch diameter casing setting depth will be submitted under separate cover.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM
1601 Belvedere Road, Suite 211 South
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tel: 561 689-3336
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June 23, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 11)
June 15 through June 22, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from June 15, 2006 at 1900 hours through June 22, 2006 at 1900 hours.

Work performed during the reporting period included continued drilling of the 12 ¼ -inch diameter pilot hole from 2,740 feet bpl to 3,100 feet bpl, and collection of two cores, core no. 4 (2,732 to 2,740 ft bpl) and core no. 5 (2,933 to 2,939 ft bpl). Approximately seventy-five percent of both cores were recovered. Activities scheduled for week 12 include continued drilling of the 12 ¼ -inch diameter pilot hole to the anticipated total depth of 3,500 feet bpl and possibly geophysical logging.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

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fax: 561 689-9713

June 16, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 10)
June 8 through June 15, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from June 8, 2006 at 1900 hours through June 15, 2006 at 1900 hours.

Work performed during the reporting period included the completion of packer test no. 5 (2,510 to 2,532 ft bpl), continued drilling of the 12 ¼ -inch diameter pilot hole from 2,532 feet bpl to 2,732 feet bpl, and collection of one core, core no. 3 (2,653 to 2,663 ft bpl). Approximately sixty percent of core no. 3 was recovered. Core no. 3 initially was to be collected from 2,600-2,610 ft bpl, however, coring was terminated due to a slow penetration rate. No core was recovered during this first attempt. Coring of core no. 4 began prior to the end of the reporting period Thursday evening. Results and a description of the core will be included in next week's report. Activities scheduled for week 11 include continued drilling of the 12 ¼ -inch diameter pilot hole, coring, and packer testing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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tel: 561 689-3336
fax: 561 689-9713

June 9, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 9)
June 1 through June 8, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from June 1, 2006 at 1900 hours through June 8, 2006 at 1900 hours.

Work performed during the reporting period included continued drilling of the 12 ¼ -inch diameter pilot from 2,120 feet bpl to 2,530 feet bpl and collection of two cores, core no. 1 (2,120 to 2,134 ft bpl) and core no. 2 (2,405-2,411.5 ft bpl). Geophysical logging of the pilot hole (from 2,100 ft bpl to 2,530 ft bpl) and preparation for packer test no. 5 (anticipated interval – 2,480 to 2,532 ft bpl) also took place.

Activities scheduled for week 10 include packer testing, continued drilling of the 12 ¼ -inch diameter pilot hole, and coring.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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June 2, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 8)
May 25 through June 1, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from May 25, 2006 at 1900 hours through June 1, 2006 at 1900 hours.

Work performed during the reporting period included the continued reaming of the nominal 12 ¼-inch diameter pilot hole to a nominal 34 ½ -inch diameter hole from 2,081 feet below pad level (bpl) to 2,106 feet bpl, installation and grouting of the 26-inch diameter intermediate casing, drilling of the 12 ¼ -inch diameter pilot from 2,106 feet bpl to 2,120 feet bpl, and preparation for the collection of the first core, core no. 1 (2,120 to 2,130 ft bpl).

Activities scheduled for week 9 include continued drilling of the 12 ¼ -inch diameter pilot hole, packer testing, and coring.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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May 26, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 7)
May 18 through May 25, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is pleased to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from May 18, 2006 at 1900 hours through May 25, 2006 at 1900 hours.

Work performed during the reporting period included the continued reaming of the nominal 12 ¼-inch diameter pilot hole to a nominal 34 ½ -inch diameter hole from 1,206 feet below pad level (bpl) to 2,081 feet bpl in preparation for the installation of the 26-inch diameter intermediate casing.

Activities scheduled for week 8 include continued reaming of the pilot hole to a nominal 34 ½ -inch diameter hole to the casing seat depth of 2,100 feet bpl and installation of the 26-inch diameter intermediate casing. Additionally, drilling of the 12 ¼ -inch diameter pilot hole, which will extend to an anticipated total depth of 3,500 feet bpl, will begin.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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May 19, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 6)
May 11 through May 18, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is please to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from May 11, 2006 at 1900 hours through May 18, 2006 at 1030 hours.

Work performed during the reporting period included geophysical logging of the pilot hole from 975 feet below pad level (bpl) to 2,100 feet bpl. The pilot hole was then back plugged with cement grout in a series of five stages from 2,100 feet bpl to 987 feet bpl. The 12 ¼-inch diameter pilot hole was reamed to a nominal 34 ½ -inch diameter hole from 975 feet bpl to 1130 feet bpl.

A request for approval of the 26-inch diameter casing setting depth of 2,100 feet bpl should be delivered to members of the TAC today, May 19, 2006. Activities scheduled for week 6 include the continued reaming of the pilot hole to a nominal 34 ½ -inch diameter hole to the casing seat depth of 2,100 feet bpl and installation of the 26-inch diameter intermediate casing.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

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May 12, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 5)
May 4 through May 11, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is please to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from May 4, 2006 at 1900 hours through May 11, 2006 at 1900 hours.

Work performed during the reporting period included the continued drilling of the 12 ¼-inch diameter pilot hole from 1,940 feet below pad level (bpl) to 2,100 feet bpl, the performance of packer test no. 2 (1,910 to 1,940 ft bpl), packer test no. 3 (1,960 to 1,990 ft bpl), packer test no. 4 (2,070 to 2,100 ft bpl), and geophysical logging.

Activities scheduled for week 6 include geophysical logging, back plugging the pilot hole with cement grout, and reaming the pilot hole to a nominal 34-inch diameter borehole.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
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May 5, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week4)
April 27 through May 4, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is please to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from April 27 at 1900 hours through May 4, 2006 at 1900 hours.

Work performed during the reporting period included continued drilling of the 12 ¼-inch diameter pilot hole from 1,260 feet below pad level (bpl) to 1,940 feet bpl, the performance of packer test no. 1 (1,850 to 1,880 ft bls) and the set-up for packer test no. 2 (1,910 to 1,940 ft bls).

Activities scheduled for week 5 include continuation of pilot hole drilling to approximately 2,100 feet bpl, packer testing at the following anticipated intervals: 1,910 to 1,940, 1,960 to 1,990, and 2,060 to 2,090 feet bpl with geophysical logging (caliper and gamma ray) taking place prior to each packer test, geophysical logging of the entire open hole interval, back plugging the pilot hole with cement grout, and reaming of the pilot hole to a nominal 34-inch diameter borehole.

Please do not hesitate to contact me or Stew Magenheimer ((954) 776-1731) should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
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April 28, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 3)
April 20 through April 27, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is please to provide you with the following weekly summary report for the City of Clewiston injection well, IW-1. This report covers the reporting period from April 20 at 1900 hours through April 27 at 1900 hours.

Work performed during the reporting period included reaming of the nominal 12 ¼ -inch pilot hole to a nominal 46 ½ -inch diameter hole from 705 feet to 979 feet below pad level (bpl), geophysical logging, installation of 36-inch diameter surface casing to 975 feet bpl, grouting of the 36-inch diameter casing, and drilling of the nominal 12 ¼-inch diameter pilot hole for the intermediate casing from 1000 feet bpl to 1,260 feet bpl. Activities scheduled for Week 4 include continued drilling of the 12 ¼-inch diameter pilot hole to approximately 2,100 feet bpl and geophysical logging. Single packer tests are anticipated to be conducted at the following intervals: 1,850 to 1,880, 1,910 to 1,940, 1,960 to 1,990, and 2,060 to 2,090 feet bpl with geophysical logging (caliper and gamma ray) taking place prior to each packer test.

Please do not hesitate to contact me should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
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April 21, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-2
Weekly Construction Report (Week 2)
April 13 through April 20, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is please to provide you with the following weekly summary report for The City of Clewiston injection well IW-1. This report covers the reporting period from April 13 at 1900 hours through April 20 at 1900 hours.

Work performed during the reporting period included drilling a nominal 12 ¼ -inch diameter pilot hole from 250 feet below pad level (bpl) to 1,000 feet bpl, geophysical logging, and reaming of the 12 ¼-inch diameter pilot hole to a nominal 46 ½-inch hole from 250 feet bpl to 705 ft bpl. Activities scheduled for Week 3 include continued reaming of the 12 ¼-inch pilot hole (with the nominal 46 ½-inch bit) to ± 980 feet bpl, geophysical logging, and installation of 34-inch diameter surface casing to 975 feet bpl. In addition, drilling of the pilot hole for the intermediate casing is anticipated to begin.

Please do not hesitate to contact me should you have any questions concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures

cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston
Stew Magenheimer, CDM

CDM

1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
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April 14, 2006

Jack Myers, P.G.
Water Facilities
Florida Dept. of Environmental Protection
2295 Victoria Street
Fort Myers, FL 33901-3881

Subject: City of Clewiston Injection Well IW-1
Weekly Construction Report (Week 1)
April 7 through April 13, 2006
FDEP File No. 249635-001-UC

Dear Mr. Myers:

CDM is please to provide you with the following weekly summary report for The City of Clewiston injection well IW-1. This report covers the reporting period from April 7 at 0700 hours through April 13 at 0700 hours.

Work performed during the reporting period included drilling a nominal 60-inch diameter pilot hole from 0-253 feet below pad level (bpl), geophysical logging, and installation of 48-inch diameter surface casing. Activities scheduled for Week 2 include drilling a nominal 12 ¼-inch diameter pilot hole to approximately 1,000 feet bpl, geophysical logging, and reaming a nominal 42-inch diameter borehole from 253 feet bpl to approximately 1,000 feet below bad level.

Please do not hesitate to contact me should you have any question concerning the reported well construction and testing activities.

Very truly yours,

Shelley Day
Hydrogeologist
Camp Dresser & McKee Inc.

Enclosures
cc. Joe Haberfeld, FDEP- Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD
Ron Reese, USGS
Kevin McCarthy, City of Clewiston

APPENDIX C

Weekly Construction Summaries

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 1 ENDING DATE: 4/13/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
4/7/06	Day	RDL	Set up drill rig and mud system.
4/8/06		None	No site activity.
4/9/06		None	No site activity.
4/10/06	Day	AMM	Drilled 60" diameter hole from 0 to 33 ft bpl.
4/10/06	Night	None	Drilled 60" diameter hole from 33 to 98 ft bpl.
4/11/06	Day	AMM	Drilled 60" diameter hole from 98 to 158 ft bpl.
4/11/06	Night	None	Drilled 60" diameter hole from 158 to 228 ft bpl.
4/12/06	Day	AMM	Drilled 60" diameter hole from 228 to 247 ft bpl.
4/12/06	Night	None	Drilled 60" diameter hole from 247 to 253 ft bpl; Conditioned mud; Tripped out of hole and ran caliper and gamma logs.
4/13/06	Day	AMM	Ran 48" diameter casing into hole to a TD of 245.81 ft bpl. Cemented 48" diameter casing into 60" diameter hole.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 2 ENDING DATE: 4/20/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
4/13/06	Night	None	Drill rig maintenance. Prepare to drill pilot hole.
4/14/06	Day	AMM	Sample Pad Monitoring Wells.
			Prepare to drill pilot hole.
4/14/06	Night	None	Tag cement at 245 ft bpl.
			Drill 12 ¼" pilot hole from 250 to 455 ft bpl.
4/15/06	Day	AMM	Drill 12 ¼" pilot hole from 455 to 554 ft bpl.
4/15/06	Night	None	Drill 12 ¼" pilot hole from 554 to 679 ft bpl.
4/16/06	Day	AMM	Drill 12 ¼" pilot hole from 679 to 822 ft bpl.
4/16/06	Night	None	Dril 12 ¼" pilot hole from 822 to 1,000 ft bpl.
	Night	AMM	Geophysical logging, pilot hole.
4/17/06	Day	AMM	Geophysical logging, pilot hole.
	Day	AMM	Set up to ream 46 ½" hole.
	Night	None	Ream 46 ½" hole from 250 to 324 ft bpl.
4/18/06	Day	AMM	Ream 46 ½" hole from 324 to 420 ft bpl.
4/18/06	Night	None	Ream 46 ½" hole from 420 to 512 ft bpl.
4/19/06	Day	AMM	Ream 46 ½" hole from 512 to 558 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 3 ENDING DATE: 4/27/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
4/20/06	Night	None	Ream 46 ½" hole from 705 to 740 ft bpl.
4/21/06	Day	AMM	Ream 46 ½" hole from 740 to 836 ft bpl.
4/21/06	Night	None	Ream 46 ½" hole from 836 to 971 ft bpl.
4/22/06	Day	AMM	Ream 46 ½" hole from 971 to 979 ft bpl. TD hole at 979 ft bpl.
4/23/06	Night	AMM	Geophsical logging.
4/23/06	Day	AMM	Install 36-inch diameter casing to 975 ft bpl.
4/23/06	Night	AMM	Cement 36-inch diameter casing to ground surface.
4/24/06	Day	AMM	Tag top of cement at 5.4 ft bpl. Prepare to drill using reverse air rotary.
4/24/06	Night	None	Set up for reverse air drilling.
4/25/06	Day	AMM	Set up for reverse air drilling. Trip drill string into hole.
4/25/06	Night	None	Circulate mud out of hole.
4/26/06	Day	AMM	Equipment repairs/maintenance. Circulate mud out of hole.
4/26/06	Night	None	Drill 12 ¼" pilot hole from 1,000 to 1,038 ft bpl.
4/27/06	Day	EMH	Drill 12 ¼" pilot hole from 1,038 to 1,260 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 4 ENDING DATE: 5/04/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
4/27/06	Night	None	Drill 12 ¼" pilot hole from 1,260 to 1,390 ft bpl.
4/28/06	Day	EMH	Drill 12 ¼" pilot hole from 1,390 to 1,555 ft bpl.
4/28/06	Night	None	Drill 12 ¼" pilot hole from 1,555 to 1,693 ft bpl.
4/29/06	Day	EMH	Drill 12 ¼" pilot hole from 1,693 to 1,740 ft bpl.
4/29/06	Night	EMH	Drill 12 ¼" pilot hole from 1,740 to 1,823 ft bpl.
4/30/06	Day	EMH	Drill 12 ¼" pilot hole from 1,823 to 1,880 ft bpl.
4/30/06	Night	EMH	Geophysical logging
5/01/06	Day	EMH/BDL	YBI sets up for Packer Test 1
5/01/06	Night	BDL	Develop packer test 1 zone (1850-1880 ft.)
5/02/06	Day	BDL	Packer Test No. 1
5/02/06	Night	BDL	Packer Test No. 1
5/03/06	Day	BDL	Trip into hole to drill to next packer test interval (1910 - 1940 ft).
5/03/06	Night	BDL	Drilling to next packer test interval (1910 - 1940). TD at 1940 ft.
5/04/06	Day	BDL	Run gamma ray and Caliper logs. Set up Packer Test No. 2 (1910-1940).

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 5 ENDING DATE: 5/11/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
5/04/06	Night	BDL	Run packer tool into hole. Begin reverse air development of test zone.
5/05/06	Day	BDL	Packer Test No. 2
5/05/06	Night	BDL	Packer Test No. 2
5/06/06	Day	BDL	Drill to 1990 ft. for next packer test interval.
5/06/06	Night	BDL	Run gamma ray and caliper logs. Set up Packer Test No. 3 (1960-1990).
5/07/06	Day	BDL	Reverse air development of test zone, begin Packer Test No. 3
5/07/06	Night	BDL	Packer Test No. 3
5/08/06	Day	BDL/AMM	Trip into hole. Drill to 2000 ft.
5/08/06	Night	None	Drill to 2090 ft.
5/09/06	Day	AMM	Drill to 2100 ft. Log Packer Test No. 4 zone. Set up for Packer Test No. 4.
5/09/06	Night	None	Set packer at 2070 ft. Develop Packer Test No. 4 zone (2070 - 2100 ft).
5/10/06	Day	AMM	Run Packer Test No. 4.
5/10/06	Night	None	Prepare for geophysical logging of pilot hole from 1,000 to 2,100 ft bpl.
5/11/06	Day	AMM	Prepare for geophysical logging of pilot hole from 1,000 to 2,100 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CONTRACTOR: YOUNGQUIST

WEEK NO.: 6 ENDING DATE: 5/18/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
5/11/06	Night	AMM	Geophysical logging, pilot hole, 1,000 - 2,100 ft bpl.
5/12/06	Day	AMM	Geophysical logging, pilot hole, 1,000 - 2,100 ft bpl. Shut-in well.
5/12/06	Night	None	No site activities.
5/13/06	Day	None	No site activities.
5/13/06	Night	None	No site activities.
5/14/04	Day	None	No site activities.
5/14/06	Night	AMM	Cement pilot hole, Stage 1 (2,100 to 1,893 ft bpl).
5/15/06	Day	AMM	Cement pilot hole, Stage 2 (1,893 to 1,715 ft bpl).
5/15/06	Night	AMM	Cement pilot hole, Stage 3 (1,715 to 1571 ft bpl).
5/16/06	Day	AMM	Cement pilot hole, Stage 4 (1571 to 1338 ft bpl) and Stage 5 (1338 to
			987 ft bpl).
5/16/06	Night	None	Wait on cement to harden, prepare for reaming.
5/17/06	Day	AMM	Prepare for reaming, ream 34 ½" diameter hole to 985 ft bpl.
5/17/06	Night	None	Ream 34 ½" diameter hole to 1100 ft bpl.
5/18/06	Day	AMM	Ream 34 ½" diameter hole to 1130 ft bpl (as of 1030).

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 7 ENDING DATE: 5/25/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
5/18/06	Night	None	Ream 34 ½" diameter hole from 1206 to 1310 ft bpl.
5/19/06	Day	None	Ream 34 ½" diameter hole to 1393 ft bpl.
5/19/06	Night	None	Ream 34 ½" diameter hole to 1502 ft bpl.
5/20/06	Day	None	Ream 34 ½" diameter hole to 1539 ft bpl.
5/20/06	Night	None	No site activities.
5/21/04	Day	None	No site activities.
5/21/06	Night	None	No site activities.
5/22/06	Day	None	Ream 34 ½" diameter hole to 1630 ft bpl.
5/22/06	Night	None	Ream 34 ½" diameter hole to 1702 ft bpl.
5/23/06	Day	None	Ream 34 ½" diameter hole to 1753 ft bpl.
5/23/06	Night	None	Ream 34 ½" diameter hole to 1807 ft bpl.
5/24/06	Day	AMM	Ream 34 ½" diameter hole to 1935 ft bpl.
5/24/06	Night	None	Ream 34 ½" diameter hole to 2005 ft bpl.
5/25/06	Day	AMM	Ream 34 ½" diameter hole to 2081 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 8 ENDING DATE: 6/01/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
5/25/06	Night	None	Ream 34 ½" diameter hole to 2105 ft bpl. Prepare for logging.
5/26/06	Day	AMM	Geophysical logging. Install 26" diameter casing (11 joints).
5/26/06	Night	None	Install 26" diameter casing (19 joints).
5/27/06	Day	AMM	Install 26" diameter casing (13 joints). Set up to cement.
5/27/06	Night	AMM	Cement Stage 1 (pressure grout neat cement). Temperature Log 1.
5/28/04	Day	AMM	Tag top of cement at 1892 ft bpl. Cement Stage 2 (annular 12% gel).
5/28/06	Night	AMM	Temperature Log 2. Tag top of cement at 1644 ft bpl. Cement Stage
			3 (annular 12% gel).
5/29/06	Day	AMM	Temperature Log 3. Tag top of cement at 1405 ft bpl.
			Cement Stage 4 (annular 12% gel). Temperature Log 4.
			Tag top of cement at 1186 ft bpl.
5/29/06	Night	AMM	Cement Stage 5
5/30/06	Day	AMM	Temperature Log 5. Tag top of cement at 981 ft bpl.
5/30/06	Night	AMM	Cement Stage 6 (annular 12% gel).
5/31/06	Day	AMM	Temperature Log 6. Tag top of cement at 479 ft bpl. Cement Stage 7.
			Tag top of cement at 1 ft bpl. Temperature Log 7.
5/31/06	Night	None	Drill pilot hole from 2106 to 2120 ft bpl.
6/01/06	Day	AMM/BDL	Trip drill bit out. Perform rig manintenance. Trip core barrel in.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 9 ENDING DATE: 6/08/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
6/01/06	Night	BDL	Drill Core No. 1 - 2120 to 2134 ft bpl.
6/02/06	Day	BDL	Drill 12 ¼" pilot hole from 2120 to 2194 ft bpl.
6/02/06	Night	BDL	Drill 12 ¼" pilot hole from 2194 to 2276 ft bpl.
6/03/06	Day	BDL	Drill 12 ¼" pilot hole from 2276 to 2329 ft bpl.
6/03/06	Night	BDL	Drill 12 ¼" pilot hole from 2329 to 2397 ft bpl.
6/04/06	Day	BDL	Drill 12 ¼" pilot hole from 2397 to 2405 ft bpl.
6/04/06	Night	BDL	Prepare for Core No. 2.
6/05/06	Day	BDL	Drill Core No. 2 - 2405 to 2410 ft bpl
6/05/06	Night	BDL	Drill Core No. 2 - 2410 to 2410.5 ft bpl.
			Core No. 2 Interval = 2405 - 2410.5 ft bpl.
6/06/06	Day	BDL/AMM	Drill 12 ¼" pilot hole from 2405 to 2428 ft bpl.
6/06/06	Night	None	Drill 12 ¼" pilot hole from 2428 to 2493 ft bpl.
6/07/06	Day	AMM	Drill 12 ¼" pilot hole from 2493 to 2530 ft bpl.
6/07/06	Night	AMM	Geophysical logging for Packer Test #5 (interval - 2480 - 2532 ft bpl).
			Trip packer into hole for Packer Test #5; packer would not go past
			2310 ft bpl. Trip out packer.
6/08/06	Day	AMM	Re-drill hole. Advanced to 2490 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 10 ENDING DATE: 6/15/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
6/08/06	Night	None	Clean out hole for Packer Test #5.
6/09/06	Day	AMM	Set up for Packer Test #5.
6/09/06	Night	AMM	Start Packer Test #5 (interval = 2510 - 2532 ft bpl).
6/10/06	Day	AMM	Packer Test #5.
6/10/06	Night	None	Drill 12 ¼" pilot hole 2532 - 2557 ft bpl.
6/11/06	Day	AMM	Drill 12 ¼" pilot hole 2557 - 2600 ft bpl.
6/11/06	Night	None	Clean out hole to 2600 ft bpl.
6/12/06	Day	AMM	Run Core #3 from 2600 - 2602.25 ft bpl. Stop at 2602.25 due to slow
			penetration. No core recovery.
6/12/06	Night	None	Drill 12 ¼" pilot hole 2600 - 2644 ft bpl.
6/13/06	Day	AMM	Drill 12 ¼" pilot hole 2644 - 2653 ft bpl.
6/13/06	Night	AMM	Core 2653 - 2663 ft bpl (Core #3).
6/14/06	Day	AMM/EMH	Recover Core #3.
6/14/06	Night	None	Drill 12 ¼" pilot hole 2663 - 2721 ft bpl.
6/15/06	Day	EMH	Drill 12 ¼" pilot hole 2721-2732. Run Core #4 (2732-2740).

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 11 ENDING DATE: 6/22/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
6/16/06	Day	EMH	Drill 12 ¼" pilot hole from 2,743 to 2,781 ft bpl.
6/16/06	Night	None	Drill 12 ¼" pilot hole from 2,781 to 2,838 ft bpl.
6/17/06	Day	EMH	Drill 12 ¼" pilot hole from 2,838 to 2,884 ft bpl.
6/17/06	Night	None	Drill 12 ¼" pilot hole from 2,884 to 2,930 ft bpl.
6/18/06	Day	EMH	Drill 12 ¼" pilot hole from 2,930 to 2,933 ft bpl.
6/18/06	Night	EMH	Core from 2,933 to 2,938 ft bpl (Core #5).
6/19/06	Day	EMH/AMM	Core from 2,938 to 2,939 ft bpl. Retrieve Core #5.
6/19/06	Night	None	Drill 12 ¼" pilot hole from 2,933 to 2,968 ft bpl.
6/20/06	Day	AMM	Drill 12 ¼" pilot hole from 2,968 to 3003 ft bpl.
6/20/06	Night	None	Drill 12 ¼" pilot hole from 3,003 to 3,040 ft bpl.
6/21/06	Day	AMM	Drill 12 ¼" pilot hole from 3,040 to 3,065 ft bpl.
6/21/06	Night	None	Drill 12 ¼" pilot hole from 3,065 to 3,085 ft bpl.
6/22/06	Day	AMM	Drill 12 ¼" pilot hole from 3,085 to 3,100 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 12 ENDING DATE: 6/29/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
6/22/06	Night	None	Drill 12 ¼" pilot hole from 3,101 to 3,157 ft bpl.
6/23/06	Day	AMM	Drill 12 ¼" pilot hole from 3,157 to 3,253 ft bpl.
6/23/06	Night	None	Drill 12 ¼" pilot hole from 3,253 to 3,262 ft bpl. Drill rig maintenance.
6/24/06	Day	AMM	Drill 12 ¼" pilot hole from 3,262 to 3,357 ft bpl.
6/24/06	Night	None	Drill 12 ¼" pilot hole from 3,357 to 3,435 ft bpl.
6/25/06	Day	AMM	Drill 12 ¼" pilot hole from 3,435 to 3,484 ft bpl.
6/25/06	Night	None	Drill 12 ¼" pilot hole from 3,484 to 3,500 ft bpl (i.e., to pilot hole TD).
6/26/06	Day	AMM	Clean out hole to prepare for geophysical logging.
6/26/06	Night	None	Clean out hole to prepare for geophysical logging.
6/27/06	Day	AMM	Geophysical logging from 2,100 - 3,500 ft bpl. Clear obstruction in hole
			(obstruction is at approximately 2,380 ft bpl).
6/27/06	Night	None	Clear obstruction in hole.
6/28/06	Day	AMM, SAD	Geophysical logging from 2,100 - 3,500 ft bpl.
6/28/06	Night	None	Set up for Packer Test #6.
6/29/06	Day	AMM, BDL	Development of Packer Test #6 zone (straddle packers), interval = 2110 - 2129 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 13 ENDING DATE: 7/06/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
6/29/06	Night	BDL	Continue Packer Test #6 (2110-2129 ft).
6/30/06	Day	BDL	Complete Packer Test #6, Set up Packer Test #7 (2727-2744 ft bpl).
6/30/06	Night	BDL	Develop Packer Test #7 interval (2727-2744).
7/01/06	Day	BDL	Develop Packer Test #7 interval (2727-2744). Monitor water levels.
7/01/06	Night	BDL	Monitor water level recovery from development phase of Packer Test #7.
7/02/06	Day	BDL	Complete Packer Test #7. Start Packer Test # 8 (2706-2725 ft bpl).
7/02/06	Night	BDL	Develop Packer Test #8 interval (2706-2725).
7/03/06	Day	BDL	Monitor water level recovery from development phase of Packer Test #8.
7/03/06	Night	BDL	Monitor water level recovery from development phase of Packer Test #8.
7/04/06	Day	BDL/AMM	Cement and seat bridge plug in pilot hole at 2730 ft bpl (Cementing
			Stage 1: 1.3 bbls).
7/04/06	Night	None	Cement above bridge plug to 2713 ft bpl (Stages 2 and 3: 1.3 bbl/stage).
7/05/06	Day	AMM	Cement pilot hole to 2621 ft bpl (Stages 4 and 5 at 1.3 bbl/stage,
			Stage 6 at 5 bbls, and Stage 7 at 20 bbls).
7/05/06	Night	None	Cement pilot hole to 2560 ft bpl (Stage 8 at 25 bbls).
7/06/06	Day	AMM	Cement pilot hole to 2513 ft bpl (Stage 9 at 25 bbls and Stage 10 at
			26 bbls). Pump Stage 11 cement (20 bbls).

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 14 ENDING DATE: 7/13/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
7/06/06	Night	None	Cement pilot hole above bridge packer (set at 2730 ft bpl): tag Stage 11
			cement at 2480 ft bpl, pump Stage 12 cement (15 bbls).
7/07/06	Day	AMM	Cement pilot hole to 2400 ft bpl: pump Stage 13 (25 bbls), Stage 14
			(20 bbls), and Stage 15 (20 bbls).
7/07/06	Night	None	Cement pilot hole to 2396 ft bpl: pump Stage 16 (15 bbls).
7/08/06	Day	AMM	Cement pilot hole to 2389 ft bpl: pump Stage 17 (15 bbls), Stage 18 (10
			bbls), and Stage 19 (20 bbls).
7/08/06	Night	None	Tag Stage 19 cement at 2355 ft bpl. Switch from cement to gravel and
			tremie gravel into pilot hole from 2355 to 2245 ft bpl.
7/09/06	Day	AMM	Gravel pilot hole from 2245 to 2163 ft bpl (via tremie). Pump Stage 20
			cement on top of gravel (25 bbls).
7/09/06	Night	None	Tag top of Stage 20 cement at 1994 ft bpl. Ream 24 ½" dia hole from
			1994 to 2103 ft bpl.
7/10/06	Day	AMM	Ream 24 ½" hole from 2103 to 2164 ft bpl.
7/10/06	Night	None	Ream 24 ½" hole from 2164 to 2202 ft bpl.
7/11/06	Day	AMM	Ream 24 ½" hole from 2202 to 2219 ft bpl.
7/11/06	Night	None	Ream 24 ½" hole from 2219 to 2252 ft bpl.
7/12/06	Day	AMM	Ream 24 ½" hole from 2252 to 2272 ft bpl.
7/12/06	Night	None	Ream 24 ½" hole from 2272 to 2290 ft bpl.
7/13/06	Day	AMM	Ream 24 ½" hole from 2290 to 2294 ft bpl (as of 1215).

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 15 ENDING DATE: 7/20/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
7/13/06	Night	None	Ream 24 ½" hole from 2297 to 2309 ft bpl.
7/14/06	Day	None	Ream 24 ½" hole from 2309 to 2315 ft bpl.
7/14/06	Night	None	Ream 24 ½" hole from 2315 to 2336 ft bpl.
7/15/06	Day	None	Ream 24 ½" hole from 2336 to 2377 ft bpl.
7/15/06	Night	None	Ream 24 ½" hole from 2377 to 2422 ft bpl.
7/16/06	Day	None	Ream 24 ½" hole from 2422 to 2447 ft bpl.
7/16/06	Night	None	Ream 24 ½" hole from 2447 to 2508 ft bpl.
7/17/06	Day	None	Ream 24 ½" hole from 2508 to 2543 ft bpl.
7/17/06	Night	None	Ream 24 ½" hole from 2543 to 2579 ft bpl.
7/18/06	Day	None	Ream 24 ½" hole from 2579 to 2619 ft bpl.
7/18/06	Night	None	Ream 24 ½" hole from 2619 to 2645 ft bpl.
7/19/06	Day	AMM	Ream 24 ½" hole from 2645 to 2657 ft bpl.
7/19/06	Night	None	Ream 24 ½" hole from 2657 to 2683 ft bpl.
7/20/06	Day	AMM	Ream 24 ½" hole from 2683 to 2744 ft bpl (i.e., total depth for the 24 ½"
			diameter hole).

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 16 ENDING DATE: 7/27/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
7/20/06	Night	None	Ream 17 ½" hole from 2744 to 2747 ft bpl (i.e., the total depth for the
			17 ½" diameter hole).
7/21/06	Day	AMM	Ream 14 ¾" hole from 2747 to 2757 ft bpl.
7/21/06	Night	None	Ream 14 ¾" hole from 2757 to 2785 ft bpl.
7/22/06	Day	None	Ream 14 ¾" hole from 2785 to 2831 ft bpl.
7/22/06	Night	None	Ream 14 ¾" hole from 2831 to 2841 ft bpl. Stop drilling at 2841 to repair
			top head drive.
7/23/06	Day	None	No drilling: repair top head drive.
7/23/06	Night	None	No drilling: repair top head drive.
7/24/06	Day	None	No drilling: repair top head drive.
7/24/06	Night	None	No drilling: repair top head drive.
7/25/06	Day	AMM	Complete repairs to top head drive. Trip in 14 ¾" drill bit.
7/25/06	Night	None	Ream 14 ¾" hole from 2841 to 2876 ft bpl.
7/26/06	Day	AMM/EMH	Ream 14 ¾" hole from 2876 to 2922 ft bpl.
7/26/06	Night	None	Ream 14 ¾" hole from 2922 to 2960 ft bpl.
7/27/06	Day	AMM/EMH	Ream 14 ¾" hole from 2960 to 2990 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 17 ENDING DATE: 8/03/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
7/27/06	Night	None	Ream 14 ¾" hole from 2990 to 3020 ft bpl.
7/28/06	Day	EMH	Ream 14 ¾" hole from 3020 to 3035 ft bpl.
7/28/06	Night	None	Ream 14 ¾" hole from 3035 to 3048 ft bpl. Check bit.
7/29/06	Day	EMH	Stopped drilling to change bit. Rig repairs.
7/29/06	Night	None	Reamed 14 ¾" hole from 3045 to 3064
7/30/06	Day	EMH	Reamed 14 ¾" hole from 3064 to 3065, dredge from 2950 - 3038 ft.
7/30/06	Night	None	Dredge from 2958 to 3038 ft. Trip out to unplug bit.
7/31/06	Day	EMH/BDL	Reamed 14 ¾" hole from 3065 to 3087 ft.
7/31/06	Night	none	Reamed 14 ¾" hole from 3087 to 3121 ft.
8/01/06	Day	BDL	Rig repairs. Reamed 14 ¾" hole from 3121 to 3171ft.
8/01/06	Night	none	Reamed 14 ¾" hole from 3171to 3269 ft.
8/02/06	Day	BDL	Reamed 14 ¾" hole from 3269 to 3350 ft.
8/02/06	Night	none	Reamed 14 ¾" hole from 3350 to 3423 ft.
8/03/06	Day	BDL	Reamed 14 ¾" hole from 3423 to 3495 ft.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 18 ENDING DATE: 8/10/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
8/03/06	Night	none	Ream 14 ¾" hole from 3423 to 3500 ft bpl; drill 14 ¾" to 3505 ft bpl.
			Performed two wiper runs to clean hole prior to logging.
8/04/06	Day	BDL	Run caliper and gamma ray logs. Set up to install 16" casing.
8/04/06	Night	BDL	Install 16" casing: Joints 1 through 22 (645 ft total pipe in hole).
8/05/06	Day	AMM	Install 16" casing: Joints 23 through 56 (1627 ft total pipe in hole).
8/05/06	Night	BDL	Install 16" casing: joints 57 through 86 (2758 ft total pipe in hole).
8/06/06	Day	AMM	16" casing TD at 2749.01 ft bpl. Set up to pressure test 16" casing.
8/06/06	Night	BDL	Pressure test 16" casing. Results: <1% pressure change at 150 psi
			for 1 hour.
8/07/06	Day	AMM	Pump Cement Stages 1, 2, 3. Total cement = 6 bbls.
8/07/06	Night	BDL	Pump two Gravel Stages and Cement Stages 4 and 5. Total gravel =
			4 bbls, total cement = 4 bbls. Amount of fill = 0.0 ft.
8/08/06	Day	AMM	Video log bottom of casing/casing seat. Casing is seated. Pump gravel.
8/08/06	Night	BDL	Pump 1 gravel stage and Cement Stage 6. Total gravel = 4.8 bbls,
			Total cement = 2 bbls.
8/09/06	Day	AMM	Pump cement Stages 7, 8, 9. Total cement = 6 bbls (2 bbls per stage).
			Top of cement at 2712 ft bpl.
8/09/06	Night	BDL	Pump Cement Stage 10 (8 bbls) and 11 (20 bbls).
			Top of cement = 2656 ft bpl.
8/10/06	Day	AMM	Pump Cement Stages 12 and 13 (25 bbls per stage). Top of Stage 12
			cement tagged at 2602 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 19 ENDING DATE: 8/17/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
8/10/06	Night	BDL	Cement Stage 14 (50 bbls, 12% gel with 3% calcium chloride). Top of
			Stage 14 cement at 2460 ft bpl.
8/11/06	Day	AMM	Cement Stage 15 (75 bbls, 12% gel with 3% calcium chloride). Top of
			Stage 15 cement at 2429 ft bpl. Cement Stage 16 (30 bbls, 12% gel with
			3% calcium chloride). Top of Stage 16 cement at 2390 ft. bpl.
8/11/06	Night	BDL	Cement Stage 17 (30 bbls, 12% gel with 3% calcium chloride). Top of
			Stage 17 cement at 2332 ft bpl.
8/12/06	Day	AMM	Cement Stage 18 (40 bbls, 12% gel with 3% calcium chloride). Top of
			Stage 18 cement at 2322 ft bpl. Cement Stage 19 (40 bbls, 12% gel with
			3% calcium chloride). Top of Stage 19 cement at 2294 ft bpl.
8/12/06	Night	BDL	Cement Stage 20 (30 bbls, 12%gel with 3% calcium chloride). Top of
			Cement Stage 20 at 2255 ft. bpl.
8/13/06	Day	AMM	Cement Stage 21 (52 bbls, 12%gel with 3% calcium chloride). Top of
			Cement Stage 21 = 2226 ft bpl.
			Cement Stage 22 (45 bbls, 12%gel with 3% calcium chloride). Top of
			Cement Stage 22 = 2185 ft bpl.
8/13/06	Night	AMM	Cement Stage 23 (60 bbls, 12% gel with 3% calcium chloride). Top of
			Cement Stage 23 = 2101 ft bpl.
8/14/06	Day	AMM	Cement Stage 24 (200 bbls, 12% gel with 3% calcium chloride). Top of
			Cement Stage 24 = 1597 ft bpl.
			Cement Stage 25 (150 bbls, 12% gel with 3% calcium chloride). Top of
			Cement Stage 25 = 1209 ft bpl.
8/14/06	Night	AMM	Cement Stage 26 (160 bbls, 12% gel with no calcium chloride). Top of
			Cement Stage 26 = 794 ft bpl.
8/15/06	Day	AMM	Cement Stage 27 (160 bbls, 12% gel with no calcium chloride). Top of
			Cement Stage 27 = 386 ft bpl.
8/15/06	Night	None	Wait for cement to cure prior to cement bond log.
8/16/06	Day	AMM	Cement bond log 16" casing. Cement Stage 28 (143 bbls, 12% gel with no
			calcium chloride). Tag top of Stage 28 at 7 ft bpl.
8/16/06	Night	None	Set up to cool cement and 16" casing prior to pressure test.
8/17/06	Day	AMM	Start pumping water out of 16" casing to cool cement and casing.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 20 ENDING DATE: 8/24/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
8/17/06	Night	None	Pump/circulate water to cool cement and casing.
8/18/06	Day	None	Pump/circulate water to cool cement and casing.
8/18/06	Night	None	Pump/circulate water to cool cement and casing.
8/19/06	Day	None	Pump/circulate water to cool cement and casing.
8/19/06	Night	None	Trip out drill pipe used to pump/circulate water.
8/20/06	Day	BDL	Run preliminary pressure test on 16-inch casing.
8/20/06	Night	None	No site activities.
8/21/06	Day	BDL	Run final pressure test on 16-inch casing with FDEP representative on site.
8/21/06	Night	None	Prepare for installation of 11.70-inch fiberglass tubing.
8/22/06	Day	BDL	Install 7 joints (i.e., 202 ft) of 11.70-inch fiberglass tubing.
8/22/06	Night	None	No site activities.
8/23/06	Day	BDL/AMM	Remove joints 6 and 7 because of thread damage. 5 joints of fiberglass
			tubing in hole (144.99 ft). Wait on replacement tubing installation crew.
8/23/06	Night	None	No site activities.
8/24/06	Day	AMM	Wait on replacement tubing installation crew to arrive at site.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 21 ENDING DATE: 8/31/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
8/24/06	Night	None	No site activities.
8/25/06	Day	AMM	Mix 1.1% solution of Baracor. Wait on fiberglass tubing installation crew.
8/25/06	Night	None	No site activities.
8/26/06	Day	AMM	Install fiberglass tubing Joints 5 - 45. Total tubing in hole = 1290 ft.
8/26/06	Night	None	No site activities.
8/27/06	Day	AMM	Install fiberglass tubing Joints 46 - 95 and pup joint. Total fiberglass tubing
			string = 2725 ft. Install stainless header and adjust bottom of string to
			2742 ft bpl.
8/27/06	Night	None	No site activities.
8/28/06	Day	AMM	Pump Baracor into annulus between fiberglass tubing and 16" casing. Land
			fiberglass tubing string onto YBI packer/casing seat. Run preliminary
			pressure test on annular space (1.5 psi pressure drop after 1 hour at
			150 psi).
8/28/06	Night	None	No site activities.
8/29/06	Day	None	Prepare rig and drill site for hurricane.
8/29/06	Night	None	No site activities due to storm.
8/30/06	Day	None	No site activities due to storm.
8/30/06	Night	None	No site activities due to storm.
8/31/06	Day	AMM	No storm damage. Move drill rig and containment pad to monitor well
			location.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 and DZMW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 22 ENDING DATE: 9/07/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
8/31/06	Night	None	No site activities.
9/01/06	Day	AMM	Pressure test annulus between 16" casing and 11.7" fiberglass tubing with
			DEP present. Starting pressure = 153.0 psi. Ending pressure = 153.0 psi.
			Set up drill rig on monitor well location.
9/01/06	Night	None	No site activities.
9/02/06	Day	None	Set up drill rig on monitor well location.
9/02/06	Night	None	No site activities.
9/03/06	Day	None	Set up drill rig on monitor well location.
9/03/06	Night	None	No site activities.
9/04/06	Day	None	Set up drill rig on monitor well location.
9/04/06	Night	None	Set up drill rig on monitor well location.
9/05/06	Day	None	Drill 38 ½" diameter hole from 0 to 14 ft bpl.
9/05/06	Night	None	Drill 38 ½" diameter hole from 14 to 90 ft bpl.
9/06/06	Day	AMM	Drill 38 ½" diameter hole from 90 to 171 ft bpl.
9/06/06	Night	None	Drill 38 ½" diameter hole from 171 to 250 ft bpl.
9/07/06	Day	AMM	Caliper and gamma log borehole. Install 28" casing to 245.8 ft bpl. Pressure
			grout casing using 12% gel and neat cement (252 bbls total).

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 23 ENDING DATE: 9/14/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
9/07/06	Night	None	Temperature log 28" casing (Note: there were cement returns at the pad).
9/08/06	Day	None	Tag top of cement inside of 28" casing at 241 ft bpl. Drill 12 ¼" pilot hole
			from 241 to 333 ft bpl.
9/08/06	Night	None	Drill 12 ¼" pilot hole from 333 to 518 ft bpl.
9/09/06	Day	None	Drill 12 ¼" pilot hole from 518 to 678 ft bpl.
9/09/06	Night	None	Drill 12 ¼" pilot hole from 678 to 878 ft bpl.
9/10/06	Day	AMM	Drill 12 ¼" pilot hole from 878 to 1005 ft bpl. Geophysical logging of pilot
			hole (caliper and gamma).
9/10/06	Night	None	Geophysical logging of pilot hole (dual induction). Ream 26 ½" hole from
			250 to 267 ft bpl.
9/11/06	Day	AMM	Ream 26 ½" hole from 267 to 443 ft bpl.
9/11/06	Night	None	Ream 26 ½" hole from 443 to 630 ft bpl.
9/12/06	Day	AMM	Ream 26 ½" hole from 630 to 761 ft bpl.
9/12/06	Night	None	Ream 26 ½" hole from 761 to 923 ft bpl.
9/13/06	Day	AMM	Ream 26 ½" hole from 923 to 975 ft bpl. 20" Casing seat is 970 ft bpl.
9/13/06	Night	AMM	Geophysical logging of reamed hole (caliper and gamma).
9/14/06	Day	AMM	Install 20" casing (23 joints to 970 ft bpl). Pressure grout annulus to ground
			surface (pumped 246 bbls 12% gel plus 31 bbls neat).

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 24 ENDING DATE: 9/21/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
9/14/06	Night	None	Wait on cement to cure (20" casing, pressure grout to surface).
9/15/06	Day	AMM	Temperature log 20" casing (top of cement nearly at pad level). Set up to
			drill pilot hole via reverse air.
9/15/06	Night	None	Set up to drill using reverse air. Trip into hole and circulate mud out of
			casing.
9/16/06	Day	None	Tag top of cement inside 20" casing at 968 ft bpl. Drill 12 ¼" pilot hole to
			985 ft bpl.
9/16/06	Night	None	Drill 12 ¼" pilot hole from 985 to 1035 ft bpl. Repair rubber seal/BOP on
			well head.
9/17/06	Day	AMM	Repair rubber seal/BOP on well head. Drill 12 ¼" pilot hole from 1035 to
			1158 ft bpl.
9/17/06	Night	None	Drill 12 ¼" pilot hole from 1158 to 1578 ft bpl.
9/18/06	Day	AMM	Drill 12 ¼" pilot hole from 1578 to 1718 ft bpl.
9/18/06	Night	None	Drill 12 ¼" pilot hole from 1718 to 1798 ft bpl.
9/19/06	Day	AMM	Drill 12 ¼" pilot hole from 1798 to 1933 ft bpl. Purge/develop IW-1.
9/19/06	Night	None	Drill 12 ¼" pilot hole from 1933 to 2000 ft bpl.
9/20/06	Day	AMM/EMH	Trip out of hole. Perform geophysical (caliper and gamma ray) prior to
			packer test.
9/20/06	Night	None	Continued to set up for packer test
9/21/06	Day	EMH	Performed packer test. Interval: 1950 to 2000 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 25 ENDING DATE: 9/28/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
9/21/06	Night	EMH	Packer Test 1 on DZMW-1 (interval = 1950 - 2000 ft bpl).
9/22/06	Day	EMH	Rig maintenance. Drill 12 ¼" pilot hole from 2000 to 2044 ft bpl (DZMW-1).
9/22/06	Night	None	Drill 12 ¼" pilot hole from 2044 to 2170 ft bpl
9/23/06	Day	EMH	Drill 12 ¼" pilot hole from 2170 to 2224 ft
9/23/06	Night	None	Drill 12 ¼" pilot hole from 2224 to 2225 ft bpl (hole TD = 2225 ft bpl).
9/24/06	Day	EMH	Geophysical logging: caliper, gamma ray, dual induction, borehole
			compensated sonic with VDL.
9/24/06	Night	EMH	Complete geophysical logging
9/25/06	Day	EMH	Collect water quality sample from IW-1. Set up for Packer Test 2 on
			DZMW-1.
9/25/06	Night	None	Set up for Packer Test 2 on DZMW-1 (interval = 2169 - 2225 ft bpl).
9/26/06	Day	EMH/BDL	Packer Test 2 on DZMW-1.
9/26/06	Night	None	Trip out packer. Prepare to ream DZMW-1.
9/27/06	Day	AMM	Ream 18 ½" hole from 970 - 1311 ft bpl.
9/27/06	Night	None	Ream 18 ½" hole from 1311 - 1705 ft bpl.
9/28/06	Day	AMM	Ream 18 ½" hole from 1705 - 1800 ft bpl.

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1 and IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CONTRACTOR: YOUNGQUIST

WEEK NO.: 26 ENDING DATE: 10/05/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
9/28/06	Night	None	Rig maintenance. Pump fresh water into IW-1 for video and RATS test.
9/29/06	Day	AMM	Rig maintenance. Pump fresh water into IW-1 for video and RATS test.
9/29/06	Night	None	No site activities.
9/30/06	Day	None	No site activities.
9/30/06	Night	None	No site activities.
10/01/06	Day	None	No site activities.
10/01/06	Night	None	No site activities.
10/02/06	Day	AMM	IW-1 geophysical logging: video, gamma, casing collar locator.
10/02/06	Night	None	No site activities.
10/03/06	Day	AMM	IW-1 geophysical logging: radioactive tracer test with DEP present.
10/03/06	Night	None	No site activities.
10/04/06	Day	AMM	Wait on DZMW-1 monitor well zones approval from DEP.
10/04/06	Night	None	No site activities.
10/05/06	Day	AMM	Wait on DZMW-1 monitor well zones approval from DEP.

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CONTRACTOR: YOUNGQUIST

WEEK NO.: 27 ENDING DATE: 10/12/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
10/05/06	Night	none	Ream 18.5-inch borehole from 1800 - 1948 ft bpl.
10/06/06	Day	none	Re-drill 12.25-inch pilot hole from 1948 - 2157 ft bpl.
10/06/06	Night	none	No rig activity.
10/07/06	Day	BDL	Re-drill 12.25-inch pilot hole from 2157 - 2205 ft bpl.
10/07/06	Night	BDL	Clean out hole from 2184 to 2205 ft bpl.
10/08/06	Day	BDL	Clean out hole from 2184 to 2205 ft bpl.
10/08/06	Night	BDL	Geophysical logging (caliper and gamma 970 - 2205 ft bpl).
10/09/06	Day	BDL/JMP	Prepare to install 12" casing.
10/09/06	Night	JMP	Tag bottom of hole at 2204 ft bpl. Pump 2 bbls cement at bottom of hole.
10/10/06	Day	JMP	Install Joints 1 - 36 (1451 ft) of 12" casing.
10/10/06	Night	AMM	Install Joints 37 - 49. Land bottom of 12" casing at 1950 ft bpl. Pump 2 bbls
			neat cement (with calcium chloride). Amount of fill = 0 ft (Stage 1).
10/11/06	Day	AMM	Pump 0.9 bbls gravel into annulus. Amount of fill = 0 ft. Pump 2 bbls neat
			cement (with calcium chloride). Amount of fill = 0 ft (Stage 2).
10/11/06	Night	AMM	Pump PVC pieces and gravel into annulus through cement tubing. Tubing
			plugged, no PVC or gravel got down hole. No fill.
10/12/06	Day	AMM	Pump PVC pieces and gravel into annulus through cement tubing. Pump
			Stage 3 cement: 2 bbls neat cement (with calcium chloride).

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 28 ENDING DATE: 10/19/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
10/12/06	Night	AMM	Tag top of Stage 3a cement at 1948 ft bpl: no fill. Video casing seat.
10/13/06	Day	AMM	Set up to gravel open hole below casing seat.
10/13/06	Night	None	Gravel open hole below casing seat.
10/14/06	Day	AMM	Pump Stage 1 cement (2 bbls neat with calcium chloride). Amount of fill =
			4 ft. Top of cement at 1944 ft bpl.
			Pump Stage 2 cement (2 bbls neat with calcium chloride). Amount of fill =
			13 ft. Top of cement at 1931 ft bpl.
10/14/06	Night	AMM	Pump Stage 3 cement (20 bbls neat). Amount of fill = 66 ft. Top of cement
			at 1865 ft bpl.
10/15/06	Day	AMM	Pump Stage 4 cement (30 bbls neat). Amount of fill = 75 ft. Top of cement
			at 1790 ft bpl.
10/15/06	Night	AMM	Pump Stage 5 cement (15 bbls neat). Amount of fill = 18 ft. Top of cement
			at 1772 ft bpl.
10/16/06	Day	AMM	Pump Stage 6 cement (50 bbls neat). Amount of fill = 13 ft. Top of cement
			at 1759 ft bpl. Pump Stage 7 cement (10 bbls neat). Amount of fill = 33 ft.
			Top of cement at 1726 ft bpl.
10/16/06	Night	AMM	Pump Stage 8 cement (30 bbls 12% gel). Amount of fill = 76 ft. Top of
			cement at 1650 ft bpl.
10/17/06	Day	AMM	Pump Stage 9 cement (40 bbls 12% gel). Amount of fill = 78 ft. Top of
			cement at 1572 ft bpl.
10/17/06	Night	AMM	Pump Stage 10 cement (40 bbls 12% gel). Amount of fill = 109 ft. Top of
			cement at 1463 ft bpl. Pump Stage 11 cement (75 bbls 12% gel).
10/18/06	Day	AMM	Tag top of Stage 11 cement at 1299 ft bpl. Amount of fill = 164 ft. Pump
			Stage 12 cement (80 bbls 12% gel).
10/18/06	Night	AMM	Tag top of Stage 12 cement at 1103 ft bpl. Amount of fill = 196 ft. Pump
			Stage 13 cement (60 bbls 12% gel).
10/19/06	Day	AMM	Tag top of Stage 13 cement at 969 ft bpl. Amount of fill = 134 ft. Pump
			Stage 14 cement (65 bbls 12% gel). Amount of fill = 189 ft. Top of cement at
			780 ft bpl. Pump Stage 15 cement (80 bbls 12% gel).

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 29 ENDING DATE: 10/26/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
10/19/06	Night	AMM	Tag top of Stage 15 cement at 470 ft bpl: amount of fill = 310 ft. Pump
			cement Stage 16 (60 bbls 12% gel).
10/20/06	Day	None	Temperature log and tag cement at 225 ft bpl
10/20/06	Night	None	Ream gravel below 12-inch diameter casing
10/21/06	Day	None	Ream gravel below 12-inch diameter casing
10/21/06	Night	None	Continue drilling out gravel below 12-inch diameter casing
10/22/06	Day	JMP	Complete drilling out gravel to TD
10/22/06	Night	JMP	Complete cement bond/gamma log, Trip pipe back in hole for pressure test
10/23/06	Day	JMP	Completed preliminary and final pressure test on 12.75-inch casing with
			FDEP onsite. Tripped pipe and packer out of hole.
10/23/06	Night	JMP	Cemented 12 inch casing to surface
10/24/06	Day	JMP	Conducted temp log 300 ft to surface. Prepared for fiberglass casing.
10/24/06	Night	None	Laid out fiberglass casing and prepared for installation
10/25/06	Day	JMP	Completed installation of 6.5-inch fiberglass casing;seated at 2,132.4 ft bpl.
10/25/06	Night	JMP	Completed prelim. pressure test, begin install of bottom plug of cement
10/26/06	Day	JMP	Complete bottom plug, complete stage 1 cement

WEEKLY CONSTRUCTION SUMMARY

WELL: DZMW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 30 ENDING DATE: 11/02/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
10/26/06	Night	JMP	Tag Stage 1 cement (interval between shallow and deep monitoring zones)
			at 2060 ft bpl. Pump Stage 2 cement (8 bbls). Tag top of Stage 2 cement at
			2011 ft bpl.
10/27/06	Day	JMP	Pump Stage 3 cement (2 bbls neat). Tag top of cement at 2000 ft bpl.
			Pressure test fiberglass tubing in DZMW-1 (no pressure change during test).
10/27/06	Night	None	No site activity.
10/28/06	Day	JMP	Cement bond log on DZMW-1. Demobilize drilling equipment.
10/28/06	Night	None	No site activity.
10/29/06	Day	None	Demobilize drilling equipment.
10/29/06	Night	None	No site activity.
10/30/06	Day	None	Demobilize drilling equipment.
10/30/06	Night	None	No site activity.
10/31/06	Day	None	Demobilize drilling equipment. Purge DZMW-1 deep monitoring zone.
10/31/06	Night	None	No site activity.
11/01/06	Day	AMM	Demobilize drilling equipment. Purge DZMW-1 shallow monitoring zone.
11/01/06	Night	None	No site activity.
11/02/06	Day	AMM	Complete purging of shallow DZMW-1 monitoring zone. Sample shallow and
			deep DZMW-1 zones. Sample source water for injection test. Demobilize
			drilling equipment.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 and DZMW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

WEEK NO.: 31 | ENDING DATE: 11/09/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
11/02/06	Night	None	No site activities.
11/03/06	Day	None	Set up injection testing equipment. Demobilize drilling equipment.
11/03/06	Night	None	No site activities.
11/04/06	Day	None	No site activities.
11/04/06	Night	None	No site activities.
11/05/06	Day	None	No site activities.
11/05/06	Night	None	No site activities.
11/06/06	Day	None	Set up injection testing equipment. Demobilize drilling equipment.
11/06/06	Night	None	No site activities.
11/07/06	Day	None	Set up injection testing equipment. Demobilize drilling equipment.
11/07/06	Night	None	No site activities.
11/08/06	Day	AMM	Run injection pre-test at 2,900 gpm. Background water level monitoring.
11/08/06	Night	None	No site activities.
11/09/06	Day	AMM	Start injection test at IW-1.

WEEKLY CONSTRUCTION SUMMARY

WELL: IW-1 and DZMW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

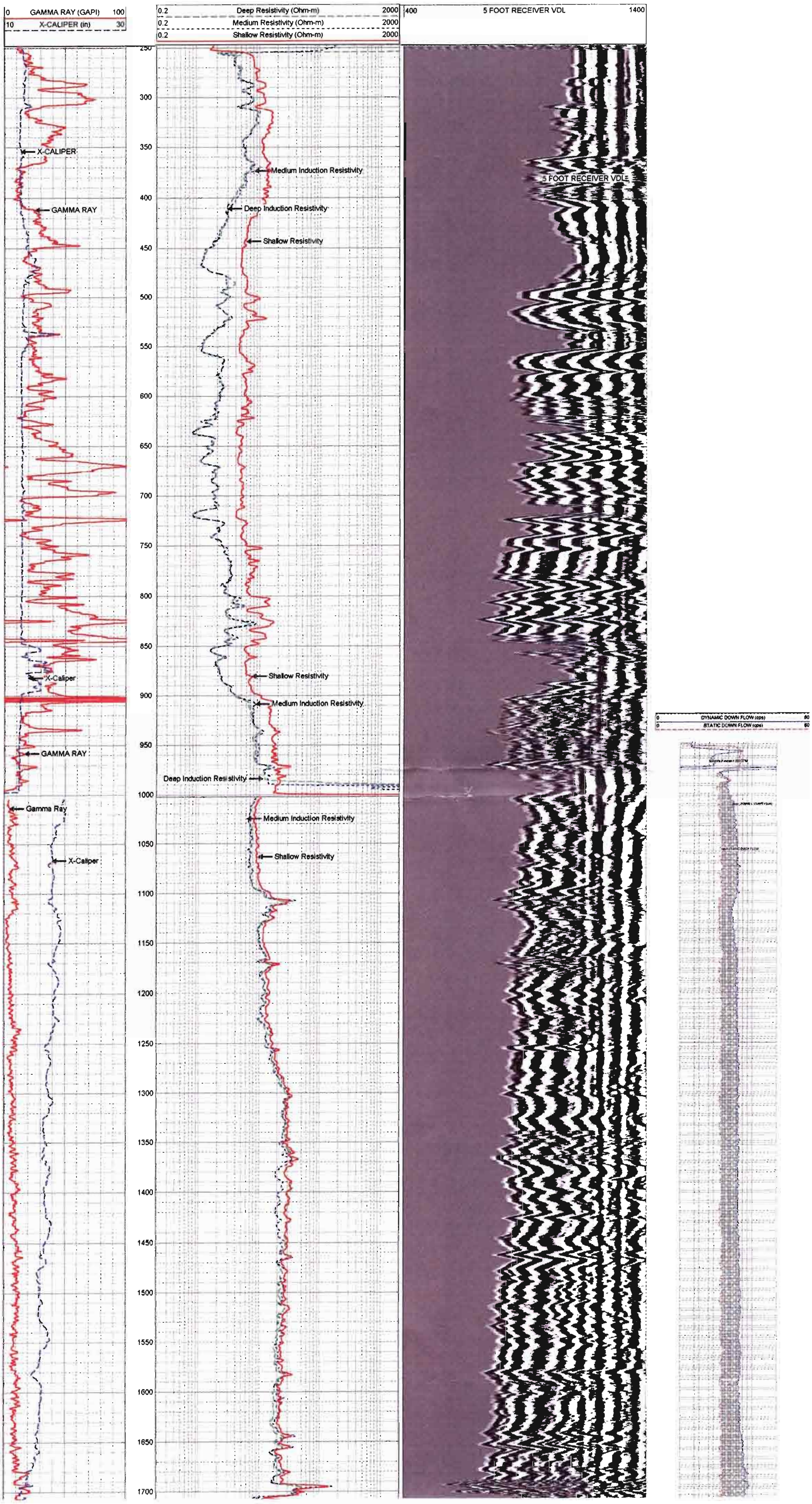
SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

WEEK NO.: 32 ENDING DATE: 11/16/06

DATE	SHIFT	OBSERVER	ACTIVITY SUMMARY
11/09/06	Night	AMM	IW-1 injection test: complete injection phase; start recovery phase.
11/10/06	Day	None	IW-1 injection test: recovery phase. Demobilize injection test equipment.
11/10/06	Night	None	IW-1 injection test: recovery phase.
11/11/06	Day	AMM	IW-1 injection test: end recovery phase, download data loggers.
11/11/06	Night	None	No site work.
11/12/06	Day	None	No site work.
11/12/06	Night	None	No site work.
11/13/06	Day	None	Demobilize drilling equipment. Install IW-1 and DZMW-1 piping and conduit.
11/13/06	Night	None	No site work.
11/14/06	Day	None	No well construction or testing activities.
11/14/06	Night	None	No site work.
11/15/06	Day	None	No well construction or testing activities.
11/15/06	Night	None	No site work.
11/16/06	Day	None	No well construction or testing activities.
11/16/06	Night	None	No site work.

APPENDIX D

Geologic / Geophysical Summary



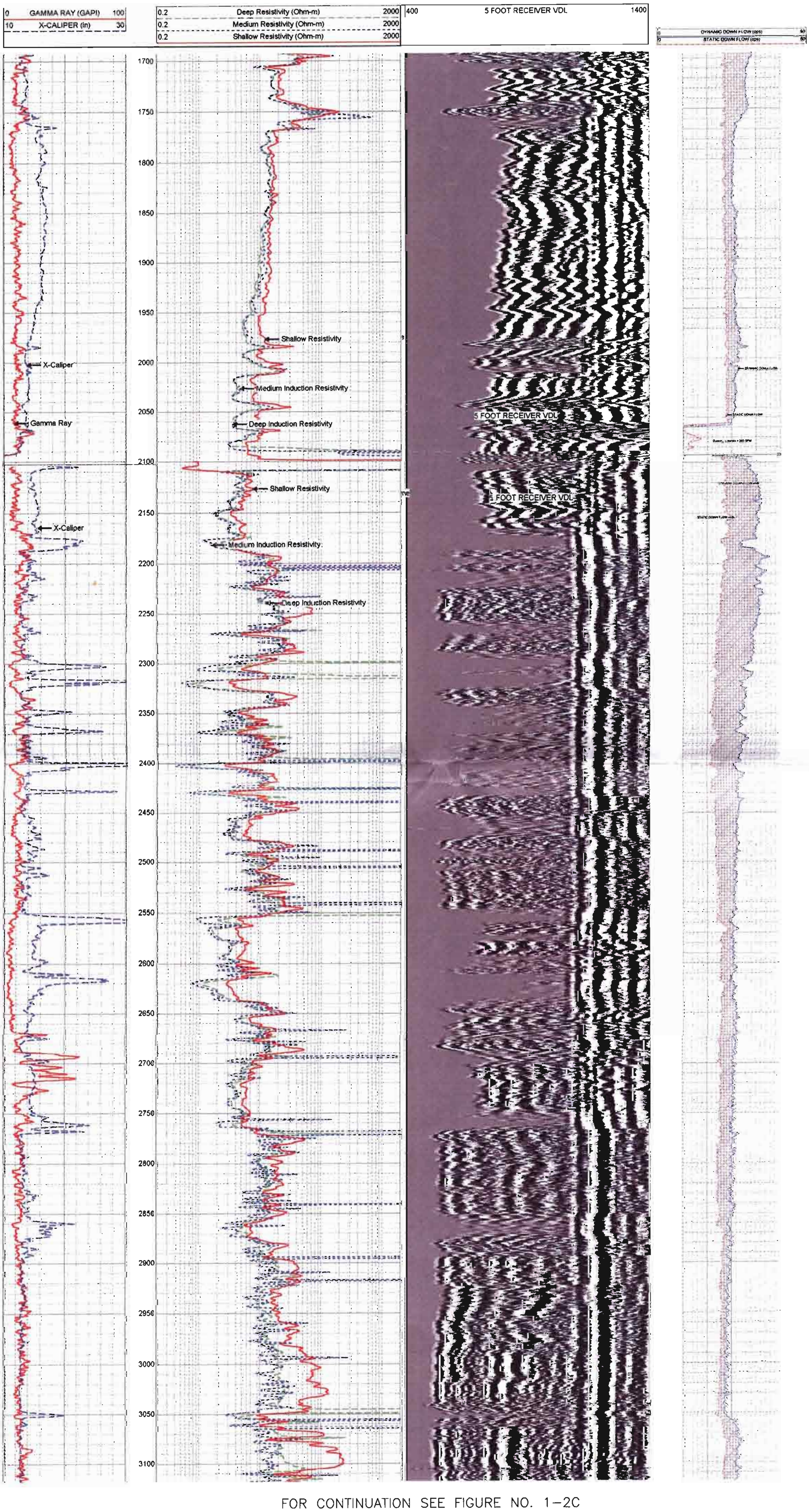
FOR CONTINUATION SEE FIGURE NO. 1-2B

CDM

Figure No. 1-2A
City of Clewiston, Florida
IW-1 Pilot Hole Geophysical Logs

DWG: L:\27335\45307\30p\report\FIG 1-2B.dwg USER: nunesal
DATE: Jun 12, 2007 5:46pm

FOR CONTINUATION SEE FIGURE NO. 1-2A

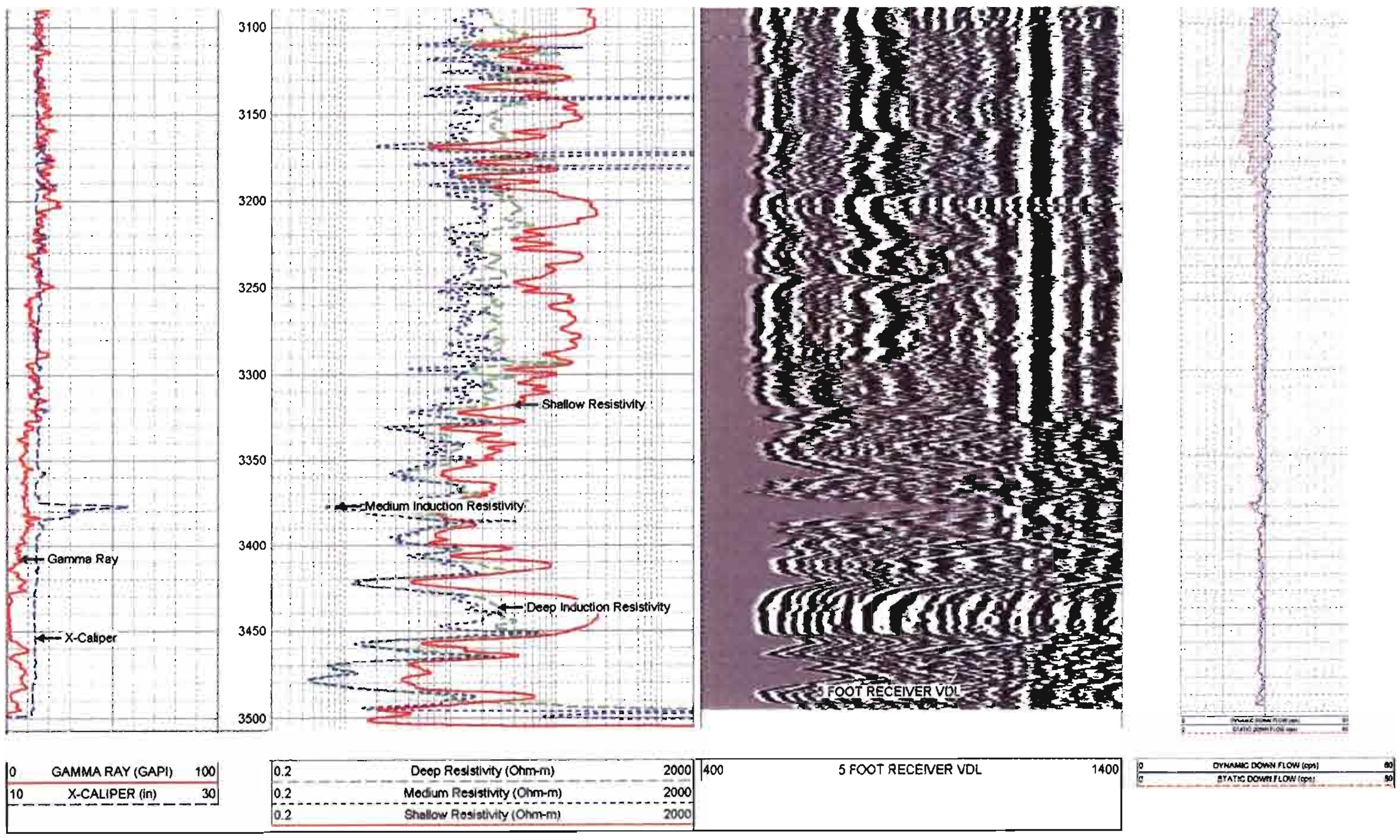


FOR CONTINUATION SEE FIGURE NO. 1-2C

CDM

Figure No. 1-2B
City of Clewiston, Florida
IW-1 Pilot Hole Geophysical Logs

FOR CONTINUATION SEE FIGURE NO. 1–2B



CDM

Figure No. 1-2C
City of Clewiston, Florida
IW-1 Pilot Hole Geophysical Logs

APPENDIX E

Lithology Log

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins | DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
0 - 10	10	**LIMESTONE (100%)**, pale yellow (5Y 8/2), mudstone to wackestone, hard, low intergranular macroporosity, grains are fine-grained quartz sand.
10 - 20	10	**SHELL (95%)**, light gray (10YR 7/2) and dark gray (5Y 4/1), grains are fragmented, broken, angular, possible moderate intergranular macroporosity, shells are easily broken with fingernail and formation is easy to drill. Smaller shells are whole mollusks and bivalves. **LIMESTONE (5%)**, light olive gray (5Y 6/2), mudstone to wackestone, very fine grained, varies from soft to hard, low intergranular macroporosity, grains appear to be quartz sand, limestone pieces, and phosphate grains. **PHOSPHATE GRAINS (<1%)**, black, fine grained sand size.
20 - 30	10	Same as above.
30 - 40	10	Same as above.
40 - 50	10	Same as above.
50 - 60	10	**SHELL (90%)**, same as above. **LIMESTONE (10%)**, same as above. **PHOSPHATE GRAINS (<1%)**, same as above.
60 - 70	10	**SHELL (85%)**, same as above. **LIMESTONE (15%)**, same as above. **PHOSPHATE GRAINS (<1%)**, black, fine and medium grained sand size.
70 - 80	10	**SHELL (50%)**, same as above. **LIMESTONE (50%)**, same as above. **PHOSPHATE GRAINS (<1%)**, same as above.
80 - 90	10	Same as above.
90 - 100	10	Same as above.
100 - 110	10	Same as above.
110 - 120	10	**LIMESTONE (80%)**, same as above. **SHELL (18%)**, same as above. **PHOSPHATE GRAINS (2%)**, same as above.
120 - 130	10	**LIMESTONE (87%)**, same as above. **SHELL (10%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above.
130 - 140	10	Same as above.
140 - 150	10	Same as above.
150 - 160	10	Same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins | DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
160 - 170	10	Same as above.
170 - 180	10	Same as above.
180 - 190	10	**LIMESTONE (92%)**, same as above. **SHELL (5%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above.
190 - 200	10	Same as above.
200 - 210	10	Same as above.
210 - 220	10	Same as above.
220 - 230	10	Same as above.
230 - 240	10	**CLAY (50%)**, dark gray (5Y 4/1), unconsolidated clay/mud, soft, low intergranular macroporosity. **SAND (35%)**, clear to white, fine grained, quartz. **SILT (15%)**. **PHOSPHATE GRAINS** (present but <1%), black, fine grained sand size.
230 - 240	10	Same as above.
240 - 250	10	Same as above.
250 - 260	10	Same as above.
260 - 270	10	Same as above.
270 - 280	10	Same as above.
280 - 290	10	Same as above.
290 - 300	10	Same as above.
300 - 310	10	Same as above.
310 - 320	10	**CLAY (70%)**, dark gray (5Y 4/1), unconsolidated clay/mud, soft, low intergranular macroporosity. **SILT AND SAND (10%)**, sand is fine to medium grained quartz, clear/frosted, rounded. **LIMESTONE (10%)**, pale yellow (5Y 8/2), wackestone, grains are fine grained quartz sand and limestone pieces, hard, low intergranular porosity. **SHELL FRAGMENTS (7%)**, light olive gray (5Y 6/2), fragments are primarily medium to coarse grained sand size, soft, bivalve pieces. **PHOSPHATE GRAINS (3%)**, black, fine and medium grained sand size.
320 - 330	10	Same as above.
330 - 340	10	Same as above.
340 - 350	10	Same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
350 - 360	10	Same as above.
360 - 370	10	Same as above.
370 - 380	10	Same as above.
380 - 390	10	**SHELL AND FOSSIL FRAGMENTS (80%)**, light olive gray (5Y 6/2), fragments are primarily medium grained sand size, soft, bivalve pieces and echinoid pieces, moderate intergranular porosity. **SAND (10%)**, fine to medium grained, quartz, clear/frosted, rounded. **LIMESTONE (10%)**, light brownish gray (2.5Y 6/2), packstone, grains are very fine grained, moderately hard, up to 15% of the grains are very fine grained, black phosphate grains.
390 - 400	10	Same as above.
400 - 410	10	Same as above.
410 - 420	10	Same as above.
420 - 430	10	Same as above.
430 - 440	10	**CLAY (80%)**, dark gray (5Y 4/1), unconsolidated clay/mud, soft, low intergranular macroporosity. **LIMESTONE (10%)**, light olive gray (5Y 6/2), mudstone to wackestone, very fine grained, varies from soft to hard, low intergranular macroporosity, grains appear to be quartz sand, limestone pieces, and phosphate grains. **SHELL FRAGMENTS (7%)**, light olive gray (5Y 6/2), fragments are primarily medium to coarse grained sand size, hard, bivalve pieces. **PHOSPHATE GRAINS (3%)**, black, fine to very fine grained sand size, incorporated into clay matrix.
440 - 450	10	Same as above.
450 - 460	10	Same as above.
460 - 470	10	Same as above.
470 - 480	10	Same as above.
480 - 490	10	Same as above.
490 - 500	10	Same as above.
500 - 510	10	**CLAY (70%)**, light olive gray (5Y 6/2), unconsolidated clay/mud/marl, soft, low intergranular macroporosity. **LIMESTONE (20%)**, light brownish gray (2.5Y 6/2), packstone, grains are very fine grained, moderately hard, up to 15% of the grains are very fine grained, black phosphate grains. **SHELL FRAGMENTS (5%)**, light olive gray (5Y 6/2), fragments are primarily medium to coarse grained sand size, hard, bivalve pieces.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1	PROJECT NO.: 27335-45307	
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLE TYPE: Grab
SAMPLE DESCRIPTION BY: A. Miller, E. Huggins		DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		PHOSPHATE GRAINS (5%), black, fine to very fine grained sand size, incorporated into clay matrix.
510 - 520	10	Same as above.
520 - 530	10	Same as above.
530 - 540	10	Same as above.
540 - 550	10	**CLAY (80%)**, dark gray (5Y 4/1), unconsolidated clay/mud, soft, low intergranular macroporosity. **LIMESTONE (10%)**, light olive gray (5Y 6/2), mudstone to wackestone, very fine grained, varies from soft to hard, low intergranular macroporosity, grains appear to be quartz sand, limestone pieces, and phosphate grains. **SHELL FRAGMENTS (7%)**, light olive gray (5Y 6/2), fragments are primarily medium to coarse grained sand size, hard, bivalve pieces. **PHOSPHATE GRAINS (3%)**, black, fine to very fine grained sand size, incorporated into clay matrix.
550 - 560	10	**CLAY (80%)**, light olive gray (5Y 6/2), unconsolidated clay/mud/marl, soft, low intergranular macroporosity. **SHELL AND FOSSIL FRAGMENTS (10%)**, light olive gray (5Y 6/2), fragments are primarily medium grained sand size, soft, bivalve pieces and echinoid pieces. **LIMESTONE (5%)**, light brownish gray (2.5Y 6/2), packstone, grains are very fine grained, moderately hard, up to 15% of the grains are very fine grained, black phosphate grains. **PHOSPHATE GRAINS (5%)**, black, fine to very fine grained sand size, incorporated into clay matrix.
560 - 570	10	Same as above.
570 - 580	10	Same as above.
580 - 590	10	Same as above.
590 - 600	10	Same as above.
600 - 610	10	Same as above.
610 - 620	10	Same as above.
620 - 630	10	No Sample.
630 - 6400	10	**CLAY (70%)**, light olive gray (5Y 6/2), unconsolidated clay/mud/marl, soft, low intergranular macroporosity. **LIMESTONE (20%)**, light brownish gray (2.5Y 6/2), packstone, grains are very fine grained, moderately hard, up to 15% of the grains are very fine grained, black phosphate grains. **SHELL FRAGMENTS (5%)**, light olive gray (5Y 6/2), fragments are

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins | DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		primarily medium to coarse grained sand size, hard, bivalve pieces. **PHOSPHATE GRAINS (5%)**, black, fine to very fine grained sand size, incorporated into clay matrix.
640 - 650	10	Same as above.
650 - 660	10	Same as above.
660 - 670	10	Same as above.
670 - 680	10	Same as above.
680 - 690	10	Same as above.
690 - 700	10	Same as above.
700 - 710	10	Same as above.
710 - 720	10	Same as above.
720 - 730	10	Same as above.
730 - 740	10	Same as above.
740 - 750	10	Same as above.
750 - 760	10	Same as above.
760 - 770	10	Same as above.
770 - 780	10	**LIMESTONE (40%)**, white (2.5Y 8/1), wackestone, grains are fine to very fine grained quartz sand, hard, low intergranular macroporosity. **CLAY (35%)**, light olive gray (5Y 6/2), unconsolidated clay/mud/marl, soft, low intergranular macroporosity. **SHELL FRAGMENTS (20%)**, light olive gray (5Y 6/2), fragments are primarily medium to coarse grained sand size, rounded. **PHOSPHATE GRAINS (5%)**, black, primarily fine grained sand size with some medium grained sand size grains.
780 - 790	10	Same as above.
790 - 800	10	Same as above.
800 - 810	10	**LIMESTONE (60%)**, white (2.5Y 8/1), wackestone, grains are fine to very fine grained quartz sand, hard, low intergranular macroporosity. **SHELL FRAGMENTS (20%)**, light olive gray (5Y 6/2), fragments are primarily medium to coarse grained sand size, rounded. **CLAY (15%)**, light olive gray (5Y 6/2), unconsolidated clay/mud/marl, soft, low intergranular macroporosity. **PHOSPHATE GRAINS (5%)**, black, primarily fine grained sand size with some medium grained sand size grains.
810 - 820	10	Same as above.
820 - 830	10	Same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins | DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
830 - 840	10	Same as above.
840 - 850	10	Same as above.
850 - 860	10	**CLAY (60%)**, gray (5Y 5/1), soft, unconsolidated clay/mud, low intergranular macroporosity. **LIMESTONE (30%)**, light gray (2.5Y 7/1), wackestone to packstone, very fine grained quartz sand and phosphate grains, hard, low intergranular macroporosity. **SHELL FRAGMENTS (5%)**, white (2.5Y 8/1), rounded, fine to medium grained sand size pieces. **PHOSPHATE GRAINS (5%)**, black, primarily fine grained sand size with some medium grained sand size grains.
860 - 870	10	Same as above.
870 - 880	10	**CLAY (70%)**, gray (5Y 5/1), soft, unconsolidated clay/mud, low intergranular macroporosity. **LIMESTONE (20%)**, light gray (2.5Y 7/1), wackestone to packstone, very fine grained quartz sand and phosphate grains, hard, low intergranular macroporosity. **SHELL FRAGMENTS (5%)**, white (2.5Y 8/1), rounded, fine to medium grained sand size pieces. **PHOSPHATE GRAINS (5%)**, black, primarily fine grained sand size with some medium grained sand size grains.
880 - 890	10	Same as above.
890 - 900	10	**CLAY (85%)**, gray (5Y 5/1), soft, unconsolidated clay/mud, low intergranular macroporosity. **LIMESTONE (10%)**, light gray (2.5Y 7/1), wackestone to packstone, very fine grained quartz sand and phosphate grains, hard, low intergranular macroporosity. **PHOSPHATE GRAINS (5%)**, black, primarily fine grained sand size with some medium grained sand size grains.
900 - 910	10	**CLAY (60%)**, gray (5Y 5/1), soft, unconsolidated clay/mud, low intergranular macroporosity. **LIMESTONE (35%)**, light gray (2.5Y 7/1), wackestone to packstone, very fine grained quartz sand and phosphate grains, hard, low intergranular macroporosity. **PHOSPHATE GRAINS (5%)**, black, primarily fine grained sand size with some medium grained sand size grains.
910 - 920	10	Same as above.
920 - 930	10	**LIMESTONE (75%)**, light gray (2.5Y 7/1), wackestone to packstone,

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		very fine grained quartz sand and phosphate grains, hard, low intergranular macroporosity. **CLAY (20%)**, gray (5Y 5/1), soft, unconsolidated clay/mud, low intergranular macroporosity. **PHOSPHATE GRAINS (5%)**, black, primarily fine grained sand size with some medium grained sand size grains.
930 - 940	10	**LIMESTONE (100%)**, light olive gray (5Y 6/2), wackestone to packstone, soft, grains are very fine grained quartz sand and phosphate grains. **PHOSPHATE GRAINS (<1%)**, very fine grained sand size, black and very dark brown, part of limestone matrix.
940 - 950	10	Same as above
950 - 960	10	**LIMESTONE (80%)**, same as above. **CLAY (20%)**, same as above.
960 - 1000	10	**LIMESTONE (100%)**, light gray (5Y 7/2), same as above.
970 - 980	10	Same as above
980 - 990	10	Same as above
990 - 1000	10	Same as above
1000 - 1010	10	**LIMESTONE (100%)**, pale yellow (2.5Y 8/3). Packstone, abundant fossil fragments (shell fragments and crinoid stems), trace fine grained quartz in limestone matrix. Moderate macroporosity (moldic).
1010 - 1020	10	Same as above.
1020 - 1030	10	**MARL (90%)**, light gray (5Y 7/2), soft, low intergranular macroporosity. **SAND (10%)**, light gray (5Y 7/2), fine to coarse grained, quartz.
1030 - 1040	10	**LIMESTONE (100%)**, light gray (5Y 7/2). Wackestone, approximately 25% is fossil fragments, hard and soft. Low intergranular macroporosity.
1040 - 1050	10	**LIMESTONE (100%)**, light gray (5Y 7/2). Wackestone, trace fossil fragments, hard and soft. Low intergranular macroporosity. **PHOSPHATE GRAINS (<1%)**, black, fine grained sand size grains.
1050 - 1060	10	Same as above.
1060 - 1070	10	**LIMESTONE (100%)**, pale yellow (5Y 8/2). Packstone, abundant fossils. High intergranular macroporosity.
1070 - 1080	10	Same as above.
1080 - 1090	10	Same as above.
1090 - 1100	10	**LIMESTONE (100%)**, pale yellow (5Y 8/2). Packstone, fossiliferous, trace calcite crystals. High intergranular macroporosity.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins | DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
1100 - 1110	10	Same as above.
1110 - 1120	10	**LIMESTONE (100%)**, pale yellow (5Y 8/2). Packstone to wackestone, fossiliferous, trace calcite crystals. High intergranular macroporosity.
1120 - 1130	10	Same as above.
1130 - 1140	10	**LIMESTONE (100%)**, white (2.5Y 8/1). Wackestone, calcite crystals, fossil mollusk shell molds, moderately hard. Moderate intergranular macroporosity.
1140 - 1150	10	Same as above.
1150 - 1160	10	Same as above.
1160 - 1170	10	Same as above.
1170 - 1180	10	**LIMESTONE (100%)**, white (2.5Y 8/1). Wackestone, fine grained, calcite crystals comprise about 20% of the limestone, moderately hard. Low intergranular macroporosity.
1180 - 1190	10	Same as above.
1190 - 1200	10	Same as above.
1200 - 1210	10	Same as above.
1210 - 1220	10	Same as above.
1220 - 1230	10	Same as above.
1230 - 1240	10	Same as above.
1240 - 1250	10	Same as above.
1250 - 1260	10	Same as above.
1260 - 1270	10	Same as above.
1270 - 1280	10	Same as above.
1280 - 1290	10	**LIMESTONE (100%)**, pale yellow (2.5Y 8/3). Wackestone, trace calcite crystals, hard. Low intergranular macroporosity.
1290 - 1300	10	Same as above.
1300 - 1310	10	Same as above.
1310 - 1320	10	Same as above.
1320 - 1330	10	Same as above.
1330 - 1340	10	Same as above.
1340 - 1350	10	Same as above.
1350 - 1360	10	Same as above.
1360 - 1370	10	Same as above.
1370 - 1380	10	**LIMESTONE (100%)**, light gray (2.5Y 7/2). Wackestone, trace calcite crystals, trace vugs (<1 mm), hard. Low intergranular macroporosity.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
1380 - 1390	10	Same as above.
1390 - 1400	10	Same as above.
1400 - 1410	10	Same as above.
1410 - 1420	10	Same as above.
1420 - 1430	10	Same as above.
1430 - 1440	10	**LIMESTONE (100%)**, white (2.5Y 8/1). Packstone, weakly cemented, trace calcite crystals around individual grains. Moderate intergranular macroporosity.
1440 - 1450	10	Same as above.
1450 - 1460	10	Same as above.
1460 - 1470	10	Same as above.
1470 - 1480	10	**LIMESTONE (100%)**, white (2.5Y 8/1). Wackestone to mudstone, moderately hard. Low to moderate intergranular macroporosity.
1480 - 1490	10	**LIMESTONE (100%)**, pale yellow (2.5Y 8/2). Packstone, trace calcite crystals, moderately hard. Low intergranular macroporosity.
1490 - 1500	10	Same as above.
1500 - 1510	10	Same as above.
1510 - 1520	10	Same as above.
1520 - 1530	10	Same as above.
1530 - 1540	10	Same as above.
1540 - 1550	10	Same as above.
1550 - 1560	10	Same as above.
1560 - 1570	10	**LIMESTONE (100%)**, pale yellow (2.5Y 8/2) and gray (2.5Y 6/1). Pale yellow is packstone (approximately 80% of sample) and gray is mudstone (approximately 20% of sample), hard, well indurated. Low intergranular macroporosity.
1570 - 1580	10	**LIMESTONE (100%)**, gray (2.5Y 6/1 and 2.5Y 7/2). Approximately 90% of sample is mudstone and approximately 10% of sample is packstone, hard, well indurated. Low intergranular macroporosity.
1580 - 1590	10	**LIMESTONE (100%)**, pale yellow (2.5Y 7/3). Wackestone to packstone, trace intergranular calcite crystals, moderately hard. Moderate to low intergranular macroporosity.
1590 - 1600	10	Same as above.
1600 - 1610	10	Same as above.
1610 - 1620	10	Same as above.
1620 - 1630	10	Same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins | DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
1630 - 1640	10	**LIMESTONE (100%)**, light gray (2.5Y 7/2). Wackestone to mudstone, fossil molds present with calcite crystals lining the molds, moderately hard. Low to moderate intergranular macroporosity.
1640 - 1650	10	Same as above.
1650 - 1660	10	Same as above.
1660 - 1670	10	**DOLOMITIC LIMESTONE (90%)**, light olive gray (5Y 5/2). Mudstone, hard, well indurated, no intergranular macroporosity. **LIMESTONE (10%)**, pale yellow (2.5Y 7/3). Wackestone to packstone, trace intergranular calcite crystals, moderately hard. Moderate to low intergranular macroporosity.
1670 - 1680	10	**DOLOMITIC LIMESTONE (75%)**, light olive gray (5Y 5/2). Mudstone, hard, well indurated, no intergranular macroporosity. **LIMESTONE (25%)**, pale yellow (2.5Y 7/3). Wackestone to packstone, trace intergranular calcite crystals, moderately hard. Moderate to low intergranular macroporosity.
1680 - 1690	10	**LIMESTONE (100%)**, light olive gray (5Y 5/2). Wackestone, trace fossils, hard, well indurated, no intergranular macroporosity.
1690 - 1700	10	**LIMESTONE (100%)**, pale yellow (5Y 7/3). Wackestone to mudstone, hard, well indurated, no intergranular macroporosity.
1700 - 1710	10	**LIMESTONE (100%)**, pale yellow (5Y 8/2). Wackestone to mudstone, trace fossils, hard, well indurated, no intergranular macroporosity.
1710 - 1720	10	Same as above.
1720 - 1730	10	**DOLOMITIC LIMESTONE (100%)**, light olive brown (2.5Y 5/3). Wackestone to mudstone, trace fossils, hard, well indurated, no intergranular macroporosity.
1730 - 1740	10	**LIMESTONE (100%)**, pale yellow (5Y 8/2). Wackestone to mudstone, trace fossils, hard, well indurated, no intergranular macroporosity.
1740 - 1750	10	Same as above.
1750 - 1760	10	**LIMESTONE (70%)**, pale yellow (2.5Y 8/2). Wackestone to packstone, fossiliferous (fossils not identifiable), weakly cemented. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (30%)**, light brownish gray (2.5Y 6/2). Mudstone, hard, well indurated, no intergranular macroporosity.
1760 - 1770	10	**LIMESTONE (50%)**, pale yellow (2.5Y 8/2). Wackestone to packstone, fossiliferous (fossils not identifiable), weakly cemented. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (50%)**, light brownish gray (2.5Y 6/2). Mudstone, hard, well indurated, no intergranular macroporosity.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1	PROJECT NO.: 27335-45307	
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLE TYPE: Grab
SAMPLE DESCRIPTION BY: A. Miller, E. Huggins		DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
1770 - 1780	10	**LIMESTONE (80%)**, pale yellow (2.5Y 8/2). Packstone, fossiliferous, moderately hard. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (20%)**, light olive brown (2.5Y 5/4). Wacke stone, slightly sucrosic, hard, well indurated, low intergranular macroporosity.
1780 - 1790	10	Same as above.
1790 - 1800	10	**LIMESTONE (90%)**, pale yellow (2.5Y 8/2). Packstone, fossiliferous, moderately hard. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (10%)**, light olive brown (2.5Y 5/4). Wacke stone, slightly sucrosic, hard, well indurated, low intergranular macroporosity.
1800 - 1810	10	Same as above.
1810 - 1820	10	Same as above.
1820 - 1830	10	**LIMESTONE (100%)**, light gray (2.5Y 7/2). Packstone, fossiliferous (abundant fossil fragments), moderately hard. Moderate intergranular macroporosity.
1830 - 1840	10	Same as above.
1840 - 1850	10	**LIMESTONE (80%)**, light gray (2.5Y 7/2). Packstone, fossiliferous (abundant fossil fragments), moderately hard. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (20%)**, light yellowish brown (2.5Y 6/3). Mudstone, hard, well indurated, low intergranular macroporosity.
1850 - 1860	10	Same as above.
1860 - 1870	10	**LIMESTONE (90%)**, white (2.5Y 8/1). Mudstone to wackestone, moderately soft. Low intergranular macroporosity. **DOLOMITIC LIMESTONE (10%)**, light yellowish brown (2.5Y 6/3). Mudstone, hard, well indurated, low intergranular macroporosity.
1870 - 1880	10	Same as above.
1880 - 1890	10	Same as above.
1890 - 1900	10	Same as above.
1900 - 1910	10	Same as above.
1910 - 1920	10	**LIMESTONE (100%)**, pale yellow (2.5Y 7/3). Packstone to wackestone, some dolomitic mineralization, some fossil molds, moderately hard. Moderate intergranular macroporosity.
1920 - 1930	10	Same as above.
1930 - 1940	10	Same as above.
1940 - 1950	10	**LIMESTONE (65%)**, pale yellow (2.5Y 7/3). Packstone to wackestone,

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		some dolomitic mineralization, some fossil molds, moderately hard. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (35%)**, light brownish gray (2.5Y 6/2). Mudstone, hard, well indurated, low intergranular macroporosity.
1950 - 1960	10	**LIMESTONE (60%)**, pale yellow (2.5Y 7/3). Packstone to wackestone, some dolomitic mineralization, some fossil molds, moderately hard. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (40%)**, light brownish gray (2.5Y 6/2). Mudstone, hard, well indurated, low intergranular macroporosity.
1960 - 1970	10	**LIMESTONE (75%)**, pale yellow (2.5Y 7/3). Packstone to wackestone, some dolomitic mineralization, some fossil molds, moderately hard. Moderate intergranular macroporosity. **DOLOMITIC LIMESTONE (25%)**, light brownish gray (2.5Y 6/2). Mudstone, hard, well indurated, low intergranular macroporosity.
1970 - 1980	10	**DOLOSTONE (75%)** light olive brown (2.5Y 5/6). Hard, dense, very fine crystalline. No intergranular porosity. **LIMESTONE (25%)**, light gray (2.5Y 7/2). Wackestone to packstone, some fossils, moderately hard. Moderate intergranular macroporosity.
1980 - 1990	10	Same as above.
1990 - 2000	10	Same as above.
2000 - 2010	10	**DOLOSTONE (85%)** light olive brown (2.5Y 5/6). Hard, dense, very fine crystalline. No intergranular porosity. **LIMESTONE (15%)**, light gray (2.5Y 7/2). Wackestone to packstone, some fossils, moderately hard. Moderate intergranular macroporosity.
2010 - 2020	10	Same as above.
2020 - 2030	10	Same as above.
2030 - 2040	10	Same as above.
2040 - 2050	10	Same as above.
2050 - 2060	10	Same as above.
2060 - 2070	10	Same as above.
2070 - 2080	10	Same as above.
2080 - 2090	10	**DOLOSTONE (50%)** olive brown (2.5Y 4/4) and black (2.5Y 2.5/1). Very fine crystalline, anhedral, waxy to sucrosic, hard, dense. No intergranular porosity. Possible macroporosity based on the presence of fine grained, euhedral dolomite crystals on the faces of some of the cuttings. **LIMESTONE (50%)**, white (2.5Y 8/1). Wackestone to packstone, fine grained (grains are limestone and quartz sand, hard. No intergranular

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: DZMW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYPE: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins DATE: Sept 2006

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		macroporosity. **PHOSPHATE GRAINS (<1%)**, black. Fine grained, part of limestone matrix.
2090 - 2100	10	Same as above.
2100 - 2110	10	Same as above except vugs are present, <1 mm across, non-interconnected.
2110 - 2120	10	Same as above.
2120 - 2130	10	Same as above.
2130 - 2140	10	**DOLOSTONE (100%)** olive brown (2.5Y 4/4) and black (2.5Y 2.5/1). Very fine crystalline, euhedral to anhedral, waxy to sucrosic, hard, dense. No intergranular porosity. Possible macroporosity based on the presence of fine grained, euhedral dolomite crystals on the faces of some of the cuttings (the presence of these crystals is greater than 2080 - 2130).
2140 - 2150	10	Same as above.
2150 - 2160	10	Same as above.
2160 - 2170	10	Same as above.
2170 - 2180	10	Same as above.
2180 - 2190	10	**DOLOSTONE (100%)** olive brown (2.5Y 4/4) and black (2.5Y 2.5/1). Very fine crystalline, anhedral, waxy to sucrosic, hard, dense. No intergranular porosity. Possible macroporosity based on the presence of fine grained, euhedral dolomite crystals on the faces of some of the cuttings (the presence of these crystals is the same as from 2080 - 2130 and less than 2130 - 2180).
2190 - 2200	10	Same as above.
2200 - 2210	10	Same as above.
2210 - 2220	10	Same as above.
2220 - 2225	10	Same as above.
2225		Total Depth of Borehole (9/23/06).

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
0 - 20	20	**LIMESTONE (100%)**, pale yellow (5Y 8/2), mudstone to wackestone, hard, low intergranular macroporosity, grains are fine-grained quartz sand.
20 - 30	10	**SHELL (100%)**, light gray (10YR 7/2) and dark gray (5Y 4/1), grains are fragmented, broken, angular, possible moderate intergranular macroporosity, shells are easily broken with fingernail and formation is easy to drill. Smaller shells are whole mollusks and bivalves.
30 - 50	20	**SHELL (95%)**, same as above. **LIMESTONE (5%)**, light olive gray (5Y 6/2), mudstone to wackestone, very fine grained, varies from soft to hard, low intergranular macroporosity, grains appear to be quartz sand, limestone pieces, and phosphate grains. **PHOSPHATE GRAINS (<1%)**, black, fine grained sand size.
50 - 60	10	**SHELL (90%)**, same as above. **LIMESTONE (10%)**, same as above. **PHOSPHATE GRAINS (<1%)**, same as above.
60 - 70	10	**SHELL (85%)**, same as above. **LIMESTONE (15%)**, same as above. **PHOSPHATE GRAINS (<1%)**, same as above.
70 - 100	30	**SHELL (50%)**, same as above. **LIMESTONE (50%)**, same as above. **PHOSPHATE GRAINS (<1%)**, same as above.
100 - 120	20	**LIMESTONE (90%)**, same as above. **SHELL (10%)**, same as above. **PHOSPHATE GRAINS (<1%)**, same as above.
120 - 130	10	**LIMESTONE (87%)**, same as above. **SHELL (10%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above.
130 - 140	10	**LIMESTONE (92%)**, same as above. **SHELL (5%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above.
140 - 160	20	**LIMESTONE (87%)**, same as above. **SHELL (10%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above.
160 - 170	10	**LIMESTONE (77%)**, same as above. **SHELL (20%)**, same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
160-170 (cont)		**PHOSPHATE GRAINS (3%)**, same as above.
170 - 190	20	**SAND (97%)**, light gray (5Y 7/1), fine grained, quartz and limestone pieces (quartz is 95%and limestone pieces are 5%), moderate intergranular macroporosity. **PHOSPAHATE GRAINS (3%)**, fine grained sand size, black.
190 - 210	20	**SAND (97%)**, same as above except grain size is fine to medium. **PHOSPAHATE GRAINS (3%)**, same as above except grain size is fine to medium.
210 - 220	10	**CLAY (50%)**, dark gray (5Y 4/1), unconsolidated clay/mud, soft, low intergranular macroporosity. **SAND (35%)**, clear to white, fine grained, quartz. **SILT (15%)**. **PHOSPHATE GRAINS** (present but <1%), black, fine grained sand size.
220 - 230	10	**SHELL (60%)**, olive (5Y 5/3), fragmented, broken, angular, medium grained sand to fine gravel size, soft to moderately hard, moderate intergranular macroporosity. **LIMESTONE (30%)**, light olive gray (5Y 6/2), mudstone, grains are fine to very fine grained, hard, low intergranular macroporosity. **PHOSPAHATE GRAINS (5%)**, medium grained sand size, black. **SAND (5%)**, clear, medium grained sand size.
230 - 240	10	**CLAY (60%)**, dark gray (5Y 4/1), unconsolidated clay/mud, soft, low intergranular macroporosity. **SHELL (30%)**, same as 220 - 230. **SAND AND SILT (10%)**, sand is fine grained.
240 - 250	10	**CLAY (80%)**, same as above. **SAND AND SILT (20%)**, sand size particles are angular, fine to medium grained, quartz and shell fragments.
253	-	Bottom of 60" diameter mud rotary drilled hole (4/12/06).
250 - 260	10	Start of 12 ¼", mud rotary drilled, pilot hole. **PORTLAND CEMENT (100%)**, olive gray (5Y 5/2).
260 - 280	20	**CLAY (80%)**, dark gray (5Y 4/1), unconsolidated clay/mud, soft, low intergranular macroporosity. **SILT AND SAND (20%)**, sand size particles are angular, quartz, limestone, and shell (continued) fragments.
280 - 300	20	**CLAY (80%)**, same as above. **SILT AND SAND (20%)**, same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
300 - 320	20	**CLAY (80%)**, same as above. **SILT AND SAND (20%)**, same as above. **PHOSPHATE GRAINS (<1%)**, black, fine grained sand size.
320 - 340	20	**CLAY (80%)**, same as above. **SILT AND SAND (10%)**, sand is fine to medium grained quartz, clear/frosted, rounded. **LIMESTONE (10%)**, pale yellow (5Y 8/2), wackestone, grains are fine grained quartz sand and limestone pieces, hard, low intergranular porosity. **PHOSPHATE GRAINS (<1%)**, black, fine grained sand size.
340 - 360	20	**CLAY (80%)**, same as above. **SILT AND SAND (10%)**, same as above. **LIMESTONE (10%)**, same as above. **PHOSPHATE GRAINS (<1%)**, same as above.
360 - 370	10	No sample.
370 - 380	10	**CLAY (80%)**, same as 320 - 360. **SILT AND SAND (10%)**, same as 320 - 360. **LIMESTONE (10%)**, same as 320 - 360. **PHOSPHATE GRAINS (<1%)**, same as 320 - 360.
380 - 400	20	**SHELL AND FOSSIL FRAGMENTS (80%)**, light olive gray (5Y 6/2), fragments are primarily medium grained sand size, soft, bivalve pieces and echinoid pieces, moderate intergranular porosity. **SAND (10%)**, fine to medium grained, quartz, clear/frosted, rounded. **LIMESTONE (10%)**, light brownish gray (2.5Y 6/2), packstone, grains are very fine grained, moderately hard, up to 15% of the grains are very fine grained, black phosphate grains.
400 - 420	20	**LIMESTONE (40%)**, same as above. **SHELL AND FOSSIL FRAGMENTS (30%)**, same as above. **SAND (30%)**, same as above.
420 - 440	20	**LIMESTONE (40%)**, same as above. **SHELL AND FOSSIL FRAGMENTS (30%)**, same as above. **SAND (30%)**, same as above.
440 - 460	20	**LIMESTONE (30%)**, same as above. **CLAY (30%)**, same as 260 - 380. **SHELL AND FOSSIL FRAGMENTS (15%)**, same as above. **SAND (12%)**, same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
440-460 (cont)		**PHOSPHATE GRAINS (3%)**, very fine grained sand size, black.
460 - 480	20	**CLAY (70%)**, same as 260 - 380. **SILT (10%)**. **LIMESTONE (10%)**, same as above. **SAND (7%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above.
480 - 500	20	**CLAY (60%)**, same as 260 - 380. **SILT (20%)**. **LIMESTONE (10%)**, same as above. **SAND (7%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above.
500 - 530	30	Same as 480 - 500.
530 - 560	30	Same as 480 - 500.
560 - 600	40	**SHELL FRAGMENTS (42%)**, pale yellow (2.5Y 7/4), fragmented, broken, angular, primarily bivalves, hard. **LIMESTONE (40%)**, pale yellow (2.5Y 7/4), wackestone, grains are very fine grained quartz sand, hard, low intergranular macroporosity. **CLAY (15%)**, gray (2.5Y 5/1), silty, soft, unconsolidated clay/mud, low intergranular macroporosity. **PHOSPHATE GRAINS (3%)**, very fine grained sand size, black.
600 - 620	20	**LIMESTONE (47%)**, same as above. **SHELL FRAGMENTS (40%)**, same as above. **CLAY (10%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above. **SAND (<1%)**, fine to medium grained, quartz, rounded, frosted.
620 - 630	10	**LIMESTONE (47%)**, same as above, except color is white (2.5Y 8/1). **SHELL FRAGMENTS (40%)**, same as above. **CLAY (10%)**, same as above. **PHOSPHATE GRAINS (3%)**, same as above. **SAND (<1%)**, fine to medium grained, quartz, rounded, frosted.
630 - 640	10	**CLAY (40%)**, same as above. **LIMESTONE (30%)**, same as above. **SHELL FRAGMENTS (29%)**, same as above. **PHOSPHATE GRAINS (1%)**, same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
630-640 (cont)		**SAND (<1%)**, same as above.
640 - 690	50	**CLAY (50%)**, same as above. **LIMESTONE (30%)**, same as above. **SHELL FRAGMENTS (15%)**, same as above. **PHOSPHATE GRAINS (5%)**, same as above.
690 - 700	10	**LIMESTONE (30%)**, white (2.5Y 8/1), rounded, fine to medium grained sand size pieces. **SHELL FRAGMENTS (30%)**, white (2.5Y 8/1), rounded, fine to medium grained sand size pieces. **SAND (25%)**, fine to medium grained, quartz, subrounded. **CLAY (10%)**, same as above. **PHOSPHATE GRAINS (5%)**, fine to medium grained sand size, black and very dark brown.
700 - 730	30	**CLAY (85%)**, same as above. **SAND (5%)**, same as above. **LIMESTONE (5%)**, same as above. **SHELL FRAGMENTS (5%)**, same as above.
730 - 740	10	**CLAY (50%)**, gray (2.5Y 5/1), silty, soft, unconsolidated clay/mud, low intergranular macroporosity. **LIMESTONE (30%)**, white (2.5Y 8/1), wackestone, grains are very fine grained quartz sand, hard, low intergranular macroporosity. **SHELL FRAGMENTS (15%)**, pale yellow (2.5Y 7/4), fragmented, broken, angular, primarily bivalves, hard. **PHOSPHATE GRAINS (5%)**, very fine grained sand size, black.
740 - 750	10	**SHELL FRAGMENTS (35%)**, white (2.5Y 8/1), rounded, fine to medium grained sand size pieces. **LIMESTONE (30%)**, white (2.5Y 8/1), rounded, fine to medium grained sand size pieces. **CLAY (15%)**, same as above. **PHOSPHATE GRAINS (15%)**, fine to medium grained sand size, black. **SAND (5%)**, fine to medium grained, quartz, subrounded.
750 - 790	40	**LIMESTONE (62%)**, same as above. **SHELL FRAGMENTS (20%)**, same as above. **CLAY (15%)**, same as above. **PHOSPHATE GRAINS (3%)**, very fine to medium grained sand size,

GEOLOGIST LOG
INJECTION WELL IW-1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		black.
790 -810	20	**LIMESTONE (70%)**, same as above. **SHELL FRAGMENTS (15%)**, same as above. **CLAY (15%)**, same as above. **PHOSPHATE GRAINS (<1%)**, very fine grained sand size, black.
810 - 870	60	**LIMESTONE (80%)**, light gray (2.5Y 7/1), wackestone to packstone, very fine grained quartz sand and phosphate grains, hard, low intergranular macroporosity. **SHELL FRAGMENTS (15%)**, same as above. **PHOSPHATE GRAINS (5%)**, very fine grained sand size, black and very dark brown, part of limestone matrix.
870 - 880	10	**CLAY (55%)**, gray (5Y 5/1), soft, unconsolidated clay/mud, low intergranular macroporosity. **SAND (20%)**, very fine grained, quartz, clear. **SILT (15%)**. **LIMESTONE (10%)**, same as above.
880 - 890	10	**LIMESTONE (95%)**, same as above, light gray (2.5Y 7/1) and gray (5Y 5/1). **PHOSPHATE GRAINS (5%)**, very fine grained sand size, black and very dark brown, part of limestone matrix.
890 - 920	30	Same as 870 - 880, except limestone is soft.
920 - 950	30	**LIMESTONE (100%)**, light olive gray (5Y 6/2), wackestone to packstone, soft, grains are very fine grained quartz sand and phosphate grains. **PHOSPHATE GRAINS (<1%)**, very fine grained sand size, black and very dark brown, part of limestone matrix.
950 - 960	10	**LIMESTONE (80%)**, same as above. **CLAY (20%)**, same as above.
960 - 1000	40	**LIMESTONE (100%)**, light gray (5Y 7/2), same as above. NOTE: 1000 ft bpl = bottom of 12 ¼" mud rotary drilled pilot hole on 4/17/06
1000 - 1050	50	**LIMESTONE (100%)** light gray (2.5Y7/1). Wackestone to packstone. Fossil fragments present (coral pieces), trace oolites. Fine grained quartz in limestone matrix. Moderate macroporosity
1050 - 1090	40	**LIMESTONE (100%)** light gray (5Y7/1) grainstone, moderately soft, low intergranular macroporosity
1090 - 1100	10	**LIMESTONE (75%)** very pale brown (10YR8/2) grainstone, moderately

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
1090-1100 (cont)		hard. **Phosphate grains (25%)** - medium sand-sized
1100 - 1160	60	**LIMESTONE (100%)** pale yellow (2.5Y8/2) boundstone, moderately soft, high macroporosity, fossil fragments, very uniform in size, sugary texture
1160 - 1180	20	**LIMESTONE (100%)** Light yellowish brown (2.5Y6/4) boundstone, moderately hard, sugary texture.
1180 - 1240	60	**LIMESTONE (100%)** Pale yellow (2.5Y8/2) grainstone, some crystalline particles and fossil fragments, high to moderate macroporosity
1240 - 1250	10	**LIMESTONE (100%)** same as above with trace phosphate grains
1250 - 1300	50	**LIMESTONE (100%)** Pale yellow (2.5Y8/2) grainstone, moderately soft high macroporosity, <20% fossil fragments, trace crystalline particles
1300 - 1340	40	**LIMESTONE (100%)** Pale yellow (2.5Y8/2) grainstone to packstone, moderately hard, high macroporosity
1340 - 1380	40	**LIMESTONE (100%) Pale yellow (2.5Y7/3)** grainstone to wackestone, moderately hard, sugary texture in 50% of the particles.
1380 - 1390	10	**LIMESTONE (100%)** pale yellow (2.5Y7/3) bondstone to wackestone, fewer than 10% fossils, hard, moderate macroporosity
1390 - 1400	10	**LIMESTONE (85%)** white (5Y8/1) grainstone, moderately soft, moderate macroporosity. **DOLOSTONE (15%)** white (5Y8/1) wackestone, moderately hard, low macroporosity, trace fossils
1400 - 1460	60	**LIMESTONE (100%)** white (5Y8/1) grainstone, moderate macroporosity, moderately soft, <3% fossil fragments
1460 - 1520	60	**LIMESTONE (100%)** white (5Y8/1) grainstone, moderate macroporsity moderately soft. Grain size fine to medium. <3% fossil fragments. Brown layering present in 3% of the ships. Trace crystalline and vuggy chips observed.
1520 - 1530	10	**LIMESTONE (80%)** pale yellow (5Y8/2) wackestone, low macroporosity. **CLAY (20%)** white (5Y8/1) low plasticity, lime, fine sand-sized grains throughout clay
1530 - 1560	30	**LIMESTONE (97%)** pale yellow (5Y8/2) grainstone, high macroporosity, **FOSSIL FRAGMENTS (<3%)**, trace oolites
1560 - 1580	20	**LIMESTONE (80%)** white (5Y8/2) wackestone to grainstone, moderately ;hard, moderate macroporosity. **DOLOSTONE (20%)** white (5Y8/1) mudstone, hard, low macroporosity
1580 - 1600	20	**LIMESTONE (97%)** pale yellow (2.5Y8/3) grainstone, hard, moderate macroporosity, grain size - fine. **DOLOSTONE (3%)** hard, conchoidal fracturing, pieces within limestone matrix

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
1600 - 1640	40	**LIMESTONE (97%)** pale yellow (2.5Y7/3) grainstone, moderately hard, moderate macroporosity, **FOSSIL FRAGMENTS (3%)** moldic
1640 - 1650	10	**LIMESTONE (97%)** light gray (2.5Y7/2) grainstone to wackestone, hard, moderate macroporosity, **FOSSIL FRAGMENTS (3%)** moldic
1650 - 1680	30	**LIMESTONE (90%)** pale yellow (2.5Y8/2) grainstone to wackestone fine-sized grains, hard moderate macroporosity **FOSSIL FRAGMENTS (10%)** moldic
1680 - 1700	20	**LIMESTONE (80%)** light gray (2.5Y7/1) wackestone moderately hard, low macroporosity **LIMESTONE (20%)** black (2.5Y2.5/1) wackestone, very hard, low macroporosity.
1700 - 1710	10	**DOLOSTONE** (70%) light olive brown (2.5Y5/3) packstone, very hard, little macroporosity, dense. **LIMESTONE** (30%) pale yellow (2.5Y8/2) mudstone to grainstone, moderately hard, moderate macroporosity
1710 - 1740	30	**LIMESTONE** (90%) pale yellow (2.5Y8/2) grainstone to packstone, <3% fossil fragments, trace crystalline chips **DOLOSTONE** (7%) dark grayish brown (2.5Y4/2) mudstone, very hard, no macroporosity, layering visible in 15% of the chips
1740 - 1780	40	**DOLOSTONE** (90% grading to 50% by 1,780 ft) dark grayish brown (2.5Y4/2) packstone, very hard, no macroporosity **LIMESTONE** (10% grading to 50% by 1,780 ft) pale yellow (2.5Y8/2) grainstone, moderately soft, moderate macroporosity, fossil fragments visible
1780 - 1800	20	**LIMESTONE** (75%) light gray (2.5Y7/2) grainstone, moderately hard, moderate macroporosity, fossil fragments visible **DOLOSTONE** (25%) generally as above
1800 - 1840	40	**LIMESTONE** (97%) pale yellow (2.5Y7/3) grainstone, moderately soft, moderate macroporosity **FOSSIL FRAGMENTS** (3%)
1840 - 1870	30	**LIMESTONE** (90%) light gray (2.5Y7/1) mudstone to grainstone, moderately soft, layering visible in 20% of the chips, moderate macroporosity **DOLOSTONE** (10%) generally as above
1870 - 1880	10	**LIMESTONE** (70%) generally as above **DOLOSTONE** (30%) generally as above
1880 -1890	10	**DOLOSTONE** (50%) dark grayish brown (2.5Y5/2) crystalline. **LIMESTONE** Light gray (2.5Y7/2) grainstone, v. fossilif. Some microporosity
1890 - 1900	10	**DOLOSTONE** (80%) dark grayish brown (2.5Y5/2) crystalline, **LIMESTONE**(20 %) light gray (2.5Y7/2) grainstone, fossiliferous, some microporosity. Tr. dolomite-cemented quartz **SANDSTONE** (2.5Y8/8).
1900 - 1940	40	**LIMESTONE** (100%) light to medium gray and brownish gray (5YR7/1, 2.5YR7/1, 5YR7/2) highly fossiliferous packstone with microporosity increasing with depth. There is a trace of light gray, fine-grained

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		quartz sandstone (2.5Y6/1) with calcite cement.
1940 - 1970	30	**DOLOMITIC LIMESTONE** (80%) light grayish brown (10YR7/2) packstone with some microporosity, highly fossiliferous. **CLAYSTONE** (20%) light gray (2.5Y7/1).
1970 - 1990	20	**DOLOMITIC LIMESTONE** (100%) light brown (10YR7/3) packstone with some microporosity, highly fossiliferous.
1990 - 2010	20	**DOLOSTONE (100%)**, dark yellowish brown (10YR 4/4), very fine grained to microcrystalline, very hard, low intergranular macroporosity.
2010 - 2020	10	**DOLOSTONE (70%)**, dark yellowish brown (10YR 4/4) and very dark brown (10YR 2/2), otherwise same as above. **LIMESTONE (30%)**, white (10YR 8/1), mudstone, very fine grains, soft, low intergranular macroporosity.
2020 - 2030	10	**DOLOMITIC LIMESTONE (100%)**, light brownish gray (10YR 6/2), mudstone, very fine grains, moderately hard, low intergranular macroporosity.
2030 - 2050	20	**DOLOSTONE (50%)**, same as above. **DOLOMITIC LIMESTONE (50%)**, same as above.
2050 - 2060	10	**DOLOMITIC LIMESTONE (100%)**, same as above.
2060 - 2090	30	**DOLOSTONE (50%)**, same as above, dolomite is microcrystalline. **DOLOMITIC LIMESTONE (50%)**, same as above.
2090 - 2100	10	**DOLOSTONE (100%)**, dark yellowish brown (10YR 2/2) and very dark brown (10YR 2/2), microcrystalline, very hard, low intergranular macroporosity, some pieces of the dark yellowish brown DOLOSTONE have coarse-grained sand-size inclusions of the same type of limestone present at 2010 - 2020.
2100 - 2160	60	Interbedded dolomitic limestone and dolostone with the percentage of dolostone increasing with depth to the point where samples become 100 % dolostone between 2160 and 2170 ft. **DOLOSTONE (50 - 100%)** dark gray (10YR4/1) crystalline and dense. Probably has some secondary porosity in the form of vugs and fractures as evidenced by coarse dolomite crystals coating open surfaces. **DOLOMITIC LIMESTONE (50 - 0%)** very pale brown (10YR8/2) fine-grained packstone with good intergranular porosity.
2160 - 2390	230	**DOLOSTONE (100%)** dark gray (10YR4/1) to light gray (10YR7/1). Hard, dense, very fine crystalline. Some secondary porosity in the form of vugs and fractures is evident by fine-grained dolomite crystals lining open spaces. The cuttings from this interval are notable for their consistency in color and lithology. No intergranular porosity. Vugs and

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
		fractures are <1 mm to 1 mm across and do not appear to be interconnected.
2390 - 2440	50	**DOLOSTONE (100%)** light brownish gray (10YR6/2) very fine crystalline, vuggy, hard, dense. No intergranular porosity. Vugs are <1 mm to 1 mm across and do not appear to be interconnected.
2440 - 2480	40	**DOLOSTONE (100%).** Brown (7.5YR4/3). Fine to medium crystalline, sucrosic, dense, very hard. Vuggy porosity with vugs approximately 20% of total sample. Vugs are 0.25 - 0.5 mm dia. No intercrystalline porosity, and vugs are not interconnected. Drill rate = 4 ft/hr for2440 - 2460, 15 ft/hr for 2460 - 2475, and 5 ft/hr for 2475 to 2480. Significant drill rig chatter while drilling this zone.
2480 - 2560	80	**DOLOSTONE (100%).** Dark brown (7.5YR3/2). Fine crystalline, waxy to amorphous, dense, very hard. No intercrystalline porosity, 0 to 3% vugs, 0.25 - 0.5 mm dia. Vugs are not interconnected. Drilling rate = 4 ft/hr for 2480 - 2490, 8 ft/hr for 2490 to 2530, 3 - 4 ft/hr for 2530 - 2560. Moderate drill rig chatter while drilling this zone.
2560 - 2600	40	**DOLOSTONE (100%).** Dark grayish brown (10YR4/2). Medium crystalline, sucrosic to amorphous, hard, moderately dense to dense, no intercrystalline porosity, vugs present but <1% of sample and <1 mm across. Drilling rate = 10 - 12 ft/hr.
2600 - 2610	10	**DOLOSTONE (100%).** Dark brown (7.5YR3/2). Same as 2480 - 2560. Drilling rate = 3 - 4 ft/hr.
2610 - 2620	10	**DOLOSTONE (30%).** Dark brown (7.5YR3/2). Same as 2480 - 2560. **DOLOSTONE (70%).** Yellowish brown (10YR5/6). Medium crystalline, sucrosic, firm to hard, moderately dense, fair to good intercrystalline porosity, no vugs, about one-half of the cuttings are chips, ¼ - 1" across, and one-half of the cuttings are medium-grained sand size, consisting of individual or small clusters of dolomite crystals. Drilling rate = 10 ft/hr.
2620 - 2630	10	**DOLOSTONE (100%).** Yellowish brown (10YR5/6). Medium crystalline, sucrosic, firm to hard, moderately dense, fair to good intercrystalline porosity, no vugs, about one-half of the cuttings are chips, ¼ - 1" across, and one-half of the cuttings are medium-grained sand size, consisting of individual or small clusters of dolomite crystals. Drilling rate = 15 ft/hr. Dredging of pilot hole performed from 2610 - 2635.
2630 - 2640	10	**DOLOSTONE (100%).** Dark brown (7.5YR3/2). Fine crystalline, waxy to amorphous, dense, very hard. No intercrystalline porosity, 0 to 3% vugs, 0.25 - 0.5 mm dia. Vugs are not interconnected. Drilling rate = 9 - 10 ft/hr. Moderate drill rig chatter while drilling this zone.
2640 - 2650	10	**DOLOSTONE (70%).** Dark brown (7.5YR3/2). Same as above.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
2650 - 2660	10	**DOLOSTONE (50%).** Dark yellowish brown (10YR4/6) micro-crystalline, very hard, dense, poor inter-crystalline porosity. **DOLOSTONE (60%)** light yellowish brown (10YR6/4) sucrosic, medium crystalline, slightly vuggy. Drilling rate 10 -8 ft/hr
2660 - 2680	20	**DOLOSTONE (50%).** Same as the sucrosic dolostone described from 2650 - 2660. **DOLOSTONE (50%).** Dark grayish brown (10YR4/6) slightly sucrosic, dense
2680 - 2700	20	**DOLOSTONE (60%)** dark grayish brown (10YR4/6) micro-crystalline, dense, no vugs, no inter-crystalline porosity. DOLOSTONE (40%) dark grayish brown (2.5Y4/2) medium crystalline, occasional impurities of sandstone (<1% of sample) slightly vuggy
2700 - 2720	20	**LIMESTONE (80%)** pale yellow (2.5Y7/3) boundstone, trace moldic fossils and vugs. **DOLOSTONE (20%)** dark grayish brown (10YR4/6) micro-crystalline, slightly vuggy
2720 - 2760	40	**DOLOSTONE (80%).** Dark gray (2.5Y4/1) (10%) and light olive brown (2.5Y5/4) (90%) microcrystalline, dense, no vugs no intercrystalline porosity. **LIMESTONE (20%)** white (2.5Y8/1) wackestone and grainstone, moderately hard, trace fossil, moderate intergranular porosity
2760 - 2830	70	**DOLOSTONE (80%).** Brown (10YR4/3) microscrystalline, dense, no vugs, no intergranular porosity, very uniform. **DOLOSTONE (20%)** brown (10YR4/3) medium crystalline, some sucrosic grains.
2830 - 2900	70	**DOLOSTONE (100%)** generally as from 2760 - 2830.
2900 - 3040	140	**DOLOSTONE (100%)** dark gray (5Y4/1), light olive brown (2.5Y5/6) and very dark grayish brown (2.5Y3/2). Very fine crystalline to microcrystalline, waxy, amorphous, dense, very hard, no intergranular porosity. Some faces of the cuttings have fine-grained dolomite crystals. Core #5 (2933 - 2939) shows 3% of the sample is vugs, not interconnected, <0.25" to 0.5" across. Drilling rate 2 - 5 ft/hr.
3040 - 3050	10	Same as above, except color is very dark gray (5Y 3/1) and penetration rate is 1 - 2 ft/hr.
3050 - 3220	170	Same as 2900 - 3040. Drilling rate is 1 to 3 ft/hr. Large pieces of cuttings from 3170 - 3180 show well-developed, euhedral, fine to medium sized dolomite crystals on faces that have not been broken by drilling activity.
3220 - 3230	10	**DOLOSTONE (100%)** pale brown (10YR6/3). Microcrystalline, waxy, amorphous, very hard, no intercrystalline or intergranular porosity, no vugs visible, but cuttings are small (i.e., sand size). Very fine dolomite crystals are on some of the faces of the cuttings. Drilling rate = 10 - 15 ft/hr.

GEOLOGIST LOG
INJECTION WELL IW-1

WELL: IW-1 PROJECT NO.: 27335-45307

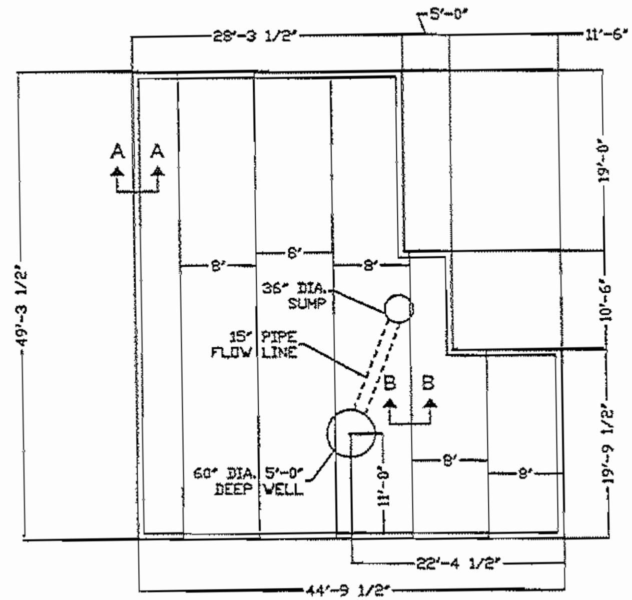
SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLE TYP: Grab

SAMPLE DESCRIPTION BY: A. Miller, E. Huggins, D. Legett

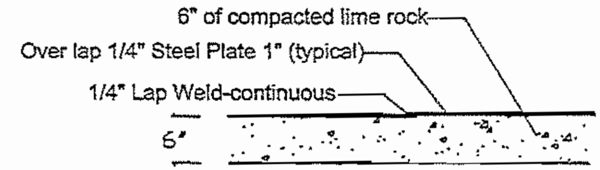
DEPTH INTERVAL (FEET)	THICK-NESS (FEET)	SAMPLE DESCRIPTION
3230 - 3240	10	**DOLOSTONE (100%)** dark gray (5Y4/1), light olive brown (2.5Y5/6) and very dark grayish brown (2.5Y3/2). Very fine crystalline to microcrystalline, waxy, amorphous, dense, very hard, no intergranular porosity. Some faces of the cuttings have fine-grained dolomite crystals. Drilling rate is 10 - 15 ft/hr.
3240 - 3330	90	**DOLOSTONE (100%)**, grayish brown (2.5Y5/3). Microcrystalline, waxy, amorphous, very hard, no intercrystalline or intergranular porosity, no vugs visible, but cuttings are small (i.e., sand size). Very fine dolomite crystals are on some of the faces of the cuttings. Drilling rate = 10 - 15 ft/hr.
3330 - 3340	10	**DOLOSTONE (97%)**, grayish brown (2.5Y5/3). Same as above. **DOLOSTONE (3%)**, black (2.5Y2.5/1). Same as above except for color. Drilling rate = 15 - 20 ft/hr.
3340 - 3380	40	**DOLOSTONE (100%)**. Same as 3240 - 3330. Drilling rate = 8 - 10 ft/hr.
3380 - 3390	10	**DOLOSTONE (97%)**, light gray (2.5Y7/2), black (2.5Y2.5/1), and very dark grayish brown (2.5Y3/2). Fine and very fine crystalline, anhedral, dull amorphous texture, hard, no vugs, no intercrystalline porosity. Drilling rate = 8 - 10 ft/hr. **GYPSUM/ANHYDRITE (3%)**, white (2.5Y1/1). soft, opaque, anhedral.
3390 - 3400	10	**DOLOSTONE (100%)**, light gray (2.5Y7/2), black (2.5Y2.5/1), and very dark grayish brown (2.5Y3/2). Fine and very fine crystalline, anhedral, dull amorphous texture, hard, no vugs, no intercrystalline porosity. Drilling rate = 8 - 10 ft/hr.
3400 - 3480 (as of 1900 on 6/25/06)	80	**DOLOSTONE (80%)**, light gray (2.5Y7/2), black (2.5Y2.5/1), and very dark grayish brown (2.5Y3/2). Fine and very fine crystalline, anhedral, dull amorphous texture, hard, no vugs, no intercrystalline porosity. Drilling rate = 3 - 8 ft/hr. **GYPSUM/ANHYDRITE (20%)**, white (2.5Y1/1). soft, opaque, anhedral.

APPENDIX F

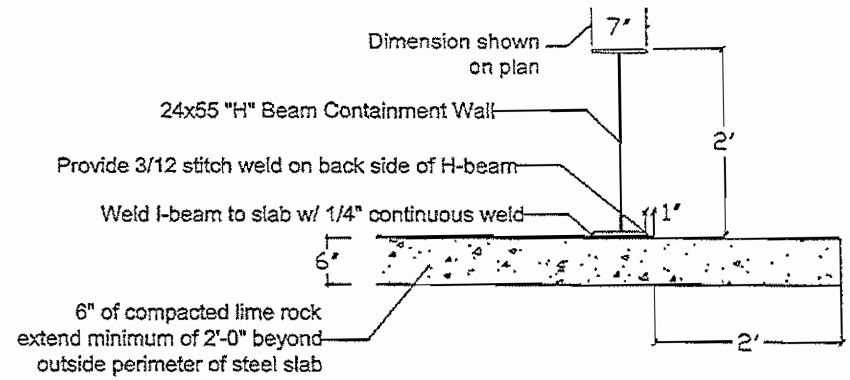
Containment Structure Plans; Location Survey



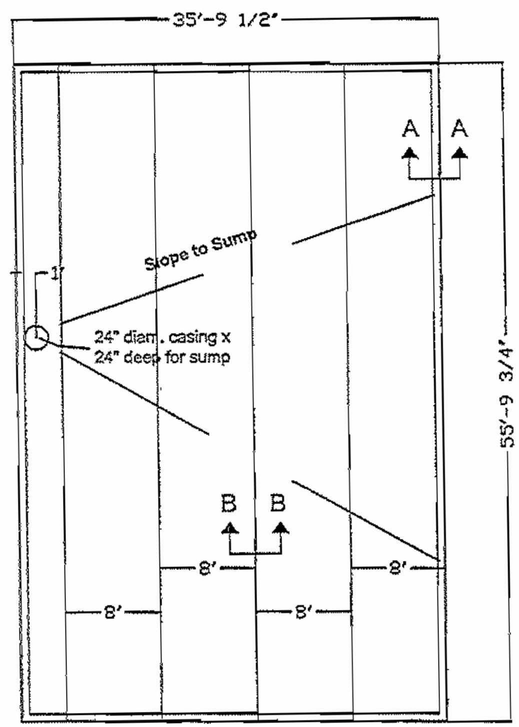
Steel Drilling Pad



Section B-B
Typical Lap Joint



Section A-A
Typical Wall Section



Mud System Pad

NTS

General Notes:

1)The drilling pad shall be constructed of continuous 1/4" thick ASTM A36 steel plate. All welding for the steel drilling pad and containment wall to be 1/4" continuous in accordance with the American Welding Society Structural Welding Code which shall be watertight.
2) Any required stabilization shall be in accordance with FDOT Standard Specification Section 160.
3) The steel drilling pad shall pitch to the sump constructed in such fashion as to be in accordance with FDOT Standard Specification Section 200.

Prepared by:

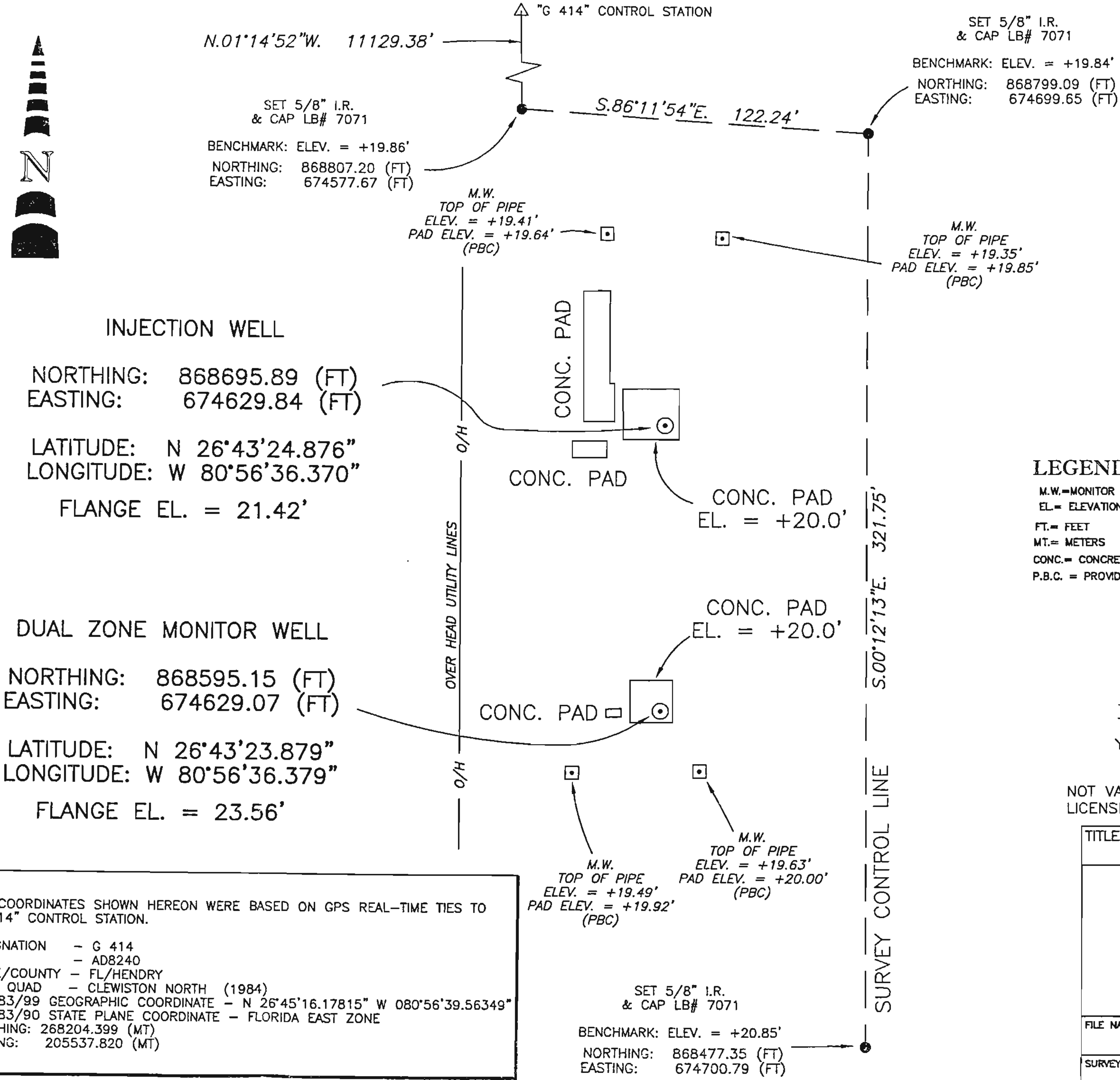
Youngquist Brothers, Inc.
15465 Pine Ridge Rd.
Ft. Myers, Fl. 33908
239-489-4444

CONSULTING ENGINEERS, INC.
environmental • civil • structural

Youngquist Brothers, Inc.		Sheet
15465 Pine Ridge Road	Steel Drilling/Mud Slab	1 of 1
Ft. Myers, FL. 33908	Date: December, 2004	

SURVEY PLAT

OF EXISTING WELL
AT 3025 USSC GATE "B" WELL SITE
LOCATED IN THE CITY OF CLEWISTON,
HENDRY COUNTY, FLORIDA



THE COORDINATES SHOWN HEREON WERE BASED ON GPS REAL-TIME TIES TO "G 414" CONTROL STATION.

DESIGNATION – G 414
PID – AD8240
STATE/COUNTY – FL/HENDRY
USGS QUAD – CLEWISTON NORTH (1984)
NAD 83/99 GEOGRAPHIC COORDINATE – N 26°45'16.17815" W 080°56'39.56349"
NAD 83/90 STATE PLANE COORDINATE – FLORIDA EAST ZONE
NORTHING: 268204.399 (MT)
EASTING: 205537.820 (MT)

NOTES:

THIS PLAT PREPARED AS A SPECIFIC PURPOSE SURVEY FOR THE PURPOSE OF LOCATING THE EXISTING WELLS AT 3025 USSC GATE "B" WELL SITE.

BEARINGS AND COORDINATES SHOWN HEREON ARE STATE PLANE FOR THE FLORIDA EAST ZONE NAD 83/1999 ADJUSTMENT AND BASED ON GPS REAL-TIME TIES TO CONTROL STATION "G 414".

ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29), FROM TIES TO CONTROL STATION "G 414" AND BENCHMARKS PROVIDED BY THE CLIENT.

UNDERGROUND IMPROVEMENTS, UTILITIES AND/OR FOUNDATIONS WERE NOT LOCATED UNLESS OTHERWISE NOTED.

DATE OF LAST FIELD WORK: 12-18-2006

LEGEND:

M.W.=MONITOR WELL
EL.= ELEVATION
FT.= FEET
MT.= METERS
CONC.= CONCRETE
P.B.C. = PROVIDED BY CONTRACTOR

PREPARED FOR:

YOUNGQUIST BROTHERS, INC.

SCOTT M. SHORE
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA CERTIFICATE NO. LS# 5743

DATE SIGNED: 1-31-2007

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

TITLE: **SPECIFIC PURPOSE SURVEY**

METRON
SURVEYING & MAPPING, LLC
LAND SURVEYORS· PLANNERS
LB# 7071

10970 S. CLEVELAND AVENUE, SUITE #605
FORT MYERS, FLORIDA 33907
PHONE: (239) 275-8575
FAX: (239) 275-8457
www.metronfl.com

FILE NAME:	FIELD BOOK/PAGE:	PROJECT NO.:	SHEET:
9925SR.DWG	406/75	9925	1 OF 1

SURVEY DATE:	DRAWN BY:	SCALE:	CHECKED BY:	(S-T-R)
12-18-2006	SMS	1"= 50'	TLM/SMS	28-43-34

APPENDIX G

Casing Tally Sheets

CASING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 1 of 1

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.375" CASING DEPTH: 245.81 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 48" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME WELDING	TIME LOWERING	OBSERVER
1	2601757	50.02	50.02	--	4/13/06 0650	AMM
2	2601757	50.03	100.05	4/13/06 0730	4/13/06 0755	AMM
3	2601757	50.02	150.07	4/13/06 0820	4/13/06 0845	AMM
4	2601757	50.04	200.11	4/13/06 0855	4/13/06 0910	AMM
5	2601757	50.05	250.16	4/13/06 0920	4/13/06 0940	AMM
	Note: Casing Joint No. 5 has the cementing header welded onto it.					

CASING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 1 of 1

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.375" CASING DEPTH: Drill Floor = 3.60 ft above pad
CASING DIAMETER: 36" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME WELDING	TIME LOWERING	OBSERVER
1	2601759	25.61	25.61		4/23/06 1005	AMM
2	1601755	50.05	75.66	1035	1058	AMM
3	1601755	50.06	125.72	1110	1120	AMM
4	1601755	50.01	175.73	1130	1142	AMM
5	1601755	50.05	225.78	1155	1211	AMM
6	2601759	50.06	275.84	1220	1235	AMM
7	2601759	50.05	325.89	1246	1300	AMM
8	2601759	50.06	375.95	1312	1330	AMM
9	1601755	50.06	426.01	1340	1403	AMM
10	2601759	50.05	476.06	1425	1440	AMM
11	2601759	50.07	526.13	1452	1510	AMM
12	2601759	50.07	576.20	1520	1534	AMM
13	2601759	50.05	626.25	1545	1600	AMM
14	2601759	50.06	676.31	1610	1630	AMM
15	2601759	50.06	726.37	1645	1700	AMM
16	2601759	50.07	776.44	1710	1723	AMM
17	2601759	50.05	826.49	1730	1750	AMM
18	2601759	50.05	876.54	1758	1815	AMM
19	1601755	50.06	926.60	1825	1840	AMM
20	2601759	50.05	976.65	1850	1905	AMM
20	N/A	3.35	980.00	1850	1905	AMM

NOTES:
Joint 1 was 50.06 ft long but cut to 25.61 to make correct depth
Joint 20 has the cement header welded to it
The cement header is 3.35 ft long

CASING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 1 of 2

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.375" CASING DEPTH: 2,101 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 26" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME WELDING	TIME LOWERING	OBSERVER
1	287885U	25.29	25.29	-	5/26/06 1210	AMM
2	287884U	40.42	65.71	1215	1315	AMM
3	287884U	39.80	105.51	1320	1330	AMM
4	4050-1	50.03	155.54	1340	1355	AMM
5	4050-1	50.03	205.57	1410	1425	AMM
6	4050-1	50.03	255.60	1435	1450	AMM
7	4054-1	50.03	305.63	1515	1535	AMM
8	4050-1	50.03	355.66	1550	1605	AMM
9	4054-1	50.04	405.70	1620	1645	AMM
10	4054-1	50.00	455.70	1655	1715	AMM
11	4050-1	50.03	505.73	1720	1745	AMM
12	4050-1	50.02	555.75	1755	1815	AMM
13	4051-1	50.03	605.78	1820	1835	AMM
14	4050-1	50.03	655.81	1950	2005	MD
15	4050-1	50.03	705.84	2030	2050	MD
16	4050-1	50.03	755.87	2115	2135	MD
17	4054-1	50.01	805.88	2200	2215	MD
18	4054-1	50.03	855.91	2229	2245	MD
19	4050-1	50.03	905.94	2301	2320	MD
20	4050-1	50.04	955.98	2331	2350	MD
21	4050-1	50.01	1005.99	5/27/06 0002	0022	MD
22	4051-1	50.03	1056.02	0030	0050	MD
23	4051-1	50.03	1106.05	0100	0115	MD
24	4051-1	50.03	1156.08	0129	0150	MD
25	4050-1	50.02	1206.10	0205	0225	MD
26	4051-1	50.03	1256.13	0245	0305	MD
27	4051-1	50.01	1306.14	0330	0345	MD
28	4051-1	50.03	1356.17	0410	0425	MD
29	4051-1	50.00	1406.17	0530	0545	MD
30	4050-1	50.03	1456.20	0604	0621	MD
31	4051-1	50.04	1506.24	0705	0730	AMM
32	4050-1	50.02	1556.26	0735	0750	AMM
33	4050-1	49.99	1606.25	0800	0815	AMM
34	4050-1	50.04	1656.29	0820	0835	AMM
35	4050-1	50.02	1706.31	0840	0900	AMM
36	4050-1	50.02	1756.33	0905	0925	AMM
37	4054-1	50.03	1806.36	0935	0955	AMM
38	4054-1	50.03	1856.39	1003	1020	AMM
39	4054-1	50.03	1906.42	1030	1100	AMM
40	4054-1	50.03	1956.45	1115	1135	AMM

CASING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 2 of 2

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC

WALL THICKNESS: 0.375" CASING DEPTH: 2,101 ft bpl Drill Floor = 3.60 ft above pad

CASING DIAMETER: 26" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME		OBSERVER
				WELDING	LOWERING	
41	4054-1	50.02	2006.47	1145	1215	AMM
42	4050-1	50.03	2056.50	1225	1245	AMM
43	4051-1	50.00	2106.50	1255	1330	AMM
Header	NA	4.00	2110.50	1255	1330	
	NOTES:					
	Joint 1 was 38.49 ft long but cut to 25.29 to make correct depth					
	Joint 43 has the cement header welded to the top of it					
	The cement header is 4.00 ft long					
	There will be 5.50 ft of casing plus the cement header stickup from the pad					
	Pipe TD = 2106.50 - 5.50 = 2101.00 ft bpl					

CASING TALLY SHEET

WELL: IW-1 | **PROJECT NUMBER:** 27335-45307 |

SITE LOCATION: Clewiston | **PERMIT NO:** 249635-001-UC

WALL THICKNESS: 0.500" | CASING DEPTH: 2,749 ft bpl | Drill Floor = 3.60 ft above pad

CASING DIAMETER: 16" OD | **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME WELDING	TIME LOWERING	OBSERVER
				-		
Casing seat approval is for 2745 ft bpl						
Joint 1 has the YBI Packer assembly on it						
1	50773	21.42	21.42	------	2019 (8/4/06)	BDL
2	50727	29.35	50.77	2115	2142	BDL
3	50761	30.90	81.67	2200	2215	BDL
4	50761	28.93	110.60	2223	2241	BDL
5	50727	30.26	140.86	2250	2310	BDL
6	50773	29.12	169.98	2318	2341	BDL
7	50727	28.93	198.91	2346 (8/4/06)	0004 (8/5/06)	BDL
8	50773	30.44	229.35	0010	0029	BDL
9	50727	31.37	260.72	0037	0057	BDL
10	50773	32.90	293.62	0104	0121	BDL
11	50761	30.72	324.34	0127	0145	BDL
12	50803	31.74	356.08	0154	0212	BDL
13	50803	29.64	385.72	0224	0244	BDL
14	50523	24.10	409.82	0254	0310	BDL
15	50768	26.28	436.10	0319	0339	BDL
16	50721	30.32	466.42	0346	0412	BDL
17	50773	31.68	498.10	0420	0437	BDL
18	50721	30.02	528.12	0445	0507	BDL
19	50768	30.32	558.44	0517	0530	BDL
20	50768	27.05	585.49	0540	0556	BDL
21	50773	30.75	616.24	0601	0620	BDL/AMM
22	50768	28.87	645.11	0630	0715	AMM
23	50773	30.30	675.41	0730	0745	AMM
24	50803	30.30	705.71	0750	0805	AMM
25	50773	29.64	735.35	0810	0825	AMM
26	50773	30.55	765.90	0830	0850	AMM
27	50773	31.10	797.00	0855	0905	AMM
28	50803	31.07	828.07	0915	0925	AMM
29	50768	30.20	858.27	0930	0950	AMM
30	50768	27.92	886.19	0955	1010	AMM
31	50727	31.25	917.44	1012	1027	AMM
32	50721	29.82	947.26	1032	1047	AMM
33	50721	29.52	976.78	1053	1115	AMM
34	50727	31.72	1008.50	1119	1131	AMM
35	50773	31.83	1040.33	1135	1146	AMM

CASING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 2 of 3

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.500" CASING DEPTH: 2,749 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 16" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME WELDING	TIME LOWERING	OBSERVER
36	50727	29.75	1070.08	1150	1205	AMM
37	50768	28.13	1098.21	1210	1230	AMM
38	50768	27.33	1125.54	1233	1243	AMM
39	50727	32.27	1157.81	1248	1301	AMM
40	50803	28.75	1186.56	1305	1317	AMM
41	50727	33.12	1219.68	1322	1339	AMM
42	50523	29.63	1249.31	1344	1357	AMM
43	50727	31.27	1280.58	1401	1417	AMM
44	50523	29.50	1310.08	1424	1439	AMM
45	50721	31.85	1341.93	1444	1501	AMM
46	50803	30.72	1372.65	1506	1520	AMM
47	50761	29.95	1402.60	1524	1539	AMM
48	50761	27.63	1430.23	1545	1557	AMM
49	50727	29.70	1459.93	1602	1615	AMM
50	50727	29.83	1489.76	1619	1633	AMM
51	50727	31.57	1521.33	1638	1654	AMM
52	50768	26.92	1548.25	1700	1717	AMM
53	50727	31.68	1579.93	1722	1739	AMM
54	50773	29.77	1609.70	1746	1801	AMM
55	50773	30.25	1639.95	1806	1822	AMM
56	50773	32.42	1672.37	1829	1842	BDL
57	50768	27.15	1699.52	1924	1938	BDL
58	50727	29.42	1728.94	1943	1957	BDL
59	50727	30.62	1759.56	2003	2016	BDL
60	50803	30.88	1790.44	2020	2032	BDL
61	50803	29.93	1820.37	2039	2052	BDL
62	50773	31.95	1852.32	2058	2109	BDL
63	50768	27.30	1879.62	2114	2127	BDL
64	50773	28.65	1908.27	2133	2145	BDL
65	50761	24.73	1933.00	2151	2203	BDL
66	50768	27.91	1960.91	2211	2220	BDL
67	50727	28.25	1989.16	2227	2240	BDL
68	260907	40.77	2029.93	2247	2258	BDL
69	260898	40.70	2070.63	2305	2316	BDL
70	260898	39.90	2110.53	2323	2325	BDL
71	260898	40.70	2151.23	2344	2356 (8/5/06)	BDL
72	260907	40.77	2192.00	0005 (8/6/06)	0014	BDL
73	260907	40.70	2232.70	0020	0033	BDL
74	260898	40.77	2273.47	0038	0051	BDL
75	260907	40.77	2314.24	0100	0109	BDL

CASING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.500" CASING DEPTH: 2,749 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 16" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME WELDING	TIME LOWERING	OBSERVER
76	260907	40.77	2355.01	0114	0127	BDL
77	260907	40.77	2395.78	0133	0145	BDL
78	260907	40.77	2436.55	0150	0202	BDL
79	260907	40.77	2477.32	0210	0222	BDL
80	260898	40.77	2518.09	0230	0240	BDL
81	260898	40.70	2558.79	0248	0300	BDL
82	260898	40.77	2599.56	0308	0320	BDL
83	260898	40.70	2640.26	0329	0346	BDL
84	260898	39.67	2679.93	0354	0403	BDL
85	260898	40.70	2720.63	0410	0421	BDL
86	260898	37.66	2758.29	0428	0439 (8/6/06)	BDL
	As of 8/06/06:					
	Amount of casing cut off =			4.68		
	Casing Stick Up Above Drill Floor =			1.00		
	Total Casing (2758.29 - 4.68) =			2753.61		
	Casing Depth = Total Casing - Casing Stick Up Above Drill Floor - Floor to Pad Level					
			= 2753.61 - 1.00 - 3.60			
	Casing Depth =		**2749.01**	**ft bpl**		

11.70-INCH FIBERGLASS TUBING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 1 of 3

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC

WALL THICKNESS: 0.500" CASING DEPTH: 2,742 ft bpl Drill Floor = 3.60 ft above pad

CASING DIAMETER: 11.70" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME CONNECTION	TIME LOWERING	OBSERVER
Steel casing seat		2.50	2.50	----	(8/22/06) 1225	BDL
1		28.39	30.89	1235	1240	BDL
2		28.32	59.21	1244	1250	BDL
3		28.69	87.90	1254	1257	BDL
4		28.48	116.38	1303	1305	BDL
5		28.61	144.99	1309	1316	BDL
6		28.57	173.56	(8/26/06) 1038	1049	AMM
7		28.48	202.04	1112	1116	AMM
8		28.73	230.77	1120	1125	AMM
9		28.88	259.65	1139	1143	AMM
10		28.84	288.49	1146	1150	AMM
11		28.86	317.35	1155	1157	AMM
12		28.48	345.83	1206	1209	AMM
13		28.70	374.53	1213	1218	AMM
14		28.87	403.40	1224	1229	AMM
15		28.76	432.16	1233	1236	AMM
16		29.06	461.22	1241	1250	AMM
17		28.90	490.12	1254	1256	AMM
18		28.92	519.04	1329	1333	AMM
19		28.75	547.79	1337	1339	AMM
20		28.76	576.55	1342	1345	AMM
21		28.48	605.03	1357	1401	AMM
22		28.52	633.55	1408	1411	AMM
23		28.60	662.15	1415	1418	AMM
24		28.40	690.55	1421	1424	AMM
25		28.65	719.20	1426	1431	AMM
26		28.60	747.80	1433	1439	AMM
27		28.43	776.23	1443	1446	AMM
28		28.59	804.82	1448	1512	AMM
29		28.35	833.17	1515	1518	AMM
30		28.25	861.42	1520	1525	AMM
31		28.49	889.91	1527	1530	AMM
32		28.59	918.50	1533	1535	AMM
33		28.56	947.06	1540	1544	AMM
34		28.71	975.77	1547	1550	AMM
35		28.51	1004.28	1553	1555	AMM
36		28.55	1032.83	1557	1600	AMM
37		28.48	1061.31	1602	1607	AMM
38		28.55	1089.86	1617	1620	AMM

11.70-INCH FIBERGLASS TUBING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 2 of 3

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.500" CASING DEPTH: 2,742 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 11.70" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME CONNECTION	TIME LOWERING	OBSERVER
39	NA	28.72	1118.58	1625	1628	AMM
40		28.55	1147.13	1631	1635	AMM
41		28.42	1175.55	1651	1654	AMM
42		28.48	1204.03	1656	1659	AMM
43		28.50	1232.53	1701	1704	AMM
44		28.56	1261.09	1706	1707	AMM
45		28.45	1289.54	1711	1715	AMM
46		28.34	1317.88	8/27/06 0722	0726	AMM
47		28.69	1346.57	0730	0734	AMM
48		28.42	1374.99	0738	0740	AMM
49		28.10	1403.09	0745	0749	AMM
50		28.61	1431.70	0752	0755	AMM
51		28.58	1460.28	0758	0800	AMM
52		28.51	1488.79	0804	0806	AMM
53		28.58	1517.37	0810	0812	AMM
54		28.56	1545.93	0817	0820	AMM
55		28.55	1574.48	0823	0826	AMM
56		28.40	1602.88	0829	0832	AMM
57		28.48	1631.36	0835	0838	AMM
58		28.60	1659.96	0840	0843	AMM
59		28.43	1688.39	0846	0849	AMM
60		28.42	1716.81	0852	0856	AMM
61		28.60	1745.41	0912	0915	AMM
62		28.56	1773.97	0917	0919	AMM
63		28.78	1802.75	0923	0925	AMM
64		28.53	1831.28	0928	0930	AMM
65		28.53	1859.81	0932	0935	AMM
66		28.46	1888.27	0938	0941	AMM
67		28.52	1916.79	0944	0947	AMM
68		28.45	1945.24	0950	0953	AMM
69		28.64	1973.88	0956	0958	AMM
70		28.47	2002.35	1001	1003	AMM
71		28.40	2030.75	1005	1008	AMM
72		28.55	2059.30	1011	1018	AMM
73		28.54	2087.84	1019	1035	AMM
74		28.55	2116.39	1034	1041	AMM
75		28.58	2144.97	1044	1050	AMM
76		28.53	2173.50	1110	1114	AMM
77		28.51	2202.01	1122	1125	AMM
78		28.60	2230.61	1126	1129	AMM

11.70-INCH FIBERGLASS TUBING TALLY SHEET

WELL: IW-1 **PROJECT NUMBER:** 27335-45307

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.500" CASING DEPTH: 2,742 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 11.70"OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME CONNECTION	TIME LOWERING	OBSERVER
79	NA	28.52	2259.13	1132	1136	AMM
80		28.28	2287.41	1139	1142	AMM
81		28.44	2315.85	1215	1219	AMM
82		28.56	2344.41	1222	1225	AMM
83		28.55	2372.96	1228	1231	AMM
84		28.40	2401.36	1234	1237	AMM
85		28.44	2429.80	1240	1244	AMM
86		28.48	2458.28	1247	1250	AMM
87		28.88	2487.16	1252	1255	AMM
88		28.52	2515.68	1259	1304	AMM
89		28.52	2544.20	1306	1309	AMM
90		28.58	2572.78	1312	1315	AMM
91		28.55	2601.33	1319	1322	AMM
92		28.48	2629.81	1325	1330	AMM
93		28.74	2658.55	1340	1345	AMM
94		28.43	2686.98	1350	1355	AMM
95		28.55	2715.53	1356	1359	AMM
pup		9.84	2725.37	1404	1409	AMM
stainless header		32.76	2758.13			AMM

CASING TALLY SHEET

WELL: DZMW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 1 of 1

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.375" **CASING DEPTH:** 245.8 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 28" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	TIME (on 9/07/06) WELDING	LOWERING	OBSERVER
1	1610268	50.00	50.00	-	1142	AMM
2	1610268	50.10	100.10	1149	1200	AMM
3	1610268	50.08	150.18	1208	1218	AMM
4	1610268	50.05	200.23	1225	1235	AMM
5	1610268	50.07	250.30	1242	1249	AMM

NOTES:
All pipe is spiral butt weld
Header is welded onto Joint No. 5
Top of casing (at 1300 on 9/07/06) = 0.9 ft above drill floor
Casing depth = 250.30 - 0.90 - 3.60 = 254.8 ft bpl

CASING TALLY SHEET

WELL: DZMW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 1 of 1

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.375" **CASING DEPTH:** 970.0 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 20" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	DATE = 09/14/06 TIME WELDING	LOWERING	OBSERVER
1	730218860	30.42	30.42	-	0630	AMM
2	730218859	43.90	74.32	0705	0723	AMM
3	730218860	43.90	118.22	0732	0743	AMM
4	730218859	43.90	162.12	0752	0800	AMM
5	730218858	43.90	206.02	0809	0817	AMM
6	730218860	43.89	249.91	0823	0831	AMM
7	730218858	43.90	293.81	0841	0849	AMM
8	730218858	43.90	337.71	0855	0902	AMM
9	730218859	43.89	381.60	0912	0917	AMM
10	26151	41.83	423.43	0921	0933	AMM
11	730218859	43.92	467.35	0938	0953	AMM
12	26151	41.85	509.20	1002	1008	AMM
13	730218858	43.90	553.10	1016	1025	AMM
14	26151	41.83	594.93	1033	1041	AMM
15	26152	41.86	636.79	1049	1104	AMM
16	26152	41.85	678.64	1112	1119	AMM
17	730218860	43.90	722.54	1132	1141	AMM
18	730218858	44.05	766.59	1146	1156	AMM
19	26151	41.83	808.42	1204	1211	AMM
20	26151	41.85	850.27	1220	1228	AMM
21	26151	41.85	892.12	1238	1244	AMM
22	26151	41.83	933.95	1250	1259	AMM
23	26152	41.85	975.80	1324	1328	AMM

Joint 23 has the header welded onto it
All pipe is API Grade 5L

CASING TALLY SHEET

WELL: DZMW-1 | **PROJECT NUMBER:** 27335-45307 | **PAGE:** 1 of 2

SITE LOCATION: Clewiston | **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.375" | **CASING DEPTH:** 1,950 ft bpl   Drill Floor = 3.60 ft above pad
CASING DIAMETER: 12" OD | **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	DATE = 10/10/06 TIME WELDING	LOWERING	OBSERVER
1	059D1571	40.60	40.60	-	0902	JMP
2	059D1571	40.27	80.87	0929	0950	JMP
3	059D1571	40.31	121.18	0957	1010	JMP
4	059D1571	40.28	161.46	1016	1027	JMP
5	059D1571	40.29	201.75	1032	1041	JMP
6	059D1571	40.29	242.04	1046	1100	JMP
7	059D1571	40.27	282.31	1110	1120	JMP
8	059D1571	40.31	322.62	1125	1135	JMP
9	059D1571	40.29	362.91	1142	1151	JMP
10	059D1571	40.30	403.21	1157	1205	JMP
11	059D1571	40.28	443.49	1209	1223	JMP
12	059D1571	40.32	483.81	1227	1236	JMP
13	059D1571	40.33	524.14	1241	1255	JMP
14	059D1571	40.30	564.44	1259	1308	JMP
15	059D1571	40.30	604.74	1314	1323	JMP
16	059D1571	40.28	645.02	1331	1339	JMP
17	059D1571	40.31	685.33	1344	1353	JMP
18	059D1571	40.30	725.63	1358	1405	JMP
19	059D1571	40.28	765.91	1417	1425	JMP
20	059D1571	40.28	806.19	1429	1439	JMP
21	059D1571	40.38	846.57	1443	1454	JMP
22	059D1571	40.32	886.89	1458	1505	JMP
23	059D1571	40.28	927.17	1510	1518	JMP
24	059D1571	40.32	967.49	1524	1532	JMP
25	059D1571	40.32	1007.81	1538	1549	JMP
26	059D1571	40.31	1048.12	1554	1603	JMP
27	059D1571	40.34	1088.46	1608	1617	JMP
28	059D1571	40.28	1128.74	1623	1630	JMP
29	059D1571	40.31	1169.05	1637	1645	JMP
30	059D1571	40.35	1209.40	1654	1659	JMP
31	059D1571	40.29	1249.69	1704	1712	JMP
32	059D1571	40.32	1290.01	1716	1723	JMP
33	059D1571	40.31	1330.32	1732	1742	JMP
34	059D1571	40.32	1370.64	1748	1757	JMP
35	059D1571	40.30	1410.94	1804	1814	JMP
36	059D1571	40.31	1451.25	1820	1830	JMP
37	059D1571	40.27	1491.52	1906	1922	AMM
38	059D1571	40.28	1531.80	1930	1942	AMM
39	059D1571	40.30	1572.10	1948	2001	AMM
40	059D1571	40.35	1612.45	2006	2017	AMM

CASING TALLY SHEET

WELL: DZMW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 2 of 2

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.375" **CASING DEPTH:** 1,950 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 12" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.	HEAT NUMBER	CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	DATE = 10/10/06 TIME WELDING	LOWERING	OBSERVER
41	059D1571	40.22	1652.67	2022	2037	AMM
42	059D1571	40.31	1692.98	2041	2053	AMM
43	059D1571	40.30	1733.28	2100	2112	AMM
44	059D1571	40.28	1773.56	2118	2131	AMM
45	059D1571	40.33	1813.89	2136	2148	AMM
46	059D1571	40.30	1854.19	2153	2205	AMM
47	059D1571	40.28	1894.47	2211	2223	AMM
48	059D1571	40.30	1934.77	2228	2239	AMM
49	059D1571	40.30	1975.07	2244	2256	AMM

Bottom of Joint #1 landed at 1950 ft bpl at 2300 on 10/10/06. Excess casing (i.e., casing stickup) cut off after casing was landed and gussets welded on.

NOTE: Packer is on the bottom of Joint #1

CASING TALLY SHEET

WELL: DZMW-1 **PROJECT NUMBER:** 27335-45307 **PAGE:** 1 of 2

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC

WALL THICKNESS: 0.52" **CASING DEPTH:** 2132 ft bpl Drill Floor = 3.60 ft above pad

CASING DIAMETER: 6.5" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.		CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	DATE = 10/25/06 TIME THREADING	LOWERING	OBSERVER
Packer		7.55	7.55	1340	1421	JMP
1		29.55	37.10	1340	1421	JMP
2		29.55	66.65	1425	1429	JMP
3		29.53	96.18	1430	1436	JMP
4		29.56	125.74	1439	1442	JMP
5		29.53	155.27	1443	1446	JMP
6		29.55	184.82	1447	1450	JMP
7		29.55	214.37	1456	1458	JMP
8		29.55	243.92	1459	1502	JMP
9		29.54	273.46	1503	1507	JMP
10		29.55	303.01	1509	1511	JMP
11		29.55	332.56	1512	1514	JMP
12		29.56	362.12	1516	1517	JMP
13		28.97	391.09	1519	1521	JMP
14		28.97	420.06	1522	1525	JMP
15		28.95	449.01	1527	1529	JMP
16		28.98	477.99	1531	1534	JMP
17		28.95	506.94	1536	1537	JMP
18		28.95	535.89	1544	1545	JMP
19		28.97	564.86	1547	1549	JMP
20		28.96	593.82	1551	1553	JMP
21		29.02	622.84	1555	1557	JMP
22		28.96	651.80	1558	1600	JMP
23		29.01	680.81	1602	1604	JMP
24		28.97	709.78	1605	1608	JMP
25		29.53	739.31	1609	1612	JMP
26		29.54	768.85	1614	1616	JMP
27		29.53	798.38	1618	1619	JMP
28		29.56	827.94	1621	1623	JMP
29		29.54	857.48	1625	1627	JMP
30		29.53	887.01	1629	1630	JMP
31		29.54	916.55	1632	1633	JMP
32		29.54	946.09	1635	1637	JMP
33		29.54	975.63	1639	1641	JMP
34		29.54	1005.17	1642	1644	JMP
35		29.54	1034.71	1645	1647	JMP
36		29.54	1064.25	1648	1650	JMP
37		29.51	1093.76	1655	1657	JMP
38		29.55	1123.31	1658	1659	JMP
39		29.56	1152.87	1701	1703	JMP

CASING TALLY SHEET

WELL: DZMW-1 **PROJECT NUMBER:** 27335-45307

SITE LOCATION: Clewiston **PERMIT NO:** 249635-001-UC
WALL THICKNESS: 0.52" **CASING DEPTH:** 2132 ft bpl Drill Floor = 3.60 ft above pad
CASING DIAMETER: 6.5" OD **DATUM:** Pad Level = 19.78 ft NGVD

CASING JOINT NO.		CASING JOINT LENGTH	CUMMULATIVE LENGTH (feet)	DATE = 10/25/06 TIME THREADING	LOWERING	OBSERVER
40		29.57	1182.44	1705	1707	JMP
41		29.52	1211.96	1708	1710	JMP
42		29.54	1241.50	1714	1716	JMP
43		29.53	1271.03	1718	1719	JMP
44		29.54	1300.57	1720	1722	JMP
45		29.53	1330.10	1723	1725	JMP
46		29.55	1359.65	1727	1729	JMP
47		29.56	1389.21	1730	1732	JMP
48		29.57	1418.78	1733	1734	JMP
49		29.55	1448.33	1735	1737	JMP
50		29.54	1477.87	1738	1739	JMP
51		29.55	1507.42	1740	1742	JMP
52		29.55	1536.97	1744	1747	JMP
53		29.55	1566.52	1748	1749	JMP
54		29.55	1596.07	1751	1752	JMP
55		29.56	1625.63	1754	1755	JMP
56		29.55	1655.18	1756	1758	JMP
57		29.55	1684.73	1800	1801	JMP
58		29.55	1714.28	1802	1804	JMP
59		29.56	1743.84	1806	1807	JMP
60		29.55	1773.39	1808	1810	JMP
61		29.55	1802.94	1812	1814	JMP
62		29.54	1832.48	1815	1818	JMP
63		29.54	1862.02	1819	1821	JMP
64		29.54	1891.56	1822	1825	JMP
65		28.98	1920.54	1826	1828	JMP
66		28.95	1949.49	1829	1831	JMP
67		29.54	1979.03	1832	1835	JMP
68		28.95	2007.98	1838	1839	JMP
69		28.98	2036.96	1844	1846	JMP
70		29.54	2066.50	1849	1852	JMP
71		29.53	2096.03	1851	1856	JMP
72		29.54	2125.57	1857	1900	JMP
Stainless Casing		10.43	2136.00	1918	1926	JMP
Packer		7.55				
Packer Center line		3.70	from top			

THESE MILL TEST REPORTS APPLY TO

YOUR P.O. #268109-001

EDGEN CORP. REF. #2091664

STANDARD CERTIFIED TEST REPORT

GEORGIA TUBULAR PRODUCTS

Customer Name / Customer Address / City, State, Zip	EDGEN CARBON PRODUCTS GROUP, LLC 18444 HIGHLAND ROAD BATON ROUGE, LA 70809
Date:	March 29, 2006
Customer Order No.	58310
G.T.P. Sales Order No.	204561

Specification ASTM A139 GR. B SPIRALWELD STEEL PIPE MELTED & MANUFACTURED IN THE U.S.A

Heat No.	Size O.D.	Wt./Ft. or Wall Thick	Min. Hydro Test Pres. P.S.I.	MECHANICAL PROPERTIES: Yield Strength P.S.I. Point	Tensile Strength P.S.I.	Elong In 2" %	CHEMICAL ANALYSIS (%): C	Mn	P	S	Si
2601757	48"	.375	328	49,500	74,700	33	.22	.88	.009	.003	.01
1601755	36"	.375	438	47,100	79,200	31	.23	.89	.011	.005	.01
2601759	36"	.375	438	54,300	79,600	32	.19	.79	.011	.001	.03
1050-1	26"	.375	605	58,500	74,900	35	.15	.68	.006	.011	.02
04051-1	26"	.375	605	56,500	76,000	38	.15	.73	.011	.010	.01
04054-1	26"	.375	605	54,400	75,100	36	.16	.72	.010	.007	.02

YOUNGQUIST BROTHERS, INC.
Has Reviewed this Shop Drawing/Submittal
YBI/Section No. # 02852-003-A
Transmittal No. # ______ Date: 5/10/06
Signature

The undersigned hereby certifies that the above materials have been inspected and tested in accordance with the methods prescribed in the applicable specifications and that the results of such inspection and tests shown above. In determining properties or characteristics for which no methods of inspecting or testing are prescribed in said specifications, the standard mill inspection and testing practices of Georgia Tubular Products have been applied. Unless it appears otherwise in the results of such inspection and tests shown above, the undersigned believes that said materials conform to said specifications.

Subscribed and sworn to before me this

29th day of March 20 06

Lynn G. Tatum

Notary Public

NOTARY PUBLIC BARTOW COUNTY GA Exp. Dec. 23, 2007

Stanley Chesser

STANLEY CHESSER PLANT MGR. Name & Title

Georgia Tubular Products
109 Dent Drive, Cartersville, GA 30121
(770) 386-2550

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-005
EDGEN CORP. REF. # 209870

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CERTIFICADO DE QUALIDADE DE TUBOS
QUALITY CERTIFICATE OF PIPES
CERTIFICADO DE CALIDAD DE TUBERIAS

(INSPECTION CERTIFICATE ACCORDING TO: EN10204 3.1 - ISO 10474 3.1B)

Confab Industrial S/A
Av. Gastão Vidigal Neto, 475
(12414-900) Cidade Nova
Pindamonhangaba, SP, Brasil
(55) 12 3644 9040 tel
(55) 12 3644 9384 fax

PAÍS DE ORIGEM: / COUNTRY OF ORIGIN: BRASIL / PAÍS DE ORIGEN
DESTINO: / DESTINATION / DESTINO: U.S.A

PRODUTO. TUBOS DE AÇO CARBONO FABRICADOS PELO PROCESSO / PRODUCT. CARBON STEEL PIPES MANUFACTURED BY THE PROCESS / PRODUCTO. TUBERIAS DE ACERO AL CARBONO FABRICADOS POR EL PROCESO: UOE-SAWL

SOB O PEDIDO Nº / UNDER THE ORDER NO / SEGÚN EL PEDIDO: P.O. 56033

APLICAÇÃO / APLICATION / APLICACION: 34773 16 001 ITEM 10

CERTIFICAMOS QUE TODOS OS TUBOS FABRICADOS PARA A OBRA / IT IS HEREBY CERTIFIED THAT ALL PIPES MADE TO MILL PRODUCTION NO. / CERTIFICAMOS QUE TODOS LOS TUBOS FABRICADOS PARA LA OBRA Nº: DT-34.773

DESTINADO(S) A / FOR THE PURCHASER / DESTINADO(S) PARA: EDGEN CARBON PRODUCTS GROUP L.L.C.

COM DIÂMETRO EXTERNO / WITH OUTSIDE DIAMETER / CON DIAMETRO EXTERNO: 26"

ESPESSURA / WALL THICKNESS / ESPESOR: 0.375"

E COMPRIMENTO INDIVIDUAL / AND INDIVIDUAL LENGTH / Y LONGITUD INDIVIDUAL: 38.06 To 41.01 ft

PERFAZENDO UM TOTAL DE / IN A TOTAL OF / POR UN TOTAL DE: 183

PEÇAS COM COMPRIMENTO TOTAL DE / PIECES WITH TOTAL LENGTH / UNIDADES PARA UNA LONGITUD TOTAL DE: 7,324.69 ft

E PESO TOTAL DE / AND TOTAL WEIGHT / Y PESO TOTAL DE: 339,714 lb

FORAM FABRICADOS, INSPECIONADOS E APROVADOS CONFORME A ESPECIFICAÇÃO / WERE MANUFACTURED, INSPECTED AND APPROVED IN ACCORDANCE WITH THE SPECIFICATION / FUERON FABRICADOS, INSPECCIONADOS Y APROBADOS DE ACUERDO CON LA ESPECIFICACIÓN: API SPEC. 5L-2004 - GRADE X65/X70 PSL2

E ESPECIFICAÇÕES SUPLEMENTARES / AND SUPPLEMENTARY SPECIFICATIONS / Y ESPECIFICACIONES SUPLEMENTARIAS: *.*

COM EXTREMIDADES / WITH PIPE ENDS / CON EXTREMIDAD: BEVELED 30° - 35° API SPEC. 5L

E TESTADOS HIDROSTATICAMENTE À PRESSÃO DE / AND HYDROSTATICALLY TESTED AT / Y CON PRUEBA HIDROSTATICA A LA PRESIÓN DE: (MINIMUM) 1,820 psi

POR / FOR / DURANTE: 10 SEGUNDOS / SECONDS / SEGUNDOS

TESTE (S) NÃO DESTRUTIVOS (S) / NON DESTRUCTIVE TEST (S) / TEST (S) NO DESTRUCTIVO (S): WELD SEAM - X-RAY 8 INCHES LONG ON EACH PIPE END; PENETRAMETER ISO FE 10/16; ULTRASONIC INSPECTION 100%; REFERENCE STANDARD DRILLED HOLE 1.6 mm AND NOTCH N5

- OS RESULTADOS DE ANÁLISES QUÍMICAS E ENSAIOS MECÂNICOS ENCONTRAM-SE REPORTADOS NOS REGISTROS DE Nº 640120 - R:00
- THE CHEMICAL ANALYSIS RESULTS AND THE MECHANICAL TEST RESULTS ARE RECORDED ON THE REPORTS NO.
- LOS RESULTADOS DE LOS ANALISIS QUÍMICOS Y LOS RESULTADOS DE PRUEBAS MECANICAS SE ENCUENTRAN REGISTRADOS EN LOS REPORTES Nº

HTS 7305.11.10.60

TODOS OS TUBOS CERTIFICADOS POR ESTE DOCUMENTO, ASSIM COMO SEUS CÓDIGOS E COMPRIMENTOS INDIVIDUAIS, ENCONTRAM-SE RELACIONADOS NOS AVISOS DE LIBERAÇÃO DE TUBOS DE Nº

ALL THE PIPES CERTIFIED BY THIS DOCUMENT, AS WELL AS THEIR INDIVIDUAL CODES AND LENGTHS, ARE RECORDED ON THE PIPE DELIVERY LISTS NO. / PACKING LIST NO. 206 4 0136 1/4 - 4/4 Rev. 0

TODOS LOS TUBOS CERTIFICADOS POR ESTE DOCUMENTO, ASÍ COMO SUS CODIGOS Y LONGITUDES INDIVIDUALES, SE ENCUENTRAN RELACIONADOS EN LOS REPORTES DE LIBERACIÓN DE TUBERIAS DE Nº

CERTIFICADO No. / CERTIFICATE No.	REVISÃO / REVISION / REVISIÓN	DATA E LOCAL DE EMISSÃO / DATE AND SITE / FECHA Y LOCAL DE EMISIÓN	INSPEÇÃO - INSPECTION - INSPECCIÓN	GERENTE DE CONTROLE DE QUALIDADE / QUALITY CONTROL MANAGER / GERENTE DE CONTROL DE CALIDAD
0217/06	0	Pindamonhangaba, Feb 14 , 2006	CONFAB	Eng. João Maurício Godoy - matrícula: 1311-1

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DEPARTAMENTO DA QUALIDADE - INSPEÇÃO DE RECEBIMENTO/ QUALITY DEPARTMENT - RECEIVING INSPECTION

SUMÁRIO DE CERTIFICADO DE USINA/ SUMMARY OF STEEL MILL PLATE CERTIFICATE

DIMENSÕES NOMINAIS	DIAM.: 26"	ESPESSURA / WALL: 0,375"	NORMA / STANDARD: API SPEC 5L:2004 X65/X70 PSL2	CLIENTE / CLIENT: CS 34773 - [illegible]	USINA / MILL: [illegible]

PC/ESPECIFICAÇÃO/ PO SPECIFICATION: P.C. 3500024318 / ESPEC. ENP8204 REV.1

Padrão de Ensaio: [illegible]

REQUISITOS ADICIONAIS/ EXTRA REQUIREMENTS: Norma: UNI USITUBOS LEVEL A

Relação Mn x C permitido, para até o máximo de 2,20% de Mn.

Relação Nb x C permitida maior de Nb até max 0,180%.

Teste TRAÇÃO - em C.P. com largura até 38,1mm e alongamento em L0=50,8mm

OBSERVAÇÕES/ REMARKS: Results of this summary refers to the Steel mill plate certificate

Legenda / Legend: NR - Not Required; R - Required; Laudo - "A" Aprovado, "R" Reprovado, "P" Pendente

Unidades/Units: [illegible] M=MPA [illegible]

RESPONSÁVEL DO LANÇAMENTO DOS REQUISITOS ESPECIFICADOS (SIGLA/ MATRÍCULA/ VISTO)/ RESPONSIBLE FROM SPECIFIED REQUIREMENTS REGISTER (ABBREVIATURE/ REGISTRATION/ SIGNATURE): ECO - 299794 — MFC - 279124

ENSAIOS MECÂNICOS / MECHANICAL TESTS

Tração (Transversal) Temp. Ambiente; CHARPY (Transversal), Temperature -20°C, CP/ SPECIM 10x7,5x55mm

Item	Corrida/ Heat	LE/ YS (M)	LR/ UTS (M)	LE/LR YS/UTS (%)	AL/ EL (%)	1 (J)	1 %	2 (J)	2 %	3 (J)	3 %	Média (J)	Média %	DOBRAMENTO	DWTT (%)	DUREZA	TGF/FGS
ESPECIF. MAX		613	705	95													
ESPECIF. MIN		523	573		27,0	20	80	20	80	20	80	20	80				8,0
1	520724	567	644	88	38,0	100	100	100	100	111	100	105	100				12,0
2	389674	592	648	92	22,0	84	100	79	100	83	100	82	100				11,4
3	287844	586	644	91	30,0	57	100	65	100	68	100	67	100				11,5
4	189254	564	634	92	30,0	86	100	77	100	74	100	79	100				11,5
5	389674	557	670	88	32,0	57	100	68	100	74	100	70	100				12,0
6	389675	591	645	92	32,0	93	100	93	100	81	100	92	100				11,5
7	287845	585	648	90	26,0	73	100	77	100	60	100	79	100				11,5

COMPOSIÇÃO QUÍMICA/ CHEMICAL COMPOSITION (%)

ANÁLISE DE PANELA - LADLE ANALYSIS

Item	C ($x10^{-2}$)	Si ($x10^{-2}$)	Mn ($x10^{-2}$)	P ($x10^{-3}$)	S ($x10^{-3}$)	Al ($x10^{-3}$)	Cu ($x10^{-2}$)	Nb ($x10^{-3}$)	V ($x10^{-3}$)	Ti ($x10^{-3}$)	Cr ($x10^{-2}$)	Ni ($x10^{-2}$)	Mo ($x10^{-2}$)	N ($x10^{-4}$)	O ($x10^{-4}$)	B ($x10^{-4}$)	Ca ($x10^{-4}$)	CE(IIW) ($x10^{-2}$)	Pcm ($x10^{-2}$)	(1) ($x10^{-3}$)	LAUDO	DATA
ESPECIF. MAX	13	35	165	25	11	50	40	75	70	25	R	R	R	90	NR	10	50	42	25	150		
ESPECIF. MIN						6																
1	11	19	148	19	3	36	1	56	41	33	2	1	1	67		3	22	37	19	110	[illegible]	[illegible]
2	8	20	154	21	6	26	1	59	45	15	2	2	1	77		3	24	36	18	122	[illegible]	[illegible]
3	6	21	155	20	5	26	1	57	46	14	3	2	1	78		4	21	36	17	119	[illegible]	[illegible]
4	9	19	147	19	5	31	1	59	45	17	2	2	1	83		3	21	35	17	124	[illegible]	[illegible]
5	9	20	154	21	6	25	1	59	49	15	2	2	1	77		3	24	36	18	122	[illegible]	[illegible]
6	9	19	148	20	8	26	1	62	43	16	2	2	1	66		3	23	35	17	121	[illegible]	[illegible]
7	6	21	147	19	5	28	1	60	46	14	2	2	1	7[illegible]		4	25	35	17	122	[illegible]	[illegible]
8																				0		
9																				0		
10																				0		
11																				0		
12																				0		
13																				0		
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24																				0		
25																				0		

863 869 8520

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DEPARTAMENTO DA QUALIDADE / *QUALITY DEPARTMENT*
LABORATÓRIO / *LABORATORY*

Confab Industrial S/A
Av. Gastão Vidigal Neto, 475
(12414-900) Cidade Nova
Pindamonhangaba, SP, Brasil
(55) 12 3644 9040 tel
(55) 12 3644 9384 fax

FOLHA DE CAPA / *COVER SHEET*
REGISTRO DE ENSAIOS Nº / *LABORATORY TEST RECORD Nr.*: 640120

CLIENTE / *CUSTOMER*: EDGEN CARBON PRODUCTS GROUP, L.L.C

LOTE / *LOT*: 34773 16

NORMA / *SPEC* : API 5L   GRAU / *GRADE* : X65 / X70-PSL2   EDIÇÃO / *EDITION* :2004

DIMENSÕES / *DIMENSIONS*: 26"OD x 0,375"WT (660,0 mmOD x 9,5 mmWT)

ESPECIFICAÇÃO DO CLIENTE / *CUSTOMER SPECIFICATION*: NENHUMA / *NONE*

HTS 7305.11.10.60.

CONTEÚDO / *TABLE OF CONTENTS*

NOME DO DOCUMENTO / *DOCUMENT NAME*	LOTE / *LOT*	FOLHA / *SHEET*	
		DE / *FROM*	ATÉ / *TO*
REGISTRO DE ENSAIO DE TRAÇÃO E DOBRAMENTO / *TENSILE AND GUIDED BEND TEST RECORD*	A	01/01	01/01
REGISTRO DE ENSAIO DE TRAÇÃO E DOBRAMENTO / *TENSILE AND GUIDED BEND TEST RECORD*	C	01/01	01/01
REGISTRO DE ENSAIO DE TRAÇÃO / *TENSILE TEST RECORD*	N/A	01/01	01/01
REGISTRO DE ANÁLISE QUÍMICA / *CHEMICAL ANALYSIS RECORD*	A	01/01	01/01
REGISTRO DE ANÁLISE QUÍMICA / *CHEMICAL ANALYSIS RECORD*	B	01/01	01/01
REGISTRO DE ANÁLISE DE IMPACTO / *IMPACT ANALYSIS RECORD (CHARPY/DROP WEIGHT)*	A	01/01	01/01
REGISTRO DE DUREZA VICKERS / VICKERS HARDNESS RECORD	A	01/01	01/01

CALIBRAÇÃO DAS MAQUINAS / *CALIBRATION OF TEST MACHINES*

Equipamento *Equipment*	Número *Number*	Válido até *Valid until*
Extensômetro da máquina de Tração / *Tensile Machine Extensometer*	F-8507	FEB 17th, 2006
Máquina de Tração / *Tensile Machine*	F-0955	MAY 15th, 2006
Máquina de impacto / *Impact Machine (Charpy)*	F-0956	APR 25th, 2006
Máquina de ensaios (Dureza Vickers) / Test Machine (Vickers Hardness)	F-11089	MAR 25th, 2007

CONTROLE DE REVISÃO / *REVISION CONTROL*

NÚMERO / *NUMBER*	DATA / *DATE*	REVISÃO / *REVISION*
00	JAN 23rd, 2006	Emissão Original / *Original issue*

BENEDITO C. CAVALHEIRO
Supervisor do Laboratório
Laboratory Supervisor
ID Nr : 15726-1

REPRESENTANTE DO CLIENTE / *CUSTOMER REPRESENTATIVE*

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REGISTRO DE ENSAIO DE TRAÇÃO E DOBRAMENTO GUIADO / *TENSILE AND GUIDED BEND TEST RECORD*

IDENTIFICAÇÃO / *IDENTIFICATION*				TESTE DE TRAÇÃO / *TENSILE TEST*												DOBRAMENTO GUIADO / *GUIDED BEND TEST*					
				METAL DE BASE / *BASE METAL*				SOLDA / *WELD*		METAL DE BASE / *BASE METAL*				SOLDA / *WELD*		LOTE 1 A 50/LOT 1 TO 50		LOTE 51 A 100/LOT 51 TO 100		LOTE 101 A 150/LOT 101 TO 150	
LAB Nº	CORRIDA Nº *HEAT Nº*	USINA *STEEL MILL*	TUBO Nº *PIPE Nº*	LE / *YS* MPa	LR / *UTS* MPa	LE/LR - *YAJ* Ratio	Al / *El* %	LR / *UTS* MPa	Al / *El* %	LE / *YS* psi	LR / *UTS* psi	LE/LR - *YAJ* Ratio	Al / *El* %	LR / *UTS* psi	Al / *El* %	FACE *FACE*	RAIZ *ROOT*	FACE *FACE*	RAIZ *ROOT*	FACE *FACE*	RAIZ *ROOT*
1	287884	U	06 4 1833	546	653	0,84	29,9	646	NR	79.143	94.754	0,84	29,9	93.744	NR	OK	OK	NR	NR	NR	NR
2	189254	U	06 4 1647	594	706	0,83	30,3	610	NR	84.679	102.439	0,83	30,3	88.484	NR	OK	OK	NR	NR	NR	NR
3	287885	U	06 4 1786	541	655	0,81	30,1	646	NR	78.497	96.399	0,81	30,1	93.665	NR	OK	OK	NR	NR	NR	NR
4	520724	U	06 4 1757	551	682	0,82	29,7	645	NR	81.320	98.985	0,82	29,7	93.566	NR	OK	OK	NR	NR	NR	NR
5	389974	U	06 4 1801	525	638	0,82	32,3	639	NR	76.174	92.527	0,82	32,3	92.652	NR	OK	OK	NR	NR	NR	NR
6	389975	U	06 4 1808	571	691	0,83	29,9	672	NR	82.746	100.204	0,83	29,9	97.426	NR	OK	OK	NR	NR	NR	NR

OBSERVAÇÕES / *REMARKS* :
1) NR = NÃO REQUERIDO / *NOT REQUIRED*
2) TESTE CONFORME API 5L / ASTM A 370 (CP PRISMÁTICO) *TESTS ACCORDING TO API 5L / ASTM A 370 (FLAT SPECIMEN)* DIREÇÃO: TRANSVERSAL / *DIRECTION: TRANSVERSE*
3) ORIENTAÇÃO DO CORPO DE PROVA CONFORME FIGURA 3 (API SPEC 5L - 2004) *SPECIMEN ORIENTATION ACCORDING TO FIGURE 3 (API SPEC. 5L - 2004)*
4) DIMENSÕES CONFORME FIGURA 4, SUB FIGURAS "E" e "F" - API SPEC. 5L EDIÇÃO 2004 *DIMENSIONS AS PER FIGURE 4, SUB FIGURES "E" AND "F" OF API SPEC. 5L EDITION 2004*
5) DOBRAMENTO GUIADO / *GUIDED BEND TEST* - DIÂMETRO DO MANDRIL / *MANDREL DIAMETER* : 94,0 mm
6) LIMITE DE ESCOAMENTO / *YIELD STRENGTH* = (0,5 %)
7) USINA / *STEEL MILL* - U = USIMINAS

REGISTRO *RECORD*	640120
LOTE *LOT*	A
FOLHA *SHEET*	01/01
REVISÃO *REVISION*	00

From: EDGEN BARTOW 863 869 8520 05/25/2006 14:01 #296 P.006/011

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REGISTRO DE ENSAIO DE TRAÇÃO E DOBRAMENTO GUIADO */TENSILE AND GUIDED BEND TEST RECORD*

IDENTIFICAÇÃO */IDENTIFICATIO*			TESTE DE TRAÇÃO / *TENSILE TEST*												DOBRAMENTO GUIADO / *GUIDED BEND TEST*					
			METAL DE BASE / *BASE METAL*				SOLDA / *WELD*		METAL DE BASE / *BASE METAL*				SOLDA / *WELD*		LOTE 1 A 50/LOT 1 TO 50		LOTE 51 A 100/LOT 51 TO 100		LOTE 101 A 150/LOT 101 TO 150	
LAB. Nº	CORRIDA Nº *HEAT Nr.*	TUBO Nº *PIPE Nr*	LE / *YS* MPa	LR / *UTS* MPa	LE/LR - *Y/U* Ratio	AL / *EL* %	LR / *UTS* MPa	AL / *EL* %	LE / *YS* [illegible]	LR / *UTS* [illegible]	LE/LR - *Y/U* Ratio	AL / *EL* %	LR / *UTS* [illegible]	AL / *EL* %	FACE *FACE*	RAIZ *ROOT*	FACE *FACE*	RAIZ *ROOT*	FACE *FACE*	RAIZ *ROOT*
1	287884	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	139254	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3	287885	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4	520724	06 4 1708	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	OK	OK	NR	NR
5	389974	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	389975	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

OBSERVAÇÕES / *REMARKS* :

1) NR = NÃO REQUERIDO / *NOT REQUIRED*

2) TESTE CONFORME API 5L / ASTM A 370 (CP PRISMÁTICO) / *TESTS ACCORDING TO API 5L / ASTM A 370 (FLAT SPECIMEN).* DIREÇÃO: TRANSVERSAL / *DIRECTION: TRANSVERSE*

3) ORIENTAÇÃO DO CORPO DE PROVA CONFORME FIGURA 3 (API SPEC 5L - 2004) / *SPECIMEN ORIENTATION ACCORDING TO FIGURE 3 (API SPEC. 5L - 2004)*

4) DIMENSÕES CONFORME FIGURA 4, SUB FIGURAS "E" e "F" - API SPEC. 5L EDIÇÃO 2004 / *DIMENSIONS AS PER FIGURE 4, SUB FIGURES "E" AND "F" OF API SPEC. 5L EDITION 2004*

5) DOBRAMENTO GUIADO / *GUIDED BEND TEST* - DIÂMETRO DO MANDRIL / *MANDREL DIAMETER* : 94,0 mm

REGISTRO *RECORD*	640120
LOTE *LOT*	C
FOLHA *SHEET*	01/01
REVISÃO *REVISION*	00

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REGISTRO DE ENSAIO DE TRAÇÃO E DOBRAMENTO GUIADO / *TENSILE AND GUIDED BEND TEST RECORD*

IDENTIFICAÇÃO / *IDENTIFICATION*				TESTE DE TRAÇÃO / *TENSILE TEST*												DOBRAMENTO GUIADO / *GUIDED BEND TEST*					
				METAL DE BASE / *BASE METAL*				SOLDA / *WELD*		METAL DE BASE / *BASE METAL*				SOLDA / *WELD*		LOTE 1 A 50 / *LOT 1 TO 50*		LOTE 51 A 100 / *LOT 51 TO 100*		LOTE 101 A 150 / *LOT 101 TO 150*	
SEMANA *WEEK*	CORRIDA Nº *HEAT Nº*	TUBO Nº *PIPE Nº*	MÁQUINA DE SOLDA *WELDING MACHINE*	LE / *YS* MPa	LR / *UTS* MPa	LE/LR - *YS/UTS* Ratio	AL / *EL* %	LR / *UTS* MPa	AL / *EL* %	LE / *YS* psi	LR / *UTS* psi	LE/LR *YS/UTS* Ratio	AL / *EL* %	LR / *UTS* psi	AL / *EL* %	FACE *FACE*	RAIZ *ROOT*	FACE *FACE*	RAIZ *ROOT*	FACE *FACE*	RAIZ *ROOT*
3	520724	06 4 1715	CC	NR	NR	NR	NR	622	NR	NR	NR	NR	NR	90 177	NR	NR	NR	NR	NR	NR	NR
3	287885	06 4 1811	EB	NR	NR	NR	NR	627	NR	NR	NR	NR	NR	90.930	NR	NR	NR	NR	NR	NR	NR
3	389975	06 4 1646	BB	NR	NR	NR	NR	642	NR	NR	NR	NR	NR	93 141	NR	NR	NR	NR	NR	NR	NR
3	389974	06 4 1842	DD	NR	NR	NR	NR	635	NR	NR	NR	NR	NR	92 110	NR	NR	NR	NR	NR	NR	NR
3	189254	06 4 1676	AA	NR	NR	NR	NR	643	NR	NR	NR	NR	NR	93 306	NR	NR	NR	NR	NR	NR	NR

OBSERVAÇÕES / *REMARKS*:
1) NR = NÃO REQUERIDO / *NOT REQUIRED*
2) TESTE CONFORME API 5L / ASTM A 370 (CP PRISMÁTICO) *TESTS ACCORDING TO API 5L / ASTM A 370 (FLAT SPECIMEN)*. DIREÇÃO: TRANSVERSAL/ *DIRECTION: TRANSVERSE*
3) ORIENTAÇÃO DO CORPO DE PROVA CONFORME FIGURA 3 (API SPEC 5L - 2004) *SPECIMEN ORIENTATION ACCORDING TO FIGURE 3 (API SPEC. 5L - 2004)*
4) DIMENSÕES CONFORME FIGURA 4, SUB FIGURAS "E" e "F" - API SPEC. 5L EDIÇÃO 2004 *DIMENSIONS AS PER FIGURE 4, SUB FIGURES "E" AND "F" OF API SPEC. 5L EDITION 2004*
5) TESTES POR MÁQUINA DE SOLDA *TESTS PER WELDING MACHINE*

REGISTRO *RECORD*	640120
LOTE *LOT*	N/A
FOLHA *SHEET*	01/01
REVISÃO *REVISION*	00

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DEPARTAMENTO DA QUALIDADE / *QUALITY DEPARTMENT*

Laboratório / *Laboratory*

IDENTIFICAÇÃO / *IDENTIFICATION*			REGISTRO DE ANÁLISE QUÍMICA / *CHEMICAL ANALYSIS RECORD*																		
LAB Nr	CORRIDA *HEAT Nr*	TUBO Nr *PIPE Nr*	ELEMENTOS / *ELEMENTS* (%)																		
			C	S	N	O	Al	Si	P	Ti	V	Cr	Mn	Ni	Cu	Nb	Mo	B	Ca	(A)	Pcm	C.E.
1	287884	06 4 1833	0,10	0,006	NR	NR	0,022	0,23	0,022	0,016	0,05	0,019	1,61	0,017	0,010	0,056	0,001	0,0001	NR	0,12	0,20	0,38
2	189254	06 4 1847	0,10	0,005	NR	NR	0,022	0,23	0,018	0,015	0,05	0,017	1,57	0,017	0,009	0,058	0,001	0,0001	NR	0,12	0,19	0,38
3	287885	06 4 1786	0,10	0,004	NR	NR	0,022	0,23	0,019	0,014	0,05	0,016	1,52	0,017	0,009	0,054	0,001	0,0001	NR	0,12	0,19	0,37
4	520724	06 4 1757	0,11	0,001	NR	NR	0,036	0,24	0,014	0,016	0,04	0,017	1,62	0,016	0,006	0,052	0,002	0,0001	NR	0,11	0,21	0,39
5	389974	06 4 1801	0,10	0,005	NR	NR	0,022	0,23	0,022	0,016	0,05	0,013	1,62	0,017	0,010	0,055	0,001	0,0001	NR	0,12	0,20	0,38
6	389975	06 4 1808	0,10	0,005	NR	NR	0,027	0,22	0,018	0,016	0,04	0,020	1,55	0,017	0,009	0,056	0,002	0,0001	NR	0,12	0,19	0,37

OBSERVAÇÕES / *REMARKS:*

1) Teste conforme API 5L / ASTM A 751

Test according to API 5L / ASTM A 751

(A) = Nb + V + Ti

Pcm= C + Si/30 + (Mn + Cr + Cu)/20 + Ni/60 + Mo/15 + V/10+ B*5

CE = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

REGISTRO / *RECORD*	640120
LOTE / *LOT*	A
FOLHA / *SHEET*	01/01
REVISÃO / *REVISION*	00

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DEPARTAMENTO DA QUALIDADE / *QUALITY DEPARTMENT*

Laboratório / *Laboratory*

IDENTIFICAÇÃO / *IDENTIFICATION*			REGISTRO DE ANÁLISE QUÍMICA / *CHEMICAL ANALYSIS RECORD*																			
			ELEMENTOS / *ELEMENTS* (%)																			
LAB Nr	CORRIDA *HEAT Nr*	TUBO Nr *PIPE Nr*	C	S	N	O	Al	Si	P	Ti	V	Cr	Mn	Ni	Cu	Nb	Mo	B	Ca	(A)	Pcm	C.E.
1	287884	06 4 1835	0,10	0,006	NR	NR	0,024	0,25	0,021	0,018	0,05	0,018	1,60	0,018	0,010	0,055	0,001	0,0001	NR	0,12	0,20	0,38
2	189254	06 4 1856	0,10	0,005	NR	NR	0,021	0,22	0,019	0,017	0,05	0,019	0,19	0,019	0,009	0,056	0,001	0,0001	NR	0.12	0,12	0,15
3	287885	06 4 1836	0,10	0,005	NR	NR	0,023	0,25	0,018	0,016	0,05	0,018	1,53	0,018	0,010	0,055	0,001	0,0001	NR	0,12	0,19	0,37
4	520724	06 4 1707	0,11	0,002	NR	NR	0,035	0,22	0,015	0,017	0,04	0,019	1,61	0,017	0,007	0,053	0,002	0,0001	NR	0,11	0,20	0,39
5	389974	06 4 1767	0,10	0,005	NR	NR	0,024	0,24	0,023	0,018	0,05	0,015	1,60	0,019	0,010	0,054	0,001	0,0001	NR	0,12	0,19	0,38
6	389975	06 4 1779	0,09	0,005	NR	NR	0,025	0,23	0,019	0,017	0,05	0,021	1,57	0,018	0,009	0,055	0,002	0,0001	NR	0,12	0,18	0,37

OBSERVAÇÕES / *REMARKS:*

1) Teste conforme API 5L / ASTM A 751

Test according to API 5L / ASTM A 751

(A) = Nb + V + Ti

Pcm= C + Si/30 + (Mn + Cr + Cu)/20 + Ni/60 + Mo/15 + V/10+ B*5

CE = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

REGISTRO / *RECORD*	**640120**
LOTE / *LOT*	**B**
FOLHA / *SHEET*	**01/01**
REVISÃO / *REVISION*	**00**

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REGISTRO DE ENSAIOS - CHARPY E DWTT / *LABORATORY TEST REPORT - CHARPY AND DWTT*

IDENTIFICAÇÃO / *IDENTIFICATION*

TESTE DE IMPACTO / *IMPACT TEST*

CVN-2mm TEMPERATURA DE TESTE / *TEST TEMPERATURE*. 0 °C — TAMANHO / *SIZE*: 10 x 6,7 x 55 mm

LAB Nr	CORRIDA Nº *HEAT Nr*	TUBO Nº *PIPE Nr*	METAL DE BASE (J) *BASEMETAL (J)* 01	02	03	MED/AV	METAL DE BASE (ft.lb) *BASE METAL (ft.lb)* 01	02	03	MED/AV	SOLDA (J) *WELD (J)* 01	02	03	MED/AV	SOLDA (ft.lb) *WELD (ft.lb)* 01	02	03	MED/AV
1	287884	06 4 1833	63	62	60	**62**	46	46	44	**45**	NR	NR	NR	**NR**	NR	NR	NR	**NR**
2	189254	06 4 1847	63	62	60	**82**	46	46	44	**45**	NR	NR	NR	**NR**	NR	NR	NR	**NR**
3	287885	06 4 1786	67	68	66	**67**	49	50	49	**49**	NR	NR	NR	**NR**	NR	NR	NR	**NR**
4	520724	06 4 1757	85	92	85	**87**	63	68	63	**64**	NR	NR	NR	**NR**	NR	NR	NR	**NR**
5	389974	06 4 1801	80	83	73	**79**	59	61	54	**58**	NR	NR	NR	**NR**	NR	NR	NR	**NR**
6	389975	06 4 1808	64	64	62	**63**	47	47	46	**47**	NR	NR	NR	**NR**	NR	NR	NR	**NR**

LAB Nr	Z T A - L F (J) *H A Z - FL (J)* 01	02	03	MED/AV	Z T A - L F (ft.lb) *H A Z - FL (ft.lb)* 01	02	03	MED/AV	% FD - METAL DE BASE *% SA - BASE METAL* 01	02	03	MED/AV	DWTT TEMP: % FRAT. DUCTIL *% SHEAR AREA* 01	02	MED/AV
1	NR	NR	NR	**NR**	NR	NR	NR	**NR**	100	100	100	**100**	NR	NR	**NR**
2	NR	NR	NR	**NR**	NR	NR	NR	**NR**	100	100	100	**100**	NR	NR	**NR**
3	NR	NR	NR	**NR**	NR	NR	NR	**NR**	100	100	100	**100**	NR	NR	**NR**
4	NR	NR	NR	**NR**	NR	NR	NR	**NR**	100	100	100	**100**	NR	NR	**NR**
5	NR	NR	NR	**NR**	NR	NR	NR	**NR**	100	100	100	**100**	NR	NR	**NR**
6	NR	NR	NR	**NR**	NR	NR	NR	**NR**	100	100	100	**100**	NR	NR	**NR**

REMARKS:

1) - NR = NÃO REQUERIDO LF = LINHA DE FUSÃO

NR = NOT REQUIRED FL = FUSION LINE

2) - TESTES CONFORME API 5L / ASTM A 370

TESTS ACCORDING TO API 5L / ASTM A 370

REGISTRO / *RECORD*	**640110**
LOTE / *LOT*	**A**
FOLHA / *SHEET*	**01/01**
REVISÃO / *REVISION*	**00**

Tenaris

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Laboratório / *Laboratory*

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REGISTRO DE DUREZA VICKERS / *VICKERS HARDNESS TEST RECORD*

IDENTIFICAÇÃO / *IDENTIFICATION*			RESULTADO DOS PONTOS DE IMPRESSÃO / INDENTATION POINTS RESULTS																
LAB / *LAB*	CORRIDA / *HEAT*	TUBO / *PIPE*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	287884	06 4 1833	213	236	236	237	229	211	235	241	242	241	220	210	239	216	229	236	224
2	189254	06 4 1847	206	224	216	227	210	229	205	224	224	227	218	231	220	220	212	211	224
3	287885	06 4 1786	200	215	220	235	219	209	201	235	232	225	209	203	200	210	211	230	221
4	520724	06 4 1757	213	226	223	220	209	225	226	242	236	236	217	226	220	190	183	187	202
5	389974	06 4 1801	230	242	230	237	215	215	225	230	230	230	210	210	234	218	226	213	197
6	389975	06 4 1808	202	233	218	220	202	221	205	222	222	221	212	223	235	236	221	238	227

OBSERVAÇÕES / *REMARKS :*

1)Test conforme: ASTM E - 92

Test according to : ASTM E - 92

2) Escala usada: HV10

Scale used : HV10

3) Valor máximo especificado: 248 HV10

Maximum value specified : 248 HV10

DIAGRAMA DE IDENTIFICAÇÃO DOS PONTOS
IDENTIFICATION POINTS DIAGRAM

ESCALA UTILIZADA: HV 10
SCALE USED: HV 10

REGISTRO / *RECORD*	640120
LOTE / *LOT*	A
FOLHA / *SHEET*	01/01
REVISÃO / *REVISION*	00

STUPP CORPORATION
THE ENERGY FILLED COMPANY

SR15

Certificate of Tests

STUPP JOB NUMBER: **ER 8514** REVISION: **0** HEAT #: **26152**

CUSTOMER

Stupp & Mannesmann Line Pipe LP
CUSTOMER ORDER **3213**

ORDER DESCRIPTION

ERW Fine Grained Steel / Aluminum Killed / Continuously Cast / Melted and Manufactured in U.S.A.

OD	20.000 Inches
WALL	0.375 Inch
GRADE	API5L GRB/X42 PSL2/ ASTM/ASME S A53B
SPEC	API-5L/ASTM/ASME
VERSION	43rd March 2004/01/01
QUANTITY	7,626.6 Feet
STEEL PO	8517-05

TEST PARAMETERS

HYDROSTATIC		ULTRASONIC		SEAM ANNEALED TEMP
PRESSURE	DURATION	DRILL HOLE	NOTCH	MINIMUM
1,580 PSI	10 Seconds	0.125 In	N10	1,650° F

FRACTURE TOUGHNESS CRITERIA
SR5AB-20-32F

Flattening tests acceptable per specifications.

CHEMICAL FORMULA:
CE=C+Mn/6+Cr/5+Mo/5+V/5+Ni/15+Cu/15
Pcm=C+Si/30+Mn/20+Cu/20+Cr/20+Ni/60+Mo/15+V/10+5B

CE Max=0.40% ; Pcm Max=0.25% ; Pipe manufactured, sampled, tested, and inspected in accordance with the specification(s) and meets requirements.

TENSILE TESTS (in PSI) SPECIMEN SIZE 2.0 In X 1.5 In

COIL	PIPE	TEST TYPE	YIELD	TENSILE	ELONG%	YT Ratio
594	5	TRANS PIPE	50,700	67,500	45	0.75
594	5	TRANS PIPE WELD		74,600		
599	5	TRANS PIPE	51,600	66,900	44	0.77
599	5	TRANS PIPE WELD		72,900		

HARDNESS SURVEY

COIL	PIPE	TEST TYPE	BM	HAZ	WELD	HAZ	BM
594	5	VICKERS 10 KGF	173	163	166	162	178
594	5	VICKERS 10 KGF	172	160	164	163	181
594	5	VICKERS 10 KGF	180	157	173	168	174
599	5	VICKERS 10 KGF	168	159	180	161	180
599	5	VICKERS 10 KGF	175	161	171	164	181
599	5	VICKERS 10 KGF	178	165	171	162	168

CHARPY TESTS

						SHEAR PERCENT				ENERGY IN FT-POUNDS			
COIL	PIPE	ORIENTATION	LOCATION	SIZE	TEMP	1	2	3	AVG	1	2	3	AVG
594	5	TRANSVERSE	BODY	2/3	32°F	100	100	100	100	162	134	137	144.3
599	5	TRANSVERSE	BODY	2/3	32°F	100	100	100	100	174	170	175	173.0

YOUNGQUIST BROTHERS, INC.
Has Reviewed this Shop Drawing/Submittal
YBI/Section No. # 02852-007-A
Transmittal No. #________ **Date:** 5/11
Signature

DROP WEIGHT TESTS TRANSVERSE FULL SIZE

CHEMICAL TESTS

COIL	PIPE	CE	Pcm	TYPE	C	Mn	P	S	Si	Al	Cb	V	Ti	N	Cr	Mo	Cu	Ni	B	Ca	Sn
		0.191	0.114	LADLE	0.070	0.670	0.007	0.002	0.189	0.037	0.020	0.001	0.015	0.007	0.020	0.010	0.030	0.010	0.0001	0.002	0.005
594	5	0.182	0.104	PROD	0.061	0.663	0.006	0.004	0.197	0.037	0.021	0.002	0.015	0.005	0.032	0.003	0.030	0.011	0.0000	0.001	0.006
594	5	0.181	0.104	PROD	0.061	0.663	0.006	0.004	0.196	0.037	0.021	0.002	0.015	0.005	0.032	0.002	0.030	0.011	0.0000	0.001	0.006

The undersigned, on behalf of Stupp Corporation, hereby certifies that the above materials have been inspected and tested in accordance with the methods prescribed in the applicable specifications, and the results of such inspection and tests are shown above. In determining properties or characteristics for which no methods of inspection or testing are prescribed by said specification, the standard mill inspection and testing practices of Stupp Corporation have been applied. Unless it appears otherwise in the results of such inspection and tests shown above, the undersigned employee of Stupp Corporation believes that said materials conform to said specification.

Charles S. Craighead 4/20/05

Stupp Corporation Appr: ______

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
Gulf Coast REF # 209171

STUPP CORPORATION
THE ENERGY FILLED COMPANY

SR15

Certificate of Tests

STUPP JOB NUMBER: **ER 8514** REVISION: **0** HEAT #: **26151**

CUSTOMER

Stupp & Mannesmann Line Pipe LP
CUSTOMER ORDER **3213**

ORDER DESCRIPTION

ERW Fine Grained Steel / Aluminum Killed / Continuously Cast / Melted and Manufactured in U.S.A.

OD	**20.000 Inches**
WALL	**0.375 Inch**
GRADE	**API5L GRB/X42 PSL2/ ASTM/ASME S A53B**
SPEC	**API-5L/ASTM/ASME**
VERSION	**43rd March 2004/01/01**
QUANTITY	**7,626.6 Feet**
STEEL PO	**8517-05**

TEST PARAMETERS

HYDROSTATIC		ULTRASONIC		SEAM ANNEALED TEMP
PRESSURE	DURATION	DRILL HOLE	NOTCH	MINIMUM
1,580 PSI	**10 Seconds**	**0.125 In**	**N10**	**1,650° F**

FRACTURE TOUGHNESS CRITERIA
SR5AB-20-32F

Flattening tests acceptable per specifications.

CHEMICAL FORMULA
CE=C+Mn/6+Cr/5+Mo/5+V/5+Ni/15+Cu/15
Pcm=C+Si/30+Mn/20+Cu/20+Cr/20+Ni/60+Mo/15+V/10+5B

CE Max=0.40% ; Pcm Max=0.25% ; Pipe manufactured, sampled, tested, and inspected in accordance with the specification(s) and meets requirements.

TENSILE TESTS (in PSI) SPECIMEN SIZE 2.0 In X 1.5 in

COIL	PIPE	TEST TYPE	YIELD	TENSILE	ELONG%	YT Ratio
592	5	TRANS PIPE	51,800	68,800	43	0.75
592	5	TRANS PIPE WELD		75,400		

HARDNESS SURVEY

COIL	PIPE	TEST TYPE	BM	HAZ	WELD	HAZ	BM
592	5	VICKERS 10 KGF	176	158	161	157	173
592	5	VICKERS 10 KGF	175	162	162	158	176
592	5	VICKERS 10 KGF	178	171	174	169	176

CHARPY TESTS

						SHEAR PERCENT				ENERGY IN FT-POUNDS			
COIL	PIPE	ORIENTATION	LOCATION	SIZE	TEMP	1	2	3	AVG	1	2	3	AVG
592	5	TRANSVERSE	BODY	2/3	32°F	100	100	100	100	167	162	171	166.7

DROP WEIGHT TESTS TRANSVERSE FULL SIZE

CHEMICAL TESTS

COIL	PIPE	CE	Pcm	TYPE	C	Mn	P	S	Si	Al	Cb	V	Ti	N	Cr	Mo	Cu	Ni	B	Ca	Sn
		0.187	0.112	LADLE	0.070	0.650	0.007	0.003	0.190	0.051	0.019	0.001	0.012	0.005	0.020	0.010	0.020	0.010	0.0001	0.002	0.007
592	5	0.172	0.098	PROD	0.055	0.655	0.007	0.005	0.211	0.047	0.020	0.001	0.013	0.005	0.028	0.002	0.021	0.010	0.0000	0.002	0.007
592	5	0.181	0.106	PROD	0.064	0.653	0.006	0.005	0.210	0.048	0.020	0.001	0.013	0.004	0.028	0.001	0.021	0.010	0.0000	0.002	0.007

The undersigned, on behalf of Stupp Corporation, hereby certifies that the above materials have been inspected and tested in accordance with the methods prescribed in the applicable specifications, and the results of such inspection and tests are shown above. In determining properties or characteristics for which no methods of inspection or testing are prescribed by said specification, the standard mill inspection and testing practices of Stupp Corporation have been applied. Unless it appears otherwise in the results of such inspection and tests shown above, the undersigned employee of Stupp Corporation believes that said materials conform to said specification.

Charles S. Craighead 4/20/05

Stupp Corporation Appr: ______

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
Edgen REF. # 209171

STUPP CORPORATION
THE ENERGY FILLED COMPANY

SR15

Certificate of Tests

STUPP JOB NUMBER: **ER 8514** REVISION: **0** HEAT #: **16100**

CUSTOMER

Stupp & Mannesmann Line Pipe LP
CUSTOMER ORDER **3213**

TEST PARAMETERS

HYDROSTATIC		ULTRASONIC		SEAM ANNEALED TEMP
PRESSURE	DURATION	DRILL HOLE	NOTCH	MINIMUM
1,580 PSI	10 Seconds	0.125 In	N10	1,650° F

FRACTURE TOUGHNESS CRITERIA
SR5AB-20-32F

ORDER DESCRIPTION

ERW Fine Grained Steel / Aluminum Killed / Continuously Cast / Melted and Manufactured in U.S.A.

OD	20.000 Inches
WALL	0.375 Inch
GRADE	API5L GRB/X42 PSL2/ ASTM/ASME S A53B
SPEC	API-5L/ASTM/ASME
VERSION	43rd March 2004/01/01
QUANTITY	7,626.6 Feet
STEEL PO	8517-05

Flattening tests acceptable per specifications.

CHEMICAL FORMULA
CE=C+Mn/6+Cr/5+Mo/5+V/5+Ni/15+Cu/15
Pcm=C+Si/30+Mn/20+Cu/20+Cr/20+Ni/60+Mo/15+V/10+5B

CE Max=0.40% ; Pcm Max=0.25% ; Pipe manufactured, sampled, tested, and inspected in accordance with the specification(s) and meets requirements.

TENSILE TESTS (in PSI) SPECIMEN SIZE 2.0 In X 1.5 In

COIL	PIPE	TEST TYPE	YIELD	TENSILE	ELONG%	YT Ratio
587	5	TRANS PIPE	52,300	67,400	45	0.78
587	5	TRANS PIPE WELD		75,100		

HARDNESS SURVEY

COIL	PIPE	TEST TYPE	BM	HAZ	WELD	HAZ	BM
587	5	VICKERS 10 KGF	171	161	158	158	173
587	5	VICKERS 10 KGF	171	158	163	159	170
587	5	VICKERS 10 KGF	174	172	177	147	174

CHARPY TESTS

						SHEAR PERCENT				ENERGY IN FT-POUNDS			
COIL	PIPE	ORIENTATION	LOCATION	SIZE	TEMP	1	2	3	AVG	1	2	3	AVG
587	5	TRANSVERSE	BODY	2/3	32°F	100	100	100	100	170	172	169	170.3

DROP WEIGHT TESTS TRANSVERSE FULL SIZE

CHEMICAL TESTS

COIL	PIPE	CE	Pcm	TYPE	C	Mn	P	S	Si	Al	Cb	V	Ti	N	Cr	Mo	Cu	Ni	B	Ca	Sn
		0.184	0.104	LADLE	0.060	0.700	0.013	0.005	0.191	0.034	0.020	0.001	0.014	0.006	0.020	0.010	0.010	0.010	0.0001	0.002	0.001
587	5	0.175	0.094	PROD	0.049	0.711	0.010	0.004	0.198	0.033	0.022	0.003	0.014	0.011	0.025	0.001	0.013	0.005	0.0000	0.002	0.001
587	5	0.181	0.102	PROD	0.058	0.696	0.013	0.006	0.190	0.030	0.021	0.002	0.013	0.005	0.025	0.001	0.014	0.006	0.0000	0.001	0.001

The undersigned, on behalf of Stupp Corporation, hereby certifies that the above materials have been inspected and tested in accordance with the methods prescribed in the applicable specifications, and the results of such inspection and tests are shown above. In determining properties or characteristics for which no methods of inspection or testing are prescribed by said specification, the standard mill inspection and testing practices of Stupp Corporation have been applied. Unless it appears otherwise in the results of such inspection and tests shown above, the undersigned employee of Stupp Corporation believes that said materials conform to said specification.

Charles S. Craighead 4/20/05
Stupp Corporation Appr: ______

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
Edgen . REF. # 2091711

CORINTH PIPEWORKS S.A.

ΤΜΗΜΑ ΠΟΙΟΤΗΤΟΣ
(Quality Department)

Α/Α (S/N): 1139
ΗΜΕΡ/ΝΙΑ (Date): 01/07/2004

ΔΕΛΤΙΟ ΜΗΧΑΝΙΚΩΝ ΔΟΚΙΜΩΝ *(TENSILE TEST REPORT)*

Πελάτης / *Customer*: CPW AMERICA CO.
Προδιαγραφή / *Spec*: API 5 L PSL2
Διάσταση / *Size*: 20" X 9,50 MM

Εντολή Παραγωγής / *PSN*: H210/1
Οδηγία / *Procedure*: C.P.W.-T-T.100.0
Ποιότητα / *Grade*: X42

Certificate No: 1129

Coil (Run) No	Coil No.	Heat No	*Skelp Testing* Specim Size	L or T	Yield Point	Tensile Strength	Elg. % G.L.	*Pipe Testing* Specim Size	L or T	Yield Point	Tensile Strength	YP / TS	Elg. % G.L.	Weld (T) Tensile	Spec.Size for Weld Test	*Impact* Temp..........°C, Size: .... Body	Av.	HAZ	Av.	Weld	Av.	*Hardness Max HV10* HAZ	Base	Weld	*Bend Test*	Remarks
			mm	.	MPa	MPa	2"	mm		MPa	MPa		2"	MPa	mm	J	J	J	J	J	J					
1	5244079	730218858	38,6X9,65	T	421	498	44	38,1X9,67	T	379	493	0,77	44	516	38,0X9,37											8 1/8
2	5244063	730218859	38,9X9,70	T	431	501	46	38,4X9,64	T	395	492	0,80	44	497	38,8X9,41											29 2/5
3	5303042	730218860	38,9X9,74	T	449	502	44	38,4X9,59	T	402	491	0,82	44	495	38,0X9,04											50 3/3

MPA → PSI
x 145.038

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
Edgen REF. # 2091711

L: Longitudinal specimen T: Transverse specimen

Βοηθός Εργαστηρίου: ....
Laboratory Assistant

Προϊστάμενος Εργαστηρίου: ....
Laboratory Supervisor

Customer Inspector: ....

Client's Representative: ....

CORINTH PIPEWORKS S.A.
PIPE INDUSTRY AND REAL ESTATE

MILL TEST CERTIFICATE

ACC TO EN 10204 / 3.1.B

Head Office: 57 Ethnikis Antistaseos str.-GR 15231 Chalandri, Greece.
Tel.:(+30) 210-6787111. Fax:(+30) 210-6787510
Registered Office:115 Kifisias Avenue - GR 11524 Athens Greece
Plant: VI.Pe. Thisvis - 320 10 Domvena,Viotia
Tel.:(+30-22640)22777,22388 Fax:(+30-22640)22210

CPW AMERICA CO., 14511 ST MARY'S LANE, STE 151 HOUSTON, TEXAS 77079

Customer / Contract No: [redacted] PURCHASE ORDER NO: CON-7 , CPW AMERICA CO. NO: 31-1051

Pipe Spec. and description : LONGITUDINALLY WELDED CONSTRUCTION PIPE ERW/HFI OR HIGH FREQUENCY INDUCTION WELDED
ERW/HFI (AT PRODUCER'S OPTION) ACCORDING TO API 5LGRADE X42 PSL2
PIPE LENGTHS MIN 30', MAX 44' AND MIN AVERAGE 38'. PLAIN BEVELED ENDS.
INSIDE BARE AND OUTSIDE COATED WITH ALKYD VARNISH FOR TEMPORARY RUST PROTECTION.
MILL TEST REPORT ACCORDING TO EN 10204/3.1.B.

Dimension:	ITEM	O. D. X W. T.	GRADE
	33	20" X 0.375"	X42

Certificate No: 1129
Date: 19/07/2004
Revision: 0
Page : 1/1
Process Sheet No/subNo: H210/1

Quantity : TOTAL PIECES: 128 TOTAL FEET: 5.508,23 TOTAL WEIGHT IN LBS: 432,330

Test results are indicated in the attached documents:

Impact report No: 954 (1 page)

Tensile report No: 1139 (1 page)

Chemical report No: 967 (1 page)

Packing List No: 1

REMARKS

	Ultrasonic test	
-All pipes passed a hydrostatic test at 98 bar for 10 sec min. -Flattening test / weld ductility test carried out according to the specification with acceptable results -All pipes have undergone a weld seam normalizing heat treatment at 880°C min . -Visual / dimensional inspection according to specification -Residual Magnetism less than 20 Gauss	-100% of pipes on weld seam according to specification (calibration standard 2x N10 notches)	We hereby certify that the material described herein has been made in accordance with the applicable standard and the customer's requirements

THIRD PARTY INSPECTOR	CUSTOMER'S INSPECTOR	CLIENT / CLIENT'S REPRESENTATIVE	CPW QUALITY DEPARTMENT
NAME: DATE: SIGNATURE:	NAME: DATE: SIGNATURE:	NAME: DATE: SIGNATURE:	CORINTH PIPEWORKS S.A. THISVI PLANT QUALITY DEPARTMENT N. VOUBOURIS

CORINTH PIPEWORKS S.A.

ΤΜΗΜΑ ΠΟΙΟΤΗΤΟΣ
(Quality Department)

Α/Α (S/N) : 857
ΗΜΕΡΑΝΙΑ (Date) : 01/07/2004

ΔΕΛΤΙΟ ΧΗΜΙΚΩΝ ΑΝΑΛΥΣΕΩΝ (CHEMICAL ANALYSIS REPORT - CHECK ANALYSIS)

Πελάτης / Customer	CPW AMERICA CO.	Εντολή Παραγωγής / PSN	H210/1	Certificate No : 1129
Προδιαγραφή / Spec	API 5L PSL2	Οδηγία / Procedure	C.P.W.-T-T.190.0	
Διάσταση / Size	20" X 9,50 MM	Ποιότητα / Grade	X42	

Coil (run) No	Coil No.	Heat No.	Sample from	C % x100	Mn % x100	P % x1000	S % x1000	Si % x100	Cr % x100	Ni % x100	Mo % x100	Cu % x100	Ti % x100	Nb % x1000	V % x1000	Al % x1000	Sn % x1000	Ca % x1000	N % x1000	B % x1000	CE (Pcm) % x100	CE (IIW) % x100	Remarks
1	5244079	730218858	COIL	6,66	113,9	12,1	1,1	18,34	1,77	21,00	0,18	0,72	1,62	8,8	1,0	28,5	1,0	2,1	1,0	0,1	13,15	26,25	SOLLAC
"	"	"	8 1/6	6,68	112,5	14,9	1,7	18,58	1,63	20,90	0,18	0,80	1,46	8,8	1,0	29,0	1,0	1,4	1,0	0,1	13,11	26,01	SOLLAC
2	5244063	730218859	COIL	6,36	112,3	11,3	1,0	18,07	1,74	20,90	0,17	0,71	1,58	8,2	1,0	28,8	1,0	2,0	1,0	0,1	12,77	25,68	SOLLAC
"	"	"	29 2/5	6,47	113,3	12,1	1,1	18,49	1,78	21,20	0,18	0,73	1,62	8,5	1,0	28,6	1,0	2,0	2,3	0,1	12,93	25,95	SOLLAC
3	5303042	730218860	COIL	6,32	112,5	11,5	1,0	18,01	1,75	20,50	0,18	0,71	1,61	0,8	1,0	28,3	1,0	2,1	1,0	0,1	12,72	25,85	SOLLAC
"	"	"	50 3/3	6,64	113,5	13,4	1,0	18,03	1,48	20,80	0,16	0,57	1,51	8,5	1,0	29,7	1,0	2,0	1,0	0,1	13,27	26,27	SOLLAC

VERIFIED TRUE COPY

L: Longitudinal specimen T: Transverse specimen

Βοηθός Εργαστηρίου : .... Προϊστάμενος Εργαστηρίου : .... Customer Inspector : .... Client's Representative : ....

Laboratory Assistant Laboratory Supervisor

CORINTH PIPEWORKS S.A.

ΤΜΗΜΑ ΠΟΙΟΤΗΤΟΣ
(Quality Department)

Α/Α (S/N) : 997
ΗΜΕΡΗΝΙΑ (Date) : 01/07/2004

ΔΕΛΤΙΟ ΧΗΜΙΚΩΝ ΑΝΑΛΥΣΕΩΝ *(CHEMICAL ANALYSIS REPORT - CHECK ANALYSIS)*

Πελάτης / Customer	CPW AMERICA CO.	Εντολή Παραγωγής / PSN	H210/1
Προδιαγραφή / Spec	API 5L PSL2	Οδηγία / Procedure	C.P.W.-T-T.190.0
Διάσταση / Size	20" X 9,50 MM	Ποιότητα / Grade	X42

Certificate No : 1120

Coil (run) No	Coil No.	Heat No.	Sample from	C % x100	Mn % x100	P % x1000	S % x1000	Si % x100	Cr % x100	Ni % x100	Mo % x100	Cu % x100	Ti % x100	Nb % x1000	V % x1000	Al % x1000	Sn % x1000	Ca % x1000	N % x1000	B % x1000	CE (Pcm) % x100	CE (IIW) % x100	Remarks
1	5244079	730218658	COIL	6,66	113,9	12,1	1,1	18,34	1,77	21,00	0,15	0,72	1,62	8,8	1,0	28,5	1,0	2,1	1,0	0,1	13,15	26,25	SOLLAC
"	"	"	8 1/8	6,68	112,5	14,9	1,7	18,68	1,63	20,90	0,18	0,80	1,46	8,8	1,0	29,0	1,0	1,4	1,0	0,1	13,11	26,01	SOLLAC
2	5244063	730218859	COIL	6,38	112,3	11,3	1,0	18,07	1,74	20,90	0,17	0,71	1,58	8,2	1,0	28,8	1,0	2,0	1,0	0,1	12,77	25,68	SOLLAC
"	"	"	29 2/5	6,47	113,3	12,1	1,1	18,49	1,78	21,20	0,18	0,73	1,62	8,5	1,0	28,6	1,0	2,0	2,3	0,1	12,93	25,95	SOLLAC
3	5303042	730218860	COIL	6,32	112,5	11,5	1,0	18,01	1,75	20,50	0,16	0,71	1,51	8,8	1,0	28,3	1,0	2,1	1,0	0,1	12,72	25,65	SOLLAC
"	"	"	50 3/3	6,84	113,5	13,4	1,0	18,03	1,46	20,80	0,16	0,57	1,51	8,5	1,0	29,7	1,0	2,0	1,0	0,1	13,27	26,27	SOLLAC

VERIFIED TRUE COPY

L: Longitudinal specimen T: Transverse specimen

Βοηθός Εργαστηρίου : ....
Laboratory Assistant

Προϊστάμενος Εργαστηρίου : ....
Laboratory Supervisor

Customer Inspector : ....

Client's Representative : ....

Form 8.4 Rev. 0

CORINTH PIPEWORKS S.A.

ΤΜΗΜΑ ΠΟΙΟΤΗΤΟΣ
(Quality Department)

A/A (S/N): 954
ΗΜΕΡ/ΝΙΑ (Date): 01/07/2004

IMPACT TEST REPORT

Πελάτης / Customer	CPW AMERICA CO.	Εντολή Παραγωγής / PSN	H210/1
Προδιαγραφή / Spec	API 5L PSL2	Οδηγία / Procedure	C.P.W-T-T.190.0
Διάσταση / Size	20" X 9,50MM	Ποιότητα / Grade	X42
Attached to Mechanical Test Report			

Certificate No: 1129

Temp.: ......0...... °C ( ) Size: 10X6,7X55 mm

Coil (Run) No	Coil No.	Heat No.	L or T	Body						Av.		Weld						Av.		Weld + 2mm						Av.		Weld + 5mm						Av.		Remarks
				J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	J	%	
1	5244079	730218858	T	242	100	228	100	249	100	240	100																									8 1/8
2	5244063	730218859	T	227	100	247	100	212	100	229	100																									29 2/5
3	5303042	730218860	T	241	100	233	100	245	100	240	100																									50 3/3

J TO FT L

X . .737562

VERIFIED CERTIFIED COPY

L: Longitudinal specimen T: Transverse specimen

Βοηθός Εργαστηρίου : .... Laboratory Assistant

Προϊστάμενος Εργαστηρίου : .... Laboratory Supervisor

Customer Inspector : ....

Client's Representative : ....

STANDARD CERTIFIED TEST REPORT

GEORGIA TUBULAR PRODUCTS

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
EDGEN CORP. REF. # 2091664

Customer Name / Customer Address: EDGEN CARBON PRODUCTS GROUP, LLC
18444 HIGHLAND ROAD
City, State, Zip: BATON ROUGE, LA 70809

Date: March 29, 2006
Customer Order No. 58310
G.T.P. Sales Order No. 204561

Specification ASTM A139 GR. B SPIRALWELD STEEL PIPE MELTED & MANUFACTURED IN THE U.S.A.

Heat No.	Size O.D.	Wt./Ft. or Wall Thick	Min. Hydro Test Pres. P.S.I.	MECHANICAL PROPERTIES Yield Strength P.S.I. Point	Tensile Strength P.S.I.	Elong In 2" %	CHEMICAL ANALYSIS (%) C	Mn	P	S	Si
2601757	48"	.375	328	49,500	74,700	33	.22	.88	.009	.003	.01
1601755	36"	.375	438	47,100	79,200	31	.23	.89	.011	.005	.01
2601759	36"	.375	438	54,300	79,600	32	.19	.79	.011	.001	.03
04050-1	26"	.375	605	58,500	74,900	35	.15	.68	.006	.011	.02
51-1	26"	.375	605	56,500	76,000	38	.15	.73	.011	.010	.01
04054-1	26"	.375	605	54,400	75,100	36	.16	.72	.010	.007	.02
1610268	28"	.375	563	48,000	75/700	36	.22	.80	.009	.004	.02

Clewiston DZMW-1
9/7/06

The undersigned hereby certifies that the above materials have been inspected and tested in accordance with the methods prescribed in the applicable specifications and the results of such inspection and tests shown above. In determining properties or characteristics for which no methods of inspecting or testing are prescribed by said specifications, the standard mill inspection and testing practices of Georgia Tubular Products have been applied. Unless it appears otherwise in the results of such inspection and tests shown above, the undersigned believes that said materials conform to said specifications.

Subscribed and sworn to before me

29th day of March 20 06

[signature]
Notary Public

LYNN L. TATUM NOTARY PUBLIC BARTOW COUNTY GA Exp. Dec. 29, 2007

Stanley Chesser
STANLEY CHESSER PLANT MGR. Name & Title

Georgia Tubular Products
109 Dent Drive, Cartersville, GA 30121
(770) 386-2550

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
Edgen REF. # 2091707
Truck #1 3/24/06

YOUNGQUIST BROTHERS, INC.
Has Reviewed this Shop Drawing/Submittal
YBI/Section No. # 02852-008-A
Transmittal No. # Date: 5/11/06
Signature

SHANGHAI ALISON STEEL PIPE CO.,LTD

MILL TEST CERTIFICATE

Consignee:

Description: ERW STEEL PIPE

This is to certify that the ERW STEEL PIPE in accordance with order No.1040084500 were tested qualified by our Quality Control Department.
The pipes are tested according to ASTM A53B(99B)/ASME SA53B(E95)/API 5L B/X42 PSL1(Version 42).The tensile test and chemical values are as stated below

P. O. NO. 1040084500

Shipping Marks: 1040084500
COLOUR: GREEN

No.	Heat No	Size	Quantity pcs	Quantity ft	Weight (mt)	Surface and size	C	Mn	P	S	Cu	Ni	Cr	Mo	V	Yield Point (psi)	Tensile Strength (psi)	Elongation(%)	Weld Tensile Strength (psi)	Hydrostatic Test P-Mpa	Flattening Test	Ultrasonic Test	Qualified Items
ZQ11	6406556	5"X0.258"X21'	287	6027.0	40.000	OK	0.10	1.00	0.007	0.002	0.006	0.015	0.035	0.003	0.002	69615	76867	33.0	/	16.3	OK	OK	6
ZQ12	6406562	5"X0.258"X40'2"	105	4217.5	27.990	OK	0.07	0.89	0.005	0.004	0.006	0.017	0.047	0.003	0.002	73966	80493	32.0	/	16.3	OK	OK	6
ZQ13	801845	6"X0.188"X21'	175	3675.0	21.570	OK	0.12	0.28	0.006	0.015	0.006	0.025	0.054	0.003	0.002	56563	68165	40.0	/	12.6	OK	OK	6
ZQ14	5005141	8"X0.322"X21'	279	5859.0	145.677	OK	0.17	0.44	0.010	0.023	0.006	0.013	0.043	0.003	0.002	58738	69616	26.0	74691	16.3	OK	OK	7
	5020131512		256	5376.0			0.09	0.32	0.008	0.013	0.009	0.017	0.056	0.003	0.002	64539	73241	32.0	80493	16.3	OK	OK	7
ZQ15	5020131512	8"X0.322"X40'2"	235	9439.2	122.392	OK	0.09	0.32	0.008	0.013	0.009	0.017	0.056	0.003	0.002	64539	73241	32.0	80493	16.3	OK	OK	7
ZQ16	5203434	10"X0.365"X21'	10	210.0	106.172	OK	0.14	0.38	0.009	0.020	0.006	0.014	0.042	0.003	0.002	55837	68890	35.0	76142	9.8	OK	OK	7
	5203671		265	5565.0			0.13	0.40	0.008	0.023	0.006	0.010	0.036	0.003	0.002	58738	72516	35.0	76142	9.8	OK	OK	7
ZQ17	5103283	10"X0.365"X40'2"	132	5302.0	97.476	OK	0.13	0.43	0.010	0.027	0.006	0.010	0.039	0.003	0.002	50036	69615	36.0	68890	9.8	OK	OK	7
木 ZQ18	059D1571	12"X0.375"X40'2"	150	6025.0	135.563	OK	0.16	0.21	0.008	0.006	0.013	0.011	0.034	0.003	0.002	53662	71791	38.0	77592	14.5	OK	OK	7
ZQ19	057D1383	14"X0.250"X21'	52	1092.0	18.203	OK	0.18	0.24	0.007	0.001	0.013	0.017	0.010	0.003	0.002	56563	71065	39.0	76142	8.9	OK	OK	7
ZQ20	059D1374	14"X0.250"X40'2"	25	1004.2	16.739	OK	0.17	0.21	0.006	0.004	0.013	0.017	0.010	0.003	0.002	53662	70341	40.0	71065	[illegible]	[illegible]	OK	7

Manager of Q.C. Dept. 张松 Inspector: 成军花 Issuing Date: JUN.10, 2005

SHANGHAI ALISON STEEL

We certify the material has been manufactured, samples, tested and inspected in accordance with this specification, and has been found to meet the requirements

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
Edgen REF. # 2091707

SHANGHAI ALISON STEEL PIPE CO.,LTD

MILL TEST CERTIFICATE

Consignee:

Description: ERW STEEL PIPE

This is to certify that the ERW STEEL PIPE in accordance with order No.1040084500 were tested qualified by our Quality Control Department.
The pipes are tested according to ASTM A53B(99B)/ASME SA53B(E95)/API 5L B/X42 PSL1(Version 42).The tensile test and chemical values are as stated below.

P. O. NO. 1040084500

Shipping Marks: 1040084500
COLOUR: GREEN

No	Heat No	Size	Quantity		Weight (mt)	Surface and size	Pipe chemical Composition									Pipe mechanical properties			Weld Tensile Strength (psi)	Hydrostatic Test P=Mpa	Flattening Test	Ultrasonic Test	Qualified Items
			pcs	ft			C	Mn	P	S	Cu	Ni	Cr	Mo	V	Yield Point (psi)	Tensile Strength (psi)	Elongation(%)					
ZQ11	6406556	5"X0.258"X21'	287	6027.0	40.000	OK	0.10	1.00	0.007	0.002	0.006	0.015	0.035	0.003	0.002	69615	76867	33.0	/	16.3	OK	OK	6
ZQ12	6406562	5"X0.258"X40'2"	105	4217.5	27.990	OK	0.07	0.89	0.005	0.004	0.006	0.017	0.047	0.003	0.002	73966	80493	32.0	/	16.3	OK	OK	6
ZQ13	801835	6"X0.188"X21'	175	3675.0	21.570	OK	0.12	0.28	0.006	0.015	0.006	0.025	0.054	0.003	0.002	56563	68165	40.0	/	12.6	OK	OK	6
ZQ14	53025141	8"X0.322"X21'	279	5859.0	145.677	OK	0.17	0.44	0.010	0.023	0.006	0.013	0.043	0.003	0.002	58738	69616	26.0	74691	16.3	OK	OK	7
	5020131512		256	5376.0			0.09	0.32	0.008	0.013	0.009	0.017	0.056	0.003	0.002	64539	73241	32.0	80493	16.3	OK	OK	7
ZQ15	5020131512	8"X0.322"X40'2"	235	9439.2	122.392	OK	0.09	0.32	0.008	0.013	0.009	0.017	0.056	0.003	0.002	64539	73241	32.0	80493	16.3	OK	OK	7
ZQ16	5203434	10"X0.365"X21'	10	210.0	106.172	OK	0.14	0.38	0.009	0.020	0.006	0.014	0.042	0.003	0.002	55837	68890	35.0	76142	9.8	OK	OK	7
	5203671		265	5565.0			0.13	0.40	0.008	0.023	0.006	0.010	0.036	0.003	0.002	58738	72516	35.0	76142	9.8	OK	OK	7
ZQ17	5103283	10"X0.365"X40'2"	132	5302.0	97.476	OK	0.13	0.43	0.010	0.027	0.006	0.010	0.039	0.003	0.002	50036	69615	36.0	68890	9.8	OK	OK	7
ZQ18	059D1571	12"X0.375"X40'2"	150	6025.0	135.563	OK	0.16	0.21	0.008	0.006	0.013	0.011	0.034	0.003	0.002	53662	71791	38.0	77592	14.5	OK	OK	7
ZQ19	057D1383	14"X0.250"X21'	52	1092.0	18.203	OK	0.18	0.24	0.007	0.001	0.013	0.017	0.010	0.003	0.002	56563	71065	39.0	76142	8.9	OK	OK	7
ZQ20	059D1374	14"X0.250"X40'2"	25	1004.2	16.739	OK	0.17	0.21	0.006	0.004	0.013	0.017	0.010	0.003	0.002	53662	70341	40.0	71065	[illegible]	[illegible]	OK	7

Manager of Q.C. Dept. 张振

Inspector: 戚平花

Issuing Date JUN 10, 2005

ALISON

We state the material has been manufactured, samples, tested and inspected in accordance with this specification, and has been found to meet the requirements

FERROMET GROUP, s.r.o.

Ferromet

Válcovny trub Chomutov

divize 5

Libušina 4778, Chomutov 430 01, Czech Republic

www.vtchomutov.cz

TÜV CERT EN ISO 9001:2000

Inspekční certifikát mill test certificate Abnahmeprüfzeugnis Inspection Certificate Certificat de Reception EN 10204:1995/3.1 B	Atest č. – Attest Nr. – Certificate No – Certificat N° 2744 /05	Objednávka č. – Bestell Nr. – Order No – N° de la commande : 1040065500 Code: 04/42/553
Zákazník – Besteller – Customer – Client		Zakázka č. – Bestell Nr. – Order No – Commande N°: 11-842024-6

Ocelové bezešvé trubky – Nahtlose Stahlrohre – Seamless steel tubes – Tubes en aciers sans soudure

Pressure test

Technické požadavky – Prüfgrundlagen/Anforderungen – Technical requirements/Demand – Exigences techniques:

ASTM A106-02/ASME SA106-01 ASTMA53/A53M-99b/ASMESA53-98 API Spec.5L-04 PSL 1
ASTM A333/A333M-99 ASME SA 333-01 NACE MR 0175-01

Materiál – Werkstoff – Material – Matière:	Dle – Entsprechend – According to – Selon:	Vydání – Ausgabe – Edition – Edition:
Grade B/C	ASTM A 106/ASME SA 106	2002/2001
Grade B	ASTM A 53/ASME SA 53	1999/1998
Grade 1/6	ASTM A 333/ASME SA 333	1999/2001
Grade B/X42	API Spec.5L	2004

Stav dodávky – Lieferzustand – State of delivery – Etat de livraison:

Hot finished - normalized (min.815°C) cool in air

Seamless steel pipes, beveled ends 30 (-0 /+5), lacquered, caps EP 250, CE max. 0,43% MTC acc.to EN 10204/3.1.B (Mercury free and no weld repair) Standard: ASTM A 106-02/ASME SA 106-01/API 5L-04, ASTM A 53/A 53M-99b/ASME SA 53-98, ASTM A 333/A 333M, ASME 333-01, NACE MR 0175-2001 Quality: Gr.B/C Gr.B/X42, Gr.1/6, PSL 1 Lengths: 7-10,5 m

Způsob zpracování tavby – Erschmelzungsart – Melting process – Procédé d'élaboration

Electric furnace

Značení – Kennzeichnung – Marking – Marquage:

VT 5L 0286 API, 07.2005; SEAMLESS HOT FINISHED ASTM/ASME A/SA 53B//A/SA 106 B/C A/SA 333 Gr.6 LT -45 C, API 5L B/X42 PSL1, TESTED 2 230 PSI 16"x0,500 HEAT No. LENGHT ft, WEIGHT .. Lb FSI PO 1040065500 Made in Czech Republic

Razítko znalce – Stempel des Sachverständigen – Inspector's stamp – Poinçon de l'expert

TK 7

Znak výrobce – Herstellerszeichen – Brand of the manufacturer – Marque du fabricant:

Rozsah dodávky – Umfang der Lieferung – Extent of material delivery – Liste descriptive

Skupina Los Lot Lot	Kusy Stücke Pieces Pièces	Celková délka Gesamtlänge Total length Longueur totale [ft]	Celková hmotnost Gesamtmasse Total mass Masse totale [t]	Rozměry Dimensionen Dimensions Dimensions [mm]	Tavba číslo Schmelze Nr. Heat No. N° Coulée	Vodní tlak Druckprobe Hydr. Test Essai hydraulique [Psi]
	29	885.010	33.590	Ø 406.4 x 12.70	50768	2230
	29	842.030	31.960	16"x0,500	50761	5 sec.
	13	364.010	13.820	/ Lengths: 23 - 34 Ft /	50803	
	29	856.960	32.530		50773	
	29	863.680	32.780		50727	
	29	865.810	32.860		50721	

Doplňující údaje – Zusätzliche – Additional remarks – Autres remarques:

Aviso: 355564-14.07.05, 355587-16.07.05, 355592, 355595, 355596, 355597-17.07.05
Mercury Free and No Weld Repair.
Visual inspection and dimensional check without objection.
Closed plastic ends protectors.

Výsledky zkoušek uvedených v příloze odpovídají sjednaným podmínkám – Die bestellten Anforderungen sind eingehalten – The requirements are fulfilled as per Annex - Les conditions indiquées dans l'annexe sont satisfaisant.
The manufacturer is certified QA – system has undergone a specific assessment as per PED 97/23EC.
Raw material of pipe production without radioactive contamination.

DIVIZE 5 Válcovny trub Chomutov
Libušina 4775, 430 01 Chomutov

Chomutov P. 18. 07. 2005
Dne - Datum - Date - Date

BARTUŠKOVÁ Jana
Zodpovědná osoba - Der Werkssachverständige - Inspector-Le responsable

Příloha-Anlage-Annex-Annexe: 1/4

Výsledky zkoušek-Ergebnis der Prüfungen -Test results- Résultats des tests

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
EDGEN CORP. REF. # 2091698

YOUNGQUIST BROTHERS, INC.
Has Reviewed this Shop Drawing/Submittal
YBI/Section No. #02852-004-A
Transmittal No. # Date 5/10
Signature

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
EDGEN CORP. REF. # 2091698

FERROMET GROUP, s.r.o.

Ferromet

Válcovny trub Chomutov
divize 5
Libušina 4778, Chomutov 430 01, Czech Republic
www.vtchomutov.cz

TÜV CERT
EN ISO 9001:2000
Certifikat č. 041006284

Příloha – Anlage – Annex – Annexe : 2/4

Výsledky zkoušek - Ergebnis der Prüfungen - Test results – Résultats des tests

Atest č. - Attest Nr. - Certificate No - Certificat N° : 2744 /05 — 18.7.2005

Mechanické zkoušky-Mechanische Prüfungen-Mechanical tests-Tests méchaniques — ASTM A 370 — ASTM A 370

Skupina / Los / Lot / Lot	Číslo zkoušky / Probe Nr. / Test No / N° du test	Číslo tavby / Schmelze Nr. / Heat No / N° coulée	Rozměry vzorku / Probeabmessung / Dim. of Specimen / Dim. de l'echantillion: Tloušťka / Dicke / Thickness / Epaisseur	Šíře ø / Breite ø / Width ø / Largeur ø	Odběr vzorku / Probenentnahme / Specimen / Prélèvement: Směr / Richtung / Direction / Direction	Zkuš. teplota / Prüftemperatur / Test temperature / Temperature du test	Mez kluzu / Streck/Dehngrenze / Yield point/Proof stress / Limite d'élasticité: Rt 0,5	Pevnost v tahu / Zugfestigkeit / Tensile strength / Résistence à la traction: Rm	Tažnost / Bruchdehnung / Elongation / Allongement: 2"	Kontrakce / Brucheinschnürung / Reduction of area / Contraction: Z	Nárazová práce / Schlagarbeit / Energy of impact / Energie de rupture: Kv	Vrub. houževnatost / Kerbschlagzähigkeit / Impact strength / Resilience
			mm	"		°C	psi	psi	%	%	J	J/cm²
	16413	50768		t	L	20	47995	73225	38.2			
	16414						48575	73370	39.9			
				10 mm	L	-45					24	
											37	
											35	
	16441	50773		t	L	20	49880	74530	39.2			
	16442						49010	74095	39.5			
				10 mm	L	-45					28	
											36	
											32	
	16469	50803		t	L	20	49010	73515	39.4			
	16470						47850	73225	40.9			
				10 mm	L	-45					30	
											28	
											39	

L = Podél – Längs – Along – En longueur; T = Příčně = Quer = Transverse = En travers

Technologické zkoušky - Technologische Prüfungen – Technological test – Test technologiques:

Hardness test < 22 HRC. Flattening test satisfied acc to ASTM A 370.

Chemické složení - Chemische Zusammensetzung - Chemical composition - Composition chimique (%)

Heat analysis (S) / product analysis (K)

Tavba číslo / Schmelze Nr. / Heat No / N° Coulée	C	Mn	Si	P	S	Cr	Ni	Cu	Mo	V	Nb	Ti
50768S	0.18	0.90	0.34	0.012	0.020	0.10	0.09	0.19	0.02	0.001	0.002	0.014 Ce 0.37
50768K	0.18	0.96		0.011	0.020							
50768K	0.18	0.96		0.011	0.018							
50761S	0.18	0.87	0.34	0.016	0.021	0.14	0.07	0.18	0.01	0.001	0.002	0.014 Ce 0.37
50761K	0.17	0.89		0.011	0.020							
50761K	0.17	0.88		0.011	0.019							
50803S	0.18	0.89	0.33	0.013	0.020	0.12	0.07	0.19	0.02	0.001	0.002	0.015 Ce 0.37
50803K	0.19	0.90		0.013	0.022							
50803K	0.19	0.90		0.013	0.020							

FERROMET GROUP, s.r.o.
IČO 47 54 97 42
DIVIZE 5 Válcovny trub Chomutov
Libušina 4778, 430 01 Chomutov

Chomutov P. 18. 07. 2005
Dne – Datum – Date – Date

Zodpovědná osoba - Der Werkssachverständige - Inspector-le responsable

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
EDGEN CORP. REF. # 209698

FERROMET GROUP, s.r.o.

Ferromet

Válcovny trub Chomutov
divize 5
Libušina 4778, Chomutov 430 01, Czech Republic
www.vtchomutov.cz

TÜV CERT
EN ISO 9001:2000
Certifikát č. 041005284

Příloha – Anlage – Annex – Annexe

3/4

Výsledky zkoušek - Ergebnis der Prüfungen - Test results - Résultats des tests

Atest č. - Attest Nr. - Certificate No - Certificat N°

2744 /05 | 18.7.2005

Mechanické zkoušky-Mechanische Prüfungen-Mechanical tests-Tests mechaniques

Skupina Los Lot Lot	Číslo zkoušky Probe Nr. Test No N° du test	Číslo tavby Schmelze Nr. Heat No N° coulée	Rozměry vzorku Probeabmessung Dim. of Specimen Dim. de l'echantillon: Tloušťka Dicke Thickness Epaisseur	Šíře ø Breite ø Width ø Largeur ø	Odběr vzorku Probenentnahme Specimen Prélèvement: Směr Richtung Direction Direction	Zkuš. teplota Prüftemperatur Test temperature Température du test	Mez kluzu Streck/Dehngrenze Yield point/Proof stress Limite d'élasticité: Rt 0,5	Pevnost v tahu Zugfestigkeit Tensile strength Résistance à la traction: Rm	Tažnost Bruchdehnung Elongation Allongement: A5	Kontrakce Brucheinschnürung Reduction of area Contraction: Z	Nárazová práce Schlagarbeit Energy of Impact Energie de rupture	Vrub. Houževnatost Kerbschlagzähigkeit Impact strength Résilience
			mm	"		°C	psi	psi	%	%	J	J/cm²
	16334	50721		1	L	20	49735	72210	40.7			
	16335						47995	71920	39.9			
				10 mm	L	-45					33	
											34	
											31	
	16362	50727		1	L	20	51185	75400	38.4			
	16363						51620	76415	38.4			
				10 mm	L	-45					40	
											42	
											34	
	16383	50761		1	L	20	48140	72210	37.4			
	16387						49010	72645	39.6			
				10 mm	L	-45					38	
											35	
											39	

L = Podél – Längs – Along – En longueur; T = Příčně = Quer = Travers = En travers

FERROMET GROUP, s.r.o.
IČO: 47 54 97 42
DIVIZE 5 Válcovny trub Chomutov
Libušina 4778, 430 01 Chomutov

P. 18. 07. 2005

Chomutov ....

Dne – Datum – Date – Date

Zodpovědná osoba - Der Werkssachverständige - Inspector-la responsable

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268104-001
EDGEN CORP. REF. # 2041698

FERROMET GROUP, s.r.o.

Ferromet

Válcovny trub Chomutov
divize 5
Libušina 4773, Chomutov 430 01, Czech Republic
www.vtchomutov.cz

TÜV CERT
EN ISO 9001:2000
Certifikát č. 041005284

Příloha – Anlage – Annex – Annexe

4/4

Výsledky zkoušek - Ergebnis der Prüfungen - Test results – Résultats des tests

Atest č. - Attest Nr. - Certificate No - Certificat N°

2744 /05 18.7.2005

Chemické složení - Chemische Zusammensetzung - Chemical composition - Composition chimique (%)

Tavba číslo Schmelze Nr. Heat No N° Coulée	C	Mn	Si	P	S	Cr	Ni	Cu	Mo	V	Nb	Ti
50773S	0.19	0.85	0.35	0.014	0.022	0.14	0.09	0.24	0.02	0.001	0.002	0.022 Ce 0.39
50773K	0.18	0.89		0.013	0.013							
50773K	0.18	0.88		0.012	0.019							
50727S	0.19	0.86	0.33	0.013	0.018	0.14	0.10	0.16	0.03	0.001	0.002	0.017 Ce 0.38
50727K	0.18	0.93		0.014	0.014							
50727K	0.18	0.92		0.013	0.012							
50721S	0.17	0.83	0.35	0.011	0.021	0.17	0.09	0.19	0.02	0.001	0.002	0.017 Ce 0.36
50721K	0.17	0.89		0.011	0.022							
50721K	0.17	0.89		0.011	0.021							

Zástupce Válcovny trub Chomutov
Libušina 4773, 430 01 Chomutov

P. 18. 07. 2005

Chomutov ....
Dne – Datum – Date – Date

Zodpovědná osoba - Der Werkssachverständige - Inspecteur responsable

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268109-001
EDGEN CORP. REF. # 209168

FERROMET GROUP, s.r.o.

Ferromet

Válcovny trub Chomutov
divize 5
Libušina 4778, Chomutov 430 01, Czech Republic
www.vtchomutov.cz

TÜV CERT
EN ISO 9001:2000
Certifikát č. 04100629

Inspekční certifikát mill test certificate Abnahmeprüfzeugnis Inspection Certificate Certificat de Reception EN 10204:1995/3.1 B	Atest č. – Attest Nr. – Certificate No – Certificat N° 2820 /05	Objednávka č. – Bestell Nr. – Order No – N° de la commande : 1040065500 Code: 04/42/558
Zákazník – Besteller – Customer – Client		Zakázka č. – Bestell Nr. – Order No – Commande N°. 11-842024-6

Ocelové bezešvé trubky – Nahtlose Stahlrohre – Seamless steel tubes – Tubes en aciers sans soudure

Pressure test

Technické požadavky – Prüfgrundlagen/Anforderungen – Technical requirements-Demand – Exigences techniques:

ASTM A106-02/ASME SA106-01 ASTMA53/A53M-99b/ASMESA53-98 API Spec.5L-04 PSL 1
ASTM A333/A333M-99 ASME SA 333-01 NACE MR 0175-01

Materiál – Werkstoff – Material – Matière	Dle – Entsprechend – According to – Selon	Vydání – Ausgabe – Edition – Edition
Grade B/C	ASTM A 106/ASME SA 106	2002/2001
Grade B	ASTM A 53/ASME SA 53	1999/1998
Grade 1/6	ASTM A 333/ASME SA 333	1999/2001
Grade B/X42	API Spec.5L	2004

Stav dodávky – Lieferzustand – State of delivery – Etat de livraison:

Hot finished - normalized (min.815°C) cool in air

Způsob zpracování tavby – Erschmelzungsart – Melting process – Procédé d'élaboration:

Electric furnace

Seamless steel pipes, beveled ends 30 (-0 /+5), lacquered, caps EP 250, CE max. 0,43% MTC acc.to EN 10204/3.1.B (Mercury free and no weld repair) Standard: ASTM A 106-02/ASME SA 106-01/API 5L-04, ASTM A 53/A 53M-99b/ASME SA 53-98, ASTM A 333/A 333M, ASME 333-01, NACE MR 0175-2001 Quality: Gr.B/C Gr.B/X42, Gr.1/6, PSL 1 Lengths: 7-10,5 m

Značení – Kennzeichnung – Marking – Marquage:

VT 5L 0286 API, 07.2005; SEAMLESS HOT FINISHED ASTM/ASME A/SA 53B//A/SA 106 B/C A/SA 333 Gr.6 LT -45 C, API 5L B/X42 PSL1, TESTED 2 230 PSI 16"x0,500 HEAT No. LENGHT .ft, WEIGHT .. Lb FSI PO 1040065500 Made in Czech Republic

Razítko znalce – Stempel des Sachverständigen – Inspector's stamp – Poinçon de l'expert

TK 7

Znak výrobce – Herstellerszeichen – Brand of the manufacturer – Marque du fabricant:

Rozsah dodávky – Umfang der Lieferung – Extent of material delivery – Liste descriptive

Skupina Los Lot Lot	Kusy Stücke Pieces Pièces	Celková délka Gesamtlänge Total length Longueur totale [ft]	Celková hmotnost Gesamtmasse Total mass Masse totale [t]	Rozměry Dimensionen Dimensions Dimensions [mm]	Tavba číslo Schmelze Nr. Heat No. N° Coulée	Vodní tlak Druckprobe Hydr. Test Essai hydraulique [Psi]
	5	141.400	5.370	Ø 406.4 x 12.70 16"x0,500 / Lengths: 23 - 34 Ft /	50523	2230 5 sec.

Doplňující údaje – Zusätzliche – Additional remarks – Autres remarques:

Aviso: 355615-23.07.05
Mercury Free and No Weld Repair.
Visual inspection and dimensional check without objection.
Closed plastic ends protectors.

Výsledky zkoušek uvedených v příloze odpovídající sjednaným podmínkám – Die bestellten Anforderungen sind lt. Anglagen erfüllt - The requirements are fulfilled as per Annex - Les conditions indiquées dans l'annexe sont satisfaisant.
The manufacturer is certified QA – system has undergone a specific assesment as per PED 97/23EC.
Raw material of pipe production without radioactive contamination.

Chomutov P. 25. 07. 2005
Dne - Datum - Date - Date

Zodpovědná osoba - Der Werkssachverständige - Inspector-Le responsable
BARTOŠOVÁ Jana

Příloha-Anlage-Annex-Annexe: 1/2
Výsledky zkoušek-Ergebnis der Prüfungen -Test results- Resultats des tests

THESE MILL TEST REPORTS APPLY TO
YOUR P.O. # 268107-001
EDGEN CORP. REF. # 209168

FERROMET GROUP, s.r.o.

Ferromet

Válcovny trub Chomutov
divize 5
Libušina 4778, Chomutov 430 01, Czech Republic
www.vtchomutov.cz

TÜV CERT
EN ISO 9001:2000
Certifikát č. 041005284

Příloha – Anlage – Annex – Annexe

2/2

Výsledky zkoušek - Ergebnis der Prüfungen - Test results – Résultats des tests

Atest č. - Attest Nr. - Certificate No - Certificat N°: 2820 /05 — 25.7.2005

Mechanické zkoušky-Mechanische Prüfungen-Mechanical tests-Tests mechaniques

Skupina Los Lot Lot	Číslo zkoušky Probe Nr. Test No N° du test	Číslo tavby Schmelze Nr. Heat No N° coulée	Rozměry vzorku Probeabmessung Dim. of. Specimen Dim. de l'echantillion: Tloušťka Dicke Thickness Epaisseur	Rozměry vzorku: Šíře ø Breite ø Width ø Largeur ø	Odběr vzorku Probeentnahme Specimen Prélevement: Směr Richtung Direction Direction	Zkuš. teplota Prüftemperatur Test temperature Température du test	ASTM A 370: Mez kluzu Streck/Dehngrenze Yield point/Proof stress Limite d'elasticité Rt 0.5	Pevnost v tahu Zugfestigkeit Tensile strength Résistence à la traction Rm	Tažnost Bruchdehnung Elongation Allongement 2"	Kontrakce Brucheinschnürung Reduction of area Contraction Z	ASTM A 370: Nárazová práce Schlagarbeit Energy of impact Energie de rupture Kv	Vrub. Houževnatost Kerbschlagzähigkeit Impact strength Resilience
			mm	"		°C	psi	psi	%	%	J	J/cm²
	15490	50523		Ø 1/2"	L	20	49445	72645	37.8			
				10 mm	L	-45					128 140 160	

L = Podél – Längs – Along – En longueur; T = Příčně = Quer = Transverse = En travers

Technologické zkoušky - Technologische Prüfungen – Technological test – Test technologiques:

Hardness test < 22 HRC. Flattening test satisfied acc to ASTM A 370.

Chemické složení - Chemische Zusammensetzung - Chemical composition - Composition chimique (%)

Heat analysis (S) / product analysis (K)

Tavba číslo Schmelze Nr. Heat No N° Coulée	C	Mn	Si	P	S	Cr	Ni	Cu	Mo	V	Nb	Ti
50523S	0.17	0.89	0.33	0.014	0.016	0.16	0.08	0.21	0.04	0.001	0.002	0.020 Ce 0.38
50523K	0.17	0.93		0.013	0.015							
50523K	0.17	0.93		0.013	0.013							

Chomutov P. 25. 07. 2005

Dne – Datum – Date – Date

Zodpovědná osoba - Der Werkssachverständige - Inspecteur responsable

FUTURE PIPE INDUSTRIES
Complete Pipe System Solutions

RED BOX 2250

FIBERGLASS TUBING, CASING, AND LINERS
AROMATIC AMINE CURED EPOXY RESIN

DIMENSIONAL SPECIFICATIONS

February 2005

Nominal Size (inches)	Nominal I.D. (inches)	Minimum Drift Dia (inches)	Nominal O.D. (inches)	Nominal Wall (inches)	Pin Upset O.D. (inches)	Max Box OD* (inches)	Nominal Weight (lbs/ft)	(lbs/jt)	Connection Type API 5B, Table 14*, 7**, 6*** Fourteenth Edition August 96
2-3/8	2.00	1.91	2.38	0.19	2.69	3.45	1.2	35	2-3/8" 8Rd EUE Long*IJ
2-7/8	2.47	2.37	2.93	0.23	3.19	3.95	1.7	52	2-7/8" 8Rd EUE Long*IJ
3-1/2	3.00	2.90	3.58	0.29	3.85	4.84	2.6	79	3-1/2" 8Rd EUE Long*IJ
4	3.33	3.24	3.96	0.31	4.35	5.33	3.3	100	4" 8Rd EUE Long* TC
4-1/2	3.98	3.89	4.74	0.38	4.85	5.93	4.5	135	4-1/2" 8Rd EUE Long*IJ
5-1/2	4.42	4.33	5.26	0.42	5.60	6.77	5.7	170	5-1/2" 8Rd Csg Long**IJ
6-5/8	5.43	5.33	6.46	0.52	6.73	8.40	8.6	257	6-5/8" 8Rd Csg Long**IJ
7-5/8	6.21	6.11	7.39	0.59	7.73	9.72	11.3	338	7-5/8" 8Rd Csg Long**IJ
9-5/8	7.84	7.75	9.32	0.74	9.73	12.65	17.8	535	9-5/8" 8Rd Csg*** IJ
10-3/4	8.85	8.76	10.52	0.83	10.85	0.10	20.7	620	10-3/4" 8Rd Csg***IJ

*Depending on the application, smaller maximum box diameters are available.

Thread lengths may exceed API L4
30 ft Standard Joint Length

PERFORMANCE AND RATINGS (-60 deg F to +210 deg F)

Nominal Size	Internal Pressure Rating (psi)	Mill Test Pressure (psi)	Collapse Rating (psi)	Axial Tension Rating (lbs)	Stretch vs Tension-Over-Pipe-Wt Stretch (ft) = Coeff. x P x L
2-3/8	2,250	2,600	2,600	17,500	0.255
2-7/8	2,250	2,600	2,600	24,000	0.170
3-1/2	2,250	2,600	2,700	32,000	0.110
4	2,250	2,600	2,600	40,000	0.094
4-1/2	2,250	2,600	2,600	46,500	0.064
5-1/2	2,250	2,600	2,600	55,500	0.052
6-5/8	2,250	2,600	2,600	72,500	0.034
7-5/8	2,250	2,600	2,600	86,500	0.026
9-5/8	2,250	2,600	2,600	140,500	0.017
10-3/4	2,250	2,600	2,600	161,500	0.013

Where: P = Tensile Load (1,000 lbs)
L = String Length (1,000 ft)

MECHANICAL AND PHYSICAL PROPERTIES

TUBING/CASING BODY PROPERTIES	UNIT	VALUE 2-3/8 - 10-3/4	VALUE 11-3/4 - 20	TEST METHOD
Tensile Strength, Hoop	psi	31,300	31,300	ASTM D1599
Tensile Strength, Axial	psi	30,000	12,000	ASTM D2105
Modulus of Elasticity, Axial	10E+06 psi	3.0	2.0	ASTM D2105
Specific Gravity	---	1.9	1.9	ASTM D792
Density	lbs/in^3	0.07	0.07	ASTM D792
Thermal Conductivity	$Btu/hr/ft^2/in/degF$	2.4	2.4	ASTM C177
Thermal Expansion Coefficient (Linear)	10E-05in/in/degF	1.1	1.2	ASTM D696
Flow Factor	---	150	150	Hazen Williams

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15HR 0066 Q1

FUTURE PIPE INDUSTRIES
Complete Pipe System Solutions

RED BOX 1250

FIBERGLASS TUBING, CASING, AND LINERS
AROMATIC AMINE CURED EPOXY RESIN

DIMENSIONAL SPECIFICATIONS

February 2005

Nominal Size (inches)	Nominal I.D. (inches)	Minimum Drift Dia (inches)	Nominal O.D. (inches)	Nominal Wall (inches)	Pin Upset O.D. (inches)	Max Box OD* (inches)	Nominal Weight (lbs/ft)	Nominal Weight (lbs/jt)	Connection Type API 5B, Table 14*, 7**, 6*** Fourteenth Edition August 96
2-3/8	2.00	1.91	2.21	0.10	2.69	3.45	0.7	21	2-3/8" 8Rd EUE Long*IJ
2-7/8	2.47	2.37	2.73	0.13	3.19	3.95	1.0	31	2-7/8" 8Rd EUE Long*IJ
3-1/2	3.00	2.90	3.30	0.15	3.85	4.84	1.5	44	3-1/2" 8Rd EUE Long*IJ
4	3.33	3.24	3.68	0.17	4.35	5.17	2.0	61	4" 8Rd EUE Long* TC
4-1/2	3.98	3.89	4.40	0.21	4.85	5.77	2.5	76	4-1/2" 8Rd EUE Long*IJ
5-1/2	4.42	4.33	4.87	0.23	5.60	6.70	3.2	97	5-1/2" 8Rd Csg Long**IJ
6-5/8	5.43	5.33	5.97	0.27	6.73	7.98	4.8	144	6-5/8" 8Rd Csg Long**IJ
7	6.21	6.11	6.83	0.31	7.10	8.61	5.8	173	7" 8Rd Csg Long**IJ
7-5/8	6.21	6.11	6.83	0.31	7.73	9.35	6.4	192	7-5/8" 8Rd Csg Long**IJ
9-5/8	7.84	7.75	8.63	0.40	9.73	11.81	10.3	309	9-5/8" 8Rd Csg*** IJ
10-3/4	8.85	8.76	9.76	0.45	10.85	13.12	13.1	394	10-3/4" 8Rd Csg***IJ
11-3/4	10.72	10.62	11.70	0.49	11.85	14.00	16.1	484	11-3/4" 8/6Rd Csg***TC
13-3/8	11.97	11.87	13.06	0.55	13.48	15.20	20.5	614	13-3/8" 8/6Rd Csg***TC
16	14.48	14.39	15.80	0.66	16.20	18.65	29.9	896	16" 6Rd Csg TC
18	16.60	16.50	18.11	0.76	18.71	22.30	40.6	1,219	18" 6Rd Csg TC
20	17.98	17.89	19.62	0.82	20.06	24.00	46.7	1,401	20" 6Rd Csg TC

*Depending on the application, smaller maximum box diameters are available.

Thread lengths may exceed API L4
30 ft Standard Joint Length

PERFORMANCE AND RATINGS (-60 deg F to +210 deg F)

Nominal Size	Internal Pressure Rating (psi)	Mill Test Pressure (psi)	Collapse Rating (psi)	Axial Tension Rating (lbs)	Stretch vs Tension-Over-Pipe-Wt Stretch (ft) = Coeff. x P x L
2-3/8	1,250	1,570	640	10,500	0.467
2-7/8	1,250	1,570	670	16,000	0.295
3-1/2	1,250	1,570	600	22,500	0.221
4	1,250	1,570	640	29,000	0.169
4-1/2	1,250	1,570	640	41,000	0.118
5-1/2	1,250	1,570	600	49,500	0.101
6-5/8	1,250	1,570	590	72,500	0.069
7	1,250	1,570	590	76,500	0.052
7-5/8	1,250	1,570	590	86,500	0.052
9-5/8	1,250	1,570	580	140,500	0.033
10-3/4	1,250	1,570	600	161,500	0.025
11-3/4	1,250	1,570	450	103,500	0.029
13-3/8	1,250	1,570	450	129,000	0.023
16	1,250	1,570	450	167,000	0.016
18	1,250	1,570	450	194,000	0.012
20	1,250	1,570	450	208,000	0.010

Where: P = Tensile Load (1,000 lbs)
L = String Length (1,000 ft)

MECHANICAL AND PHYSICAL PROPERTIES

TUBING/CASING BODY PROPERTIES	UNIT	VALUE 2-3/8 - 10-3/4	VALUE 11-3/4 - 20	TEST METHOD
Tensile Strength, Hoop	psi	31,300	31,300	ASTM D1599
Tensile Strength, Axial	psi	30,000	12,000	ASTM D2105
Modulus of Elasticity, Axial	10E+06 psi	3.0	2.0	ASTM D2105
Specific Gravity	---	1.9	1.9	ASTM D792
Density	lbs/in^3	0.07	0.07	ASTM D792
Thermal Conductivity	$Btu/hr/ft^2/in/degF$	2.4	2.4	ASTM C177
Thermal Expansion Coefficient (Linear)	10E-05in/in/degF	1.1	1.2	ASTM D696
Flow Factor	---	150	150	Hazen Williams

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APPENDIX H

Cement and Temperature Logs

Temperature (cement top) Log for 16-inch Diameter Final Casing

Stage # 1 log: run after stage 9 of cementing log as presented in Table 3-3 (cement did not start to accumulate until gravel and calcium chloride additives were mixed with the cement).
Temperature peak and sharp drop at 2,720 feet bpl, consistent with tag depth of 2,705 feet bpl.

Stage # 2 log: run after stage 10 of cementing log
Temperature peak at and sharp drop off after 2,696 feet, which is consistent with tag depth of 2,696 feet bpl. No suggestions of gaps in cement.

Stage # 3 log: run after stage 11 of cementing log
Temperature drop at 2,660 feet bpl, which is consistent with tag depth of 2,656 feet bpl. No gaps in cement evident. No evidence of cement gaps.

Stage # 4 log: run after stage 12 of cementing log
Broad peak from 2,650 to 2,580 feet bpl. Depth of 2,612 feet for equivalent tag. No suggestions of gaps in cement.

Stage # 5 log: run after stage 13 of cementing log
Broad peak from 2,650 to 2,560 feet bpl which coincides with tag depth of 2,553 feet bpl. No gaps in cement evident.

Stage # 6 log: run after stage 14 of cementing log
Gradual temperature decrease above 2,560 feet bpl. Tag depth noted is 2,460 feet bpl.

Stage # 7 log: run after stage 15 of cementing log
Sharp peak and drop off at 2,432 feet bpl. This is consistent with tag depth of 2,429 feet bpl. No suggestions of cement gaps.

Stage # 8 log: run after stage 16 of cementing log
Sharp peak and drop off at 2,390 feet bpl, which coincides exactly with the tag depth. No suggestion of cement gaps.

Stage # 9 log: run after stage 17 of cementing log
Gradual temperature decrease above 2,365 feet bpl, which is consistent with tag depth of 2,332 feet bpl.

Stage # 10 log: run after stage 18 of cementing log
Broad peak from 2,450 to 2,300 feet bpl which coincides with tag depth of 2,322 feet bpl. No suggestion of cement gaps.

Stage # 11 log: run after stage 19 of cementing log
Peak from 2,340 to 2,290 feet bpl which coincides with tag depth of 2,294 feet bpl.
No cement gaps evident.

Stage # 12 log: run after stage 20 of cementing log
Peak from 2,340 to 2,290 feet bpl with the tag depth of 2,250 feet bpl.
No cement gaps evident.

Stage # 13 log: run after stage 21 of cementing log
Sharp peak at 2,225 feet bpl which coincides with tag depth of 2,225 feet bpl.
No suggestion of cement gaps.

Stage # 14 log: run after stage 22 of cementing log
Sharp peak at 2,185 feet bpl which coincides with tag depth of 2,185 feet bpl.
No suggestion of cement gaps.

Stage # 15 log: run after stage 23 of cementing log
Very broad peak from 2,220 to 1,660 feet bpl which coincides with tag depth of 2,101 feet bpl. No suggestion of cement gaps.

Stage # 16 log: run after stage 24 of cementing log
Gradual temperature decrease above 1,700 feet bpl, which is consistent with tag depth of 1,594 feet bpl.

Stage # 17 log: run after stage 25 of cementing log
Very broad peak from 1,300 to 600 feet bpl which coincides with tag depth of 1,209 feet bpl. No suggestion of cement gaps.

Stage # 18 log: run after stage 26 of cementing log
Very broad peak with apex at 400 feet bpl which coincides with tag depth of 794 feet bpl.
No suggestion of cement gaps.

Stage # 19 log: run after stage 27 of cementing log
Very broad peak with apex at 157 feet bpl which coincides with tag depth of 386 feet bpl.
No suggestion of cement gaps.

APPENDIX I

Inclination Surveys

INCLINATION SURVEY SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 60" diameter mud rotary hole (no pilot hole was drilled)

DATE	TIME	DEPTH	INCLINATION (E)	RECORDED BY
4/11/06	0630	90	<0.25°	AMM
4/11/06	2130	170	<0.25°	AMM
4/12/06	<2359	250	<0.25°	AMM
4/12/06	<2359	253	Hole TD	AMM

INCLINATION SURVEY SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 12 1/4" diameter mud rotary pilot hole; 250 - 1,000 ft bpl

DATE	TIME	DEPTH	INCLINATION (E)	RECORDED BY
4/15/06	0210	328	<0.25°	AMM
4/15/06	0350	408	0.25°	AMM
4/15/06	1130	488	0.25°	AMM
4/16/06	0310	580	<0.25°	AMM
4/16/06	0800	670	<0.25°	AMM
4/16/06	1400	750	0.25°	AMM
4/16/06	1940	830	<0.25°	AMM
4/16/06	2220	910	0.25°	AMM
4/17/06	0030	990	<0.25°	AMM

INCLINATION SURVEY SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 46 1/2" diameter mud rotary reamed hole; 250 - 979 ft bpl

DATE	TIME	DEPTH	INCLINATION (E)	RECORDED BY
4/18/06	0910	337	<0.25°	AMM
4/18/06	1735	417	<0.25°	AMM
4/19/06	0600	497	0.25°	AMM
4/19/06	2330	577	0.25°	AMM
4/20/06	1230	657	<0.25°	AMM
4/21/06	0635	737	<0.25°	AMM
4/21/06	1620	817	<0.25°	AMM
4/22/06	0030	897	0.25°	AMM
4/22/06	1520	978	<0.25°	AMM

INCLINATION SURVEY SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 12 ¼" Pilot hole 1,000 - 2,100 ft bpl

DATE	TIME	DEPTH	INCLINATION (E)	RECORDED BY
4/27/06	0615	1,037	<0.25°	AMM
4/27/06	1045	1,117	0.25°	AMM
4/27/06	1330	1,197	<0.25°	EMH
4/27/06	2040	1,270	<0.25°	EMH
4/28/06	0520	1,359	<0.25°	EMH
4/28/06	0930	1,437	0.25°	EMH
4/28/06	1500	1,517	<0.25°	EMH
4/28/06	2200	1,597	<0.25°	EMH
4/29/06	0540	1,677	<0.25°	EMH
4/30/06	0200	1,757	<0.25°	EMH
4/30/06	0630	1,837	<0.25°	EMH
5/03/06	2204	1,917	<0.25°	BDL
5/09/06	1115	1,997	<0.25°	AMM
5/09/06	1100	2,077	<0.25°	AMM

INCLINATION SURVEY SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 34 1/2" Pilot hole 993 - 2,100 ft bpl

DATE	TIME	DEPTH (ft bpl)	INCLINATION (°)	RECORDED BY
5/17/06	2030	993	<0.25°	AMM
5/18/06	0400	1073	<0.25°	AMM
5/18/06	NR	1153	<0.25°	AMM
5/18/06	2100	1233	<0.25°	AMM
5/19/06	NR	1313	<0.25°	AMM
5/19/06	1820	1393	<0.25°	AMM
5/20/06	0300	1473	<0.25°	AMM
5/22/06	NR	1553	<0.25°	AMM
5/22/06	NR	1633	<0.25°	AMM
5/23/06	0930	1713	<0.25°	AMM
5/24/06	NR	1792	<0.25°	AMM
5/24/06	1330	1872	0.25°	AMM
5/25/06	NR	1952	0.25°	AMM
5/25/06	1015	2032	<0.25°	AMM

NR = not recorded

INCLINATION SURVEY SUMMARY

WELL: IW-1
PROJECT NO.: 27335-45307
PAGE: 1 of 1

SITE LOCATION: Clewiston
PERMIT NO.: 249635-001-UC
CONTRACTOR: YOUNGQUIST

PHASE: 12 ¼ inch dia pilot hole   2100 to 3500 ft bpl

DATE	TIME	DEPTH	INCLINATION (°)	RECORDED BY
6/02/06	1500	2157	0.25	BDL
6/03/06	0100	2237	0.25	BDL
6/03/06	1630	2317	0.25	BDL
6/04/06	0640	2397	0.50	BDL
6/07/06	0230	2477	<0.25	AMM
6/11/06	0900	2557	<0.25	AMM
6/16/06	1000	2637	0.25	EMH
6/15/06	0600	2717	0.25	EMH
6/16/06	1000	2797	0.25	EMH
6/17/06	1700	2877	0.25	EMH
6/20/06	0320	2957	0.25	AMM
6/21/06	0500	3037	0.25	AMM
6/23/06	0010	3117	0.25	AMM
6/23/06	1715	3197	0.25	AMM
6/24/06	1300	3277	0.25	AMM
6/24/06	1920	3357	0.25	AMM
6/25/06	0845	3437	<0.25	AMM

INCLINATION SURVEY SUMMARY

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 24 ½" dia reamed hole | 2100 to 2745 ft bpl

DATE	TIME	DEPTH	INCLINATION (°)	RECORDED BY
7/10/06	2130	2177	<0.25	AMM
7/11/06	1130	2577	0.25	AMM
7/15/06	0800	2337	0.25	AMM
7/16/06	0500	2417	0.25	AMM
7/17/06	0300	2497	0.25	AMM
7/18/06	0630	2577	0.25	AMM
7/19/06	1010	2657	0.25	AMM
	NOTE: 2657 ft bpl is the last survey for this stage of the hole			

INCLINATION SURVEY SUMMARY

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CONTRACTOR: YOUNGQUIST
PHASE: 14 ¾" dia reamed hole	2745 to 3500 ft bpl	

DATE	TIME	DEPTH	INCLINATION (°)	RECORDED BY
7/22/06	1030	2798	0.25	AMM
7/26/06	0815	2878	0.25	AMM
7/27/06	0600	2958	0.50	AMM
7/28/06	1930	3038	0.25	EMH
8/01/06	0500	3118	0.25	BDL
8/01/06	2200	3198	0.25	BDL
8/02/06	0940	3278	0.50	BDL
8/02/06	2030	3358	0.50	BDL
8/03/06	1645	3438	0.50	BDL

INCLINATION SURVEY SUMMARY

WELL: DZMW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 38 ½" dia mud rotary hole 0 to 250 ft bpl

DATE	TIME	DEPTH	INCLINATION (°)	RECORDED BY
9/06/06	0520	90	<0.25	AMM
9/07/06	0520	250	0.25	AMM

INCLINATION SURVEY SUMMARY

WELL: DZMW - 1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 12 ¼" Pilot Hole 250 to 1,000 ft bpl

DATE	TIME	DEPTH (ft bpl)	INCLINATION (°)	RECORDED BY
9/08/06	NR	398	0.25	AMM
9/09/06	NR	478	<0.25	AMM
9/09/06	NR	558	0.25	AMM
9/09/06	NR	638	<0.25	AMM
9/09/06	NR	718	0.25	AMM
9/10/06	NR	798	0.25	AMM
9/10/06	NR	878	0.25	AMM
9/10/06	0850	958	<0.25	AMM
				NR = not recorded

INCLINATION SURVEY SUMMARY

WELL: DZMW - 1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 26 ½" Reamed Hole 250 to 975 ft bpl

DATE	TIME	DEPTH (ft bpl)	INCLINATION (°)	RECORDED BY
9/11/06	1330	337	<0.25	AMM
9/11/06	1730	417	<0.25	AMM
9/11/06	2300	497	0.25	AMM
9/12/06	0400	577	0.25	AMM
9/12/06	1030	657	<0.25	AMM
9/12/06	1730	737	0.25	AMM
9/13/06	0130	817	<0.25	AMM
9/13/06	0600	897	0.25	AMM

INCLINATION SURVEY SUMMARY

WELL: DZMW - 1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

PHASE: 12 ¼" Pilot Hole 1,000 to 2,157 ft bpl

DATE	TIME	DEPTH (ft bpl)	INCLINATION (°)	RECORDED BY
9/17/06	1430	1038	0.25	AMM
9/17/06	1730	1118	0.25	AMM
9/17/06	2040	1198	0.25	AMM
9/17/06	2250	1278	<0.25	AMM
9/18/06	0110	1358	<0.25	AMM
9/18/06	0255	1438	<0.25	AMM
9/18/06	0520	1518	<0.25	AMM
9/18/06	0845	1598	0.25	AMM
9/18/06	1535	1678	<0.25	AMM
9/18/06	2030	1758	0.25	AMM
9/19/06	1510	1837	<0.25	AMM
9/19/06	1800	1917	<0.25	AMM
9/20/06	0530	1997	0.50	AMM
9/23/06		2077	0.25	EMH
9/23/06		2157	0.25	EMH

INCLINATION SURVEY SUMMARY

WELL: DZMW - 1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CONTRACTOR: YOUNGQUIST

PHASE: 18 ½" Reamed Hole 970 to 1948 ft bpl

DATE	TIME	DEPTH (ft bpl)	INCLINATION (°)	RECORDED BY
9/27/06	1430	991	0.50	AMM
9/27/06	1530	1071	0.25	AMM
9/27/06	1620	1151	<0.25	AMM
9/27/06	1740	1231	<0.25	AMM
9/27/06	1840	1311	0.25	AMM
9/27/06	2030	1391	<0.25	AMM
9/27/06	2200	1471	0.25	AMM
9/27/06	2350	1551	<0.25	AMM
9/28/06	0300	1631	<0.25	AMM
9/28/06	0740	1711	<0.25	AMM
9/28/06	1100	1791	<0.25	AMM
10/5/06	1800	1821	<0.25	BDL
10/5/06	1948	1948	<0.25	BDL

APPENDIX J

Pad Monitor Well Data

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS

WEEK ENDING DATE: 4/13/06
WEEK NUMBER 1
DATE SAMPLED: 4/6/06

WELL NUMBER	WATER LEVEL (NGVD)*	TDS (MG/L)	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TEMPERATURE (°C)*
MW 1		776	92	1005	
MW 2		640	82	1018	
MW 3		336	104	978	
MW 4		892	98	971	

*Water level, temperature, and pH were not recorded during this sampling event. These parameters will be measured and reported for subsequent sampling.

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS

WEEK ENDING DATE: 4/20/06
WEEK NUMBER 2
DATE SAMPLED: 4/14/06

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH	TEMPERATURE (degrees C)
MW 1	100	1050	662	6.94	23.7
MW 2	84	1076	618	7.01	25.2
MW 3	98	1004	620	7.04	23.2
MW 4	110	1005	630	6.96	23.8

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 4/14/06 FROM 1545 TO 1555	
WELL NUMBER	MEASURING POINT ELEVATION (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1*	18.08	5.80	12.28
MW 2	22.31	5.94	16.37
MW 3	22.24	5.90	16.34
MW 4	22.46	5.92	16.54

*Double-checking surveyed elevation of MW-1 to ensure that elevation reported is the top of the casing (as this is the measuring point for the remaining monitor wells) and not ground surface elevation. Depth to water is correct.

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS

WEEK ENDING DATE: 4/27/06
WEEK NUMBER 3
DATE SAMPLED: 4/20/06

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	98	1234	588	7.19	23.3
MW 2	66	1240	620	7.35	24.7
MW 3	110	1236	628	7.32	24.8
MW 4	106	1250	612	7.36	24.2

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 4/20/06 FROM 1740 TO 1750	
WELL NUMBER	MEASURING POINT ELEVATION (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	18.08	5.69	12.39
MW 2	22.31	5.92	16.39
MW 3	22.24	5.85	16.39
MW 4	22.46	5.87	16.59

NOTE: Water level results for MW-1 may need to be adjusted pending a re-survey of the top of casing. The depth to water measurement is accurate.

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS

WEEK ENDING DATE: 05/04/06
WEEK NUMBER 4
DATE SAMPLED: 4/27/06

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Measurement)
MW 1	96	1300	596	7.05	23.6
MW 2	70	1300	648	7.04	23.4
MW 3	106	1200	620	7.08	23.1
MW 4	104	1200	616	6.98	23.7

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 4/20/06 FROM 1740 TO 1750	
WELL NUMBER	MEASURING POINT ELEVATION (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	18.08*	5.5	12.6
MW 2	22.31	5.9	16.4
MW 3	22.24	5.8	16.4
MW 4	22.46	6.0	16.5

NOTE: Water level results for MW-1 may need to be adjusted pending a re-survey of the top of casing. The depth to water measurement is accurate.

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS

WEEK ENDING DATE: 5/11/06
WEEK NUMBER: 5
DATE SAMPLED: 5/4/06

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	98	1057	624	8.08	23.4
MW 2	80	1091	650	7.84	23.4
MW 3	106	1012	612	8.59	23.1
MW 4	108	1041	620	7.96	23.2

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 5/4/06 FROM 2110 TO 2120	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.72	16.36
MW 2	22.31	5.91	16.40
MW 3	22.26	5.83	16.43
MW 4	22.29	5.85	16.44

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS		
WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS

WEEK ENDING DATE: 5/18/06
WEEK NUMBER: 6
DATE SAMPLED: 5/11/06

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	98	1,097	624	8.63	24.6
MW 2	84	1,147	612	8.78	24.7
MW 3	110	1,057	614	8.48	23.9
MW 4	108	1,085	614	8.55	23.8

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 5/11/06 FROM 1730 TO 1735	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.77	16.31
MW 2	22.31	6.00	16.31
MW 3	22.26	5.93	16.33
MW 4	22.29	5.95	16.34

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS

WEEK ENDING DATE: 5/25/06
WEEK NUMBER: 7
DATE SAMPLED: 5/18/06

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	102	1400	742	7.07	23.7
MW 2	88	1400	820	7.11	23.7
MW 3	108	1300	624	7.01	23.1
MW 4	108	1120	636	7.02	24.3

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 5/18/06 FROM 0800 TO 0810	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.80	16.28
MW 2	22.31	6.05	16.26
MW 3	22.26	5.99	16.27
MW 4	22.29	6.01	16.28

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 6/01/06
WEEK NUMBER: 8
DATE SAMPLED: 5/25/06
SAMPLES TAKEN FROM 1635 TO 1655

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	110	1124	744	7.14	24.1
MW 2	88	1160	704	7.16	24.0
MW 3	112	1068	648	7.12	23.3
MW 4	112	1098	610	7.15	23.6

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 5/18/06 FROM 1625 TO 1630	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.73	16.35
MW 2	22.31	5.97	16.34
MW 3	22.26	5.89	16.37
MW 4	22.29	5.91	16.38

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 6/08/06
WEEK NUMBER: 9
DATE SAMPLED: 06/01/06
SAMPLES TAKEN FROM 1940 to 2009

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	100	1025	614	7.10	24.1
MW 2	104	1044	658	7.12	24.3
MW 3	108	977	610	7.15	24.2
MW 4	108	987	624	7.16	23.8

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 6/01/06 FROM 1930 TO 1940	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.57	16.51
MW 2	22.31	5.79	16.52
MW 3	22.26	5.73	16.53
MW 4	22.29	5.74	16.55

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 6/15/06
WEEK NUMBER: 10
DATE SAMPLED: 06/08/06
SAMPLES TAKEN FROM 1500 to 1545

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	100	1129	586	7.29	24.3
MW 2	88	1152	660	7.39	24.3
MW 3	110	1068	560	7.42	24.0
MW 4	108	1098	608	7.40	24.1

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 6/08/06 FROM 1635 TO 1641	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.85	16.23
MW 2	22.31	6.08	16.23
MW 3	22.26	6.03	16.23
MW 4	22.29	6.05	16.24

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 6/15/06
WEEK NUMBER: 10
DATE SAMPLED: 06/08/06
SAMPLES TAKEN FROM 1500 to 1545

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	100	1129	586	7.29	24.3
MW 2	88	1152	660	7.39	24.3
MW 3	110	1068	560	7.42	24.0
MW 4	108	1098	608	7.40	24.1

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 6/08/06 FROM 1635 TO 1641	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.85	16.23
MW 2	22.31	6.08	16.23
MW 3	22.26	6.03	16.23
MW 4	22.29	6.05	16.24

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 6/22/06
WEEK NUMBER: 11
DATE SAMPLED: 06/16/06
SAMPLES TAKEN FROM 0930 to 0950

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	112	1045	598	7.78	28.4
MW 2	78	1067	670	7.87	27.4
MW 3	108	1011	588	7.71	25.1
MW 4	104	995	612	7.71	25.2

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 6/16/06 FROM 0915 TO 0930	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.83	16.25
MW 2	22.31	6.05	16.26
MW 3	22.26	5.96	16.30
MW 4	22.29	5.98	16.31

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 6/29/06
WEEK NUMBER: 12
DATE SAMPLED: 06/22/06
SAMPLES TAKEN FROM 0930 to 1015

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	108	1134	638	7.53	25.2
MW 2	96	1165	716	7.50	25.2
MW 3	94	1058	600	7.65	25.1
MW 4	116	1074	640	7.61	24.8

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 6/22/06 FROM TO	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	6.00	16.08
MW 2	22.31	6.24	16.07
MW 3	22.26	6.16	16.10
MW 4	22.29	6.13	16.16

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 7/06/06
WEEK NUMBER: 13
DATE SAMPLED: 06/29/06
SAMPLES TAKEN FROM 1546 to 1605

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	300	1124	876	7.32	24.3
MW 2	200	1182	808	7.32	24.2
MW 3	250	1086	632	7.22	24.2
MW 4	400	1084	652	7.21	24.3

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 6/29/06 FROM 1535 TO 1545	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.57	16.51
MW 2	22.31	5.76	16.55
MW 3	22.26	5.73	16.53
MW 4	22.29	5.69	16.60

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 7/13/06
WEEK NUMBER: 14
DATE SAMPLED: 07/06/06
SAMPLES TAKEN FROM 1120 to 1150

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (µMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	100	1035	632	7.37	26.6
MW 2	96	1091	680	7.51	27.4
MW 3	122	981	636	7.33	24.4
MW 4	114	1006	684	7.53	27.9

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 7/06/06 FROM 1055 TO 1100	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.70	16.38
MW 2	22.31	5.91	16.40
MW 3	22.26	5.93	16.33
MW 4	22.29	5.88	16.41

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 7/20/06
WEEK NUMBER: 15
DATE SAMPLED: 07/13/06
SAMPLES TAKEN FROM 0850 to 0935

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	100	1070	708	7.31	24.6
MW 2	86	1130	706	7.30	25.1
MW 3	96	994	598	7.47	24.5
MW 4	112	1010	622	7.34	24.6

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 7/13/06 FROM 0830 TO 0840	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.42	16.66
MW 2	22.31	5.66	16.65
MW 3	22.26	5.60	16.66
MW 4	22.29	5.62	16.67

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 7/27/06
WEEK NUMBER: 16
DATE SAMPLED: 07/20/06
SAMPLES TAKEN FROM 1105 to 1150

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	114	1070	664	7.67	25.8
MW 2	104	1130	644	7.59	26.5
MW 3	124	1000	556	7.64	26.0
MW 4	122	1040	644	7.57	26.9

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 7/20/06 FROM 1054 TO 1100	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	6.03	16.05
MW 2	22.31	6.29	16.02
MW 3	22.26	6.25	16.01
MW 4	22.29	6.22	16.07

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 8/03/06
WEEK NUMBER: 17
DATE SAMPLED: 07/27/06
SAMPLES TAKEN FROM 1145 to 1240

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	106	1082	687	7.79	26.2
MW 2	110	1210	852	7.70	25.6
MW 3	112	990	512	7.56	24.6
MW 4	156	1191	682	7.66	24.9

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 7/27/06 FROM 0928 TO 0933	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.91	16.17
MW 2	22.31	6.14	16.17
MW 3	22.26	6.11	16.15
MW 4	22.29	6.09	16.20

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 8/10/06
WEEK NUMBER: 18
DATE SAMPLED: 08/03/06
SAMPLES TAKEN FROM 0820 to 0850

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	94	1210	608	7.47	25.3
MW 2	562	2970	1540	7.35	25.9
MW 3	106	1090	536	7.61	24.8
MW 4	256	1650	812	7.50	25.0

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 08/03/06 FROM 0810 TO 0815	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.72	16.36
MW 2	22.31	5.95	16.36
MW 3	22.26	5.92	16.34
MW 4	22.29	5.91	16.38

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 8/17/06
WEEK NUMBER: 19
DATE SAMPLED: 08/10/06
SAMPLES TAKEN FROM 1105 to 1255

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	114	860	684	7.42	25.4
MW 2	140	989	820	7.31	25.6
MW 3	160	789	592	7.52	24.7
MW 4	280	1070	848	7.35	24.7

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 08/10/06 FROM 1035 TO 1039	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.88	16.20
MW 2	22.31	6.12	16.19
MW 3	22.26	6.03	16.23
MW 4	22.29	6.04	16.25

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 8/24/06
WEEK NUMBER: 20
DATE SAMPLED: 08/17/06
SAMPLES TAKEN FROM 0900 to 1005

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	124	980	560	7.70	25.2
MW 2	156	1170	756	7.59	25.8
MW 3	102	834	564	7.73	25.2
MW 4	168	1090	720	7.63	25.6

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 08/17/06 FROM 0835 TO 0840	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.75	16.33
MW 2	22.31	5.97	16.34
MW 3	22.26	5.95	16.31
MW 4	22.29	5.95	16.34

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1 of 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 8/31/06
WEEK NUMBER: 21
DATE SAMPLED: 08/24/06
SAMPLES TAKEN FROM 0900 to 1000

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	120	1040	716	7.61	24.9
MW 2	148	1220	772	7.65	25.1
MW 3	83	846	592	7.79	24.8
MW 4	155	1140	688	7.80	25.1

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 08/24/06 FROM 0816 TO 0823	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	6.10	15.98
MW 2	22.31	6.34	15.97
MW 3	22.26	6.32	15.94
MW 4	22.29	6.33	15.96

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 09/07/06
WEEK NUMBER: 22
DATE SAMPLED: 08/31/06
SAMPLES TAKEN FROM 1120 to 1225

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	182	1300	748	7.56	26.2
MW 2	432	2012	1410	7.55	26.5
MW 3	105	952	568	7.74	25.3
MW 4	120	1028	636	7.63	25.8

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 08/31/06 FROM 1054 TO 1059	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	6.03	16.05
MW 2	22.31	6.30	16.01
MW 3	22.26	6.25	16.01
MW 4	22.29	6.30	15.99

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 09/14/06
WEEK NUMBER: 23
DATE SAMPLED: 09/07/06
SAMPLES TAKEN FROM 1755 to 1855

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	100.8	930	632	7.55	25.7
MW 2	759.0	2,960	1,992	7.50	25.9
MW 3	188.0	1,270	720	7.61	25.1
MW 4	113.0	1,040	588	7.55	25.3

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 09/07/06 FROM 1727 TO 1732	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	6.75	15.33
MW 2	22.31	7.00	15.31
MW 3	22.26	6.94	15.32
MW 4	22.29	6.99	15.30

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 09/21/06
WEEK NUMBER: 24
DATE SAMPLED: 09/14/06
SAMPLES TAKEN FROM 1735 to 1850

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	199.0	1,250	664	7.61	25.7
MW 2	560	1,444	2,340	7.42	25.9
MW 3	117	907	528	7.60	24.8
MW 4	108	972	544	7.61	25.6

* waiting on lab results, which should be available on 9/18/06

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 09/14/06 FROM 1455 TO 1500	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	6.23	15.85
MW 2	22.31	6.47	15.84
MW 3	22.26	6.41	15.85
MW 4	22.29	6.43	15.86

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 09/28/06
WEEK NUMBER: 25
DATE SAMPLED: 09/21/06
SAMPLES TAKEN FROM 1100 to 1600

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	260	1160	1090	7.52	29.3
MW 2	379	2100	1520	7.45	27.9
MW 3	102	905	564	7.55	31.6
MW 4	113	970	656	7.53	31.4

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 09/21/06 FROM 1050 TO 1056	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	6.05	16.03
MW 2	22.31	6.29	16.02
MW 3	22.26	6.22	16.04
MW 4	22.29	6.70	15.59

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 10/05/06
WEEK NUMBER: 26
DATE SAMPLED: 09/28/06
SAMPLES TAKEN FROM 0905 to 1010

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (µMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	150	1130	664	7.81	25.8
MW 2	440	2100	1380	7.74	26.1
MW 3	110	955	528	7.96	25.4
MW 4	104	944	548	7.92	25.7

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 09/28/06 FROM 0840 TO 0843	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.73	16.35
MW 2	22.31	5.97	16.34
MW 3	22.26	5.90	16.36
MW 4	22.29	5.92	16.37

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 10/12/06
WEEK NUMBER: 27
DATE SAMPLED: 10/05/06
SAMPLES TAKEN FROM 0815 to 0930

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	129	1160	700	8.05	25.6
MW 2	370	1840	1280	7.95	25.5
MW 3	92	945	616	8.09	25.6
MW 4	88	932	608	8.06	25.6

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 10/05/06 FROM 0750 TO 0753	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.80	16.28
MW 2	22.31	6.05	16.26
MW 3	22.26	5.96	16.30
MW 4	22.29	6.00	16.29

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 10/19/06
WEEK NUMBER: 28
DATE SAMPLED: 10/12/06
SAMPLES TAKEN FROM 1135 to 1235

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	136	1140	716	8.14	26.0
MW 2	364	1880	1270	8.05	26.4
MW 3	102	920	580	8.29	25.9
MW 4	97	930	620	8.19	25.8

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 10/12/06 FROM 1108 TO 1111	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.89	16.19
MW 2	22.31	6.12	16.19
MW 3	22.26	6.08	16.18
MW 4	22.29	6.08	16.21

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 10/26/06
WEEK NUMBER: 29
DATE SAMPLED: 10/19/06
SAMPLES TAKEN FROM 0945 to 1040

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	168	1130	692	8.20	25.8
MW 2	396	1850	1240	8.10	26.6
MW 3	205	1210	764	8.28	25.5
MW 4	120	926	608	8.27	26.1

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 10/19/06 FROM 0920 TO 0925	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.90	16.18
MW 2	22.31	6.13	16.18
MW 3	22.26	6.05	16.21
MW 4	22.29	6.08	16.21

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 11/02/06
WEEK NUMBER: 30
DATE SAMPLED: 10/26/06
SAMPLES TAKEN FROM 1056 to 1141

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	132	1070	676	8.49	27.7
MW 2	330	1710	1100	8.19	27.5
MW 3	100	909	612	8.40	27.2
MW 4	100	940	648	8.19	27.5

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 10/26/06 FROM 1020 TO 1026	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.86	16.22
MW 2	22.31	6.12	16.19
MW 3	22.26	6.06	16.20
MW 4	22.29	6.02	16.27

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 11/09/06
WEEK NUMBER: 31
DATE SAMPLED: 11/02/06
SAMPLES TAKEN FROM 0930 to 1030

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	118	1030	704	8.51	25.6
MW 2	270	1570	928	8.20	26.2
MW 3	96	888	596	8.42	25.1
MW 4	290	922	608	8.21	25.5

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 11/02/06 FROM 0904 TO 0908	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.72	16.36
MW 2	22.31	5.96	16.35
MW 3	22.26	5.86	16.40
MW 4	22.29	5.88	16.41

* Based on re-survey 05/06/06

PERIMETER MONITOR WELLS

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	SAMPLED BY: YBI

WATER QUALITY SAMPLING RESULTS
WEEK ENDING DATE: 11/16/06
WEEK NUMBER: 32
DATE SAMPLED: 11/09/06
SAMPLES TAKEN FROM 1505 to 1605

WELL NUMBER	CHLORIDE CONCENTRATION (MG/L)	CONDUCTIVITY (μMHOS)	TDS (MG/L)	pH* (Field Measurement)	TEMPERATURE (degrees C) (Field Meas)
MW 1	130	937	688	6.88	25.4
MW 2	296	1430	984	6.80	25.7
MW 3	112	856	672	6.86	25.4
MW 4	110	848	672	6.85	25.6

*pH measurements made with a new, calibrated pH probe (i.e., probe was new and calibrated on 11/09)

WATER LEVEL CALCULATIONS		WATER LEVELS TAKEN ON 11/09/06 FROM 1443 TO 1447	
WELL NUMBER	MEASURING POINT ELEVATION* (NGVD)	DEPTH TO WATER	WATER LEVEL (NGVD)
MW 1	22.08	5.70	16.38
MW 2	22.31	5.96	16.35
MW 3	22.26	5.94	16.32
MW 4	22.29	5.88	16.41

* Based on re-survey 05/06/06

APPENDIX K

Water Sample Analytical Data

WATER QUALITY ANALYSES SUMMARY
REVERSE AIR DISCHARGE

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

DATE	TIME	DEPTH	FIELD CONDUCTIVITY (μmhos)	FIELD CHLORIDE (mg/l)	LAB CONDUCTIVITY (μmhos)	LAB CHLORIDE (mg/l)	RECORDED BY
4/27/06	0330	1,030	1,570	220	1,900	210	AMM
4/27/06	0815	1,060	1,660	220	2,200	260	AMM
4/27/06	0916	1,090	1,970	320	2,400	360	EMH
4/27/06	1109	1,120	3,970	780	5,000	860	EMH
4/27/06	1150	1,150	2,510	400	3,100	450	EMH
4/27/06	1250	1,180	2,490	440	3,100	450	EMH
4/27/06	1455	1,210	2,480	400	3,100	450	EMH
4/27/06	1611	1,240	2,510	390	3,100	450	EMH
4/27/06	2000	1,270	2,640	460	3,200	480	EMH
4/28/06	0300	1,300	2,680	440	3,200	520	EMH
4/28/06	0440	1,330	2,670	460	3,100	516	EMH
4/28/06	0700	1,360	2,680	470	3,200	508	EMH
4/28/06	0830	1,390	2,880	450	3,400	560	EMH
4/28/06	0848	1,420	2,830	490	3,400	550	EMH
4/28/06	1105	1,450	2,890	510	3,400	540	EMH
4/28/06	1250	1,480	2,810	450	4,600	550	EMH
4/28/06	1425	1,510	2,840	490	3,600	560	EMH
4/28/06		1,540	NOT COLLECTED				EMH
4/28/06	1730	1,570	2,940	500	3,700	600	EMH
4/28/06	2135	1,600	2,950	510	3,600	600	EMH
4/28/06	2330	1,630	2,970	540	3,700	590	EMH
4/29/06	0441	1,660	3,010	520	3,800	620	EMH
4/29/06	0730	1,690	3,550	620	4,300	700	EMH
4/29/06	1755	1,720	4,760	840	5,200	1,030	EMH
4/29/06	2300	1,750	4,280	1,250	5,300	1,050	EMH
4/30/06	0334	1,790	4,290	1,250	5,500	990	EMH
4/30/06	0414	1,810	4,290	1,250	5,400	990	EMH
4/30/06	0710	1,850	5,260	1,750	6,600	1,290	EMH
4/30/06	0730	1,860	5,440	2,250	NA	NA	EMH
4/30/06	0750	1,870	5,430	2,250	NA	NA	EMH
4/30/06	0810	1,880	5,430	1,750	6,700	1,310	EMH

WATER QUALITY ANALYSES SUMMARY
REVERSE AIR DISCHARGE

WELL: IW-1 PROJECT NO.: 27335-45307

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

DATE	TIME	DEPTH	FIELD CONDUCTIVITY (μmhos)	FIELD CHLORIDE (mg/l)	LAB CONDUCTIVITY (μmhos)	LAB CHLORIDE (mg/l)	RECORDED BY
5/03/06	2120	1910	6,340	2,500	6,600	1,680	BDL
5/06/06	1345	1940	7,060	2,500	8,000	2,000	BDL
5/06/06	1435	1970	7,100	2,500	7,400	1,820	BDL
5/08/06	1900	2000	7,430	3,000	7,870	2,120	AMM
5/08/06	2030	2030	14,650	5,500	15,620	5,040	AMM
5/09/06	0200	2060	9,900	3,000	10,530	2,900	AMM
5/09/06	0450	2090	9,920	3,250	10,520	3,040	AMM
5/09/06	0935	2100	11,100	4,000	11,720	3,480	AMM
6/02/06	1215	2120	6,320*	2,000*	7,000	2,300	BDL
6/02/06	1430	2150	6,250*	2,000*	6,480	1,600	BDL
6/02/06	1700	2180	11,470	3,500	12,730	3,800	BDL
6/02/06	2200	2210	26,700	15,000	29,300	9,900	BDL
6/03/06	0030	2240	31,300	15,000	35,600	11,650	BDL
6/03/06	0530	2270	48,000	20,000	53,300	18,200	BDL
6/03/06	1300	2300	51,200	22,500	56,600	21,200	BDL
6/03/06	1730	2330	51,500	22,500	56,600	20,700	BDL
6/03/06	2355	2360	50,500	20,000	56,300	20,300	BDL
6/04/06	0500	2390	51,600	22,500	56,200	20,500	BDL
6/06/06	1610	2420	52,300	22,500	56,700	19,600	AMM
6/06/06	2330	2450	52,600	22,500	56,200	20,800	AMM
6/07/06	0345	2480	52,400	22,500	56,300	21,300	AMM
6/07/06	0915	2510	52,700	22,500	57,300	20,400	AMM
6/07/06	1210	2530	52,700	22,500	57,200	21,300	AMM
6/11/06	0320	2540	52,500	25,000	59,000	18,300	AMM
6/11/06	1020	2570	52,500	25,000	60,900	19,700	AMM
6/11/06	1520	2600	52,700	25,000	61,700	20,300	AMM
6/13/06	0240	2630	53,000	25,000	56,200	20,000	AMM
6/13/06	0840	2653.5	53,300	25,000	56,300	21,000	AMM
6/15/06	0130	2690	51,700	25,000	56,600	20,600	EMH
6/15/06	0700	2720	53,100	30,000	56,900	21,500	EMH
6/16/06	1100	2750	52,700	30,000	60,400	21,600	EMH
6/16/06	0230	2810	51,900	25,000	60,900	20,200	EMH

WATER QUALITY ANALYSES SUMMARY
REVERSE AIR DISCHARGE

WELL: IW-1 | PROJECT NO.: 27335-45307 |

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | CONTRACTOR: YOUNGQUIST

DATE	TIME	DEPTH	FIELD CONDUCTIVITY (μmhos)	FIELD CHLORIDE (mg/l)	LAB CONDUCTIVITY (μmhos)	LAB CHLORIDE (mg/l)	RECORDED BY
6/17/06	1030	2840	53,800	35,000	60,700	21,800	EMH
6/17/06	1545	2870	53,300	35,000	61,100	22,200	EMH
6/17/06	2300	2900	52,300	30,000	61,000	20,900	EMH
6/18/06	0730	2930	54,000	30,000	60,700	21,600	EMH
6/20/06	0500	2960	53,500	30,000	48,900	21,200	AMM
6/20/06	1310	2990	53,600	30,000	49,000	21,900	AMM
6/20/06	2040	3010	53,600	30,000	49,100	21,200	AMM
6/21/06	1120	3050	53,800	30,000	49,200	20,800	AMM
6/21/06	2000	3070	53,200	30,000	49,300	20,600	AMM
6/22/06	1715	3100	53,200	25,000	49,100	20,800	AMM
6/23/06	0155	3130	53,400	25,000	48,900	20,900	AMM
6/23/06	0745	3160	53,400	25,000	48,900	20,900	AMM
6/23/06	1010	3190	53,400	25,000	48,800	22,600	AMM
6/23/06	1445	3220	53,500	25,000	56,500	20,200	AMM
6/23/06	1850	3250	53,500	25,000	56,400	20,700	AMM
6/24/06	1330	3280	53,500	25,000	56,400	21,100	AMM
6/24/06	1550	3310	53,600	25,000	56,400	21,500	AMM
6/24/06	1805	3340	53,400	25,000	56,300	20,200	AMM
6/24/06	2100	3370	52,900	25,000	56,600	19,900	AMM
6/25/06	0105	3400	53,700	25,000	57,400	23,000	AMM
6/25/06	0540	3430	54,400	25,000	58,300	23,200	AMM
6/25/06	1410	3460	53,900	25,000	57,800	21,500	AMM
6/25/06	1800	3480	53,900	25,000	57,700	21,600	AMM
	* Note - results may be influenced by coring with fresh water.						

SUBMISSION # 609-489

Logged in LIMS by MR
CSM assigned

Florida Environmental

CHAIN OF CUSTODY RECORD

1460 W. McNab Road Ft Laud. FL 33309	Tel: (954) 978-6400	Fax: (954) 978-2233
940 Alt. 27 South Babson Park, FL 33827	Tel: (863) 638-3255	Fax: (863) 638-3637
630 Indian Street Savannah, GA 31401	Tel: (912) 238-5050	Fax: (912) 234-4815
528 Gooch Road Fort Meade, FL 33841	Tel: (863) 285-8145	Fax: (863) 285-7030

Original-Return w/report | Yellow- Lab File Copy | Pink- Sampler Copy

DUE DATE Requested

RUSH RESERVATION #

Rush Surcharges apply

Report to: *(company name)* Youngquist Brothers
Report to Address: On File
Invoice to: *(company name)* Same
Purchase Order #
Invoice to Address:
Project Name and/or Number: Clewiston IW-1
Site Location: Clewiston, FL
Project Contact: ~~Andy Miller~~ Edward McCallers
Phone: (904) 662-7179
Fax:
Email:
Sampler Name: (printed) Alberto Pozo
Sampler Signature: [signature]

ORDER # Lab Control Number (*Shaded Areas For Laboratory Use Only*)	Sample ID	Date Sampled	Time Sampled	Matrix (DW SW GW WW S SED HW BIO SEA OIL X AIR)	Bottle & Pres. Combo Codes	Number of Containers Received & NELAC Letter Suffixes #	A-?	Analysis Required: Primary	Secondary	See Attached List...					Field Tests: TEMP-C	PH	COND	CHLOR
1 22907	IW-1 Injection Zone	9/25/06	09:30	DW	D	20		X	X									
2																		
3																		
4																		
5																		
6	GH 4AY 2L4 HT 7U 7J 7H 7N																	
7	2VM 3VC 3VA																	
8																		
9																		
10																		

Special Comments:

"I waive NELAC protocol" (sign here) >

Total

Deliverables: QA/QC Report Needed? Yes No *(additional charge)*

	SAMPLE CUSTODY AND TRANSFER SIGNATURES	DATE / TIME
1	Relinquished by: [signature]	9/25/06 17:34
1	Received by: [signature]	9/25/06 1734
2	Relinquished by:	
2	Received by:	
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments

Temp as received 4 C
Custody Seals? Y N
Billable Field Time 4 hrs
Misc. Charges

Bottle Type

A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other TED=Tedlar Air Bag

Preservatives

A-ascorbic acid | P-H3PO4
C-HCL | S-H2SO4
Cu-CuSO4 | T-Na2S2O3-H2O
H-HNO3 | U-Unpreserved
M-MCAB | P-H3PO4
N-NaOH | Z-zinc acetate
NH4-NH4CL

www.flenviro.com

COC Page of

Data Qualifier Codes

A Value reported is the mean (average) of two or more determinations.

B Results based upon colony counts outside the acceptable range. The code is to be used if the colony count is generated from a plate in which the total number of Coliform colonies exceeds the method indicated ideal ranges, which are:
   Total Coliforms: 20-80 colonies
   Fecal Coliforms: 20-60 colonies

C Result was confirmed by a separate analysis of the sample.

D Measurement was made in the field (i.e. in situ). This applies to any value (ex. pH, specific conductance, etc.) that was obtained under field conditions using approved analytical methods.

H Value based on field kit determination; results may not be accurate.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value; value not accurate. This code shall be used in the following instances:
1. surrogate recovery limits have been exceeded.
2. no known quality control criteria exists for the component
3. the reported value failed to meet the established quality control criteria for either precision or accuracy.
4. the sample matrix interfered with the ability to make any accurate determination; or
5. if the data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).

N Presumptive evidence of presence of material. This qualifier shall be used if:
1. the component has been tentatively identified based on mass spectral library search.a
2. there is an indication that the analyte is present, but quality control requirements for confirmation were not met

O Sampled, but analysis lost or not performed; sample compromised.

Q Sample held beyond accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.

R Significant rain in the past 48 hours. This code shall be used when the rainfall might contribute to a lower than normal value.

T Value reported is less than the laboratory method detection limit

U Indicated that the compound was analyzed for but not detected. This shall be used to indicate that the specified component <u>was not</u> detected. The value associated with the qualifier shall be the laboratory method detection limit

V Indicated that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.

Y The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Z Too many colonies were present (TNTC), the numeric value represents the filtration volume.

? Data is rejected and should not be used. Some of all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.

* Not analyzed due to interference.

! Data deviates from historically established concentration ranges.

~ Analysis performed outside NELAP program. (e.g. State of Georgia, UCMR, ICR or other certification.)

Florida Environmental

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Biochemical Oxygen Demand	U	U	mg/L	2.0	6.0	405.1	09/27 13:00	10/02 10:00	CRL
Coliform-Total (E-Coli)	A		-------			9223B	09/26 17:35	09/27 17:35	DSM
Specific Conductance (grab)	54400		Ω*cm.	0.1	0.3	120.1	09/26 13:25	09/26 13:25	EMS
pH	7.37	Q	units	0.1	0.3	150.1	09/27 13:45	09/27 13:45	EMS
Total Dissolved Solids (TDS)	34200		mg/L	0.82	2.46	EPA 160.1	09/27 11:43	09/27 11:43	EMS
Fluoride	0.76		mg/L	0.046	0.138	300.0	09/28 09:24	09/28 09:24	JRB
Nitrate (as N)	0.46		mg/L	0.048	0.144	300.0	09/27 09:56	09/28 09:56	JRB
Nitrate+Nitrite (as N)	0.46		mg/L	0.011	0.033	300.0	09/28 12:15	09/28 12:15	EAC
Nitrite (as N)	U	U	mg/L	0.031	0.093	300.0	09/27 12:55	09/28 12:55	JB
Sulfate	2800		mg/L	33.400	100.200	300.0	10/05 15:48	10/05 15:48	JRB
Cyanide, Total	U	U	mg/L	0.002	0.006	335.3	09/28 12:33	09/28 12:33	EAC
Nitrogen (Ammonia) as N	2.65		mg/L	0.1	0.3	350.1	09/29 12:39	09/29 12:39	EAC
Nitrogen (Kjeldahl) as "N"	3.39		mg/L	0.025	0.075	351.2	10/05 14:49	10/05 14:49	EAC
Nitrogen (Total Organic)	0.74		mg/L	0.041	0.123	351.2	10/05 14:49	10/05 14:49	EAC
Phosphate, Ortho	0.070		mg/L	0.003	0.009	365.2	09/27 11:56	09/27 11:56	EMS
Phosphorus, Total as "P"	0.15		mg/L	0.003	0.009	365.4	10/05 14:37	10/05 14:37	EAC
Chemical Oxygen Demand	795		mg/L	19.80	59.40	410.4	10/03 13:02	10/03 13:02	EMS
MBAS Surfactants (LAS Mol.Wt. 340)	U	U	mg/L	0.02	0.06	425.1	09/26 16:29	09/26 16:29	JRB

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Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Odor (Lab)	2.00		TON	0.1	0.3	SM2150B	09/26 11:16	09/26 11:16	EMS
Color (Lab)	15.0		Pt-Co	0.1	0.3	SM2120B	09/26 11:14	09/26 11:14	EMS
Langelier Index (Corrosivity)(Water) (0	0.697					SM 2330B	09/25	10/04	EMS
Chloride	24000		mg/L	100.00	300.00	SM4500CL-B	09/29 13:27	09/29 13:27	LA
Aluminum	0.03		mg/L	0.009	0.027	200.7	09/26 09:00	09/26 18:21	IMN
Iron	0.72		mg/L	0.002	0.006	200.7	09/26	09/26 18:21	IMN
Sodium	9212		mg/L	1.000	3.000	200.7	09/26	09/27 14:46	IMN
Zinc	0.05		mg/L	0.00056	0.00168	200.7	09/26	09/26 18:21	IMN
200.8 DW-10 Metals in Drinking Water 62-550.310				**Dilution Factor =1**					
Arsenic	0.0392		mg/L	0.00002	0.00006	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Barium	0.0399		mg/L	0.0002	0.0006	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Cadmium	U	U	mg/L	0.00001	0.00003	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Chromium	0.0091		mg/L	0.00004	0.00012	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Lead	0.0221		mg/L	0.00006	0.00018	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Nickel	0.0119		mg/L	0.00004	0.00012	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Selenium	U	U	mg/L	0.00013	0.00039	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Antimony	U	U	mg/L	0.00003	0.00009	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Beryllium	U	U	mg/L	0.00003	0.00009	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Thallium	U	U	mg/L	0.00001	0.00003	4.1.3/200.8	09/28 16:09	09/28 16:09	KYT
Copper	0.0516		mg/L	0.00016	0.00048	200.8	09/28	09/28 16:09	KYT
Manganese	0.0065		mg/L	0.00007	0.00021	200.8	09/28	09/28 16:09	KYT
Silver	U	U	mg/L	0.00002	0.00006	200.8	09/28	09/28 16:09	KYT
Mercury	U	U	mg/L	0.0002	0.0006	245.1	09/29	09/29 21:03	EN
504.1 EDB, DBCP: 62-550.310(4)(b)				**Dilution Factor =1**					
1,2-Dibromo-3-Chloropropane (DBCP)	U		ug/L	0.00		EPA 504.1 ECD	09/2810:00	09/28 17:23	RGC
Ethylene Dibromide (EDB)	U		ug/L	0.00		EPA 504.1 ECD	09/2810:00	09/28 17:23	RGC
508 Pesticides & PCBs: 62-550.310(4)(b)				**Dilution Factor =1**					
Hexachlorocyclopentdiene	U	U	ug/L	0.42	1.26	508	09/26 12:00	09/28 10:10	RGC
Hexachlorobenzene	U	U	ug/L	0.42	1.26	508	09/26 12:00	09/28 10:10	RGC
v-BHC (Lindane)	U	U	ug/L	0.004	0.012	508	09/26 12:00	09/28 10:10	RGC
Heptachlor	U	U	ug/L	0.005	0.015	508	09/26 12:00	09/28 10:10	RGC
Heptachlor Epoxide	U	U	ug/L	0.008	0.024	508	09/26 12:00	09/28 10:10	RGC
Endrin	U	U	ug/L	0.005	0.015	508	09/26 12:00	09/28 10:10	RGC
Methoxychlor	U	U	ug/L	0.007	0.021	508	09/26 12:00	09/28 10:10	RGC
Arochlor 1016	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC
Arochlor 1221	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Arochlor 1232	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC
Arochlor 1242	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC
Arochlor 1248	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC
Arochlor 1254	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC
Arochlor 1260	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC
Toxaphene	U	U	ug/L	0.40	1.20	508	09/26 12:00	09/28 10:10	RGC
Chordane	U	U	ug/L	0.10	0.30	508	09/26 12:00	09/28 10:10	RGC
508 Pesticides 62-550.405 UNREGULATED				**Dilution Factor = 1**					
Propachlor	U		ug/L			508	09/26 16:21	09/28 10:10	RGC
Aldrin	U		ug/L			508	09/26 16:21	09/28 10:10	RGC
Dieldrin	U	U	ug/L	0.03	0.09	508	09/26 16:21	09/28 10:10	RGC
515.3 Chlorophenoxy Herbicides: 62-550.310(4)(b)				**Dilution Factor = 1**					
Dalapon	U	U	ug/L	0.270	0.810	515.3	09/27 09:14	09/29 09:14	DS
2,4-D	U	U	ug/L	0.483	1.449	515.3	09/27 09:14	09/29 09:14	DS
Pentachlorophenol	U	U	ug/L	0.051	0.153	515.3	09/27 09:14	09/29 09:14	DS
2,4,5-TP (silvex)	U	U	ug/L	0.483	1.449	515.3	09/27 09:14	09/29 09:14	DS
Dinoseb	U	U	ug/L	0.298	0.894	515.3	09/27 09:14	09/29 09:14	DS
Picloram	U	U	ug/L	0.366	1.098	515.3	09/27 09:14	09/29 09:14	DS

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
524.2 Volatile Organics: 62-550.310(4)(a)				Dilution Factor = 1					
Vinyl Chloride	U	U	ug/L	0.34	1.02	524.2	09/27 05:15	09/27 05:15	MMD
1,1-Dichloroethylene	U	U	ug/L	0.52	1.56	524.2	09/27 05:15	09/27 05:15	MMD
Dichloromethane (Methylene Chloride)	U	U	ug/L	0.99	2.97	524.2	09/27 05:15	09/27 05:15	MMD
Trans-1,2-Dichloroethylene	U	U	ug/L	0.50	1.50	524.2	09/27 05:15	09/27 05:15	MMD
Cis-1,2-Dichloroethylene	U	U	ug/L	0.11	0.33	524.2	09/27 05:15	09/27 05:15	MMD
1,1,1-Trichloroethane	U	U	ug/L	0.25	0.75	524.2	09/27 05:15	09/27 05:15	MMD
Carbon Tetrachloride	U	U	ug/L	0.19	0.57	524.2	09/27 05:15	09/27 05:15	MMD
Benzene	U	U	ug/L	0.09	0.27	524.2	09/27 05:15	09/27 05:15	MMD
1,2-Dichloroethane	U	U	ug/L	0.24	0.72	524.2	09/27 05:15	09/27 05:15	MMD
Trichloroethylene	U	U	ug/L	0.09	0.27	524.2	09/27 05:15	09/27 05:15	MMD
1,2-Dichloropropane	U	U	ug/L	0.20	0.60	524.2	09/27 05:15	09/27 05:15	MMD
Toluene	U	U	ug/L	0.14	0.42	524.2	09/27 05:15	09/27 05:15	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	524.2	09/27 05:15	09/27 05:15	MMD
Tetrachloroethylene	U	U	ug/L	0.11	0.33	524.2	09/27 05:15	09/27 05:15	MMD
Chlorobenzene	U	U	ug/L	0.09	0.27	524.2	09/27 05:15	09/27 05:15	MMD
Ethylbenzene	U	U	ug/L	0.13	0.39	524.2	09/27 05:15	09/27 05:15	MMD
Xylenes (Total)	3.41		ug/L	0.21	0.63	524.2	09/27 05:15	09/27 05:15	MMD

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Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Styrene	U	U	ug/L	0.17	0.51	524.2	09/27 05:15	09/27 05:15	MMD
1,4-Dichlorobenzene (para)	U	U	ug/L	0.14	0.42	524.2	09/27 05:15	09/27 05:15	MMD
1,2-Dichlorobenzene (ortho)	U	U	ug/L	0.48	1.44	524.2	09/27 05:15	09/27 05:15	MMD
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	524.2	09/27 05:15	09/27 05:15	MMD
524.2 Volatile Organics: 62-550. UNREGULATED				Dilution Factor = 1					
Dichlorodifluoromethane	U	U	ug/L	0.13	0.39	524.2	09/27 05:15	09/27 05:15	MMD
Chloromethane	U	U	ug/L	0.35	1.05	524.2	09/27 05:15	09/27 05:15	MMD
Bromomethane	U	U	ug/L	0.41	1.23	524.2	09/27 05:15	09/27 05:15	MMD
Chloroethane	U	U	ug/L	0.17	0.51	524.2	09/27 05:15	09/27 05:15	MMD
Trichlorofluoromethane	U	U	ug/L	0.47	1.41	524.2	09/27 05:15	09/27 05:15	MMD
Methyl-Tert-Butyl Ether	U	U	ug/L	0.50	1.50	524.2	09/27 05:15	09/27 05:15	MMD
1,1-Dichloroethane	U	U	ug/L	0.53	1.59	524.2	09/27 05:15	09/27 05:15	MMD
2,2-Dichloropropane	U	U	ug/L	0.31	0.93	524.2	09/27 05:15	09/27 05:15	MMD
Cis-1,2-Dichloroethene	U	U	ug/L	0.11	0.33	524.2	09/27 05:15	09/27 05:15	MMD
Chloroform	U	U	ug/L	0.80	2.40	524.2	09/27 05:15	09/27 05:15	MMD
1,1-Dichloropropene	U	U	ug/L	0.07	0.21	524.2	09/27 05:15	09/27 05:15	MMD
Bromodichloromethane	U	U	ug/L	0.24	0.72	524.2	09/27 05:15	09/27 05:15	MMD
Dibromomethane	U	U	ug/L	0.42	1.26	524.2	09/27 05:15	09/27 05:15	MMD

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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Cis-1,3-Dichloropropene	U	U	ug/L	0.38	1.14	524.2	09/27 05:15	09/27 05:15	MMD
Trans-1,3-Dichloropropene	U	U	ug/L	0.50	1.50	524.2	09/27 05:15	09/27 05:15	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	524.2	09/27 05:15	09/27 05:15	MMD
1,3-Dichloropropane	U	U	ug/L	0.38	1.14	524.2	09/27 05:15	09/27 05:15	MMD
Dibromochloromethane	U	U	ug/L	0.39	1.17	524.2	09/27 05:15	09/27 05:15	MMD
1,1,1,2-Tetrachloroethane	U	U	ug/L	0.37	1.11	524.2	09/27 05:15	09/27 05:15	MMD
Bromoform	U	U	ug/L	0.38	1.14	524.2	09/27 05:15	09/27 05:15	MMD
1,1,2,2-Tetrachloroethane	U	U	ug/L	0.29	0.87	524.2	09/27 05:15	09/27 05:15	MMD
1,2,3-Trichloropropane	U	U	ug/L	0.23	0.69	524.2	09/27 05:15	09/27 05:15	MMD
Bromobenzene	U	U	ug/L	0.46	1.38	524.2	09/27 05:15	09/27 05:15	MMD
2-Chlorotoluene (ortho)	U	U	ug/L	0.13	0.39	524.2	09/27 05:15	09/27 05:15	MMD
4-Chlorotoluene (para)	U	U	ug/L	0.16	0.48	524.2	09/27 05:15	09/27 05:15	MMD
1,3-Dichlorobenzene (meta)	U	U	ug/L	0.20	0.60	524.2	09/27 05:15	09/27 05:15	MMD
1,2-Dibromo-3-Chloropropane	U	U	ug/L	0.30	0.90	524.2	09/27 05:15	09/27 05:15	MMD
525.2 Semivolatile Organics: 62-550.310(4)(b)				Dilution Factor = 1					
Di(2-Ethylhexyl)phthalate	21.1		ug/L	0.36	1.08	525.2	09/27 12:00	09/28 14:33	AC
Di(2-Ethylhexyl)adipate	U	U	ug/L	0.36	1.08	525.2	09/27 12:00	09/28 14:33	AC
Benzo(a)pyrene	U	U	ug/L	0.017	0.051	525.2	09/27 12:00	09/28 14:33	AC

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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Pentachlorophenol	U	U	ug/L	0.02	0.06	525.2	09/27 12:00	09/28 14:33	AC
Alachlor	U	U	ug/L	0.20	0.60	525.2	09/27 12:00	09/28 14:33	AC
Atrazine	U	U	ug/L	0.20	0.60	525.2	09/27 12:00	09/28 14:33	AC
Simazine	U	U	ug/L	0.20	0.60	525.2	09/27 12:00	09/28 14:33	AC
525.2 Semivolatile Organics: 62-550.UNREGULATED				Dilution Factor = 1					
Butyl benzyl phthalate	U	U	ug/L	1.44	4.32	525.2	09/27 14:52	09/28 14:52	AC
Di-n-butylphthalate	U	U	ug/L	1.2	3.6	525.2	09/27 14:52	09/28 14:52	AC
Diethylphthalate	U	U	ug/L	3.4	10.2	525.2	09/27 14:52	09/28 14:52	AC
Dimethylphthalate	U	U	ug/L	3.7	11.1	525.2	09/27 14:52	09/28 14:52	AC
2,4-dinitrotoluene	U	U	ug/L	1.17	3.51	525.2	09/27 14:52	09/28 14:52	AC
Dioctylphthalate	U	U	ug/L	1.86	5.58	525.2	09/27 14:52	09/28 14:52	AC
Isophorone	U	U	ug/L	1.56	4.68	525.2	09/27 14:52	09/28 14:52	AC
(Dioxin) {Screen/Optional}	U	U	ug/L	0.03	0.09	525.2	09/27 14:52	09/28 14:52	AC
2-chlorophenol	U	U	ug/Kg	1.47	4.41	525.2	09/27 14:52	09/28 14:52	AC
2-methyl-4,6-dinitrophenol	U	U	ug/L	3.0	9.0	525.2	09/27 14:52	09/28 14:52	AC
Phenol	U	U	ug/L	1.86	5.58	525.2	09/27 14:52	09/28 14:52	AC
2,4,6-trichlorophenol	U	U	ug/L	3.0	9.0	525.2	09/27 14:52	09/28 14:52	AC
608 Chlorinated Pesticides & PCBs in WATER				Dilution Factor = 1					

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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
a-BHC	U	U	ug/L	0.005	0.015	EPA 608	09/26 12:00	09/28 20:52	RGC
b-BHC	U	U	ug/L	0.005	0.015	EPA 608	09/26 12:00	09/28 20:52	RGC
g-BHC (lindane)	U	U	ug/L	0.004	0.012	EPA 608	09/26 12:00	09/28 20:52	RGC
d-BHC	U	U	ug/L	0.005	0.015	EPA 608	09/26 12:00	09/28 20:52	RGC
Heptachlor	U	U	ug/L	0.005	0.015	EPA 608	09/26 12:00	09/28 20:52	RGC
Aldrin	U	U	ug/L	0.017	0.051	EPA 608	09/26 12:00	09/28 20:52	RGC
Heptachlor Epoxide	U	U	ug/L	0.008	0.024	EPA 608	09/26 12:00	09/28 20:52	RGC
Endosulfan I	U	U	ug/L	0.006	0.018	EPA 608	09/26 12:00	09/28 20:52	RGC
Dieldrin	U	U	ug/L	0.006	0.018	EPA 608	09/26 12:00	09/28 20:52	RGC
4,4-DDE	U	U	ug/L	0.39	1.17	EPA 608	09/26 12:00	09/28 20:52	RGC
Endrin	U	U	ug/L	0.005	0.015	EPA 608	09/26 12:00	09/28 20:52	RGC
Endosulfan II	U	U	ug/L	0.006	0.018	EPA 608	09/26 12:00	09/28 20:52	RGC
4,4-DDD	U	U	ug/L	0.60	1.80	EPA 608	09/26 12:00	09/28 20:52	RGC
Endrin Aldehyde	U	U	ug/L	0.010	0.030	EPA 608	09/26 12:00	09/28 20:52	RGC
Endosulfan Sulfate	U	U	ug/L	0.007	0.021	EPA 608	09/26 12:00	09/28 20:52	RGC
4,4-DDT	U	U	ug/L	0.69	2.07	EPA 608	09/26 12:00	09/28 20:52	RGC
Methoxychlor	U	U	ug/L	0.007	0.021	EPA 608	09/26 12:00	09/28 20:52	RGC
Aroclor 1016	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC

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Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
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Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Aroclor 1221	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC
Aroclor 1232	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC
Aroclor 1242	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC
Aroclor 1248	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC
Aroclor 1254	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC
Aroclor 1260	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC
Toxaphene	U	U	ug/L	0.40	1.20	EPA 608	09/26 12:00	09/28 20:52	RGC
Chlordane	U	U	ug/L	0.10	0.30	EPA 608	09/26 12:00	09/28 20:52	RGC
625 Semivolatile Organics in Water by GC/MS				Dilution Factor = 1					
N-Nitrosodimethylamine	U	U	ug/L	0.50	1.50	625	09/29 12:00	09/30 07:47	AC
Phenol	U	U	ug/L	0.38	1.14	625	09/29 12:00	09/30 07:47	AC
Bis (2-Chloroethyl) Ether	U	U	ug/L	0.85	2.55	625	09/29 12:00	09/30 07:47	AC
2-Chlorophenol	U	U	ug/L	0.45	1.35	625	09/29 12:00	09/30 07:47	AC
1,3-Dichlorobenzene	U	U	ug/L	0.80	2.40	625	09/29 12:00	09/30 07:47	AC
1,4-Dichlorobenzene	U	U	ug/L	0.14	0.42	625	09/29 12:00	09/30 07:47	AC
Benzyl Alcohol	U	U	ug/L	0.75	2.25	625	09/29 12:00	09/30 07:47	AC
1,2-Dichlorobenzene	U	U	ug/L	0.48	1.44	625	09/29 12:00	09/30 07:47	AC
Bis (2-Chloroisopropyl) Ether *	U	U	ug/L	0.85	2.55	625	09/29 12:00	09/30 07:47	AC

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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
N-Nitrosodi-N-Propylamine	U	U	ug/L	1.14	3.42	625	09/29 12:00	09/30 07:47	AC
Hexachloroethane	U	U	ug/L	2.31	6.93	625	09/29 12:00	09/30 07:47	AC
Nitrobenzene *	U	U	ug/L	0.66	1.98	625	09/29 12:00	09/30 07:47	AC
Isophorone	U	U	ug/L	1.56	4.68	625	09/29 12:00	09/30 07:47	AC
2-Nitrophenol	U	U	ug/L	1.09	3.27	625	09/29 12:00	09/30 07:47	AC
2,4-Dimethylphenol	U	U	ug/L	0.62	1.86	625	09/29 12:00	09/30 07:47	AC
Bis (2-Chloroethoxy)methane *	U	U	ug/L	1.89	5.67	625	09/29 12:00	09/30 07:47	AC
2,4-Dichlorophenol	U	U	ug/L	1.11	3.33	625	09/29 12:00	09/30 07:47	AC
1,2,3-Trichlorobenzene	U	U	ug/L	2.00	6.00	625	09/29 12:00	09/30 07:47	AC
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	625	09/29 12:00	09/30 07:47	AC
Naphthalene	U	U	ug/L	0.02	0.06	625	09/29 12:00	09/30 07:47	AC
Hexachlorobutadiene	U	U	ug/L	0.57	1.71	625	09/29 12:00	09/30 07:47	AC
4-Chloro-3-Methylphenol	U	U	ug/L	0.67	2.01	625	09/29 12:00	09/30 07:47	AC
1-Methylnaphthalene	U	U	ug/L	0.36	1.08	625	09/29 12:00	09/30 07:47	AC
2-Methylnaphthalene	U	U	ug/L	0.02	0.06	625	09/29 12:00	09/30 07:47	AC
2-Methylphenol (o-cresol)	U	U	ug/L	1.00	3.00	625	09/29 12:00	09/30 07:47	AC
Hexachlorocyclopentadiene	U	U	ug/L	0.42	1.26	625	09/29 12:00	09/30 07:47	AC
3-MethylPhenol (m-cresol)	U	U	ug/L	0.84	2.52	625	09/29 12:00	09/30 07:47	AC

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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
4-Methylphenol (p-cresol)	U	U	ug/L	1.16	3.48	625	09/29 12:00	09/30 07:47	AC
2,3,6-Trichlorophenol	U	U	ug/L	1.2	3.6	625	09/29 12:00	09/30 07:47	AC
2,4,5-Trichlorophenol	U	U	ug/L	0.81	2.43	625	09/29 12:00	09/30 07:47	AC
2,4,6-Trichlorophenol	U	U	ug/L	0.78	2.34	625	09/29 12:00	09/30 07:47	AC
2-Chloronaphthalene	U	U	ug/L	1.16	3.48	625	09/29 12:00	09/30 07:47	AC
Dimethyl Phthalate	U	U	ug/L	3.70	11.10	625	09/29 12:00	09/30 07:47	AC
Acenaphthylene	U	U	ug/L	0.02	0.06	625	09/29 12:00	09/30 07:47	AC
2,6-Dinitrotoluene	U	U	ug/L	0.54	1.62	625	09/29 12:00	09/30 07:47	AC
Acenaphthene	U	U	ug/L	0.02	0.06	625	09/29 12:00	09/30 07:47	AC
2,4-Dinitrophenol	U	U	ug/L	1.0	3.0	625	09/29 12:00	09/30 07:47	AC
2,4-Dinitrotoluene	U	U	ug/L	1.17	3.51	625	09/29 12:00	09/30 07:47	AC
4-Nitrophenol	U	U	ug/L	1.0	3.0	625	09/29 12:00	09/30 07:47	AC
Diethyl Phthalate	U	U	ug/L	3.40	10.20	625	09/29 12:00	09/30 07:47	AC
Fluorene	U	U	ug/L	0.01	0.03	625	09/29 12:00	09/30 07:47	AC
4-Chlorophenyl Phenyl Ether	U	U	ug/L	0.87	2.61	625	09/29 12:00	09/30 07:47	AC
4,6-Dinitro-2-Methylphenol	U	U	ug/L	1.40	4.20	625	09/29 12:00	09/30 07:47	AC
N-Nitrosodiphenylamine	U	U	ug/L	3.42	10.26	625	09/29 12:00	09/30 07:47	AC
4-Bromophenyl Phenyl Ether	U	U	ug/L	1.44	4.32	625	09/29 12:00	09/30 07:47	AC

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Collected by: Alberto Pozo

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Hexachlorobenzene	U	U	ug/L	0.42	1.26	625	09/29 12:00	09/30 07:47	AC
Pentachlorophenol	U	U	ug/L	1.14	3.42	625	09/29 12:00	09/30 07:47	AC
Phenanthrene	U	U	ug/L	0.028	0.084	625	09/29 12:00	09/30 07:47	AC
Anthracene	U	U	ug/L	0.049	0.147	625	09/29 12:00	09/30 07:47	AC
Di-N-Butyl Phthalate	5.85		ug/L	1.200	3.600	625	09/29 12:00	09/30 07:47	AC
Fluoranthene	U	U	ug/L	0.025	0.075	625	09/29 12:00	09/30 07:47	AC
Benzidine *	U	U	ug/L	4.00	12.00	625	09/29 12:00	09/30 07:47	AC
Pyrene	U	U	ug/L	0.017	0.051	625	09/29 12:00	09/30 07:47	AC
Butyl Benzyl Phthalate	U	U	ug/L	1.44	4.32	625	09/29 12:00	09/30 07:47	AC
Benzo(A)Anthracene	U	U	ug/L	0.017	0.051	625	09/29 12:00	09/30 07:47	AC
3,3-Dichlorobenzidine	U	U	ug/L	2.00	6.00	625	09/29 12:00	09/30 07:47	AC
Chrysene	U	U	ug/L	0.75	2.25	625	09/29 12:00	09/30 07:47	AC
Bis (2 Ethylhexyl) Phthalate	19.5		ug/L	2.37	7.11	625	09/29 12:00	09/30 07:47	AC
Di-N-Octyl Phthalate	U	U	ug/L	1.40	4.20	625	09/29 12:00	09/30 07:47	AC
Benzo(B)Fluoranthene	U	U	ug/L	0.029	0.087	625	09/29 12:00	09/30 07:47	AC
Benzo(K)Fluoranthene	U	U	ug/L	0.025	0.075	625	09/29 12:00	09/30 07:47	AC
Benzo(A)Pyrene	U	U	ug/L	0.017	0.051	625	09/29 12:00	09/30 07:47	AC
Indeno(1,2,3-CD)Pyrene	U	U	ug/L	0.93	2.79	625	09/29 12:00	09/30 07:47	AC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Dibenzo(A,H,)Anthracene	U	U	ug/L	0.029	0.087	625	09/29 12:00	09/30 07:47	AC
Benzo(G,H,I)Perylene	U	U	ug/L	0.017	0.051	625	09/29 12:00	09/30 07:47	AC
Bis-2-ethylhexyl Adipate	U	U	ug/L	0.36	1.08	625	09/29 12:00	09/30 07:47	AC
Aldrin *	U	U	ug/L	0.017	0.051	625	09/29 12:00	09/30 07:47	AC
alpha-BHC *	U	U	ug/L	0.005	0.015	625	09/29 12:00	09/30 07:47	AC
beta-BHC *	U	U	ug/L	0.005	0.015	625	09/29 12:00	09/30 07:47	AC
delta-BHC *	U	U	ug/L	0.005	0.015	625	09/29 12:00	09/30 07:47	AC
gamma-BHC (Lindane) *	U	U	ug/L	0.004	0.012	625	09/29 12:00	09/30 07:47	AC
Chlordane (Screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
4,4'-DDD *	U	U	ug/L	0.60	1.80	625	09/29 12:00	09/30 07:47	AC
4,4'-DDE *	U	U	ug/L	0.39	1.17	625	09/29 12:00	09/30 07:47	AC
4,4'-DDT *	U	U	ug/L	0.69	2.07	625	09/29 12:00	09/30 07:47	AC
Dieldrin *	U	U	ug/L	0.006	0.018	625	09/29 12:00	09/30 07:47	AC
Endosulfan I *	U	U	ug/L	0.006	0.018	625	09/29 12:00	09/30 07:47	AC
Endosulfan II *	U	U	ug/L	0.006	0.018	625	09/29 12:00	09/30 07:47	AC
Endosulfan Sulfate *	U	U	ug/L	0.007	0.021	625	09/29 12:00	09/30 07:47	AC
Endrin *	U	U	ug/L	0.005	0.015	625	09/29 12:00	09/30 07:47	AC
Endrin Aldehyde *	U	U	ug/L	0.010	0.030	625	09/29 12:00	09/30 07:47	AC

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Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Heptachlor *	U	U	ug/L	0.005	0.015	625	09/29 12:00	09/30 07:47	AC
Heptachlor Epoxide *	U	U	ug/L	0.008	0.024	625	09/29 12:00	09/30 07:47	AC
Toxaphene *	U	U	ug/L	0.40	1.20	625	09/29 12:00	09/30 07:47	AC
PCB-1016 (screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
PCB-1221 (screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
PCB-1232 (screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
PCB-1242 (screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
PCB-1248 (screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
PCB-1254 (screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
PCB-1260 (screen) *	U	U	ug/L	0.10	0.30	625	09/29 12:00	09/30 07:47	AC
Dioxin (screen)	U	U	ug/L	0.03	0.09	625	09/29 12:00	09/30 07:47	AC
Azobenzene *	U	U	ug/L	0.75	2.25	625	09/29 12:00	09/30 07:47	AC
Methoxychlor *	U	U	ug/L	0.007	0.021	625	09/29 12:00	09/30 07:47	AC
Benzoic Acid	U	U	ug/L	0.84	2.52	625	09/29 12:00	09/30 07:47	AC
Aniline	U	U	ug/L	0.50	1.50	625	09/29 12:00	09/30 07:47	AC
4-Chloroaniline	U	U	ug/L	0.65	1.95	625	09/29 12:00	09/30 07:47	AC
Dibenzofuran	U	U	ug/L	0.66	1.98	625	09/29 12:00	09/30 07:47	AC
2-Nitroaniline	U	U	ug/L	0.58	1.74	625	09/29 12:00	09/30 07:47	AC

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Report Printed: 10/23/06
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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
3-Nitroaniline	U	U	ug/L	0.50	1.50	625	09/29 12:00	09/30 07:47	AC
4-Nitroaniline	U	U	ug/L	0.84	2.52	625	09/29 12:00	09/30 07:47	AC
Carbazole *	U	U	ug/L	0.68	2.04	625	09/29 12:00	09/30 07:47	AC
2,6-Dichlorophenol	U	U	ug/L	0.89	2.67	625	09/29 12:00	09/30 07:47	AC
Pyridine	U	U	ug/L	0.99	2.97	625	09/29 12:00	09/30 07:47	AC
2,3,4,6-Tetrachlorophenol	U	U	ug/L	1.00	3.00	625	09/29 12:00	09/30 07:47	AC
2,3,5,6-Tetrachlorophenol	U	U	ug/L	0.80	2.40	625	09/29 12:00	09/30 07:47	AC
8260.C Volatile Organics in Water by GC/MS				Dilution Factor =1					
Acetone	U	U	ug/L	1.75	5.25	5030/8260C	09/27 05:15	09/27 05:15	MMD
Acrolein	U	U	ug/L	0.75	2.25	5030/8260C	09/27 05:15	09/27 05:15	MMD
Acrylonitrile	U	U	ug/L	0.41	1.23	5030/8260C	09/27 05:15	09/27 05:15	MMD
Methyl Ethyl Ketone	U	U	ug/L	0.75	2.25	5030/8260C	09/27 05:15	09/27 05:15	MMD
Dichlorodifluoromethane	U	U	ug/L	0.13	0.39	5030/8260C	09/27 05:15	09/27 05:15	MMD
Chloromethane	U	U	ug/L	0.35	1.05	5030/8260C	09/27 05:15	09/27 05:15	MMD
Vinyl Chloride	U	U	ug/L	0.34	1.02	5030/8260C	09/27 05:15	09/27 05:15	MMD
Bromomethane	U	U	ug/L	0.41	1.23	5030/8260C	09/27 05:15	09/27 05:15	MMD
Chloroethane	U	U	ug/L	0.17	0.51	5030/8260C	09/27 05:15	09/27 05:15	MMD
Trichlorofluoromethane	U	U	ug/L	0.47	1.41	5030/8260C	09/27 05:15	09/27 05:15	MMD

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Ft Myers, FL 33908

Report Printed: 10/23/06
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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,1-Dichloroethene	U	U	ug/L	0.52	1.56	5030/8260C	09/27 05:15	09/27 05:15	MMD
Methylene Chloride	U	U	ug/L	0.99	2.97	5030/8260C	09/27 05:15	09/27 05:15	MMD
Trans-1,2-Dichloroethene	U	U	ug/L	0.50	1.50	5030/8260C	09/27 05:15	09/27 05:15	MMD
Methyl-Tert-Butyl Ether	U	U	ug/L	0.50	1.50	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,1-Dichloroethane	U	U	ug/L	0.53	1.59	5030/8260C	09/27 05:15	09/27 05:15	MMD
2,2-Dichloropropane	U	U	ug/L	0.31	0.93	5030/8260C	09/27 05:15	09/27 05:15	MMD
Cis-1,2-Dichloroethene	U	U	ug/L	0.11	0.33	5030/8260C	09/27 05:15	09/27 05:15	MMD
Chloroform	U	U	ug/L	0.80	2.40	5030/8260C	09/27 05:15	09/27 05:15	MMD
Bromochloromethane	U	U	ug/L	0.55	1.65	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,1,1-Trichloroethane	U	U	ug/L	0.25	0.75	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,1-Dichloropropene	U	U	ug/L	0.07	0.21	5030/8260C	09/27 05:15	09/27 05:15	MMD
Carbon Tetrachloride	U	U	ug/L	0.19	0.57	5030/8260C	09/27 05:15	09/27 05:15	MMD
Benzene	U	U	ug/L	0.09	0.27	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2-Dichloroethane	U	U	ug/L	0.24	0.72	5030/8260C	09/27 05:15	09/27 05:15	MMD
Trichloroethene	U	U	ug/L	0.09	0.27	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2-Dichloropropane	U	U	ug/L	0.20	0.60	5030/8260C	09/27 05:15	09/27 05:15	MMD
Bromodichloromethane	U	U	ug/L	0.24	0.72	5030/8260C	09/27 05:15	09/27 05:15	MMD
2-Chloroethylvinyl Ether	U	U	ug/L	1.00	3.00	5030/8260C	09/27 05:15	09/27 05:15	MMD

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Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Dibromomethane	U	U	ug/L	0.42	1.26	5030/8260C	09/27 05:15	09/27 05:15	MMD
Cis-1,3-Dichloropropene	U	U	ug/L	0.38	1.14	5030/8260C	09/27 05:15	09/27 05:15	MMD
Toluene	U	U	ug/L	0.14	0.42	5030/8260C	09/27 05:15	09/27 05:15	MMD
Trans-1,3-Dichloropropene	U	U	ug/L	0.50	1.50	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,3-Dichloropropane	U	U	ug/L	0.38	1.14	5030/8260C	09/27 05:15	09/27 05:15	MMD
Tetrachloroethene	U	U	ug/L	0.11	0.33	5030/8260C	09/27 05:15	09/27 05:15	MMD
Dibromochloromethane	U	U	ug/L	0.39	1.17	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2-Dibromoethane (EDB)	U	U	ug/L	0.40	1.20	5030/8260C	09/27 05:15	09/27 05:15	MMD
Bromobenzene	U	U	ug/L	0.46	1.38	5030/8260C	09/27 05:15	09/27 05:15	MMD
Chlorobenzene	U	U	ug/L	0.09	0.27	5030/8260C	09/27 05:15	09/27 05:15	MMD
Ethylbenzene	U	U	ug/L	0.13	0.39	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,1,1,2-Tetrachloroethane	U	U	ug/L	0.37	1.11	5030/8260C	09/27 05:15	09/27 05:15	MMD
m & p-Xylene	2.52		ug/L	0.19	0.57	5030/8260C	09/27 05:15	09/27 05:15	MMD
o-Xylene	0.89		ug/L	0.19	0.57	5030/8260C	09/27 05:15	09/27 05:15	MMD
Styrene	U	U	ug/L	0.17	0.51	5030/8260C	09/27 05:15	09/27 05:15	MMD
Isopropylbenzene	U	U	ug/L	0.50	1.50	5030/8260C	09/27 05:15	09/27 05:15	MMD
Bromoform	U	U	ug/L	0.38	1.14	5030/8260C	09/27 05:15	09/27 05:15	MMD

Report To:
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Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,1,2,2-Tetrachloroethane	U	U	ug/L	0.29	0.87	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2,3-Trichloropropane	U	U	ug/L	0.23	0.69	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,3,5-Trimethylbenzene	U	U	ug/L	0.11	0.33	5030/8260C	09/27 05:15	09/27 05:15	MMD
2-Chlorotoluene	U	U	ug/L	0.13	0.39	5030/8260C	09/27 05:15	09/27 05:15	MMD
4-Chlorotoluene	U	U	ug/L	0.16	0.48	5030/8260C	09/27 05:15	09/27 05:15	MMD
Tert-Butylbenzene	U	U	ug/L	0.16	0.48	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2,4-Trimethylbenzene	U	U	ug/L	0.11	0.33	5030/8260C	09/27 05:15	09/27 05:15	MMD
Sec-Butylbenzene	U	U	ug/L	0.17	0.51	5030/8260C	09/27 05:15	09/27 05:15	MMD
P-Isopropyltoluene	U	U	ug/L	0.11	0.33	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,3-Dichlorobenzene	U	U	ug/L	0.20	0.60	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,4-Dichlorobenzene	U	U	ug/L	0.14	0.42	5030/8260C	09/27 05:15	09/27 05:15	MMD
n-Butylbenzene	U	U	ug/L	0.21	0.63	5030/8260C	09/27 05:15	09/27 05:15	MMD
n-PropylBenzene	U	U	ug/L	0.17	0.51	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2-Dichlorobenzene	U	U	ug/L	0.48	1.44	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2-Dibromo-3-Chloropropane (DBCP)	U	U	ug/L	0.30	0.90	5030/8260C	09/27 05:15	09/27 05:15	MMD
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	5030/8260C	09/27 05:15	09/27 05:15	MMD
Hexachlorobutadiene	U	U	ug/L	0.57	1.71	5030/8260C	09/27 05:15	09/27 05:15	MMD
Naphthalene	U	U	ug/L	0.015	0.045	5030/8260C	09/27 05:15	09/27 05:15	MMD

Report To:
Edward McCullers
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Ft Myers, FL 33908

Report Printed: 10/23/06
Submission # 609000489
Order # 22957

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Drinking Water

Sample I.D.: IW-1 Injection Zone
Collected: 09/25/06 09:30
Received: 09/25/06 17:34
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,2,3-Trichlorobenzene	U	U	ug/L	1.27	3.81	5030/8260C	09/27 05:15	09/27 05:15	MMD
SUB 531.1 Carbamate Pesticides: 62-550.310(4)(b				**Dilution Factor =1**					
Carbofuran	0.5U		ug/L	0.5	1.5	531.1	09/30 18:47	09/30 18:47	E84129
Oxamyl (vydate)	0.5U		ug/L	0.5	1.5	531.1	09/30 18:47	09/30 18:47	E84129
Glyphosate	10U		ug/L	10.0	30.0	547.1	09/27 19:45	09/27 19:45	E84129
Endothall	20U		ug/L	20.0	60.0	548.1	09/27 20:22	10/02 20:22	E84129
SUB 549.2 Diquat : 62-550.310(4)(b)				**Dilution Factor =1**					
Diquat	U	U	ug/L	1.00	3.00	549.2	09/27 21:05	09/27 21:05	E84129
Gross Alpha	6.1 ± 0.9		pCi/L	1.0	3.0	EPA 00-02	10/02 15:20	10/02 15:20	E84088
Radium-226	1.4 ± 0.1		pCi/L	0.10	0.30	EPA 903.1	10/10 16:30	10/10 16:30	E84088
Radium-228	0.5 ± 0.5U		pCi/L	0.50	1.50	EPA Ra-05	10/10 10:40	10/10 10:40	E84088

)C=Qualifier Codes as defined by DEP 62-160
Jnless indicated, soil results are reported based on actual (wet) weight basis.
ınalytes not currently NELAC certified denoted by *.
Vork performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
:esults relate only to the sample.

Authorized CSM Signature
Florida Environmental;Certification #E86006

Florida Environmental

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/24/06
Submission # 611000054
Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Biochemical Oxygen Demand	U	U	mg/L	2.0	6.0	405.1	11/03 13:00	11/08 11:00	CRL
Coliform-Total (E-Coli)	P(A)		--------			9223B	11/03 10:45	11/04 10:45	DSM
Specific Conductance (Field)(grab)	20050		Ω*cm.	0.1	0.3	120.1	11/02 16:07	11/02 16:07	AP
pH (field)	8.2		units	0.1	0.3	150.1	11/02 16:07	11/02 16:07	AP
Temperature (Field)	23.2		Degree C	1	3	170.1	11/02 16:07	11/02 16:07	AP
Total Dissolved Solids (TDS)	13300		mg/L	1.00	3.00	EPA 160.1	11/06 13:50	11/06 13:50	EMS
Chloride	6900		mg/L	175.00	525.00	300.0	11/07 11:10	11/09 11:10	DGK
Fluoride	0.583		mg/L	0.046	0.138	300.0	11/07 11:21	11/09 11:21	DGK
Nitrate (as N)	U	U	mg/L	0.096	0.288	300.0	11/07 11:38	11/09 11:38	DGK
Nitrate+Nitrite (as N)	U	U	mg/L	0.022	0.066	300.0	11/07 11:44	11/09 11:44	DGK
Nitrite (as N)	U	U	mg/L	0.062	0.186	300.0	11/07 17:19	11/21 17:19	JRB
Sulfate	1040		mg/L	17.00	51.00	300.0	11/07 11:03	11/09 11:03	DGK
Cyanide, Total	U	U	mg/L	0.002	0.006	335.3	11/12 12:56	11/13 12:56	JRB
Nitrogen (Ammonia) as N	U	U	mg/L	0.1	0.3	350.1	11/08 09:12	11/09 09:12	JRB
Nitrogen (Kjeldahl) as "N"	0.311		mg/L	0.025	0.075	351.2	11/06 08:22	11/07 08:22	JRB
Nitrogen (Total Organic)	U	U	mg/L	0.041	0.123	351.2	11/06 08:22	11/07 08:22	JRB
Phosphate, Ortho	U	U	mg/L	0.12	0.36	365.2	11/03 12:52	11/03 12:52	EMS
Phosphorus, Total as "P"	0.258	I	mg/L	0.22	0.66	365.4	11/06 09:19	11/07 09:19	JRB

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
MBAS Surfactants (LAS Mol.Wt. 340)	U	U	mg/L	0.02	0.06	425.1	11/03 17:18	11/03 17:18	JRB
Odor (Lab)	1.00		TON	0.1	0.3	SM2150B	11/03 11:26	11/03 11:26	EMS
Color (Lab)	20.0		Pt-Co	1.0	3.0	SM2120B	11/03 11:28	11/03 11:28	EMS
Langelier Index (Corrosivity)(Water) (0	1.19					SM 2330B	11/07	11/07	EMS
Aluminum	U	U	mg/L	0.004	0.012	200.7	11/03	11/03 17:02	IMN
Iron	0.52		mg/L	0.016	0.048	200.7	11/03	11/03 17:02	IMN
Sodium	3778		mg/L	20.000	60.000	200.7	11/03	11/06 11:58	IMN
Zinc	U	U	mg/L	0.00056	0.00168	200.7	11/03	11/03 17:02	IMN
200.8 DW-10 Metals in Drinking Water 62-550.310				**Dilution Factor =50**					
Arsenic	U	U	mg/L	0.00600	0.01800	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Barium	0.14		mg/L	0.0185	0.0555	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Cadmium	U	U	mg/L	0.02150	0.06450	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Chromium	U	U	mg/L	0.00400	0.01200	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Lead	U	U	mg/L	0.00050	0.00150	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Nickel	U	U	mg/L	0.01500	0.04500	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Selenium	U	U	mg/L	0.01500	0.04500	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Antimony	U	U	mg/L	0.02000	0.06000	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Beryllium	U	U	mg/L	0.01000	0.03000	4.1.3/200.8	11/07 09:00	11/07 14:07	EN

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Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Thallium	U	U	mg/L	0.00100	0.00300	4.1.3/200.8	11/07 09:00	11/07 14:07	EN
Copper	U	U	mg/L	0.02500	0.07500	200.8	11/07	11/07 14:07	EN
Manganese	0.10		mg/L	0.00500	0.01500	200.8	11/07	11/07 14:07	EN
Silver	U	U	mg/L	0.01000	0.03000	200.8	11/07	11/07 14:07	EN
Mercury	U	U	mg/L	0.0002	0.0006	245.1	11/06	11/06 15:28	EN
504.1 EDB, DBCP: 62-550.310(4)(b)				**Dilution Factor = 1**					
1,2-Dibromo-3-Chloropropane (DBCP)	U	U	ug/L	0.02	0.06	EPA 504.1 ECD	11/0707:00	11/07 17:53	RGC
Ethylene Dibromide (EDB)	U	U	ug/L	0.02	0.06	EPA 504.1 ECD	11/0707:00	11/07 17:53	RGC
508 Pesticides & PCBs: 62-550.310(4)(b)				**Dilution Factor = 1**					
Hexachlorocyclopentdiene	U	U	ug/L	0.42	1.26	508	11/07 14:00	11/08 07:40	RGC
Hexachlorobenzene	U	U	ug/L	0.42	1.26	508	11/07 14:00	11/08 07:40	RGC
v-BHC (Lindane)	U	U	ug/L	0.004	0.012	508	11/07 14:00	11/08 07:40	RGC
Heptachlor	U	U	ug/L	0.005	0.015	508	11/07 14:00	11/08 07:40	RGC
Heptachlor Epoxide	U	U	ug/L	0.008	0.024	508	11/07 14:00	11/08 07:40	RGC
Endrin	U	U	ug/L	0.005	0.015	508	11/07 14:00	11/08 07:40	RGC
Methoxychlor	U	U	ug/L	0.007	0.021	508	11/07 14:00	11/08 07:40	RGC
Arochlor 1016	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC
Arochlor 1221	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC

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Site Location: Clewiston, Fl
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Collected: 11/02/06 16:07
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Arochlor 1232	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC
Arochlor 1242	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC
Arochlor 1248	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC
Arochlor 1254	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC
Arochlor 1260	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC
Toxaphene	U	U	ug/L	0.40	1.20	508	11/07 14:00	11/08 07:40	RGC
Chordane	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 07:40	RGC
508 Pesticides 62-550.405 UNREGULATED				**Dilution Factor =1**					
Propachlor	U	U	ug/L	0.03	0.09	508	11/07 12:00	11/08 07:40	RGC
Aldrin	U	U	ug/L	0.03	0.09	508	11/07 12:00	11/08 07:40	RGC
Dieldrin	U	U	ug/L	0.03	0.09	508	11/07 12:00	11/08 07:40	RGC
515.3 Chlorophenoxy Herbicides: 62-550.310(4)(b)				**Dilution Factor =1**					
Dalapon	U	U	ug/L	0.08	0.24	515.3	11/06 15:38	11/07 15:38	DKW
2,4-D	U	U	ug/L	0.09	0.27	515.3	11/06 15:38	11/07 15:38	DKW
Pentachlorophenol	U	U	ug/L	0.02	0.06	515.3	11/06 15:38	11/07 15:38	DKW
2,4,5-TP (silvex)	U	U	ug/L	0.038	0.114	515.3	11/06 15:38	11/07 15:38	DKW
Dinoseb	U	U	ug/L	0.06	0.18	515.3	11/06 15:38	11/07 15:38	DKW
Picloram	U	U	ug/L	0.08	0.24	515.3	11/06 15:38	11/07 15:38	DKW

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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
524.2 Volatile Organics: 62-550.310(4)(a)				**Dilution Factor = 1**					
Vinyl Chloride	U	U	ug/L	0.34	1.02	524.2	11/03 15:22	11/03 15:22	MMD
1,1-Dichloroethylene	U	U	ug/L	0.43	1.29	524.2	11/03 15:22	11/03 15:22	MMD
Dichloromethane (Methylene Chloride)	U	U	ug/L	2.00	6.00	524.2	11/03 15:22	11/03 15:22	MMD
Trans-1,2-Dichloroethylene	U	U	ug/L	0.50	1.50	524.2	11/03 15:22	11/03 15:22	MMD
Cis-1,2-Dichloroethylene	U	U	ug/L	0.11	0.33	524.2	11/03 15:22	11/03 15:22	MMD
1,1,1-Trichloroethane	U	U	ug/L	0.25	0.75	524.2	11/03 15:22	11/03 15:22	MMD
Carbon Tetrachloride	U	U	ug/L	0.19	0.57	524.2	11/03 15:22	11/03 15:22	MMD
Benzene	U	U	ug/L	0.09	0.27	524.2	11/03 15:22	11/03 15:22	MMD
1,2-Dichloroethane	U	U	ug/L	0.24	0.72	524.2	11/03 15:22	11/03 15:22	MMD
Trichloroethylene	U	U	ug/L	0.09	0.27	524.2	11/03 15:22	11/03 15:22	MMD
1,2-Dichloropropane	U	U	ug/L	0.20	0.60	524.2	11/03 15:22	11/03 15:22	MMD
Toluene	U	U	ug/L	0.14	0.42	524.2	11/03 15:22	11/03 15:22	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	524.2	11/03 15:22	11/03 15:22	MMD
Tetrachloroethylene	U	U	ug/L	0.11	0.33	524.2	11/03 15:22	11/03 15:22	MMD
Chlorobenzene	U	U	ug/L	0.09	0.27	524.2	11/03 15:22	11/03 15:22	MMD
Ethylbenzene	U	U	ug/L	0.13	0.39	524.2	11/03 15:22	11/03 15:22	MMD
Xylenes (Total)	U	U	ug/L	0.21	0.63	524.2	11/03 15:22	11/03 15:22	MMD

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Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Styrene	U	U	ug/L	0.17	0.51	524.2	11/03 15:22	11/03 15:22	MMD
1,4-Dichlorobenzene (para)	U	U	ug/L	0.14	0.42	524.2	11/03 15:22	11/03 15:22	MMD
1,2-Dichlorobenzene (ortho)	U	U	ug/L	0.48	1.44	524.2	11/03 15:22	11/03 15:22	MMD
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	524.2	11/03 15:22	11/03 15:22	MMD
524.2 Volatile Organics: 62-550. UNREGULATED				Dilution Factor =1					
Dichlorodifluoromethane	U	U	ug/L	0.13	0.39	524.2	11/03 15:22	11/03 15:22	MMD
Chloromethane	U	U	ug/L	0.35	1.05	524.2	11/03 15:22	11/03 15:22	MMD
Bromomethane	U	U	ug/L	0.41	1.23	524.2	11/03 15:22	11/03 15:22	MMD
Chloroethane	U	U	ug/L	0.17	0.51	524.2	11/03 15:22	11/03 15:22	MMD
Trichlorofluoromethane	U	U	ug/L	0.47	1.41	524.2	11/03 15:22	11/03 15:22	MMD
Methyl-Tert-Butyl Ether	U	U	ug/L	0.50	1.50	524.2	11/03 15:22	11/03 15:22	MMD
1,1-Dichloroethane	U	U	ug/L	0.53	1.59	524.2	11/03 15:22	11/03 15:22	MMD
2,2-Dichloropropane	U	U	ug/L	0.31	0.93	524.2	11/03 15:22	11/03 15:22	MMD
Cis-1,2-Dichloroethene	U	U	ug/L	0.11	0.33	524.2	11/03 15:22	11/03 15:22	MMD
Chloroform	U	U	ug/L	0.80	2.40	524.2	11/03 15:22	11/03 15:22	MMD
1,1-Dichloropropene	U	U	ug/L	0.07	0.21	524.2	11/03 15:22	11/03 15:22	MMD
Bromodichloromethane	U	U	ug/L	0.24	0.72	524.2	11/03 15:22	11/03 15:22	MMD
Dibromomethane	U	U	ug/L	0.42	1.26	524.2	11/03 15:22	11/03 15:22	MMD

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Cis-1,3-Dichloropropene	U	U	ug/L	0.38	1.14	524.2	11/03 15:22	11/03 15:22	MMD
Trans-1,3-Dichloropropene	U	U	ug/L	0.50	1.50	524.2	11/03 15:22	11/03 15:22	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	524.2	11/03 15:22	11/03 15:22	MMD
1,3-Dichloropropane	U	U	ug/L	0.38	1.14	524.2	11/03 15:22	11/03 15:22	MMD
Dibromochloromethane	U	U	ug/L	0.39	1.17	524.2	11/03 15:22	11/03 15:22	MMD
1,1,1,2-Tetrachloroethane	U	U	ug/L	0.37	1.11	524.2	11/03 15:22	11/03 15:22	MMD
Bromoform	U	U	ug/L	0.38	1.14	524.2	11/03 15:22	11/03 15:22	MMD
1,1,2,2-Tetrachloroethane	U	U	ug/L	0.29	0.87	524.2	11/03 15:22	11/03 15:22	MMD
1,2,3-Trichloropropane	U	U	ug/L	0.23	0.69	524.2	11/03 15:22	11/03 15:22	MMD
Bromobenzene	U	U	ug/L	0.46	1.38	524.2	11/03 15:22	11/03 15:22	MMD
2-Chlorotoluene (ortho)	U	U	ug/L	0.13	0.39	524.2	11/03 15:22	11/03 15:22	MMD
4-Chlorotoluene (para)	U	U	ug/L	0.16	0.48	524.2	11/03 15:22	11/03 15:22	MMD
1,3-Dichlorobenzene (meta)	U	U	ug/L	0.20	0.60	524.2	11/03 15:22	11/03 15:22	MMD
1,2-Dibromo-3-Chloropropane	U	U	ug/L	0.30	0.90	524.2	11/03 15:22	11/03 15:22	MMD
525.2 Semivolatile Organics: 62-550.310(4)(b)				Dilution Factor =1					
Di(2-Ethylhexyl)phthalate	U	U	ug/L	0.36	1.08	525.2	11/07 09:42	11/08 09:42	AC
Di(2-Ethylhexyl)adipate	U	U	ug/L	0.36	1.08	525.2	11/07 09:42	11/08 09:42	AC
Benzo(a)pyrene	U	U	ug/L	0.017	0.051	525.2	11/07 09:42	11/08 09:42	AC

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
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Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Pentachlorophenol	U	U	ug/L	0.02	0.06	525.2	11/07 09:42	11/08 09:42	AC
Alachlor	U	U	ug/L	0.20	0.60	525.2	11/07 09:42	11/08 09:42	AC
Atrazine	U	U	ug/L	0.20	0.60	525.2	11/07 09:42	11/08 09:42	AC
Simazine	U	U	ug/L	0.20	0.60	525.2	11/07 09:42	11/08 09:42	AC
525.2 Semivolatile Organics: 62-550.UNREGULATED				Dilution Factor = 1					
Butyl benzyl phthalate	U	U	ug/L	1.44	4.32	525.2	11/07 09:43	11/08 09:43	AC
Di-n-butylphthalate	U	U	ug/L	1.2	3.6	525.2	11/07 09:43	11/08 09:43	AC
Diethylphthalate	U	U	ug/L	3.4	10.2	525.2	11/07 09:43	11/08 09:43	AC
Dimethylphthalate	U	U	ug/L	3.7	11.1	525.2	11/07 09:43	11/08 09:43	AC
2,4-dinitrotoluene	U	U	ug/L	1.17	3.51	525.2	11/07 09:43	11/08 09:43	AC
Dioctylphthalate	U	U	ug/L	1.86	5.58	525.2	11/07 09:43	11/08 09:43	AC
Isophorone	U	U	ug/L	1.56	4.68	525.2	11/07 09:43	11/08 09:43	AC
(Dioxin) {Screen/Optional}	U	U	ug/L	0.03	0.09	525.2	11/07 09:43	11/08 09:43	AC
2-chlorophenol	U	U	ug/L	1.47	4.41	525.2	11/07 09:43	11/08 09:43	AC
2-methyl-4,6-dinitrophenol	U	U	ug/L	3.0	9.0	525.2	11/07 09:43	11/08 09:43	AC
Phenol	U	U	ug/L	1.86	5.58	525.2	11/07 09:43	11/08 09:43	AC
2,4,6-trichlorophenol	U	U	ug/L	3.0	9.0	525.2	11/07 09:43	11/08 09:43	AC
608 Chlorinated Pesticides & PCBs in WATER				Dilution Factor = 1					

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LABORATORY ANALYSIS REPORT

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a-BHC	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 15:40	RGC
b-BHC	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 15:40	RGC
g-BHC (lindane)	U	QU	ug/L	0.004	0.012	EPA 608	11/14 12:00	11/15 15:40	RGC
d-BHC	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 15:40	RGC
Heptachlor	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 15:40	RGC
Aldrin	U	QU	ug/L	0.017	0.051	EPA 608	11/14 12:00	11/15 15:40	RGC
Heptachlor Epoxide	U	QU	ug/L	0.008	0.024	EPA 608	11/14 12:00	11/15 15:40	RGC
Endosulfan I	U	QU	ug/L	0.006	0.018	EPA 608	11/14 12:00	11/15 15:40	RGC
Dieldrin	U	QU	ug/L	0.006	0.018	EPA 608	11/14 12:00	11/15 15:40	RGC
4,4-DDE	U	QU	ug/L	0.39	1.17	EPA 608	11/14 12:00	11/15 15:40	RGC
Endrin	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 15:40	RGC
Endosulfan II	U	QU	ug/L	0.006	0.018	EPA 608	11/14 12:00	11/15 15:40	RGC
4,4-DDD	U	QU	ug/L	0.60	1.80	EPA 608	11/14 12:00	11/15 15:40	RGC
Endrin Aldehyde	U	QU	ug/L	0.010	0.030	EPA 608	11/14 12:00	11/15 15:40	RGC
Endosulfan Sulfate	U	QU	ug/L	0.007	0.021	EPA 608	11/14 12:00	11/15 15:40	RGC
4,4-DDT	U	QU	ug/L	0.69	2.07	EPA 608	11/14 12:00	11/15 15:40	RGC
Methoxychlor	U	QU	ug/L	0.007	0.021	EPA 608	11/14 12:00	11/15 15:40	RGC
Aroclor 1016	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Aroclor 1221	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC
Aroclor 1232	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC
Aroclor 1242	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC
Aroclor 1248	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC
Aroclor 1254	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC
Aroclor 1260	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC
Toxaphene	U	QU	ug/L	0.40	1.20	EPA 608	11/14 12:00	11/15 15:40	RGC
Chlordane	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 15:40	RGC
625 Semivolatile Organics in Water by GC/MS				Dilution Factor = 1					
N-Nitrosodimethylamine	U	U	ug/L	0.50	1.50	625	11/07 09:39	11/07 09:39	AC
Phenol	U	U	ug/L	0.38	1.14	625	11/07 09:39	11/07 09:39	AC
Bis (2-Chloroethyl) Ether	U	U	ug/L	0.85	2.55	625	11/07 09:39	11/07 09:39	AC
2-Chlorophenol	U	U	ug/L	0.45	1.35	625	11/07 09:39	11/07 09:39	AC
1,3-Dichlorobenzene	U	U	ug/L	0.20	0.60	625	11/07 09:39	11/07 09:39	AC
1,4-Dichlorobenzene	U	U	ug/L	0.14	0.42	625	11/07 09:39	11/07 09:39	AC
Benzyl Alcohol	U	U	ug/L	0.75	2.25	625	11/07 09:39	11/07 09:39	AC
1,2-Dichlorobenzene	U	U	ug/L	0.48	1.44	625	11/07 09:39	11/07 09:39	AC
Bis (2-Chloroisopropyl) Ether *	U	U	ug/L	0.85	2.55	625	11/07 09:39	11/07 09:39	AC

Report To:
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Report Printed: 11/22/06
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Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
N-Nitrosodi-N-Propylamine	U	U	ug/L	1.14	3.42	625	11/07 09:39	11/07 09:39	AC
Hexachloroethane	U	U	ug/L	2.31	6.93	625	11/07 09:39	11/07 09:39	AC
Nitrobenzene *	U	U	ug/L	0.66	1.98	625	11/07 09:39	11/07 09:39	AC
Isophorone	U	U	ug/L	1.56	4.68	625	11/07 09:39	11/07 09:39	AC
2-Nitrophenol	U	U	ug/L	1.09	3.27	625	11/07 09:39	11/07 09:39	AC
2,4-Dimethylphenol	U	U	ug/L	0.62	1.86	625	11/07 09:39	11/07 09:39	AC
Bis (2-Chloroethoxy)methane *	U	U	ug/L	1.89	5.67	625	11/07 09:39	11/07 09:39	AC
2,4-Dichlorophenol	U	U	ug/L	1.11	3.33	625	11/07 09:39	11/07 09:39	AC
1,2,3-Trichlorobenzene	U	U	ug/L	2.00	6.00	625	11/07 09:39	11/07 09:39	AC
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	625	11/07 09:39	11/07 09:39	AC
Naphthalene	U	U	ug/L	0.015	0.045	625	11/07 09:39	11/07 09:39	AC
Hexachlorobutadiene	U	U	ug/L	0.57	1.71	625	11/07 09:39	11/07 09:39	AC
4-Chloro-3-Methylphenol	U	U	ug/L	0.67	2.01	625	11/07 09:39	11/07 09:39	AC
1-Methylnaphthalene	U	U	ug/L	0.36	1.08	625	11/07 09:39	11/07 09:39	AC
2-Methylnaphthalene	U	U	ug/L	0.024	0.072	625	11/07 09:39	11/07 09:39	AC
2-Methylphenol (o-cresol)	U	U	ug/L	1.0	3.0	625	11/07 09:39	11/07 09:39	AC
Hexachlorocyclopentadiene	U	U	ug/L	0.42	1.26	625	11/07 09:39	11/07 09:39	AC
3-MethylPhenol (m-cresol)	U	U	ug/L	0.84	2.52	625	11/07 09:39	11/07 09:39	AC

Report To:
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15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
4-Methylphenol (p-cresol)	U	U	ug/L	1.16	3.48	625	11/07 09:39	11/07 09:39	AC
2,3,6-Trichlorophenol	U	U	ug/L	1.2	3.6	625	11/07 09:39	11/07 09:39	AC
2,4,5-Trichlorophenol	U	U	ug/L	0.81	2.43	625	11/07 09:39	11/07 09:39	AC
2,4,6-Trichlorophenol	U	U	ug/L	0.78	2.34	625	11/07 09:39	11/07 09:39	AC
2-Chloronaphthalene	U	U	ug/L	1.16	3.48	625	11/07 09:39	11/07 09:39	AC
Dimethyl Phthalate	U	U	ug/L	3.7	11.1	625	11/07 09:39	11/07 09:39	AC
Acenaphthylene	U	U	ug/L	0.015	0.045	625	11/07 09:39	11/07 09:39	AC
2,6-Dinitrotoluene	U	U	ug/L	0.54	1.62	625	11/07 09:39	11/07 09:39	AC
Acenaphthene	U	U	ug/L	0.017	0.051	625	11/07 09:39	11/07 09:39	AC
2,4-Dinitrophenol	U	U	ug/L	1.0	3.0	625	11/07 09:39	11/07 09:39	AC
2,4-Dinitrotoluene	U	U	ug/L	1.17	3.51	625	11/07 09:39	11/07 09:39	AC
4-Nitrophenol	U	U	ug/L	1.0	3.0	625	11/07 09:39	11/07 09:39	AC
Diethyl Phthalate	U	U	ug/L	3.4	10.2	625	11/07 09:39	11/07 09:39	AC
Fluorene	U	U	ug/L	0.012	0.036	625	11/07 09:39	11/07 09:39	AC
4-Chlorophenyl Phenyl Ether	U	U	ug/L	0.87	2.61	625	11/07 09:39	11/07 09:39	AC
4,6-Dinitro-2-Methylphenol	U	U	ug/L	1.4	4.2	625	11/07 09:39	11/07 09:39	AC
N-Nitrosodiphenylamine	U	U	ug/L	3.42	10.26	625	11/07 09:39	11/07 09:39	AC
4-Bromophenyl Phenyl Ether	U	U	ug/L	1.44	4.32	625	11/07 09:39	11/07 09:39	AC

Report To:
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Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Hexachlorobenzene	U	U	ug/L	0.42	1.26	625	11/07 09:39	11/07 09:39	AC
Pentachlorophenol	U	U	ug/L	1.14	3.42	625	11/07 09:39	11/07 09:39	AC
Phenanthrene	U	U	ug/L	0.028	0.084	625	11/07 09:39	11/07 09:39	AC
Anthracene	U	U	ug/L	0.049	0.147	625	11/07 09:39	11/07 09:39	AC
Di-N-Butyl Phthalate	U	U	ug/L	1.2	3.6	625	11/07 09:39	11/07 09:39	AC
Fluoranthene	U	U	ug/L	0.025	0.075	625	11/07 09:39	11/07 09:39	AC
Benzidine *	U	U	ug/L	4.0	12.0	625	11/07 09:39	11/07 09:39	AC
Pyrene	U	U	ug/L	0.017	0.051	625	11/07 09:39	11/07 09:39	AC
Butyl Benzyl Phthalate	U	U	ug/L	1.44	4.32	625	11/07 09:39	11/07 09:39	AC
Benzo(A)Anthracene	U	U	ug/L	0.017	0.051	625	11/07 09:39	11/07 09:39	AC
3,3-Dichlorobenzidine	U	U	ug/L	2.0	6.0	625	11/07 09:39	11/07 09:39	AC
Chrysene	U	U	ug/L	0.75	2.25	625	11/07 09:39	11/07 09:39	AC
Bis (2 Ethylhexyl) Phthalate	U	U	ug/L	2.37	7.11	625	11/07 09:39	11/07 09:39	AC
Di-N-Octyl Phthalate	U	U	ug/L	1.4	4.2	625	11/07 09:39	11/07 09:39	AC
Benzo(B)Fluoranthene	U	U	ug/L	0.029	0.087	625	11/07 09:39	11/07 09:39	AC
Benzo(K)Fluoranthene	U	U	ug/L	0.025	0.075	625	11/07 09:39	11/07 09:39	AC
Benzo(A)Pyrene	U	U	ug/L	0.017	0.051	625	11/07 09:39	11/07 09:39	AC
Indeno(1,2,3-CD)Pyrene	U	U	ug/L	0.93	2.79	625	11/07 09:39	11/07 09:39	AC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
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Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Dibenzo(A,H,)Anthracene	U	U	ug/L	0.029	0.087	625	11/07 09:39	11/07 09:39	AC
Benzo(G,H,I)Perylene	U	U	ug/L	0.017	0.051	625	11/07 09:39	11/07 09:39	AC
Bis-2-ethylhexyl Adipate	U	U	ug/L	0.36	1.08	625	11/07 09:39	11/07 09:39	AC
Aldrin *	U	U	ug/L	0.017	0.051	625	11/07 09:39	11/07 09:39	AC
alpha-BHC *	U	U	ug/L	0.005	0.015	625	11/07 09:39	11/07 09:39	AC
beta-BHC *	U	U	ug/L	0.005	0.015	625	11/07 09:39	11/07 09:39	AC
delta-BHC *	U	U	ug/L	0.005	0.015	625	11/07 09:39	11/07 09:39	AC
gamma-BHC (Lindane) *	U	U	ug/L	0.004	0.012	625	11/07 09:39	11/07 09:39	AC
Chlordane (Screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
4,4'-DDD *	U	U	ug/L	0.60	1.80	625	11/07 09:39	11/07 09:39	AC
4,4'-DDE *	U	U	ug/L	0.39	1.17	625	11/07 09:39	11/07 09:39	AC
4,4'-DDT *	U	U	ug/L	0.69	2.07	625	11/07 09:39	11/07 09:39	AC
Dieldrin *	U	U	ug/L	0.006	0.018	625	11/07 09:39	11/07 09:39	AC
Endosulfan I *	U	U	ug/L	0.006	0.018	625	11/07 09:39	11/07 09:39	AC
Endosulfan II *	U	U	ug/L	0.006	0.018	625	11/07 09:39	11/07 09:39	AC
Endosulfan Sulfate *	U	U	ug/L	0.007	0.021	625	11/07 09:39	11/07 09:39	AC
Endrin *	U	U	ug/L	0.005	0.015	625	11/07 09:39	11/07 09:39	AC
Endrin Aldehyde *	U	U	ug/L	0.010	0.030	625	11/07 09:39	11/07 09:39	AC

Report To:
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Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
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Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Heptachlor *	U	U	ug/L	0.005	0.015	625	11/07 09:39	11/07 09:39	AC
Heptachlor Epoxide *	U	U	ug/L	0.008	0.024	625	11/07 09:39	11/07 09:39	AC
Toxaphene *	U	U	ug/L	0.40	1.20	625	11/07 09:39	11/07 09:39	AC
PCB-1016 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
PCB-1221 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
PCB-1232 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
PCB-1242 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
PCB-1248 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
PCB-1254 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
PCB-1260 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:39	11/07 09:39	AC
Dioxin (screen)	U	U	ug/L	0.03	0.09	625	11/07 09:39	11/07 09:39	AC
Azobenzene *	U	U	ug/L	0.75	2.25	625	11/07 09:39	11/07 09:39	AC
Methoxychlor *	U	U	ug/L	0.007	0.021	625	11/07 09:39	11/07 09:39	AC
Benzoic Acid	U	U	ug/L	0.84	2.52	625	11/07 09:39	11/07 09:39	AC
Aniline	U	U	ug/L	0.50	1.50	625	11/07 09:39	11/07 09:39	AC
4-Chloroaniline	U	U	ug/L	0.65	1.95	625	11/07 09:39	11/07 09:39	AC
Dibenzofuran	U	U	ug/L	0.66	1.98	625	11/07 09:39	11/07 09:39	AC
2-Nitroaniline	U	U	ug/L	0.58	1.74	625	11/07 09:39	11/07 09:39	AC

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
3-Nitroaniline	U	U	ug/L	0.50	1.50	625	11/07 09:39	11/07 09:39	AC
4-Nitroaniline	U	U	ug/L	0.84	2.52	625	11/07 09:39	11/07 09:39	AC
Carbazole *	U	U	ug/L	0.68	2.04	625	11/07 09:39	11/07 09:39	AC
2,6-Dichlorophenol	U	U	ug/L	0.89	2.67	625	11/07 09:39	11/07 09:39	AC
Pyridine	U	U	ug/L	0.99	2.97	625	11/07 09:39	11/07 09:39	AC
2,3,4,6-Tetrachlorophenol	U	U	ug/L	1.00	3.00	625	11/07 09:39	11/07 09:39	AC
2,3,5,6-Tetrachlorophenol	U	U	ug/L	0.80	2.40	625	11/07 09:39	11/07 09:39	AC
8260.C Volatile Organics in Water by GC/MS				Dilution Factor = 1					
Acetone	U	U	ug/L	1.75	5.25	5030/8260C	11/03 15:22	11/03 15:22	MMD
Acrolein	U	U	ug/L	0.75	2.25	5030/8260C	11/03 15:22	11/03 15:22	MMD
Acrylonitrile	U	U	ug/L	0.41	1.23	5030/8260C	11/03 15:22	11/03 15:22	MMD
Methyl Ethyl Ketone	U	U	ug/L	0.75	2.25	5030/8260C	11/03 15:22	11/03 15:22	MMD
Dichlorodifluoromethane	U	U	ug/L	0.13	0.39	5030/8260C	11/03 15:22	11/03 15:22	MMD
Chloromethane	U	U	ug/L	0.35	1.05	5030/8260C	11/03 15:22	11/03 15:22	MMD
Vinyl Chloride	U	U	ug/L	0.34	1.02	5030/8260C	11/03 15:22	11/03 15:22	MMD
Bromomethane	U	U	ug/L	0.41	1.23	5030/8260C	11/03 15:22	11/03 15:22	MMD
Chloroethane	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:22	11/03 15:22	MMD
Trichlorofluoromethane	U	U	ug/L	0.47	1.41	5030/8260C	11/03 15:22	11/03 15:22	MMD

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Report Printed: 11/22/06
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Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,1-Dichloroethene	U	U	ug/L	0.52	1.56	5030/8260C	11/03 15:22	11/03 15:22	MMD
Methylene Chloride	U	U	ug/L	0.99	2.97	5030/8260C	11/03 15:22	11/03 15:22	MMD
Trans-1,2-Dichloroethene	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:22	11/03 15:22	MMD
Methyl-Tert-Butyl Ether	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,1-Dichloroethane	U	U	ug/L	0.53	1.59	5030/8260C	11/03 15:22	11/03 15:22	MMD
2,2-Dichloropropane	U	U	ug/L	0.31	0.93	5030/8260C	11/03 15:22	11/03 15:22	MMD
Cis-1,2-Dichloroethene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:22	11/03 15:22	MMD
Chloroform	U	U	ug/L	0.80	2.40	5030/8260C	11/03 15:22	11/03 15:22	MMD
Bromochloromethane	U	U	ug/L	0.55	1.65	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,1,1-Trichloroethane	U	U	ug/L	0.25	0.75	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,1-Dichloropropene	U	U	ug/L	0.07	0.21	5030/8260C	11/03 15:22	11/03 15:22	MMD
Carbon Tetrachloride	U	U	ug/L	0.19	0.57	5030/8260C	11/03 15:22	11/03 15:22	MMD
Benzene	U	U	ug/L	0.09	0.27	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2-Dichloroethane	U	U	ug/L	0.24	0.72	5030/8260C	11/03 15:22	11/03 15:22	MMD
Trichloroethene	U	U	ug/L	0.09	0.27	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2-Dichloropropane	U	U	ug/L	0.20	0.60	5030/8260C	11/03 15:22	11/03 15:22	MMD
Bromodichloromethane	U	U	ug/L	0.24	0.72	5030/8260C	11/03 15:22	11/03 15:22	MMD
2-Chloroethylvinyl Ether	U	U	ug/L	1.00	3.00	5030/8260C	11/03 15:22	11/03 15:22	MMD

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Dibromomethane	U	U	ug/L	0.42	1.26	5030/8260C	11/03 15:22	11/03 15:22	MMD
Cis-1,3-Dichloropropene	U	U	ug/L	0.38	1.14	5030/8260C	11/03 15:22	11/03 15:22	MMD
Toluene	U	U	ug/L	0.14	0.42	5030/8260C	11/03 15:22	11/03 15:22	MMD
Trans-1,3-Dichloropropene	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,3-Dichloropropane	U	U	ug/L	0.38	1.14	5030/8260C	11/03 15:22	11/03 15:22	MMD
Tetrachloroethene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:22	11/03 15:22	MMD
Dibromochloromethane	U	U	ug/L	0.39	1.17	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2-Dibromoethane (EDB)	U	U	ug/L	0.40	1.20	5030/8260C	11/03 15:22	11/03 15:22	MMD
Bromobenzene	U	U	ug/L	0.46	1.38	5030/8260C	11/03 15:22	11/03 15:22	MMD
Chlorobenzene	U	U	ug/L	0.09	0.27	5030/8260C	11/03 15:22	11/03 15:22	MMD
Ethylbenzene	U	U	ug/L	0.13	0.39	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,1,1,2-Tetrachloroethane	U	U	ug/L	0.37	1.11	5030/8260C	11/03 15:22	11/03 15:22	MMD
m & p-Xylene	U	U	ug/L	0.19	0.57	5030/8260C	11/03 15:22	11/03 15:22	MMD
o-Xylene	U	U	ug/L	0.19	0.57	5030/8260C	11/03 15:22	11/03 15:22	MMD
Styrene	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:22	11/03 15:22	MMD
Isopropylbenzene	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:22	11/03 15:22	MMD
Bromoform	U	U	ug/L	0.38	1.14	5030/8260C	11/03 15:22	11/03 15:22	MMD

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Order # 27183

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,1,2,2-Tetrachloroethane	U	U	ug/L	0.29	0.87	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2,3-Trichloropropane	U	U	ug/L	0.23	0.69	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,3,5-Trimethylbenzene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:22	11/03 15:22	MMD
2-Chlorotoluene	U	U	ug/L	0.13	0.39	5030/8260C	11/03 15:22	11/03 15:22	MMD
4-Chlorotoluene	U	U	ug/L	0.16	0.48	5030/8260C	11/03 15:22	11/03 15:22	MMD
Tert-Butylbenzene	U	U	ug/L	0.16	0.48	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2,4-Trimethylbenzene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:22	11/03 15:22	MMD
Sec-Butylbenzene	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:22	11/03 15:22	MMD
P-Isopropyltoluene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,3-Dichlorobenzene	U	U	ug/L	0.20	0.60	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,4-Dichlorobenzene	U	U	ug/L	0.14	0.42	5030/8260C	11/03 15:22	11/03 15:22	MMD
n-Butylbenzene	U	U	ug/L	0.21	0.63	5030/8260C	11/03 15:22	11/03 15:22	MMD
n-PropylBenzene	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2-Dichlorobenzene	U	U	ug/L	0.48	1.44	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2-Dibromo-3-Chloropropane (DBCP)	U	U	ug/L	0.30	0.90	5030/8260C	11/03 15:22	11/03 15:22	MMD
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	5030/8260C	11/03 15:22	11/03 15:22	MMD
Hexachlorobutadiene	U	U	ug/L	0.57	1.71	5030/8260C	11/03 15:22	11/03 15:22	MMD
Naphthalene	U	U	ug/L	0.015	0.045	5030/8260C	11/03 15:22	11/03 15:22	MMD

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,2,3-Trichlorobenzene	U	U	ug/L	1.27	3.81	5030/8260C	11/03 15:22	11/03 15:22	MMD
SUB 531 Carbamate Pesticides: 62-550.310(4)(b				**Dilution Factor =1**					
Carbofuran	U	U	ug/L	0.45	1.35	531.1	11/15 00:09	11/15 00:09	E83079
Oxamyl (vydate)	U	U	ug/L	0.52	1.56	531.1	11/15 00:09	11/15 00:09	E83079
SUB 531 Carbamate Pesticides: 62-550.UNREGULA				**Dilution Factor =1**					
Aldicarb Sulfoxide	U	U	ug/L	0.48	1.44	531.1	11/15 00:09	11/15 00:09	E83079
Aldicarb Sulfone	U	U	ug/L	0.57	1.71	531.1	11/15 00:09	11/15 00:09	E83079
Methomyl	U	U	ug/L	0.72	2.16	531.1	11/15 00:09	11/15 00:09	E83079
3-Hydrocarbofuran	U	U	ug/L	0.87	2.61	531.1	11/15 00:09	11/15 00:09	E83079
Aldicarb	U	U	ug/L	0.31	0.93	531.1	11/15 00:09	11/15 00:09	E83079
Carbaryl	U	U	ug/L	0.72	2.16	531.1	11/15 00:09	11/15 00:09	E83079
Glyphosate	U	U	ug/L	3.2	9.6	547.1	11/08 01:18	11/09 01:18	E83079
Endothall	U	U	ug/L	2.7	8.1	548.1	11/09 02:25	11/11 02:25	E83079
SUB 549 Diquat : 62-550.310(4)(b)				**Dilution Factor =1**					
Diquat	U	U	ug/L	0.29	0.87	549.2	11/09 18:37	11/09 18:37	E83079
Gross Alpha	4.5 ± 0.8		pCi/L	1.0	3.0	EPA 00-02	11/09 17:45	11/09 17:45	E84088
Radium-226	2.6 ± 0.1		pCi/L	0.10	0.30	EPA 903.1	11/12 13:43	11/12 13:43	E84088

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Upper 1950'- 2000'
Collected: 11/02/06 16:07
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Radium-228	0.5 ± 0.5		pCi/L	0.50	1.50	EPA Ra-05	11/09 15:28	11/09 15:28	E84088

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to the sample.

Authorized CSM Signature
Florida Environmental;Certification # E86006

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Biochemical Oxygen Demand	U	U	mg/L	2.0	6.0	405.1	11/03 13:00	11/08 11:00	CRL
Coliform-Total (E-Coli)	P(A)		--------			9223B	11/03 10:45	11/04 10:45	DSM
Specific Conductance (Field)(grab)	44600		Ω*cm.	0.1	0.3	120.1	11/02 16:30	11/02 16:30	AP
pH (field)	7.4		units	0.1	0.3	150.1	11/02 16:30	11/02 16:30	AP
Temperature (Field)	23.6		Degree C	1	3	170.1	11/02 16:30	11/02 16:30	AP
Total Dissolved Solids (TDS)	33800		mg/L	1.00	3.00	EPA 160.1	11/06 13:50	11/06 13:50	EMS
Chloride	17600		mg/L	350	1050	300.0	11/07 11:10	11/09 11:10	DGK
Fluoride	0.482		mg/L	0.046	0.138	300.0	11/07 11:22	11/09 11:22	DGK
Nitrate (as N)	U	U	mg/L	0.096	0.288	300.0	11/07 11:39	11/09 11:39	DGK
Nitrate+Nitrite (as N)	U	U	mg/L	0.022	0.066	300.0	11/07 11:45	11/09 11:45	DGK
Nitrite (as N)	U	U	mg/L	0.062	0.186	300.0	11/07 17:20	11/21 17:20	JRB
Sulfate	2440		mg/L	34.00	102.00	300.0	11/07 11:03	11/09 11:03	DGK
Cyanide, Total	U	U	mg/L	0.002	0.006	335.3	11/12 12:56	11/13 12:56	JRB
Nitrogen (Ammonia) as N	U	U	mg/L	0.1	0.3	350.1	11/08 09:12	11/09 09:12	JRB
Nitrogen (Kjeldahl) as "N"	0.153		mg/L	0.025	0.075	351.2	11/06 08:30	11/07 08:30	JRB
Nitrogen (Total Organic)	.153		mg/L	0.041	0.123	351.2	11/21 16:33	11/21 16:33	JRB
Phosphate, Ortho	U	U	mg/L	0.12	0.36	365.2	11/03 12:52	11/03 12:52	EMS
Phosphorus, Total as "P"	0.227	I	mg/L	0.22	0.66	365.4	11/06 09:19	11/07 09:19	JRB

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
MBAS Surfactants (LAS Mol.Wt. 340)	U	U	mg/L	0.02	0.06	425.1	11/03 17:18	11/03 17:18	JRB
Odor (Lab)	1.5		TON	0.1	0.3	SM2150B	11/03 11:26	11/03 11:26	EMS
Color (Lab)	35.0		Pt-Co	1.0	3.0	SM2120B	11/03 11:28	11/03 11:28	EMS
Langelier Index (Corrosivity)(Water) (0	1.01					SM 2330B	11/07	11/07	EMS
Aluminum	U	U	mg/L	0.004	0.012	200.7	11/03	11/03 17:07	IMN
Iron	0.45		mg/L	0.016	0.048	200.7	11/03	11/03 17:07	IMN
Sodium	10654		mg/L	20.000	60.000	200.7	11/03	11/06 12:04	IMN
Zinc	U	U	mg/L	0.00056	0.00168	200.7	11/03	11/03 17:07	IMN
200.8 DW-10 Metals in Drinking Water 62-550.310				Dilution Factor = 1					
Arsenic	U	U	mg/L	0.00012	0.00036	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Barium	0.32		mg/L	0.0004	0.0012	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Cadmium	U	U	mg/L	0.00043	0.00129	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Chromium	U	U	mg/L	0.00008	0.00024	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Lead	U	U	mg/L	0.00001	0.00003	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Nickel	U	U	mg/L	0.00030	0.00090	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Selenium	U	U	mg/L	0.00030	0.00090	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Antimony	U	U	mg/L	0.00040	0.00120	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Beryllium	U	U	mg/L	0.00020	0.00060	4.1.3/200.8	11/07 09:00	11/07 14:13	EN

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Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
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Collected by: Alberto Pozo

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Thallium	U	U	mg/L	0.00002	0.00006	4.1.3/200.8	11/07 09:00	11/07 14:13	EN
Copper	U	U	mg/L	0.02500	0.07500	200.8	11/07	11/07 14:13	EN
Manganese	0.22		mg/L	0.00500	0.01500	200.8	11/07	11/07 14:13	EN
Silver	U	U	mg/L	0.01000	0.03000	200.8	11/07	11/07 14:13	EN
Mercury	U	U	mg/L	0.0002	0.0006	245.1	11/06	11/06 15:30	EN
504.1 EDB, DBCP: 62-550.310(4)(b)				**Dilution Factor =1**					
1,2-Dibromo-3-Chloropropane (DBCP)	U	U	ug/L	0.02	0.06	EPA 504.1 ECD	11/0707:00	11/07 18:02	RGC
Ethylene Dibromide (EDB)	U	U	ug/L	0.02	0.06	EPA 504.1 ECD	11/0707:00	11/07 18:02	RGC
508 Pesticides & PCBs: 62-550.310(4)(b)				**Dilution Factor =1**					
Hexachlorocyclopentdiene	U	U	ug/L	0.42	1.26	508	11/07 14:00	11/08 08:21	RGC
Hexachlorobenzene	U	U	ug/L	0.42	1.26	508	11/07 14:00	11/08 08:21	RGC
v-BHC (Lindane)	U	U	ug/L	0.004	0.012	508	11/07 14:00	11/08 08:21	RGC
Heptachlor	U	U	ug/L	0.005	0.015	508	11/07 14:00	11/08 08:21	RGC
Heptachlor Epoxide	U	U	ug/L	0.008	0.024	508	11/07 14:00	11/08 08:21	RGC
Endrin	U	U	ug/L	0.005	0.015	508	11/07 14:00	11/08 08:21	RGC
Methoxychlor	U	U	ug/L	0.007	0.021	508	11/07 14:00	11/08 08:21	RGC
Arochlor 1016	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC
Arochlor 1221	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC

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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Arochlor 1232	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC
Arochlor 1242	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC
Arochlor 1248	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC
Arochlor 1254	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC
Arochlor 1260	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC
Toxaphene	U	U	ug/L	0.40	1.20	508	11/07 14:00	11/08 08:21	RGC
Chordane	U	U	ug/L	0.10	0.30	508	11/07 14:00	11/08 08:21	RGC
508 Pesticides 62-550.405 UNREGULATED				**Dilution Factor =1**					
Propachlor	U	U	ug/L	0.03	0.09	508	11/07 12:00	11/08 08:21	RGC
Aldrin	U	U	ug/L	0.03	0.09	508	11/07 12:00	11/08 08:21	RGC
Dieldrin	U	U	ug/L	0.03	0.09	508	11/07 12:00	11/08 08:21	RGC
515.3 Chlorophenoxy Herbicides: 62-550.310(4)(b)				**Dilution Factor =1**					
Dalapon	U	U	ug/L	0.08	0.24	515.3	11/06 15:39	11/07 15:39	DKW
2,4-D	U	U	ug/L	0.09	0.27	515.3	11/06 15:39	11/07 15:39	DKW
Pentachlorophenol	U	U	ug/L	0.02	0.06	515.3	11/06 15:39	11/07 15:39	DKW
2,4,5-TP (silvex)	U	U	ug/L	0.038	0.114	515.3	11/06 15:39	11/07 15:39	DKW
Dinoseb	U	U	ug/L	0.06	0.18	515.3	11/06 15:39	11/07 15:39	DKW
Picloram	U	U	ug/L	0.08	0.24	515.3	11/06 15:39	11/07 15:39	DKW

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Site Location: Clewiston, Fl
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
524.2 Volatile Organics: 62-550.310(4)(a)				**Dilution Factor =1**					
Vinyl Chloride	U	U	ug/L	0.34	1.02	524.2	11/03 15:52	11/03 15:52	MMD
1,1-Dichloroethylene	U	U	ug/L	0.43	1.29	524.2	11/03 15:52	11/03 15:52	MMD
Dichloromethane (Methylene Chloride)	U	U	ug/L	2.00	6.00	524.2	11/03 15:52	11/03 15:52	MMD
Trans-1,2-Dichloroethylene	U	U	ug/L	0.50	1.50	524.2	11/03 15:52	11/03 15:52	MMD
Cis-1,2-Dichloroethylene	U	U	ug/L	0.11	0.33	524.2	11/03 15:52	11/03 15:52	MMD
1,1,1-Trichloroethane	U	U	ug/L	0.25	0.75	524.2	11/03 15:52	11/03 15:52	MMD
Carbon Tetrachloride	U	U	ug/L	0.19	0.57	524.2	11/03 15:52	11/03 15:52	MMD
Benzene	U	U	ug/L	0.09	0.27	524.2	11/03 15:52	11/03 15:52	MMD
1,2-Dichloroethane	U	U	ug/L	0.24	0.72	524.2	11/03 15:52	11/03 15:52	MMD
Trichloroethylene	U	U	ug/L	0.09	0.27	524.2	11/03 15:52	11/03 15:52	MMD
1,2-Dichloropropane	U	U	ug/L	0.20	0.60	524.2	11/03 15:52	11/03 15:52	MMD
Toluene	U	U	ug/L	0.14	0.42	524.2	11/03 15:52	11/03 15:52	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	524.2	11/03 15:52	11/03 15:52	MMD
Tetrachloroethylene	U	U	ug/L	0.11	0.33	524.2	11/03 15:52	11/03 15:52	MMD
Chlorobenzene	U	U	ug/L	0.09	0.27	524.2	11/03 15:52	11/03 15:52	MMD
Ethylbenzene	U	U	ug/L	0.13	0.39	524.2	11/03 15:52	11/03 15:52	MMD
Xylenes (Total)	U	U	ug/L	0.21	0.63	524.2	11/03 15:52	11/03 15:52	MMD

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Styrene	U	U	ug/L	0.17	0.51	524.2	11/03 15:52	11/03 15:52	MMD
1,4-Dichlorobenzene (para)	U	U	ug/L	0.14	0.42	524.2	11/03 15:52	11/03 15:52	MMD
1,2-Dichlorobenzene (ortho)	U	U	ug/L	0.48	1.44	524.2	11/03 15:52	11/03 15:52	MMD
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	524.2	11/03 15:52	11/03 15:52	MMD
524.2 Volatile Organics: 62-550. UNREGULATED				Dilution Factor =1					
Dichlorodifluoromethane	U	U	ug/L	0.13	0.39	524.2	11/03 15:52	11/03 15:52	MMD
Chloromethane	U	U	ug/L	0.35	1.05	524.2	11/03 15:52	11/03 15:52	MMD
Bromomethane	U	U	ug/L	0.41	1.23	524.2	11/03 15:52	11/03 15:52	MMD
Chloroethane	U	U	ug/L	0.17	0.51	524.2	11/03 15:52	11/03 15:52	MMD
Trichlorofluoromethane	U	U	ug/L	0.47	1.41	524.2	11/03 15:52	11/03 15:52	MMD
Methyl-Tert-Butyl Ether	U	U	ug/L	0.50	1.50	524.2	11/03 15:52	11/03 15:52	MMD
1,1-Dichloroethane	U	U	ug/L	0.53	1.59	524.2	11/03 15:52	11/03 15:52	MMD
2,2-Dichloropropane	U	U	ug/L	0.31	0.93	524.2	11/03 15:52	11/03 15:52	MMD
Cis-1,2-Dichloroethene	U	U	ug/L	0.11	0.33	524.2	11/03 15:52	11/03 15:52	MMD
Chloroform	U	U	ug/L	0.80	2.40	524.2	11/03 15:52	11/03 15:52	MMD
1,1-Dichloropropene	U	U	ug/L	0.07	0.21	524.2	11/03 15:52	11/03 15:52	MMD
Bromodichloromethane	U	U	ug/L	0.24	0.72	524.2	11/03 15:52	11/03 15:52	MMD
Dibromomethane	U	U	ug/L	0.42	1.26	524.2	11/03 15:52	11/03 15:52	MMD

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Cis-1,3-Dichloropropene	U	U	ug/L	0.38	1.14	524.2	11/03 15:52	11/03 15:52	MMD
Trans-1,3-Dichloropropene	U	U	ug/L	0.50	1.50	524.2	11/03 15:52	11/03 15:52	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	524.2	11/03 15:52	11/03 15:52	MMD
1,3-Dichloropropane	U	U	ug/L	0.38	1.14	524.2	11/03 15:52	11/03 15:52	MMD
Dibromochloromethane	U	U	ug/L	0.39	1.17	524.2	11/03 15:52	11/03 15:52	MMD
1,1,1,2-Tetrachloroethane	U	U	ug/L	0.37	1.11	524.2	11/03 15:52	11/03 15:52	MMD
Bromoform	U	U	ug/L	0.38	1.14	524.2	11/03 15:52	11/03 15:52	MMD
1,1,2,2-Tetrachloroethane	U	U	ug/L	0.29	0.87	524.2	11/03 15:52	11/03 15:52	MMD
1,2,3-Trichloropropane	U	U	ug/L	0.23	0.69	524.2	11/03 15:52	11/03 15:52	MMD
Bromobenzene	U	U	ug/L	0.46	1.38	524.2	11/03 15:52	11/03 15:52	MMD
2-Chlorotoluene (ortho)	U	U	ug/L	0.13	0.39	524.2	11/03 15:52	11/03 15:52	MMD
4-Chlorotoluene (para)	U	U	ug/L	0.16	0.48	524.2	11/03 15:52	11/03 15:52	MMD
1,3-Dichlorobenzene (meta)	U	U	ug/L	0.20	0.60	524.2	11/03 15:52	11/03 15:52	MMD
1,2-Dibromo-3-Chloropropane	U	U	ug/L	0.30	0.90	524.2	11/03 15:52	11/03 15:52	MMD
525.2 Semivolatile Organics: 62-550.310(4)(b)				Dilution Factor =1					
Di(2-Ethylhexyl)phthalate	U	U	ug/L	0.36	1.08	525.2	11/07 09:43	11/08 09:43	AC
Di(2-Ethylhexyl)adipate	U	U	ug/L	0.36	1.08	525.2	11/07 09:43	11/08 09:43	AC
Benzo(a)pyrene	U	U	ug/L	0.017	0.051	525.2	11/07 09:43	11/08 09:43	AC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Pentachlorophenol	U	U	ug/L	0.02	0.06	525.2	11/07 09:43	11/08 09:43	AC
Alachlor	U	U	ug/L	0.20	0.60	525.2	11/07 09:43	11/08 09:43	AC
Atrazine	U	U	ug/L	0.20	0.60	525.2	11/07 09:43	11/08 09:43	AC
Simazine	U	U	ug/L	0.20	0.60	525.2	11/07 09:43	11/08 09:43	AC
525.2 Semivolatile Organics: 62-550.UNREGULATED				Dilution Factor =1					
Butyl benzyl phthalate	U	U	ug/L	1.44	4.32	525.2	11/07 09:44	11/08 09:44	AC
Di-n-butylphthalate	U	U	ug/L	1.2	3.6	525.2	11/07 09:44	11/08 09:44	AC
Diethylphthalate	U	U	ug/L	3.4	10.2	525.2	11/07 09:44	11/08 09:44	AC
Dimethylphthalate	U	U	ug/L	3.7	11.1	525.2	11/07 09:44	11/08 09:44	AC
2,4-dinitrotoluene	U	U	ug/L	1.17	3.51	525.2	11/07 09:44	11/08 09:44	AC
Dioctylphthalate	U	U	ug/L	1.86	5.58	525.2	11/07 09:44	11/08 09:44	AC
Isophorone	U	U	ug/L	1.56	4.68	525.2	11/07 09:44	11/08 09:44	AC
(Dioxin) {Screen/Optional}	U	U	ug/L	0.03	0.09	525.2	11/07 09:44	11/08 09:44	AC
2-chlorophenol	U	U	ug/L	1.47	4.41	525.2	11/07 09:44	11/08 09:44	AC
2-methyl-4,6-dinitrophenol	U	U	ug/L	3.0	9.0	525.2	11/07 09:44	11/08 09:44	AC
Phenol	U	U	ug/L	1.86	5.58	525.2	11/07 09:44	11/08 09:44	AC
2,4,6-trichlorophenol	U	U	ug/L	3.0	9.0	525.2	11/07 09:44	11/08 09:44	AC
608 Chlorinated Pesticides & PCBs in WATER				Dilution Factor =1					

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15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
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Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
a-BHC	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 16:21	RGC
b-BHC	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 16:21	RGC
g-BHC (lindane)	U	QU	ug/L	0.004	0.012	EPA 608	11/14 12:00	11/15 16:21	RGC
d-BHC	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 16:21	RGC
Heptachlor	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 16:21	RGC
Aldrin	U	QU	ug/L	0.017	0.051	EPA 608	11/14 12:00	11/15 16:21	RGC
Heptachlor Epoxide	U	QU	ug/L	0.008	0.024	EPA 608	11/14 12:00	11/15 16:21	RGC
Endosulfan I	U	QU	ug/L	0.006	0.018	EPA 608	11/14 12:00	11/15 16:21	RGC
Dieldrin	U	QU	ug/L	0.006	0.018	EPA 608	11/14 12:00	11/15 16:21	RGC
4,4-DDE	U	QU	ug/L	0.39	1.17	EPA 608	11/14 12:00	11/15 16:21	RGC
Endrin	U	QU	ug/L	0.005	0.015	EPA 608	11/14 12:00	11/15 16:21	RGC
Endosulfan II	U	QU	ug/L	0.006	0.018	EPA 608	11/14 12:00	11/15 16:21	RGC
4,4-DDD	U	QU	ug/L	0.60	1.80	EPA 608	11/14 12:00	11/15 16:21	RGC
Endrin Aldehyde	U	QU	ug/L	0.010	0.030	EPA 608	11/14 12:00	11/15 16:21	RGC
Endosulfan Sulfate	U	QU	ug/L	0.007	0.021	EPA 608	11/14 12:00	11/15 16:21	RGC
4,4-DDT	U	QU	ug/L	0.69	2.07	EPA 608	11/14 12:00	11/15 16:21	RGC
Methoxychlor	U	QU	ug/L	0.007	0.021	EPA 608	11/14 12:00	11/15 16:21	RGC
Aroclor 1016	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC

Report To:
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Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Aroclor 1221	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC
Aroclor 1232	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC
Aroclor 1242	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC
Aroclor 1248	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC
Aroclor 1254	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC
Aroclor 1260	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC
Toxaphene	U	QU	ug/L	0.40	1.20	EPA 608	11/14 12:00	11/15 16:21	RGC
Chlordane	U	QU	ug/L	0.10	0.30	EPA 608	11/14 12:00	11/15 16:21	RGC
625 Semivolatile Organics in Water by GC/MS				Dilution Factor = 1					
N-Nitrosodimethylamine	U	U	ug/L	0.50	1.50	625	11/07 09:40	11/07 09:40	AC
Phenol	U	U	ug/L	0.38	1.14	625	11/07 09:40	11/07 09:40	AC
Bis (2-Chloroethyl) Ether	U	U	ug/L	0.85	2.55	625	11/07 09:40	11/07 09:40	AC
2-Chlorophenol	U	U	ug/L	0.45	1.35	625	11/07 09:40	11/07 09:40	AC
1,3-Dichlorobenzene	U	U	ug/L	0.20	0.60	625	11/07 09:40	11/07 09:40	AC
1,4-Dichlorobenzene	U	U	ug/L	0.14	0.42	625	11/07 09:40	11/07 09:40	AC
Benzyl Alcohol	U	U	ug/L	0.75	2.25	625	11/07 09:40	11/07 09:40	AC
1,2-Dichlorobenzene	U	U	ug/L	0.48	1.44	625	11/07 09:40	11/07 09:40	AC
Bis (2-Chloroisopropyl) Ether *	U	U	ug/L	0.85	2.55	625	11/07 09:40	11/07 09:40	AC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
N-Nitrosodi-N-Propylamine	U	U	ug/L	1.14	3.42	625	11/07 09:40	11/07 09:40	AC
Hexachloroethane	U	U	ug/L	2.31	6.93	625	11/07 09:40	11/07 09:40	AC
Nitrobenzene *	U	U	ug/L	0.66	1.98	625	11/07 09:40	11/07 09:40	AC
Isophorone	U	U	ug/L	1.56	4.68	625	11/07 09:40	11/07 09:40	AC
2-Nitrophenol	U	U	ug/L	1.09	3.27	625	11/07 09:40	11/07 09:40	AC
2,4-Dimethylphenol	U	U	ug/L	0.62	1.86	625	11/07 09:40	11/07 09:40	AC
Bis (2-Chloroethoxy)methane *	U	U	ug/L	1.89	5.67	625	11/07 09:40	11/07 09:40	AC
2,4-Dichlorophenol	U	U	ug/L	1.11	3.33	625	11/07 09:40	11/07 09:40	AC
1,2,3-Trichlorobenzene	U	U	ug/L	2.00	6.00	625	11/07 09:40	11/07 09:40	AC
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	625	11/07 09:40	11/07 09:40	AC
Naphthalene	U	U	ug/L	0.015	0.045	625	11/07 09:40	11/07 09:40	AC
Hexachlorobutadiene	U	U	ug/L	0.57	1.71	625	11/07 09:40	11/07 09:40	AC
4-Chloro-3-Methylphenol	U	U	ug/L	0.67	2.01	625	11/07 09:40	11/07 09:40	AC
1-Methylnaphthalene	U	U	ug/L	0.36	1.08	625	11/07 09:40	11/07 09:40	AC
2-Methylnaphthalene	U	U	ug/L	0.024	0.072	625	11/07 09:40	11/07 09:40	AC
2-Methylphenol (o-cresol)	U	U	ug/L	1.0	3.0	625	11/07 09:40	11/07 09:40	AC
Hexachlorocyclopentadiene	U	U	ug/L	0.42	1.26	625	11/07 09:40	11/07 09:40	AC
3-MethylPhenol (m-cresol)	U	U	ug/L	0.84	2.52	625	11/07 09:40	11/07 09:40	AC

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Ft Myers, FL 33908

Report Printed: 11/22/06
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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
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LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
4-Methylphenol (p-cresol)	U	U	ug/L	1.16	3.48	625	11/07 09:40	11/07 09:40	AC
2,3,6-Trichlorophenol	U	U	ug/L	1.2	3.6	625	11/07 09:40	11/07 09:40	AC
2,4,5-Trichlorophenol	U	U	ug/L	0.81	2.43	625	11/07 09:40	11/07 09:40	AC
2,4,6-Trichlorophenol	U	U	ug/L	0.78	2.34	625	11/07 09:40	11/07 09:40	AC
2-Chloronaphthalene	U	U	ug/L	1.16	3.48	625	11/07 09:40	11/07 09:40	AC
Dimethyl Phthalate	U	U	ug/L	3.7	11.1	625	11/07 09:40	11/07 09:40	AC
Acenaphthylene	U	U	ug/L	0.015	0.045	625	11/07 09:40	11/07 09:40	AC
2,6-Dinitrotoluene	U	U	ug/L	0.54	1.62	625	11/07 09:40	11/07 09:40	AC
Acenaphthene	U	U	ug/L	0.017	0.051	625	11/07 09:40	11/07 09:40	AC
2,4-Dinitrophenol	U	U	ug/L	1.0	3.0	625	11/07 09:40	11/07 09:40	AC
2,4-Dinitrotoluene	U	U	ug/L	1.17	3.51	625	11/07 09:40	11/07 09:40	AC
4-Nitrophenol	U	U	ug/L	1.0	3.0	625	11/07 09:40	11/07 09:40	AC
Diethyl Phthalate	U	U	ug/L	3.4	10.2	625	11/07 09:40	11/07 09:40	AC
Fluorene	U	U	ug/L	0.012	0.036	625	11/07 09:40	11/07 09:40	AC
4-Chlorophenyl Phenyl Ether	U	U	ug/L	0.87	2.61	625	11/07 09:40	11/07 09:40	AC
4,6-Dinitro-2-Methylphenol	U	U	ug/L	1.4	4.2	625	11/07 09:40	11/07 09:40	AC
N-Nitrosodiphenylamine	U	U	ug/L	3.42	10.26	625	11/07 09:40	11/07 09:40	AC
4-Bromophenyl Phenyl Ether	U	U	ug/L	1.44	4.32	625	11/07 09:40	11/07 09:40	AC

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Ft Myers, FL 33908

Report Printed: 11/22/06
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Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Hexachlorobenzene	U	U	ug/L	0.42	1.26	625	11/07 09:40	11/07 09:40	AC
Pentachlorophenol	U	U	ug/L	1.14	3.42	625	11/07 09:40	11/07 09:40	AC
Phenanthrene	U	U	ug/L	0.028	0.084	625	11/07 09:40	11/07 09:40	AC
Anthracene	U	U	ug/L	0.049	0.147	625	11/07 09:40	11/07 09:40	AC
Di-N-Butyl Phthalate	U	U	ug/L	1.2	3.6	625	11/07 09:40	11/07 09:40	AC
Fluoranthene	U	U	ug/L	0.025	0.075	625	11/07 09:40	11/07 09:40	AC
Benzidine *	U	U	ug/L	4.0	12.0	625	11/07 09:40	11/07 09:40	AC
Pyrene	U	U	ug/L	0.017	0.051	625	11/07 09:40	11/07 09:40	AC
Butyl Benzyl Phthalate	U	U	ug/L	1.44	4.32	625	11/07 09:40	11/07 09:40	AC
Benzo(A)Anthracene	U	U	ug/L	0.017	0.051	625	11/07 09:40	11/07 09:40	AC
3,3-Dichlorobenzidine	U	U	ug/L	2.0	6.0	625	11/07 09:40	11/07 09:40	AC
Chrysene	U	U	ug/L	0.75	2.25	625	11/07 09:40	11/07 09:40	AC
Bis (2 Ethylhexyl) Phthalate	U	U	ug/L	2.37	7.11	625	11/07 09:40	11/07 09:40	AC
Di-N-Octyl Phthalate	U	U	ug/L	1.4	4.2	625	11/07 09:40	11/07 09:40	AC
Benzo(B)Fluoranthene	U	U	ug/L	0.029	0.087	625	11/07 09:40	11/07 09:40	AC
Benzo(K)Fluoranthene	U	U	ug/L	0.025	0.075	625	11/07 09:40	11/07 09:40	AC
Benzo(A)Pyrene	U	U	ug/L	0.017	0.051	625	11/07 09:40	11/07 09:40	AC
Indeno(1,2,3-CD)Pyrene	U	U	ug/L	0.93	2.79	625	11/07 09:40	11/07 09:40	AC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Dibenzo(A,H,)Anthracene	U	U	ug/L	0.029	0.087	625	11/07 09:40	11/07 09:40	AC
Benzo(G,H,I)Perylene	U	U	ug/L	0.017	0.051	625	11/07 09:40	11/07 09:40	AC
Bis-2-ethylhexyl Adipate	U	U	ug/L	0.36	1.08	625	11/07 09:40	11/07 09:40	AC
Aldrin *	U	U	ug/L	0.017	0.051	625	11/07 09:40	11/07 09:40	AC
alpha-BHC *	U	U	ug/L	0.005	0.015	625	11/07 09:40	11/07 09:40	AC
beta-BHC *	U	U	ug/L	0.005	0.015	625	11/07 09:40	11/07 09:40	AC
delta-BHC *	U	U	ug/L	0.005	0.015	625	11/07 09:40	11/07 09:40	AC
gamma-BHC (Lindane) *	U	U	ug/L	0.004	0.012	625	11/07 09:40	11/07 09:40	AC
Chlordane (Screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
4,4'-DDD *	U	U	ug/L	0.60	1.80	625	11/07 09:40	11/07 09:40	AC
4,4'-DDE *	U	U	ug/L	0.39	1.17	625	11/07 09:40	11/07 09:40	AC
4,4'-DDT *	U	U	ug/L	0.69	2.07	625	11/07 09:40	11/07 09:40	AC
Dieldrin *	U	U	ug/L	0.006	0.018	625	11/07 09:40	11/07 09:40	AC
Endosulfan I *	U	U	ug/L	0.006	0.018	625	11/07 09:40	11/07 09:40	AC
Endosulfan II *	U	U	ug/L	0.006	0.018	625	11/07 09:40	11/07 09:40	AC
Endosulfan Sulfate *	U	U	ug/L	0.007	0.021	625	11/07 09:40	11/07 09:40	AC
Endrin *	U	U	ug/L	0.005	0.015	625	11/07 09:40	11/07 09:40	AC
Endrin Aldehyde *	U	U	ug/L	0.010	0.030	625	11/07 09:40	11/07 09:40	AC

Report To:
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Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Heptachlor *	U	U	ug/L	0.005	0.015	625	11/07 09:40	11/07 09:40	AC
Heptachlor Epoxide *	U	U	ug/L	0.008	0.024	625	11/07 09:40	11/07 09:40	AC
Toxaphene *	U	U	ug/L	0.40	1.20	625	11/07 09:40	11/07 09:40	AC
PCB-1016 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
PCB-1221 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
PCB-1232 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
PCB-1242 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
PCB-1248 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
PCB-1254 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
PCB-1260 (screen) *	U	U	ug/L	0.10	0.30	625	11/07 09:40	11/07 09:40	AC
Dioxin (screen)	U	U	ug/L	0.03	0.09	625	11/07 09:40	11/07 09:40	AC
Azobenzene *	U	U	ug/L	0.75	2.25	625	11/07 09:40	11/07 09:40	AC
Methoxychlor *	U	U	ug/L	0.007	0.021	625	11/07 09:40	11/07 09:40	AC
Benzoic Acid	U	U	ug/L	0.84	2.52	625	11/07 09:40	11/07 09:40	AC
Aniline	U	U	ug/L	0.50	1.50	625	11/07 09:40	11/07 09:40	AC
4-Chloroaniline	U	U	ug/L	0.65	1.95	625	11/07 09:40	11/07 09:40	AC
Dibenzofuran	U	U	ug/L	0.66	1.98	625	11/07 09:40	11/07 09:40	AC
2-Nitroaniline	U	U	ug/L	0.58	1.74	625	11/07 09:40	11/07 09:40	AC

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
3-Nitroaniline	U	U	ug/L	0.50	1.50	625	11/07 09:40	11/07 09:40	AC
4-Nitroaniline	U	U	ug/L	0.84	2.52	625	11/07 09:40	11/07 09:40	AC
Carbazole *	U	U	ug/L	0.68	2.04	625	11/07 09:40	11/07 09:40	AC
2,6-Dichlorophenol	U	U	ug/L	0.89	2.67	625	11/07 09:40	11/07 09:40	AC
Pyridine	U	U	ug/L	0.99	2.97	625	11/07 09:40	11/07 09:40	AC
2,3,4,6-Tetrachlorophenol	U	U	ug/L	1.00	3.00	625	11/07 09:40	11/07 09:40	AC
2,3,5,6-Tetrachlorophenol	U	U	ug/L	0.80	2.40	625	11/07 09:40	11/07 09:40	AC
8260.C Volatile Organics in Water by GC/MS				**Dilution Factor =1**					
Acetone	U	U	ug/L	1.75	5.25	5030/8260C	11/03 15:52	11/03 15:52	MMD
Acrolein	U	U	ug/L	0.75	2.25	5030/8260C	11/03 15:52	11/03 15:52	MMD
Acrylonitrile	U	U	ug/L	0.41	1.23	5030/8260C	11/03 15:52	11/03 15:52	MMD
Methyl Ethyl Ketone	U	U	ug/L	0.75	2.25	5030/8260C	11/03 15:52	11/03 15:52	MMD
Dichlorodifluoromethane	U	U	ug/L	0.13	0.39	5030/8260C	11/03 15:52	11/03 15:52	MMD
Chloromethane	U	U	ug/L	0.35	1.05	5030/8260C	11/03 15:52	11/03 15:52	MMD
Vinyl Chloride	U	U	ug/L	0.34	1.02	5030/8260C	11/03 15:52	11/03 15:52	MMD
Bromomethane	U	U	ug/L	0.41	1.23	5030/8260C	11/03 15:52	11/03 15:52	MMD
Chloroethane	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:52	11/03 15:52	MMD
Trichlorofluoromethane	U	U	ug/L	0.47	1.41	5030/8260C	11/03 15:52	11/03 15:52	MMD

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,1-Dichloroethene	U	U	ug/L	0.52	1.56	5030/8260C	11/03 15:52	11/03 15:52	MMD
Methylene Chloride	U	U	ug/L	0.99	2.97	5030/8260C	11/03 15:52	11/03 15:52	MMD
Trans-1,2-Dichloroethene	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:52	11/03 15:52	MMD
Methyl-Tert-Butyl Ether	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,1-Dichloroethane	U	U	ug/L	0.53	1.59	5030/8260C	11/03 15:52	11/03 15:52	MMD
2,2-Dichloropropane	U	U	ug/L	0.31	0.93	5030/8260C	11/03 15:52	11/03 15:52	MMD
Cis-1,2-Dichloroethene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:52	11/03 15:52	MMD
Chloroform	U	U	ug/L	0.80	2.40	5030/8260C	11/03 15:52	11/03 15:52	MMD
Bromochloromethane	U	U	ug/L	0.55	1.65	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,1,1-Trichloroethane	U	U	ug/L	0.25	0.75	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,1-Dichloropropene	U	U	ug/L	0.07	0.21	5030/8260C	11/03 15:52	11/03 15:52	MMD
Carbon Tetrachloride	U	U	ug/L	0.19	0.57	5030/8260C	11/03 15:52	11/03 15:52	MMD
Benzene	U	U	ug/L	0.09	0.27	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2-Dichloroethane	U	U	ug/L	0.24	0.72	5030/8260C	11/03 15:52	11/03 15:52	MMD
Trichloroethene	U	U	ug/L	0.09	0.27	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2-Dichloropropane	U	U	ug/L	0.20	0.60	5030/8260C	11/03 15:52	11/03 15:52	MMD
Bromodichloromethane	U	U	ug/L	0.24	0.72	5030/8260C	11/03 15:52	11/03 15:52	MMD
2-Chloroethylvinyl Ether	U	U	ug/L	1.00	3.00	5030/8260C	11/03 15:52	11/03 15:52	MMD

Report To:
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Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Dibromomethane	U	U	ug/L	0.42	1.26	5030/8260C	11/03 15:52	11/03 15:52	MMD
Cis-1,3-Dichloropropene	U	U	ug/L	0.38	1.14	5030/8260C	11/03 15:52	11/03 15:52	MMD
Toluene	U	U	ug/L	0.14	0.42	5030/8260C	11/03 15:52	11/03 15:52	MMD
Trans-1,3-Dichloropropene	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,1,2-Trichloroethane	U	U	ug/L	0.36	1.08	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,3-Dichloropropane	U	U	ug/L	0.38	1.14	5030/8260C	11/03 15:52	11/03 15:52	MMD
Tetrachloroethene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:52	11/03 15:52	MMD
Dibromochloromethane	U	U	ug/L	0.39	1.17	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2-Dibromoethane (EDB)	U	U	ug/L	0.40	1.20	5030/8260C	11/03 15:52	11/03 15:52	MMD
Bromobenzene	U	U	ug/L	0.46	1.38	5030/8260C	11/03 15:52	11/03 15:52	MMD
Chlorobenzene	U	U	ug/L	0.09	0.27	5030/8260C	11/03 15:52	11/03 15:52	MMD
Ethylbenzene	U	U	ug/L	0.13	0.39	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,1,1,2-Tetrachloroethane	U	U	ug/L	0.37	1.11	5030/8260C	11/03 15:52	11/03 15:52	MMD
m & p-Xylene	U	U	ug/L	0.19	0.57	5030/8260C	11/03 15:52	11/03 15:52	MMD
o-Xylene	U	U	ug/L	0.19	0.57	5030/8260C	11/03 15:52	11/03 15:52	MMD
Styrene	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:52	11/03 15:52	MMD
Isopropylbenzene	U	U	ug/L	0.50	1.50	5030/8260C	11/03 15:52	11/03 15:52	MMD
Bromoform	U	U	ug/L	0.38	1.14	5030/8260C	11/03 15:52	11/03 15:52	MMD

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,1,2,2-Tetrachloroethane	U	U	ug/L	0.29	0.87	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2,3-Trichloropropane	U	U	ug/L	0.23	0.69	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,3,5-Trimethylbenzene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:52	11/03 15:52	MMD
2-Chlorotoluene	U	U	ug/L	0.13	0.39	5030/8260C	11/03 15:52	11/03 15:52	MMD
4-Chlorotoluene	U	U	ug/L	0.16	0.48	5030/8260C	11/03 15:52	11/03 15:52	MMD
Tert-Butylbenzene	U	U	ug/L	0.16	0.48	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2,4-Trimethylbenzene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:52	11/03 15:52	MMD
Sec-Butylbenzene	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:52	11/03 15:52	MMD
P-Isopropyltoluene	U	U	ug/L	0.11	0.33	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,3-Dichlorobenzene	U	U	ug/L	0.20	0.60	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,4-Dichlorobenzene	U	U	ug/L	0.14	0.42	5030/8260C	11/03 15:52	11/03 15:52	MMD
n-Butylbenzene	U	U	ug/L	0.21	0.63	5030/8260C	11/03 15:52	11/03 15:52	MMD
n-PropylBenzene	U	U	ug/L	0.17	0.51	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2-Dichlorobenzene	U	U	ug/L	0.48	1.44	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2-Dibromo-3-Chloropropane (DBCP)	U	U	ug/L	0.30	0.90	5030/8260C	11/03 15:52	11/03 15:52	MMD
1,2,4-Trichlorobenzene	U	U	ug/L	0.82	2.46	5030/8260C	11/03 15:52	11/03 15:52	MMD
Hexachlorobutadiene	U	U	ug/L	0.57	1.71	5030/8260C	11/03 15:52	11/03 15:52	MMD
Naphthalene	U	U	ug/L	0.015	0.045	5030/8260C	11/03 15:52	11/03 15:52	MMD

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
1,2,3-Trichlorobenzene	U	U	ug/L	1.27	3.81	5030/8260C	11/03 15:52	11/03 15:52	MMD
SUB 531 Carbamate Pesticides: 62-550.310(4)(b				**Dilution Factor =1**					
Carbofuran	U	U	ug/L	0.45	1.35	531.1	11/09 18:37	11/09 18:37	E83079
Oxamyl (vydate)	U	U	ug/L	0.52	1.56	531.1	11/09 18:37	11/09 18:37	E83079
SUB 531 Carbamate Pesticides: 62-550.UNREGULA				**Dilution Factor =1**					
Aldicarb Sulfoxide	U	U	ug/L	0.48	1.44	531.1	11/15 00:09	11/15 00:09	E83079
Aldicarb Sulfone	U	U	ug/L	0.57	1.71	531.1	11/15 00:09	11/15 00:09	E83079
Methomyl	U	U	ug/L	0.72	2.16	531.1	11/15 00:09	11/15 00:09	E83079
3-Hydrocarbofuran	U	U	ug/L	0.87	2.61	531.1	11/15 00:09	11/15 00:09	E83079
Aldicarb	U	U	ug/L	0.31	0.93	531.1	11/15 00:09	11/15 00:09	E83079
Carbaryl	U	U	ug/L	0.72	2.16	531.1	11/15 00:09	11/15 00:09	E83079
Glyphosate	U	U	ug/L	3.2	9.6	547.1	11/08 01:18	11/09 01:18	E83079
Endothall	U	U	ug/L	2.7	8.1	548.1	11/09 02:25	11/11 02:25	E83079
SUB 549 Diquat : 62-550.310(4)(b)				**Dilution Factor =1**					
Diquat	U	U	ug/L	1.00	3.00	549.2	11/09 18:37	11/09 18:37	E83079
Gross Alpha	3.8 ± 0.7		pCi/L	1.0	3.0	EPA 00-02	11/09 17:45	11/09 17:45	E84088
Radium-226	1.9 ± 0.1		pCi/L	0.10	0.30	EPA 903.1	11/12 13:43	11/12 13:43	E84088

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27184

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Water

Sample I.D.: MW-1 Lower 2136'- 2199'
Collected: 11/02/06 16:30
Received: 11/03/06 08:30
Collected by: Alberto Pozo

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Radium-228	0.5 ± 0.5		pCi/L	0.50	1.50	EPA Ra-05	11/09 15:28	11/09 15:28	E84088

QC = Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to the sample.

Authorized CSM Signature
Florida Environmental;Certification # E86006

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 11/22/06
Submission # 611000054
Order # 27194

Sample I.D.: Inj.Test Source Water
Collected: 11/02/06 16:55
Received: 11/03/06 08:30
Collected by: Alberto Pozo

Project: Clewiston DZMW-1
Site Location: Clewiston, Fl
Matrix: Drinking Water

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Coliform-Total (E-Coli)	P(A)		--------			9223B	11/03 10:46	11/04 10:46	DSM
Specific Conductance (grab)	839		Ω*cm.	0.1	0.3	120.1	11/06 08:48	11/06 08:48	EMS
pH	9.60	Q	units	0.1	0.3	150.1	11/03 17:00	11/03 17:00	EMS
Total Dissolved Solids (TDS)	688		mg/L	1.00	3.00	EPA 160.1	11/06 13:50	11/06 13:50	EMS
Chloride	132		mg/L	17.50	52.50	300.0	11/10 09:52	11/13 13:37	DGK
Sulfate	147		mg/L	1.70	5.10	300.0	11/10 09:52	11/13 16:14	DGK

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to the sample.

V. Castellanos
Authorized CSM Signature
Florida Environmental;Certification # E86006

SUBMISSION # 611-057

Logged in LIMS by

CSM assigned

Florida Environmental

CHAIN OF CUSTODY RECORD

1460 W. McNab Road Ft Laud. FL 33309	Tel: (954) 978-6400	Fax: (954) 978-2233
940 Alt. 27 South Babson Park, FL 33827	Tel: (863) 638-3255	Fax: (863) 638-3637
630 Indian Street Savannah, GA 31401	Tel: (912) 238-5050	Fax: (912) 234-4815
528 Gooch Road Fort Meade, FL 33841	Tel: (863) 285-8145	Fax: (863) 285-7030

Original-Return w/report | Yellow- Lab File Copy | Pink- Sampler Copy

DUE DATE Requested

RUSH RESERVATION #

Rush Surcharges apply

Report to: *(company name)* YBI Kevin Gruel

Report to Address:

Invoice to: *(company name)* Youngquist Brothers Inc

Purchase Order #

Invoice to Address:

Project Name and/or Number: Clewiston DZMW 1

Site Location:

Project Contact: Ed McCullers

Phone: 239-489-4444

Fax:

Email: Mary Beth @ Youngquist Bros . Com and Andy Miller @ Groundwater Supply . Com

Sampler Name: (printed) ~~Cameron Webster~~ Alberto Pozo

Sampler Signature

	ORDER # Lab Control Number *Shaded Areas For Laboratory Use Only*	Sample ID	Date Sampled	Time Sampled	Matrix DW SW GW WW S SED HW BIO SEA OIL X AIR	Bottle & Pres. Combo Codes	Number of Containers Received & NELAC Letter Suffixes # A-?	Analysis Required	TEMP -C	PH	COND	CHLOR
1	27183	MW 1 Upper						Primary + Secondary	23.2	8.2	20050	
2		1950' - 2000'	11-2-06	16:07	GW			See Attached				
3								List for	23.6	7.4	44,600	
4	27184	MW 1 Lower		16:30	GW			Both Wells				
5		2136-2199	11-2-06									
6												
7												
8												
9												
10												

Special Comments:

"I waive NELAC protocol" (sign here) >

Total

Deliverables: QA/QC Report Needed? Yes No (additional charge)

	SAMPLE CUSTODY AND TRANSFER SIGNATURES	DATE / TIME
1	Relinquished by:	
1	Received by:	11/02/06 15:07
2	Relinquished by:	11/03/06 8:30
2	Received by:	11/3/06 0850
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments

Temp as received 4 C

Custody Seals? Y N

Billable Field Time 4 hrs

Misc. Charges

Bottle Type

A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other TED=Tedlar Air Bag

Preservatives

A-ascorbic acid, C-HCL, Cu-CuSO4, H-HNO3, M-MCAB, N-NaOH, NH4-NH4CL, P-H3PO4, S-H2SO4, T-Na2S2O3-H2O, U-Unpreserved, P-H3PO4, Z-zinc acetate

www.flenviro.com

COC Page of

CHAIN OF CUSTODY RECORD

SUBMISSION # 611-054

Logged in LIMS by [illegible]
CSM assigned

Florida Environmental

1460 W. McNab Road Ft Laud. FL 33309 — Tel: (954) 978-6400 — Fax: (954) 978-2233
940 Alt. 27 South Babson Park, FL 33827 — Tel: (863) 638-3255 — Fax: (863) 638-3637
630 Indian Street Savannah, GA 31401 — Tel: (912) 238-5050 — Fax: (912) 234-4815
528 Gooch Road Fort Meade, FL 33841 — Tel: (863) 285-8145 — Fax: (863) 285-7030

Original-Return w/report — Yellow- Lab File Copy — Pink- Sampler Copy

DUE DATE Requested

RUSH RESERVATION #

Rush Surcharges apply

Report to: *(company name)*	YBI Kevin Gruel	Report to Address:	
Invoice to: *(company name)*	Youngquist Bros Inc — Purchase Order #	Invoice to Address:	
Project Name and/or Number	Clewiston DZM1	Site Location:	
Project Contact:	Ed McCullers. — Phone: 239-489-4444	Fax:	and — Email: MaryBeth @ Youngquist Brothers . Com
Sampler Name: (printed)	~~Cameron Webster~~ Alberto Pozo	Sampler Signature	[signature] Andy Miller @ groundwater Supply . Com

ORDER # Lab Control Number *Shaded Areas For Laboratory Use Only*	Sample ID	Date Sampled	Time Sampled	Matrix DW SW GW WW S SED HW BIO SEA OIL X AIR	Bottle & Pres. Combo Codes	Number of Containers Received & NELAC Letter Suffixes # A-?	pH	Conductivity	Chloride	TDS	Sulfate	Total Coliform		TEMP -C	PH	COND	CHLOR
1 27194	Injection Test																
2	Source Water	11-2-06	1655	SW (Surface Water)	2		✓	✓	✓	✓	✓	✓		23.3	9.7	1040	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Analysis Required — Field Tests

Special Comments:

"I waive NELAC protocol" (sign here) >

Total

Deliverables: QA/QC Report Needed? Yes No *(additional charge)*

SAMPLE CUSTODY AND TRANSFER SIGNATURES — DATE / TIME

1	Relinquished by:	[signature]	
1	Received by:	[signature]	11/02/06 15:07
2	Relinquished by:	[signature]	11/03/06 8:30
2	Received by:	[signature]	11/3/06 0850
3	Relinquished by:		
3	Received by:		

Sample Custody & Field Comments

Temp as received 4 C

Custody Seals? Y N

Billable Field Time ______ hrs

Misc. Charges ______

Bottle Type

A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other TED=Tedlar Air Bag

Preservatives

A-ascorbic acid — P-H3PO4
C-HCL — S-H2SO4
Cu-CuSO4 — T-Na2S2O3-H2O
H-HNO3 — U-Unpreserved
M-MCAB — P-H3PO4
N-NaOH — Z-zinc acetate
NH4-NH4CL

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Florida Environmental

Report To:
Edward McCullers
Youngquist Brothers Drilling
15465 Pine Ridge Road
Ft Myers, FL 33908

Page 1 of 1
Report Printed: 05/05/06
Submission # 605000092
Order # 5189

Sample I.D.: Packer Test #1
Collected: 05/02/06 19:45
Received: 05/04/06 08:30
Collected by: Kevin Grevel

Project: Clewiston Injection Well IW-1
Site Location: Clewiston, FL
Matrix: Water

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Specific Conductance (grab)	9240		Ω*cm.	0.1	0.3	120.1	05/04 13:31	05/04 13:31	RJT
Total Dissolved Solids (TDS)	5164		mg/L	0.82	2.46	EPA 160.1	05/04 16:18	05/04 16:18	MAY
Chloride	2680		mg/L	1.00	3.00	SM4500CL-B	05/04 16:20	05/04 16:20	MAY
Sulfate	320		mg/L	0.80	2.40	SM4500-SO4E	05/04 18:45	05/04 18:45	RJT

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.

Authorized CSM Signature
Florida Environmental;Certification # E86006

SUBMISSION # 605-092

Logged in LIMS by [illegible]
Log-In Reviewed by

Florida Environmental

CHAIN OF CUSTODY RECORD

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- 528 Gooch Road Fort Meade, FL 33841 Tel: (863) 285-8145 Fax: (863) 285-7030

Original-Return w/report Yellow-Lab File Copy Pink-Sampler Copy

DUE DATE Requested 5/5/06
RUSH RESERVATION # SS104
Rush Surcharges apply

Report to: Kevin Greuel
Report to Address:
Invoice to: Yongquist Bros
Purchase Order #
Invoice to Address:
Project Name and/or Number: Clewiston Injection Well IW-1
Site Location:
Project Mgr: Ed McCullers
Phone: 239-489-4444
Fax:
Email: marybeth@younquistbrothers.com and fmb@bellsouth.net
Sampler Name: (printed) Kevin Greuel
Sampler Signature

ORDER # Lab Control Number *Shaded Areas For Laboratory Use Only*	Sample ID	Date Sampled	Time Sampled	Matrix DW SW GW WW S SED HW BIO SEA OIL X	Bottle & Pres.	Combo Codes	Number of Containers Received & NELAC Letter Suffixes #	A-?	Analysis Required: chloride	specific conduct.	Sulfate	TDS				Field Tests: TEMP -C	PH	COND	CHLOR
1 5189	Packer Test #1	5/2/06	1945	GW	F	no preserv	2		X	X	X	X							
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

RUSH

24 hour T.A.T. !

Special Comments:
"I waive NELAC protocol" (sign here) >
Deliverables: QA/QC Report Needed? Yes No (additional charge)
Total

SAMPLE CUSTODY AND TRANSFER SIGNATURES

		DATE / TIME
1	Relinquished by: [signature]	5/3/06
1	Received by: [signature]	5/3/06 17:12
2	Relinquished by: [signature]	5/4/06 06:47
2	Received by: [signature]	5/4/06 0850
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments
Temp as received 1 C
Custody Seals? Y N
Billable Field Time 3 hrs
Misc. Charges Charge for Pick-up

Bottle Type
A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other

Preservatives
A-ascorbic acid P-H3PO4
C-HCL S-H2SO4
Cu-CuSO4 T-Na2S2O3-H2O
H-HNO3 U-Unpreserved
M-MCAB P-H3PO4
N-NaOH Z-zinc acetate
NH4-NH4CL

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Report To:
Edward McCullers
Youngquist Brothers Drilling
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed:05/09/06
Submission # 605000192
Order # 5749

Project: Clewiston Injection Well No. 1
Site Location: Clewiston
Matrix: Water

Sample I.D.: Packer Test No. 2
Collected: 05/05/06 22:50
Received: 05/08/06 17:19
Collected by: Kevin Grevel

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Specific Conductance (grab)	15600		Ω*cm.	0.1	0.3	120.1	05/09 16:01	05/09 16:01	MAY
Total Dissolved Solids (TDS)	9056		mg/L	0.82	2.46	EPA 160.1	05/09 15:27	05/09 15:27	MAY
Chloride	4550		mg/L	2.50	7.50	SM4500CL-B	05/09 15:32	05/09 15:32	MAY
Sulfate	368		mg/L	1.00	3.00	SM4500-SO4E	05/09 15:15	05/09 15:15	RJT

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.

Authorized CSM Signature
Florida Environmental;Certification # E86006

Report To:
Edward McCullers
Youngquist Brothers Drilling
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed:05/09/06
Submission # 605000192
Order # 5750

Project: Clewiston Injection Well No. 1
Site Location: Clewiston
Matrix: Water

Sample I.D.: Packer Test No. 3
Collected: 05/08/06 04:20
Received: 05/08/06 17:19
Collected by: Kevin Grevel

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Specific Conductance (grab)	21400		Ω*cm.	0.1	0.3	120.1	05/09 16:01	05/09 16:01	MAY
Total Dissolved Solids (TDS)	12376		mg/L	0.82	2.46	EPA 160.1	05/09 15:27	05/09 15:27	MAY
Chloride	6450		mg/L	2.50	7.50	SM4500CL-B	05/09 15:33	05/09 15:33	MAY
Sulfate	492		mg/L	2.00	6.00	SM4500-SO4E	05/09 15:15	05/09 15:15	RJT

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.

V. Castellanos
Authorized CSM Signature
Florida Environmental;Certification # E86006

SUBMISSION # 605-192

Logged in LIMS by [signature]
Log-In Reviewed by ______

Florida Environmental

CHAIN OF CUSTODY RECORD

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- 940 Alt. 27 South Babson Park, FL 33827 — Tel: (863) 638-3255 — Fax: (863) 638-3637
- 630 Indian Street Savannah, GA 31401 — Tel: (912) 238-5050 — Fax: (912) 234-4815
- 528 Gooch Road Fort Meade, FL 33841 — Tel: (863) 285-8145 — Fax: (863) 285-7030

Original-Return w/report — Yellow- Lab File Copy — Pink- Sampler Copy

DUE DATE Requested 5/9/06
RUSH RESERVATION # SS 114
Rush Surcharges apply

Report to: Kevin Grevel
Report to Address:
Invoice to: Younggquist Bros
Purchase Order #
Invoice to Address:
Project Name and/or Number: Clewiston Injection Well No. 1
Site Location:
Project Mgr: Ed McCullers
Phone: 239-489-4444
Fax:
Email: marybeth@younggquistbrothers.com AND andymiller@groundwatersupply.com
Sampler Name (printed): Kevin Grevel
Sampler Signature

ORDER # Lab Control Number *Shaded Areas For Laboratory Use Only*		Sample ID	Date Sampled	Time Sampled	Matrix (DW SW GW WW S SED HW BIO SEA OIL X)	Bottle & Pres. Combo Codes			Number of Containers Received & NELAC Letter Suffixes #	A-?	Chloride	Specific Conduct	Sulfate	TDS					Field Tests: TEMP -C	PH	COND	CHLOR
1	5749	PackerTestNo.2	5/5/02	2250	GW	F			2		X	X	X	X								
2	5750	PackerTestNo3	5/8/02	~~0455~~ 0420	GW	F			2		X	X	X	X								
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

RUSH

24 Hour TAT

Special Comments:
"I waive NELAC protocol" (sign here) >
Total

Deliverables: QA/QC Report Needed? Yes No *(additional charge)*

SAMPLE CUSTODY AND TRANSFER SIGNATURES

		DATE / TIME
1	Relinquished by: [signature]	5/8/06 15:01
1	Received by: [signature]	5/8/06 15:01
2	Relinquished by: [signature]	5/8/06 17:19
2	Received by: [signature]	5/8/06 1719
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments

Temp as received ______ C
Custody Seals? Y N
Billable Field Time ______ hrs
Misc. Charges ______

Bottle Type
A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other

Preservatives
A-ascorbic acid — P-H3PO4
C-HCL — S-H2SO4
Cu-CuSO4 — T-Na2S2O3-H2O
H-HNO3 — U-Unpreserved
M-MCAB — P-H3PO4
N-NaOH — Z-zinc acetate
NH4-NH4CL

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Report To:
Edward McCullers
Youngquist Brothers Drilling
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 05/15/06
Submission # 605000292
Order # 6484

Project: Clewiston IW-1
Site Location: Clewiston
Matrix: Water

Sample I.D.: Packer Test #4
Collected: 05/10/06 16:00
Received: 05/11/06 13:56
Collected by: Kevin Grevel

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Temperature (Field)	28.9		Degree C	1	3	170.1	05/10 16:00	05/10 16:00	KG
Specific Conductance (grab)	40200		Ω*cm.	0.1	0.3	120.1	05/12 17:14	05/12 17:14	JGT
Total Dissolved Solids (TDS)	24236		mg/L	0.82	2.46	EPA 160.1	05/12 16:09	05/12 16:09	MAY
Chloride	15950		mg/L	2.50	7.50	SM4500CL-B	05/12 16:16	05/12 16:16	MAY
Sulfate	1128		mg/L	8.00	24.00	SM4500-SO4E	05/12 09:01	05/12 09:01	RJT

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.

Authorized CSM Signature
Florida Environmental;Certification # E86006

Florida – Spectrum Environmental Services, Inc. • 1460 W. McNab Road • Ft. Lauderdale, FL 33309
Phone: 954.978.6400 • Fax: 954.978.2233
www.flenviro.com

SUBMISSION # 605-292

Logged in LIMS by MR
Log-In Reviewed by ______

CHAIN OF CUSTODY RECORD

Florida Environmental

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- 528 Gooch Road Fort Meade, FL 33841 — Tel: (863) 285-8145 — Fax: (863) 285-7030

Original-Return w/report — Yellow- Lab File Copy — Pink- Sampler Copy

DUE DATE Requested 5/15/06
RUSH RESERVATION # SS120
Rush Surcharges apply

Report to: Kevin Greuel
Report to Address:
Invoice to: Youngquist Bros
Purchase Order #
Invoice to Address:
Project Name and/or Number: Clewiston IW-1
Site Location:
Project Mgr: Ed McCullers
Phone: 239-489-4444
Fax:
Email: marybeth@youngquistbrothers.com AND andymiller@groundwatersupply.com
Sampler Name: (printed) Kevin Greuel
Sampler Signature

ORDER # Lab Control Number (Shaded Areas For Laboratory Use Only)	Sample ID	Date Sampled	Time Sampled	Matrix (DW SW GW WW S SED HW BIO SEA OIL X)	Bottle & Pres. Combo Codes				Number of Containers Received & NELAC Letter Suffixes #	A-?	Chloride	Specific Conductance	Sulfate	TDS				TEMP -C	PH	COND	CHLOR
1 6484	Packer Test #4	5/11/06	1600	GW	F	U			2		X	X	X	X				28.9			
2																					
3	48hr TAT																				
4																					
5																					
6																					
7																					
8																					
9																					
10																					

RUSH

Special Comments:

"I waive NELAC protocol" (sign here) >

Total: 2

Deliverables: QA/QC Report Needed? Yes No *(additional charge)*

SAMPLE CUSTODY AND TRANSFER SIGNATURES

		DATE / TIME
1	Relinquished by:	
1	Received by:	5/11/06 11:57
2	Relinquished by:	5/11/06 13:57
2	Received by:	5/11/06 1357
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments

Temp as received 4 C
Custody Seals? Y N
Billable Field Time 2 hrs
Misc. Charges ______

Bottle Type
A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other

Preservatives
A-ascorbic acid
C-HCL
Cu-CuSO4
H-HNO3
M-MCAB
N-NaOH
NH4-NH4CL
P-H3PO4
S-H2SO4
T-Na2S2O3-H2O
U-Unpreserved
P-H3PO4
Z-zinc acetate

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Report To:
Edward McCullers
Youngquist Brothers Drilling
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 06/14/06
Submission # 606000227
Order # 10705

Project: Clewiston IW-1
Site Location: Clewiston
Matrix: Water

Sample I.D.: Packer Test 5
Collected: 06/10/06 09:30
Received: 06/12/06 15:06
Collected by: Kevin Grevel

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
pH (field)	7.17		units	0.1	0.3	150.1	06/10 09:30	06/10 09:30	JP
Temperature (Field)	30.6		Degree C	1	3	170.1	06/10 09:30	06/10 09:30	JP
Specific Conductance (grab)	62500		Ω*cm.	0.1	0.3	120.1	06/13 10:34	06/13 10:34	RJT
Total Dissolved Solids (TDS)	35440		mg/L	0.82	2.46	EPA 160.1	06/13 14:48	06/13 14:48	MAY
Chloride	22200		mg/L	5.00	15.00	SM4500CL-B	06/13 14:35	06/13 14:35	MAY
Sulfate	2315		mg/L	10.00	30.00	SM4500-SO4E	06/13 15:05	06/13 15:05	RJT

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.

Authorized CSM Signature
Florida Environmental;Certification # E86006

SUBMISSION # 606 227

Logged in LIMS by [illegible]
Log-In Reviewed by ______

Florida Environmental

CHAIN OF CUSTODY RECORD

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- 630 Indian Street Savannah, GA 31401 Tel: (912) 238-5050 Fax: (912) 234-4815
- 528 Gooch Road Fort Meade, FL 33841 Tel: (863) 285-8145 Fax: (863) 285-7030

Original-Return w/report Yellow- Lab File Copy Pink- Sampler Copy

DUE DATE Requested 6/14/06

RUSH RESERVATION # MEC159

Rush Surcharges apply

Report to: Kevin Grevel		Report to Address:	
Invoice to: Youngquist Bros	Purchase Order #	Invoice to Address:	
Project Name and/or Number: Clewiston IW-1		Site Location:	
Project Mgr: Ed McCullers	Phone: 239-489-4444	Fax: AND	Email: marybeth@youngquistbrothers.com
Sampler Name: (printed) Kevin Grevel		Sampler Signature [signature]	andymiller@groundwatersupply.com

ORDER # *Lab Control Number* *Shaded Areas For Laboratory Use Only*	Sample ID	Date Sampled	Time Sampled	Matrix DW SW GW WW S SED HW BIO SEA OIL X	Bottle & Pres. Combo Codes		Number of Containers Received & NELAC Letter Suffixes #	A-?	Analysis Required: Specific Conductance	Chloride	TDS	Silicate				Field Tests: TEMP -C	PH	COND	CHLOR
1 10705	Packer Test 5	6/10/06	0930	GW	F	U	2		X	X	X	X				30.6	7.17		
2																			
3																			
4	48hr TAT																		
5																			
6																			
7																			
8																			
9																			
10																			

RUSH

Special Comments:

"I waive NELAC protocol" (sign here) >

Total: 2

Deliverables: QA/QC Report Needed? Yes No *(additional charge)*

	SAMPLE CUSTODY AND TRANSFER SIGNATURES	DATE / TIME
1	Relinquished by: [signature]	6/12/06 11:10
1	Received by: [signature]	6/12/06 11:10
2	Relinquished by: [signature]	6/12/06 15:06
2	Received by: Thom [signature]	6/12/06 15:06
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments

Temp as received 2.6 C

Custody Seals? Y N

Billable Field Time ______ hrs

Misc. Charges ______

Bottle Type

A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other

Preservatives

A-ascorbic acid P-H3PO4
C-HCL S-H2SO4
Cu-CuSO4 T-Na2S2O3-H2O
H-HNO3 U-Unpreserved
M-MCAB P-H3PO4
N-NaOH Z-zinc acetate
NH4-NH4CL

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Florida Environmental

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 07/06/06 Rev. 1
Submission # 606000681
Order # 13259

Sample I.D.: Packer Test #6
Collected: 06/30/06 13:55
Received: 06/30/06 15:15
Collected by: Kevin Grevel

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Water

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
pH (field)	7.54		units	0.1	0.3	150.1	06/30 13:55	06/30 13:55	KG
Temperature (Field)	28.7		Degree C	1	3	170.1	06/30 13:55	06/30 13:55	KG
Specific Conductance (grab)	51700		Ω*cm.	0.1	0.3	120.1	07/03 10:48	07/03 10:48	EMS
Total Dissolved Solids (TDS)	30000		mg/L	0.82	2.46	EPA 160.1	07/03 13:42	07/03 13:42	EMS
Chloride	33800		mg/L	0.10	0.30	SM4500CL-B	07/03 13:51	07/03 13:51	EAC
Sulfate	2,120		mg/L	0.20	0.60	SM4500-SO4E	07/03 09:02	07/03 09:02	EMS

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.

Authorized CSM Signature
Florida Environmental;Certification # E86006

CHAIN OF CUSTODY RECORD

SUBMISSION # 606 - 681

Logged in LIMS by [illegible]
CSM assigned

Florida Environmental

1460 W. McNab Road Ft Laud. FL 33309	Tel: (954) 978-6400	Fax: (954) 978-2233
940 Alt. 27 South Babson Park, FL 33827	Tel: (863) 638-3255	Fax: (863) 638-3637
630 Indian Street Savannah, GA 31401	Tel: (912) 238-5050	Fax: (912) 234-4815
528 Gooch Road Fort Meade, FL 33841	Tel: (863) 285-8145	Fax: (863) 285-7030

Original-Return w/report — Yellow- Lab File Copy — Pink- Sampler Copy

DUE DATE Requested: 7/5/6

RUSH RESERVATION #: SS186

Rush Surcharges apply

Report to: *(company name)* Kevin Greuel — Report to Address:

Invoice to: *(company name)* Youngquist Bros. — Purchase Order # — Invoice to Address:

Project Name and/or Number: Clewiston IW-1 — Site Location:

Project Contact: Ed McCullers — Phone: ~~29~~ 239-489-4444 — Fax: — Email: marybeth@youngquistbrothers.com AND andymiller@groundwatersupply.com

Sampler Name: (printed) Kevin Greuel — Sampler Signature

ORDER # Lab Control Number (*Shaded Areas For Laboratory Use Only*)		Sample ID	Date Sampled	Time Sampled	Matrix (DW SW GW WW S SED HW BIO SEA OIL X AIR)	Bottle & Pres. Combo Codes				Number of Containers Received & NELAC Letter Suffixes #	A-?	specific conductance	chloride	TDS	sulfate				TEMP -C	PH	COND	CHLOR
1	13259	PackerTest#6	6/30/06	0155	GW	F	U			2		X	X	X	X				28.7	7.54		
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

48 hour TAT

Special Comments:

"I waive NELAC protocol" (sign here) >

Total

Deliverables: — QA/QC Report Needed? Yes No *(additional charge)*

SAMPLE CUSTODY AND TRANSFER SIGNATURES — DATE / TIME

1	Relinquished by:	D. [illegible]	6/30/06 - 0200
1	Received by:	[illegible]	6/30/06 09:22
2	Relinquished by:	[illegible]	6/30/06 15:15
2	Received by:	[illegible]	6/30/06 15:15
3	Relinquished by:		
3	Received by:		

Sample Custody & Field Comments

Temp as received ________ C

Custody Seals? Y N

Billable Field Time 3 hrs

Misc. Charges p/U

Bottle Type

A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other TED=Tedlar Air Bag

Preservatives

A-ascorbic acid — P-H3PO4
C-HCL — S-H2SO4
Cu-CuSO4 — T-Na2S2O3-H2O
H-HNO3 — U-Unpreserved
M-MCAB — P-H3PO4
N-NaOH — Z-zinc acetate
NH4-NH4CL

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Florida Environmental

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 10/02/06 Rev. 1
Submission # 609000441
Order # 22726

Project: Clewiston IW-1
Site Location: Clewiston, FL
Matrix: Water

Sample I.D.: DZMW-1 Packer Test 1
Collected: 09/21/06 20:19
Received: 09/22/06 15:43
Collected by: Kevin Grevel

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Specific Conductance (grab)	22000		Ω*cm.	0.1	0.3	120.1	09/25 09:34	09/25 09:34	EMS
Total Dissolved Solids (TDS)	14500		mg/L	0.82	2.46	EPA 160.1	09/25 14:58	09/25 14:58	EMS
Chloride	10400		mg/L	350.00	1050.00	300.0	09/25 12:20	09/25 12:20	JRB
Sulfate	1180.0		mg/L	33.400	100.200	300.0	09/29 16:42	09/29 16:42	JRB

QC = Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to the sample.

Authorized CSM Signature
Florida Environmental;Certification # E86006

SUBMISSION # 609-441

Logged in LIMS by CB
Log-In Reviewed by ____

Florida Environmental

CHAIN OF CUSTODY RECORD

1460 W. McNab Road Ft Laud. FL 33309	Tel: (954) 978-6400	Fax: (954) 978-2233
940 Alt. 27 South Babson Park, FL 33827	Tel: (863) 638-3255	Fax: (863) 638-3637
630 Indian Street Savannah, GA 31401	Tel: (912) 238-5050	Fax: (912) 234-4815
528 Gooch Road Fort Meade, FL 33841	Tel: (863) 285-8145	Fax: (863) 285-7030

Original-Return w/report — Yellow- Lab File Copy — Pink- Sampler Copy

DUE DATE Requested: 9/26/06
RUSH RESERVATION #: SS336
Rush Surcharges apply

Report to: Kevin Grant
Report to Address:
Invoice to: Youngquist Bros Inc.
Purchase Order #:
Invoice to Address:
Project Name and/or Number: Clewiston IW-1
Site Location:
Project Mgr: Ed McCullers
Phone: 239 489 4444
Fax:
Email: marybeth@youngquistbrothers.com AND andymiller@groundwatersupply.com
Sampler Name (printed): L Grevel
Sampler Signature:

ORDER # Lab Control Number (Shaded Areas For Laboratory Use Only)	Sample ID	Date Sampled	Time Sampled	Matrix (DW SW GW WW S SED HW BIO SEA OIL X)	Bottle & Pres. Combo Codes		Number of Containers Received & NELAC Letter Suffixes #	A-?	Chloride	Specific Conduct.	Sulfate	TDS				TEMP-C	PH	COND	CHLOR
1	DZMW-1 2272' @ Packer test	9/21/06	2019	GW	F	U	2		X	X	X	X				28.3	7.94		
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Special Comments: **RUSH**

"I waive NELAC protocol" (sign here) >

Total

Deliverables: QA/QC Report Needed? Yes No *(additional charge)*

SAMPLE CUSTODY AND TRANSFER SIGNATURES — DATE / TIME

1	Relinquished by: [signature]	
1	Received by: [signature]	9/22/06 0940
2	Relinquished by: [signature]	9/22/06 1543
2	Received by: [signature]	9/22/06 1543
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments
Temp as received 2.6 C
Custody Seals? Y N
Billable Field Time 3 hrs
Misc. Charges p/u

Bottle Type
A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other

Preservatives
A-ascorbic acid P-H3PO4
C-HCL S-H2SO4
Cu-CuSO4 T-Na2S2O3-H2O
H-HNO3 U-Unpreserved
M-MCAB P-H3PO4
N-NaOH Z-zinc acetate
NH4-NH4CL

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Florida Environmental

Report To:
Edward McCullers
Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft Myers, FL 33908

Report Printed: 09/29/06
Submission # 609000547
Order # 23220

Project: Clewiston Injection Well #1
Site Location: Clewiston, FL
Matrix: Water

Sample I.D.: DZMW Packer Test 2
Collected: 09/26/06 18:00
Received: 09/27/06 16:30
Collected by: Kevin Grevel

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Specific Conductance (grab)	46800		Ω*cm.	0.1	0.3	120.1	09/28 09:39	09/28 09:39	EMS
Total Dissolved Solids (TDS)	32000		mg/L	0.82	2.46	EPA 160.1	09/28 14:17	09/28 14:17	EMS
Sulfate	2300		mg/L	16.700	50.100	300.0	09/28 08:32	09/28 08:32	JRB
Chloride	17600		mg/L	10.00	30.00	SM4500CL-B	09/28 16:32	09/28 16:32	JRB

QC=Qualifier Codes as defined by DEP 62-160
Unless indicated, soil results are reported based on actual (wet) weight basis.
Analytes not currently NELAC certified denoted by *.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to the sample.

Authorized CSM Signature
Florida Environmental;Certification # E86006

SUBMISSION # 609-547

Logged in LIMS by [illegible]
Log-In Reviewed by ____

Florida Environmental

CHAIN OF CUSTODY RECORD

- 1460 W. McNab Road Ft Laud. FL 33309 Tel: (954) 978-6400 Fax: (954) 978-2233
- 940 Alt. 27 South Babson Park, FL 33827 Tel: (863) 638-3255 Fax: (863) 638-3637
- 630 Indian Street Savannah, GA 31401 Tel: (912) 238-5050 Fax: (912) 234-4815
- 528 Gooch Road Fort Meade, FL 33841 Tel: (863) 285-8145 Fax: (863) 285-7030

Original-Return w/report Yellow- Lab File Copy Pink- Sampler Copy

DUE DATE Requested. 9/28/06
RUSH RESERVATION # 55347
Rush Surcharges apply

Report to: Kevin Grewel		Report to Address:	
Invoice to: Youngquist Bros	Purchase Order #	Invoice to Address:	
Project Name and/or Number: Clewiston Injection Well #1		Site Location:	
Project Mgr: Ed McCullers	Phone: 239.489.444	Fax:	Email: marybeth@youngquistbrothers.com andymiller@groundwater supply.com
Sampler Name: (printed) Kevin Grewel		Sampler Signature	

#	ORDER # Lab Control Number (Shaded Areas For Laboratory Use Only)	Sample ID	Date Sampled	Time Sampled	Matrix (DW SW GW WW S SED HW BIO SEA OIL X)	Bottle & Pres. Combo Codes	Number of Containers Received & NELAC Letter Suffixes #	A-?	Chloride	Sulfate	Specific Conductance	TDS			TEMP -C	PH	COND	CHLOR
1	23220	DZMW Packer Test 2	9/26/06	1800	GW	F V	2		X	X	X	X			27.8	8.00		
2		~~DZMW~~ ~~Pac~~																
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

24 Hour T.A.T.

RUSH

Special Comments:

"I waive NELAC protocol" (sign here) >

Deliverables: QA/QC Report Needed? Yes No (additional charge)

Total

	SAMPLE CUSTODY AND TRANSFER SIGNATURES	DATE / TIME
1	Relinquished by: [signature]	9/27/06 - 1400
1	Received by: [signature]	9/27/06 1400
2	Relinquished by: [signature]	9/27/06 1630
2	Received by: [signature]	9/27/06 1630
3	Relinquished by:	
3	Received by:	

Sample Custody & Field Comments

Temp as received 1 C

Custody Seals? Y N

Billable Field Time ____ hrs

Misc. Charges pt kup/NC

Bottle Type
- A-liter amber
- B-Bacteria bag/bottle
- F-500 ml O-125 ml
- L-liter bottle
- S4- 4 oz soil jar / S8- 8 oz soil jar
- T-250 ml
- V-40 ml vial
- W-wide mouth
- X-other

Preservatives
- A-ascorbic acid
- C-HCL
- Cu-CuSO4
- H-HNO3
- M-MCAB
- N-NaOH
- NH4-NH4CL
- P-H3PO4
- S-H2SO4
- T-Na2S2O3-H2O
- U-Unpreserved
- P-H3PO4
- Z-zinc acetate

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APPENDIX L

Core Sample Descriptions

CORE SAMPLE DESCRIPTION

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CORE NUMBER: 1
DEPTH INTERVAL: 2120 - 2134 ft bpl	CORE RECOVERY: 50% (7 of 14 ft)	CORE DIAMETER: 4-inches
SAMPLE DESCRIPTION BY: D. Legett		DATE: 06/02/06

DEPTH INTERVAL (FEET)	SAMPLE DESCRIPTION
2120 - 2121.4	Light gray (7.5YR7/1) brecciated dolomitic limestone packstone with dark gray (10YR4/1)
	Dolomite cement. Larger areas of dolomite are slightly vuggy. The open spaces are
	Lined with dark orange-gray crystalline dolomite. The large limestone fragments
	have low intergranular porosity.
2121.4 - 2122.4	Very dark gray (7.5YR3/1) vuggy dolostone. The open spaces in the rock appear to be
	Lined with dark orange-gray crystalline dolomite. The open spaces appear to be poorly
	connected.
2122.4 - 2125.6	Pale brown (10YR7/3) dolomitic limestone, fine-grained packstone that becomes coarse-
	grained with depth. Good intergranular porosity.
2125.6 - 2126.2	Very dark gray (7.5YR3/1) vuggy dolostone. Open spaces are larger that in dolostone
	above, and have better connectivity. The open spaces are lined with dark orange-gray
	Dolomite crystals.
2126.7 - 2127.0	Laminated dark gray dolostone (7.5YR7/1) and very pale brown (10Y7/3) dolomitic
	limestone mudstone. As above, larger areas of dolostone are vuggy, and the open
	spaces are lined with crystalline dolomite.

CORE SAMPLE DESCRIPTION

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CORE NUMBER: 2
DEPTH INTERVAL: 2405 - 2411.5 ft bpl	CORE RECOVERY: 66% (4.3 of 6.5 ft)	CORE DIAMETER: 4-inches
SAMPLE DESCRIPTION BY: AMM		DATE: 06/05/06

DEPTH INTERVAL (FEET)	SAMPLE DESCRIPTION
2405 - 2411.5	**DOLOSTONE (100%).** Brown (7.5YR4/3) to very dark brown (7.5YR2.5/2). Very fine crystalline, amorphous, vuggy, dense, very hard. No intergranular porosity. Vugs are 0.25 to 1 mm across, are 3 to 5% of the sample, and are not interconnected. Core is broken into pieces 1 to 6 inches long. Two of the longer pieces in the bottom half of the core interval may have broken along a fracture, based on the presence of very fine to fine grained dolomite crystals on the face of the breaks. All other breaks do not appear to be along possible fractures.

CORE SAMPLE DESCRIPTION

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CORE NUMBER: 3
DEPTH INTERVAL: 2653 - 2659 ft bpl	CORE RECOVERY: 60% (6.2 of 10 ft)	CORE DIAMETER: 4-inches
SAMPLE DESCRIPTION BY: AMM		DATE: 06/14/06

DEPTH INTERVAL (FEET)	SAMPLE DESCRIPTION
2653 - 2654.5	**DOLOSTONE (30%).** Yellowish brown (10YR5/6). Medium crystalline, sucrosic, firm to the hard, moderately dense, fair to good intercrystalline porosity, no vugs, about one-half of cuttings are chips, ¼ - 1" across, and one-half of the cuttings are medium-grained sand size, consisting of individual or small clusters of dolomite crystals. Drilling rate = 9 - 10 ft/hr, increasing to 15 ft/hr toward 2650.
2654.5 - 2656.4	**DOLOSTONE (100%).** Brown (10YR5/3). Same as above, except harder, sucrosic to amorphous, vugs are smaller and approx 10% of sample, relic fossils present (same as above)
2656.4 - 2657.4	**DOLOSTONE (75%).** Brown (10YR4/3) medium crystalline, amorphous to slightly sucrosic, waxy, very hard, dense, no intercrystalline porosity, bugs approx 3% of sample, 0.1 - ¼ " across, fine to medium sized dolomite crystals on faces of broken pieces of core. **DOLOSTONE (25%).** Same as 2653 - 2654.5, present as veins/fracture fill in the other dolostone. Veins/fracture fills are ½ - 3" wide.
2657.4 - 2659	**DOLOSTONE (100%).** Brown (10YR4/3) medium crystalline, amorphous to slightly sucrosic, waxy, very hard, dense, no intercrystalline porosity, bugs approx 3% of sample, 0.1 - ¼ " across, fine to medium sized dolomite crystals on faces of broken pieces of core.

CORE SAMPLE DESCRIPTION

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CORE NUMBER: 4
DEPTH INTERVAL: 2,732 - 2,740 ft bpl	CORE RECOVERY: 75% (6 of 8 ft)	CORE DIAMETER: 4-inches
SAMPLE DESCRIPTION BY: EMH		DATE: 06/16/06

DEPTH INTERVAL (FEET)	SAMPLE DESCRIPTION
2732 - 2734	**DOLOSTONE AND LIMESTONE WITHIN DOLOSTONE MATRIX.** Muddy conglomerate with
	dolostone and limestone pebbles. Mud matrix: reactive to HCL acid - limestone. Grains
	within mud matrix vary in size from 'p' sized to 3 inches. Grains are angular to sub-
	rounded. Grain material colors include, mottled light gray (10YR7/1), and pale yellow
	(2.5 Y8/2). **LIMESTONE** pieces white (2.5Y8/1) mudstone, soft; **LIMESTONE** pieces
	mottled light gray (10YR7/1) grainstone; **LIMESTONE** pale yellow (2.5Y8/2) mudstone,
	dense. Pieces comprise 50% of the sample interval with mud matrix the other 50%.
	Trace glauconite and dolostone in mud matrix. Core is porous.
2734 - 2734.2	**LIMESTONE (100%)** pale yellow (2.5Y8/2) grainstone. Fossiliferous with crinoid- and
	ostracod-like molds, porous, high inter-granular porosity
2734.2 - 2738	Generally as described in the 2732 - 2734 interval. Vug present, however may be wash
	out of soft sucrosic dolostone pebble. Laminar tabular-shaped limestone pebbles up to 3-
	inches. Limestone cobble occurs from 2735 to 2735.4 and is generally as described from
	2734.0 - 2734.2. Ratio of mud matrix to grains decreases with depth. At 2737 mud
	matrix is 20%. Grain size increases with depth up to <4 inches, angular, includes sucrosic
	dolostone, mudstone limestone and grainstone limestone.
2738 - 2739	**DOLOSTONE (100%).** Light gray (2.5Y7/1), worm burrows present throughout interval.
	Sub-vertical fracture 0.6 ft in length and open to 3 mm present. Crystals present on
	fracture face. Low intercrystalline porosity, dense.
2739 - 2739.5	**LIMESTONE (100%)** muddy conglomerate. As from 2734.2 - 2738.8.
2739 - 2739.9	**DOLOSTONE (100%)** low inter-crystalline porosity, dense.
2739.9 - 2740	**LIMESTONE (100%)** muddy conglomerate. As from 2734.2 - 2738.8.

CORE SAMPLE DESCRIPTION

WELL: IW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	CORE NUMBER: 5
DEPTH INTERVAL: 2933 - 2939 ft bpl	CORE RECOVERY: 75% (4.5 of 6.0 ft)	CORE DIAMETER: 4-inches
SAMPLE DESCRIPTION BY: AMM		DATE: 06/19/06

DEPTH INTERVAL (FEET)	SAMPLE DESCRIPTION
2933 - 2939	**DOLOSTONE (100%).** Dark olive gray (5Y 3/2) and olive brown (2.5Y 4/3). Very fine crystalline to microcrystalline, anhedral, waxy, amorphous, very hard, dense, no intercrystalline porosity. Majority of core is pieces, coarse gravel to fine cobble size, subangular, non-spherical to elongated. Most of the faces of the pieces have fine-grained dolomite crystals. Vugs are about 3% of the core, not interconnected, and are <0.25" to 0.5" across. Vugs appear to be solution cavities and are lined with fine-grained dolomite crystals. The largest piece of core is in the approximate middle of the recovered section and is approximately 5" long, with fractures/veins that are <0.25" to 1" across. The fractures/veins are not interconnected and have fine-grained dolomite crystals lining the faces of them. There is also one coarse-gravel size piece of core (near the bottom of the recovered interval) with a fracture-fill of dolostone, very pale brown (10YR 7/4).

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

March 21, 2006
File Number 06-227

RECEIVED
MAR 23 2007

Youngquist Brothers, Inc.
15465 Pine Ridge Road
Ft. Myers, FL 33908

Attention: Craig Brugger

Subject: Rock Core Testing, City of Clewiston Injection Well

Gentlemen:

As requested, vertical and horizontal permeability, unconfined compression and specific gravity tests have been completed on three limestone rock cores provided for testing by your firm. The initial samples were received on 11/28/06, and additional samples were received on 01/31/07. The designations for the samples are listed below.

Sample Number	Depth (feet)
11 -	2123 2124
7 -	2407 2410
5 -	2736 2734

Unconfined compression tests were performed in general accordance with ASTM Standard D 7012 "Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures" using the unconfined test method (Method C). The unconfined compression test results are presented on the attached test reports.

The permeability tests were performed in general accordance with ASTM Standard D 5084 "Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter" using the constant head test method (Method A). The permeability test results are presented on the attached test reports.

The specific gravity tests were performed in general accordance with ASTM Standard D 854 "Specific Gravity of Soil Solids by Water Pycnometer". The measured mineral specific gravities are presented on the attached reports.

The specimens were reported to be from the samples designated herein. The test results are indicative of only the specimens that were actually tested. The test results presented are based upon accepted industry practice as well as test method(s) listed. Ardaman & Associates, Inc. neither accepts responsibility for, nor makes claims to the final use and purpose of the material.

If you have any questions about the test results or require additional information, please contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.

Thomas S. Ingra, P.E.
Laboratory Director
Florida License No. 31987

TSI/ed

G:\Projects\2006\06-227\06-227 Youngquist tsi 001.wpd

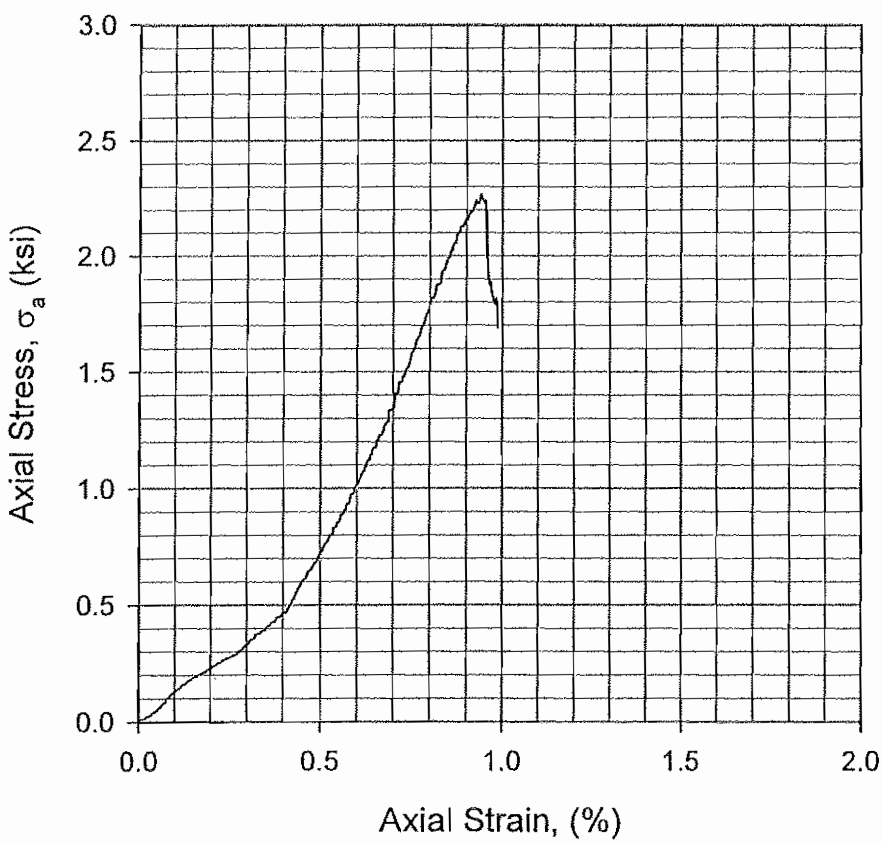
ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
INTACT ROCK CORE UNCONFINED COMPRESSION TEST REPORT

CLIENT: Youngquist Brothers, Inc.
PROJECT: City of Clewiston Injection Well
FILE NO.: 06-227

DATE SAMPLE RECEIVED: 02/01/07
DATE TEST SET-UP: 02/22/07
DATE REPORTED: 03/21/07

INCOMING SAMPLE NO.: 2124
BORING Core 1 SAMPLE -
DEPTH 2124 ☒ ft; ☐ m
LABORATORY IDENTIFICATION NO.: 06227/2124
SAMPLE DESCRIPTION: Light brown limestone

Specimen Dimensions			Initial Conditions			Rate of Loading		Time to Failure (minutes)	Unconfined Compressive Strength, σ_a(ult) (lb/in^2)	Young's Modulus, E (lb/in^2)
H (cm)	D (cm)	H/D	w_c (%)	γ_d (lb/ft^3)	S (%)	$\dot{\varepsilon}$ (cm/minute)	$\dot{\varepsilon}$ (%/minute)			
6.81	3.26	2.1	6.1	126.4	48	0.013	0.19	5.0	2,270	3.1×10^5



TEST PROCEDURES

☒ ASTM Standard D 7012, Method C

Air Temperature (°C): 20.0

Capping Material: ☐ None ☒ Lab-Stone ☐ Sulfur

Comments:

SPECIMEN PREPARATION

Original Core Diameter (inch): 4

Specimen Sub-Cored for Testing:
☒ Yes
☐ No

G_s: 2.72 ☐ Assumed ☒ Measured

FAILURE SKETCH

Where: H = Specimen height; D = Specimen diameter; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\dot{\varepsilon}$ = Vertical displacement rate; and G_s = Specific gravity.

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ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
INTACT ROCK CORE UNCONFINED COMPRESSION TEST REPORT

CLIENT: Youngquist Brothers, Inc.
PROJECT: City of Clewiston Injection Well
FILE NO.: 06-227

DATE SAMPLE RECEIVED: 02/01/07
DATE TEST SET-UP: 02/22/07
DATE REPORTED: 03/21/07

INCOMING SAMPLE NO.: 2410
BORING Core 1 SAMPLE -
DEPTH 2410 ☒ ft; ☐ m
LABORATORY IDENTIFICATION NO.: 06227/2410
SAMPLE DESCRIPTION: Brown dolomitic limestone

Specimen Dimensions			Initial Conditions			Rate of Loading		Time to Failure (minutes)	Unconfined Compressive Strength, σ_a(ult) (lb/in^2)	Young's Modulus, E (lb/in^2)
H (cm)	D (cm)	H/D	w_c (%)	γ_d (lb/ft^3)	S (%)	$\dot{\varepsilon}$ (cm/minute)	$\dot{\varepsilon}$ (%/minute)			
6.65	3.27	2.0	1.1	163.8	36	0.013	0.19	Not measured	11,130	Not measured

No graph due to error in measuring deformation.

TEST PROCEDURES

☒ ASTM Standard D 7012, Method C

Air Temperature (°C): 20.0

Capping Material: ☐ None ☒ Lab-Stone ☐ Sulfur

Comments:

SPECIMEN PREPARATION

Original Core Diameter (inch): 4

Specimen Sub-Cored for Testing: ☒ Yes ☐ No

G_s: 2.85 ☐ Assumed ☒ Measured

FAILURE SKETCH

The test data and all associated project information presented hereon shall be held in confidence and disclosed to other parties only with the authorization of the Client or Ardaman & Associates, Inc. Physical and electronic records of each project are kept for a minimum of 7 years. Test samples are kept in storage for at least 10 working days after mailing of the test report, prior to being discarded, unless a longer storage period is requested in writing and accepted by Ardaman & Associates, Inc.

Where: H = Specimen height; D = Specimen diameter; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\dot{\varepsilon}$ = Vertical displacement rate; and G_s = Specific gravity.

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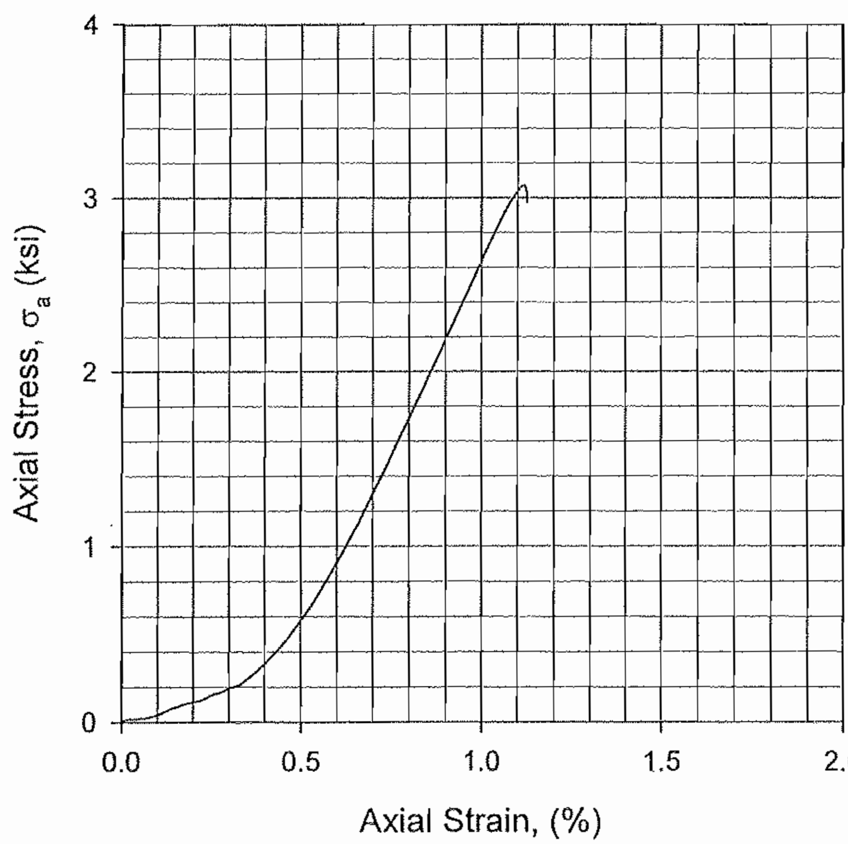
ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
INTACT ROCK CORE UNCONFINED COMPRESSION TEST REPORT

CLIENT: Youngquist Brothers, Inc.
PROJECT: City of Clewiston Injection Well
FILE NO.: 06-227

DATE SAMPLE RECEIVED: 02/01/07
DATE TEST SET-UP: 02/22/07
DATE REPORTED: 03/21/07

INCOMING SAMPLE NO.: 2734
BORING Core 1 SAMPLE -
DEPTH 2734 ☒ ft; ☐ m
LABORATORY IDENTIFICATION NO.: 06227/2734
SAMPLE DESCRIPTION: Mottled light brown limestone and brown dolomitic limestone

Specimen Dimensions			Initial Conditions			Rate of Loading		Time to Failure (minutes)	Unconfined Compressive Strength, σ_a(ult) (lb/in^2)	Young's Modulus, E (lb/in^2)
H (cm)	D (cm)	H/D	w_c (%)	γ_d (lb/ft^3)	S (%)	$\dot{\varepsilon}$ (cm/minute)	$\dot{\varepsilon}$ (%/minute)			
9.45	5.02	1.9	3.5	136.9	37	0.013	0.14	8.3	3,070	4.2×10^5



TEST PROCEDURES

☒ ASTM Standard D 7012, Method C

Air Temperature (°C): 20.0

Capping Material: ☐ None ☒ Lab-Stone ☐ Sulfur

Comments:

SPECIMEN PREPARATION

Original Core Diameter (inch): 4

Specimen Sub-Cored for Testing: ☒ Yes ☐ No

G_s: 2.76 ☐ Assumed ☒ Measured

FAILURE SKETCH

The test data and all associated project information presented hereon shall be held in confidence and disclosed to other parties only with the authorization of the Client or Ardaman & Associates, Inc. Physical and electronic records of each project are kept for a minimum of 7 years. Test samples are kept in storage for at least 10 working days after mailing of the test report, prior to being discarded, unless a longer storage period is requested in writing and accepted by Ardaman & Associates, Inc.

Where: H = Specimen height; D = Specimen diameter; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\dot{\varepsilon}$ = Vertical displacement rate; and G_s = Specific gravity.

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ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
ROCK CORE HYDRAULIC CONDUCTIVITY TEST REPORT

CLIENT: Youngquist Brothers, Inc.
PROJECT: City of Clewiston Injection Well
FILE NO.: 06-227
DATE SAMPLE RECEIVED: 12/04/06 SET UP: 01/29/07
DATE REPORTED: 03/21/07

INCOMING LABORATORY SAMPLE NO.: S-11, 2123'
LABORATORY IDENTIFICATION NO.: 06227/S11-2123kV
SAMPLE DESCRIPTION: Light brown limestone

ASTM D 5084 TEST METHOD:
- ☒ A - Constant Head
- ☐ B - Falling Head; Constant Tailwater
- ☐ C - Falling Head; Rising Tailwater
- ☐ F - Constant Volume; Falling Head - Rising Tailwater

B-FACTOR: 96 % ☐ Beginning of Test; ☒ End of Test

$\Delta\sigma_c$ (psi): 4, 7, 10

SPECIMEN DATA:
As-Received Diameter (inch): 4 Diameter Trimmed: ☐ Yes ☒ No
As-Received Length (inch): 3.6 Length Trimmed: ☒ Yes ☐ No
TEST SPECIMEN ORIENTATION: ☒ Vertical ☐ Horizontal
SPECIFIC GRAVITY, G_s: 2.72 ☐ Assumed ☒ Measured (ASTM D 854)
PERMANENT: ☒ Deaired Tap Water ☐ Other

Initial Conditions							Test Conditions					Final Conditions			Hydraulic Conductivity
H (cm)	D (cm)	V (cm^3)	w_c (%)	γ_d (pcf)	n	S (%)	$\bar{\sigma}_c$ (psi)	u_b (psi)	i_{avg}	Q (cm^3)	t (days)	WDS (g)	w_c (%)	S (%)	k_{20} (cm/sec)
9.19	9.96	715.74	10.8	129.3	0.238	94	30	160	11.2	2.3	1	1472.01	10.8	94	$3.7\text{x}10^{-5}$

COMMENTS: (1) Core sample selected for permeability testing was cut to length, air-dried, deaired under vacuum for a minimum of 24 hours, and then saturated with deaired tap water from the bottom up while still under vacuum. (2) Final w_c from horizontal permeability test specimen. WDS calculated from measured wet weight and final w_c.

Where: H = Specimen height; D = Specimen diameter; V = Volume; WDS = Dry mass; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\bar{\sigma}_c$ = Isotropic effective confining stress; u_b = Back-pressure; i_{avg} = Average hydraulic gradient; Q = Flow volume; t = Test duration; k_{20} = Saturated hydraulicconductivity at 20°C; n = Total porosity; and G_s = Specific gravity.

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ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
ROCK CORE HYDRAULIC CONDUCTIVITY TEST REPORT

CLIENT: Youngquist Brothers, Inc.

PROJECT: City of Clewiston Injection Well

FILE NO.: 06-227

DATE SAMPLE RECEIVED: 12/04/06 SET UP: 02/06/07

DATE REPORTED: 03/21/07

INCOMING LABORATORY SAMPLE NO.: S-11, 2123'

LABORATORY IDENTIFICATION NO.: 06227/S11-2123kH

SAMPLE DESCRIPTION: Light brown limestone

ASTM D 5084 TEST METHOD:
- ☒ A - Constant Head
- ☐ B - Falling Head; Constant Tailwater
- ☐ C - Falling Head; Rising Tailwater
- ☐ F - Constant Volume; Falling Head - Rising Tailwater

B-FACTOR: 98 % ☐ Beginning of Test; ☒ End of Test

$\Delta\sigma_c$ (psi): 3, 6, 9

SPECIMEN DATA:

As-Received Diameter (inch): 4 Diameter Trimmed: ☒ Yes ☐ No

As-Received Length (inch): 3.6 Length Trimmed: ☒ Yes ☐ No

TEST SPECIMEN ORIENTATION: ☐ Vertical ☒ Horizontal

SPECIFIC GRAVITY, G_s: 2.72 ☐ Assumed ☒ Measured (ASTM D 854)

PERMANENT: ☒ Deaired Tap Water ☐ Other

Initial Conditions							Test Conditions					Final Conditions			Hydraulic Conductivity
H (cm)	D (cm)	V (cm^3)	w_c (%)	γ_d (pcf)	n	S (%)	$\bar{\sigma}_c$ (psi)	u_b (psi)	i_{avg}	Q (cm^3)	t (days)	WDS (g)	w_c (%)	S (%)	k_{20} (cm/sec)
6.74	5.01	133.15	10.8	130.4	0.232	97	30	160	34.5	4.6	1	278.11	10.8	97	4.7×10^{-5}

COMMENTS: (1) Horizontal permeability test specimen was cross-cored from the corresponding vertical test specimen.

Where: H = Specimen height; D = Specimen diameter; V = Volume; WDS = Dry mass; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\bar{\sigma}_c$ = Isotropic effective confining stress; u_b = Back-pressure; i_{avg} = Average hydraulic gradient; Q = Flow volume; t = Test duration; k_{20} = Saturated hydraulicconductivity at 20°C; n = Total porosity; and G_s = Specific gravity.

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ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
ROCK CORE HYDRAULIC CONDUCTIVITY TEST REPORT

CLIENT: Youngquist Brothers, Inc.

PROJECT: City of Clewiston Injection Well

FILE NO.: 06-227

DATE SAMPLE RECEIVED: 12/04/06 SET UP: 01/29/07

DATE REPORTED: 03/21/07

INCOMING LABORATORY SAMPLE NO.: S-7, 2407'

LABORATORY IDENTIFICATION NO.: 06227/S7-2407kV

SAMPLE DESCRIPTION: Brown dolomitic limestone

ASTM D 5084 TEST METHOD:

- ☒ A - Constant Head
- ☐ B - Falling Head; Constant Tailwater
- ☐ C - Falling Head; Rising Tailwater
- ☐ F - Constant Volume; Falling Head - Rising Tailwater

B-FACTOR: 98 % ☐ Beginning of Test; ☒ End of Test

$\Delta\sigma_c$ (psi): 2, 7, 9

SPECIMEN DATA:

As-Received Diameter (inch): 4 Diameter Trimmed: ☐ Yes ☒ No

As-Received Length (inch): 3.5 Length Trimmed: ☒ Yes ☐ No

TEST SPECIMEN ORIENTATION: ☒ Vertical ☐ Horizontal

SPECIFIC GRAVITY, G_s: 2.85 ☐ Assumed ☒ Measured (ASTM D 854)

PERMANENT: ☒ Deaired Tap Water ☐ Other

Initial Conditions							Test Conditions					Final Conditions			Hydraulic Conductivity
H (cm)	D (cm)	V (cm^3)	w_c (%)	γ_d (pcf)	n	S (%)	$\bar{\sigma}_c$ (psi)	u_b (psi)	i_{avg}	Q (cm^3)	t (days)	WDS (g)	w_c (%)	S (%)	k_{20} (cm/sec)
9.36	10.08	747.14	0.3	169.3	0.048	16	30	160	209.3	0.8	28	2022.00	0.6	31	9.9×10^{-11}

COMMENTS: (1) Core sample selected for permeability testing was cut to length, air-dried, deaired under vacuum for a minimum of 24 hours, and then saturated with deaired tap water from the bottom up while still under vacuum. (2) Final w_c from horizontal permeability test specimen. WDS calculated from measured wet weight and final w_c.

Where: H = Specimen height; D = Specimen diameter; V = Volume; WDS = Dry mass; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\bar{\sigma}_c$ = Isotropic effective confining stress; u_b = Back-pressure; i_{avg} = Average hydraulic gradient; Q = Flow volume; t = Test duration; k_{20} = Saturated hydraulicconductivity at 20°C; n = Total porosity; and G_s = Specific gravity.

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ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
ROCK CORE HYDRAULIC CONDUCTIVITY TEST REPORT

CLIENT: Youngquist Brothers, Inc.

PROJECT: City of Clewiston Injection Well

FILE NO.: 06-227

DATE SAMPLE RECEIVED: 12/04/06 SET UP: 03/09/07

DATE REPORTED: 03/21/07

INCOMING LABORATORY SAMPLE NO.: **S-7, 2407'**

LABORATORY IDENTIFICATION NO.: 06227/S7-2407kVH

SAMPLE DESCRIPTION: Brown dolomitic limestone

ASTM D 5084 TEST METHOD:

- ☒ A - Constant Head
- ☐ B - Falling Head; Constant Tailwater
- ☐ C - Falling Head; Rising Tailwater
- ☐ F - Constant Volume; Falling Head - Rising Tailwater

B-FACTOR: 90 (stable) % ☐ Beginning of Test; ☒ End of Test

$\Delta\sigma_c$ (psi): 3, 6, 9

SPECIMEN DATA:

As-Received Diameter (inch): 4 Diameter Trimmed: ☒ Yes ☐ No

As-Received Length (inch): 3.5 Length Trimmed: ☒ Yes ☐ No

TEST SPECIMEN ORIENTATION: ☐ Vertical ☒ Horizontal

SPECIFIC GRAVITY, G_s: 2.85 ☐ Assumed ☒ Measured (ASTM D 854)

PERMANENT: ☒ Deaired Tap Water ☐ Other

Initial Conditions							Test Conditions						Final Conditions			Hydraulic Conductivity
H (cm)	D (cm)	V (cm^3)	w_c (%)	γ_d (pcf)	n	S (%)	$\bar{\sigma}_c$ (psi)	u_b (psi)	i_{avg}	Q (cm^3)	t (days)	WDS (g)	w_c (%)	S (%)	k_{20} (cm/sec)
6.59	5.01	129.98	0.5	170.2	0.043	31	30	160	30.3	1.0	4	354.87	0.6	41	$2.4x10^{-9}$

COMMENTS: (1) Horizontal permeability test specimen was cross-cored from the corresponding vertical test specimen.

Where: H = Specimen height; D = Specimen diameter; V = Volume; WDS = Dry mass; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\bar{\sigma}_c$ = Isotropic effective confining stress; u_b = Back-pressure; i_{avg} = Average hydraulic gradient; Q = Flow volume; t = Test duration; k_{20} = Saturated hydraulicconductivity at 20°C; n = Total porosity; and G_s = Specific gravity.

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ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
ROCK CORE HYDRAULIC CONDUCTIVITY TEST REPORT

CLIENT: Youngquist Brothers, Inc.

PROJECT: City of Clewiston Injection Well

FILE NO.: 06-227

DATE SAMPLE RECEIVED: 12/04/06 SET UP: 01/29/07

DATE REPORTED: 03/21/07

INCOMING LABORATORY SAMPLE NO.: S-5, 2736'

LABORATORY IDENTIFICATION NO.: 06-227/S5-2736kV

SAMPLE DESCRIPTION: Light brown limestone

ASTM D 5084 TEST METHOD:
- ☒ A - Constant Head
- ☐ B - Falling Head; Constant Tailwater
- ☐ C - Falling Head; Rising Tailwater
- ☐ F - Constant Volume; Falling Head - Rising Tailwater

B-FACTOR: 89 (stable) % ☐ Beginning of Test; ☒ End of Test

$\Delta\sigma_c$ (psi): 4, 7, 10

SPECIMEN DATA:

As-Received Diameter (inch): 4 Diameter Trimmed: ☐ Yes ☒ No

As-Received Length (inch): 4.5 Length Trimmed: ☒ Yes ☐ No

TEST SPECIMEN ORIENTATION: ☒ Vertical ☐ Horizontal

SPECIFIC GRAVITY, G_s: 2.76 ☐ Assumed ☒ Measured (ASTM D 854)

PERMANENT: ☒ Deaired Tap Water ☐ Other

Initial Conditions							Test Conditions					Final Conditions			Hydraulic Conductivity
H (cm)	D (cm)	V (cm³)	w_c (%)	γ_d (pcf)	n	S (%)	$\bar{\sigma}_c$ (psi)	u_b (psi)	i_{avg}	Q (cm³)	t (days)	WDS (g)	w_c (%)	S (%)	k_{20} (cm/sec)
11.12	10.14	897.49	7.5	138.9	0.193	86	30	160	20.1	3.5	1	1997.49	7.5	86	5.9×10^{-7}

COMMENTS: (1) Core sample selected for permeability testing was cut to length, air-dried, deaired under vacuum for a minimum of 24 hours, and then saturated with deaired tap water from the bottom up while still under vacuum. (2) Final w_c from horizontal permeability test specimen. WDS calculated from measured wet weight and final w_c.

Where: H = Specimen height; D = Specimen diameter; V = Volume; WDS = Dry mass; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\bar{\sigma}_c$ = Isotropic effective confining stress; u_b = Back-pressure; i_{avg} = Average hydraulic gradient; Q = Flow volume; t = Test duration; k_{20} = Saturated hydraulicconductivity at 20°C; n = Total porosity; and G_s = Specific gravity.

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ARDAMAN & ASSOCIATES, INC. GEOTECHNICAL TESTING LABORATORY
ROCK CORE HYDRAULIC CONDUCTIVITY TEST REPORT

CLIENT: Youngquist Brothers, Inc.

PROJECT: City of Clewiston Injection Well

FILE NO.: 06-227

DATE SAMPLE RECEIVED: 12/04/06 SET UP: 02/06/07

DATE REPORTED: 03/21/07

INCOMING LABORATORY SAMPLE NO.: **S-5, 2736'**

LABORATORY IDENTIFICATION NO.: 06-227/S5-2736kH

SAMPLE DESCRIPTION: Light brown limestone

ASTM D 5084 TEST METHOD:
- ☒ A - Constant Head
- ☐ B - Falling Head; Constant Tailwater
- ☐ C - Falling Head; Rising Tailwater
- ☐ F - Constant Volume; Falling Head - Rising Tailwater

B-FACTOR: 88 (stable) % ☐ Beginning of Test; ☒ End of Test

$\Delta\sigma_c$ (psi): 3, 6, 9

SPECIMEN DATA:

As-Received Diameter (inch): 4 Diameter Trimmed: ☒ Yes ☐ No

As-Received Length (inch): 4.5 Length Trimmed: ☒ Yes ☐ No

TEST SPECIMEN ORIENTATION: ☐ Vertical ☒ Horizontal

SPECIFIC GRAVITY, G_s: 2.76 ☐ Assumed ☒ Measured (ASTM D 854)

PERMANENT: ☒ Deaired Tap Water ☐ Other

Initial Conditions							Test Conditions					Final Conditions			Hydraulic Conductivity
H (cm)	D (cm)	V (cm^3)	w_c (%)	γ_d (pcf)	n	S (%)	$\bar{\sigma}_c$ (psi)	u_b (psi)	i_{avg}	Q (cm^3)	t (days)	WDS (g)	w_c (%)	S (%)	k_{20} (cm/sec)
7.18	5.03	142.36	5.0	150.4	0.127	94	30	160	74.8	0.6	1	342.69	5.0	94	3.9×10^{-7}

COMMENTS: (1) Horizontal permeability test specimen was cross-cored from the corresponding vertical test specimen.

Where: H = Specimen height; D = Specimen diameter; V = Volume; WDS = Dry mass; w_c = Moisture content (ASTM D 2216); γ_d = Dry density; S = Saturation; $\bar{\sigma}_c$ = Isotropic effective confining stress; u_b = Back-pressure; i_{avg} = Average hydraulic gradient; Q = Flow volume; t = Test duration; k_{20} = Saturated hydraulicconductivity at 20°C; n = Total porosity; and G_s = Specific gravity.

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APPENDIX M

Geophysical Log Interpretations

Geophysical Log Interpretations
City of Clewiston Concentrate Injection Well

Caliper Log

Depth (ft bpl)	Description
1,000 – 1,630	Moderately enlarged borehole (15 to 20 inches for 12.25 inch bit diameter), which suggests drilling through relatively soft rock.
1,630 – 1,770	Over this interval there is an overall trend of decreasing borehole diameter, suggesting an increase in rock hardness. Borehole diameter is near gauge at 1,700 feet bpl and 1,750 feet bpl.
1,770 – 1,940	Similar to the 1,000 to 1,630-foot section, suggesting drilling through relatively soft rock.
1,940 – 2,090	Similar to 1,630 to 1,770-foot section, suggesting an increase in rock hardness with depth and a transition to mostly dolostone.
2,090 – 2,110	Narrow, major borehole diameter enlargement (~ 25 inches in width) suggesting a small fracture.
2,110 – 2,175	Minimally enlarged borehole diameter (14 to 15 inches) reflecting transition to predominantly non-fractured dolostone.
2,175 – 2,480	Alternating intervals of minor borehole enlargement (13 to 14 inches) with intervals of sharp major borehole enlargement (> 30 inches). This interval is indicative of alternating fractured and non-fractured dolostone.
2,480 – 2,550	Minor to moderately enlarged borehole diameter (13 to 18 inches) indicating non-fractured to dolostone with minor fractures.
2,550 – 2,640	Alternating intervals of minor borehole enlargement (13 to 14 inches) with intervals of sharp major borehole enlargement (> 30 inches). This interval is indicative of alternating fractured and non-fractured dolostone.
2,640 – 2,750	Minimal to moderately enlarged borehole diameter (13 to 18 inches) indicating non-fractured to dolostone with minor fractures.
2,750 – 3,500	Nearly gauge borehole with intermittent sharp moderate to major narrow borehole enlargement intervals (up to 25 inches in width). This reflects drilling through relatively hard rock that has been

intermittently fractured. The fractures will serve as the injection receiving zone.

Dual Induction Log

Depth (ft bpl)	Description
1,000 – 1,300	Gradual increase in resistivity (deep) from 20 to 40 ohm-m.
1,300 – 1,690	Relatively constant resistivities 30 to 40 ohm-m for shallow, intermediate and deep curves.
1,690 – 1,770	Intermittent spiky resistivity pattern. High resistivity (> 60 ohm-m) peaks marking dolostone beds.
1,770 – 1,974	Gradual decreasing resistivities with depth from 40 to 20 ohm-m for deep curve, indicating increasing formation water salinity. This especially apparent starting at 1,900 feet bpl.
1,974 – 2,180	Intermittent spikey resistivity pattern. High resistivity (> 20 ohm-m deep curve) peaks marking dolostone beds interbedded with limestone. Base resistivity 8 ohm-m.
2,180 – 2,550	Spiky log pattern, which is typically indicative of interbedded rock of variable lithology and porosity. Low porosity, permeability dolostone beds have high (> 200 ohm-m) deep resistivities. Fractures represented by relative lower (0.8 to 6 ohm-m) resistivities.
2,550 – 2,640	Base resistivities somewhat lower (2 to 8 ohm-m) than section above and below indicating permeable matrix with saline water.
2,640 – 2,765	Intermittent spiky resistivity pattern. High resistivity (> 20 ohm-m) peaks marking dolostone beds.
2,765 – 3,500	Spiky log pattern, which is typically indicative of interbedded rock of variable lithology and porosity. Low porosity, permeability dolostone beds have high (> 200 ohm-m) deep resistivities. Fractures represented by relative lower (0.6 to 6 ohm-m) resistivities

Sonic Log

Depth (ft bpl)	Description
1,000 – 1,186	Gradual reduction of transit times from 140 to 100 usec/ft with intermittent intervals with longer times ranging from 130 to 140 usec/ft. This is interpreted as soft porous limestone with intermittent intervals with relatively higher porosities.
1,186 – 1,690	Porous limestone with moderate sonic transit times in the 100 to 120 usec/ft range.
1,690 – 1,758	Tighter rock (interbedded limestone and dolostone). Tighter dolostone beds have sonic transit times of less than 70 usec/ft.
1,758 – 1,980	Return to soft porous limestone. Sonic transit times ranging mostly from 100 to 120 usec/ft.
1,980 – 2,102	Interbedded limestone and dolostone with lower porosities. Tighter dolostone beds have sonic transit time of less than 70 usec/ft.
2,102 – 2,112	Fractured strata characterized by sonic transit times exceeding 150 usec/ft.
2,112 – 2,166	Interbedded limestone and dolostone with sonic transit times ranging from 80 to 100 usec/ft.
2,166 – 2,480	Fractured dolostone intervals characterized by sonic transit times of 150 to 240 usec/ft.
2,480 – 2,545	Mostly low porosity dolomitic strata. Tight beds have sonic transit times of less than 80 usec/ft.
2,545 – 2,640	Fractured dolostone intervals predominant. Sonic transit times greater than 170 usec/ft.
2,640 – 2,748	Mostly low porosity dolomitic strata. Tight beds have sonic transit times of less than 100 usec/ft.
2,748 – 3,500	Interbedded relatively low porosity dolostones and apparently fractured strata. Tight beds have sonic transit times of less than 60 usec/ft. Fractured intervals are characterized by sonic transit times exceeding 120 usec/ft and spiky appearance.

Log Derived TDS

This log indicates that the base of the USDW is located at approximately 1,940 feet bpl. This is depth the log derived curve crosses the 10,000 mg/L TDS level. There are two sharp peaks that cross the 10,000 mg/L TDS level at 1,690 and 1,754 feet bpl. These calculations are considered anomalous and are related to two separate dolostone intervals that possess very low porosity characteristics.

Flow Meter Log

Flowmeter Log - The response of the flow meter log indicated increasing flow contributions from the base of the pilot hole and cross flow zones. Table 1 summarizes the flowmeter log. The log was post-processed to show percentage of flow, gallons per minute, and calibration. The processed logs are provided in this section.

Table 1 – Summary of flow meter log: 2,100 to 3,500 feet bpl percentage of flow

Depth Interval (feet bpl)	Comments
3,380 to 3,500	No contribution to flow
3,190 to 3,380	10% contribution to flow
3.055 to 3,190	15% contribution to flow
3,055	Cross flow interval
2,950 to 3,055	Slight contribution to flow
2,750 to 2,950	20% contribution to flow
2,560 to 2,750	No contribution to flow
2,170 to 2,560	80 % contribution to flow
2,100 to 2,170	No contribution to flow

Another indication of cross flow is reflected in the static flowmeter log. The log indicates cross flow by the varying counts per second (cps) rate in what should usually be a fairly stable rate. Cross flow is indicated by sharp changes in cps rate at the following depths 3,170; 3,050; 2,875; 2,565 feet bpl and gradual changes over the interval starting at 2,350 and continuing to 2,195 feet bpl. The occurrence of cross flow is interpreted to result from different hydraulic head levels between zones of fractures with those zones with relatively higher heads discharging to zones with lower heads.

Borehole Televiewer

The televiewer presentation is from 2,100 to 2,383 feet bpl. The entire open hole section for the final injection casing was intended to be surveyed but due to an electronic malfunction the survey was limited to 2,383 feet bpl. The televiewer indicates a mostly smooth, well indurated borehole from the base of casing at 2,100 feet bpl to approximately 2,158 feet bpl. From 2,158 to 2,383 feet bpl, the televiewer indicates that there are relatively hard formational characteristics that are fractured or have voids.

Borehole Video Log Interpretation
City of Clewiston Injection Well IW-1

12 ¼ -inch diameter pilot hole from 975 to 2,100 feet below pad level (bpl)

Depth (ft bpl)	Description
975-1058	No video- too turbid and/or borehole diameter too large for camera to focus on borehole wall (BHW)
1058-1068	Some improvement in visibility, however still murky; BHW looks relatively smooth, light colored limestone, some pitting-likely from drill bit impact
1068-1103	Light colored limestone, smooth, some pitting, void at 1075 ft bls (less than 1 foot cavity), poor visibility
1103- 1130	BHW slightly more vuggy, texture becoming rougher/more pitted, light colored limestone, some larger voids from 1107-1113
1130-1159	Visibility decreasing, light colored limestone, BHW appears pitted, vuggy, no large cavitites
1159-1168	Visibility decreasing, BHW appears vuggy/pitted, light colored limestone
1168-1178	Large cavities present from 1168-1174, then vuggy but no large cavities, visibility decreasing
1178-1306	Poor visibility, BHW is smoother than above, but still pitted, light colored limestone, no noticeable fractures or cavities
1306-1442	Moderate visibility, BHW appear relatively smooth, small cavities at 1306 and 1368, ledge at 1350-1351
1442-1464	Increasing number of small voids, moderate visibility
1464-1510	Moderate visibility, relatively smooth BHW, no noticeable cavities
1510-1527	Better visibility, vuggy, void at 1525, limestone ledge at 1527

Depth (ft bpl)	Description
1527-1664	Decreasing visibility, vuggy, turbid, ledges at 1565-1566, 1595, 1624.
1664-1680	Rougher, more pitted limestone texture, vuggy, camera shifts at 1664, borehole diameter is decreasing.
1680-1692	Limestone ledge at 1680, visibility is increasing, borehole diameter is decreasing.
1692-1707	vertical fractures present (dark brown dolostone), running from 1692-1698, 1699-1702, cavities present, good visibility
1707-1740	Increasing borehole diameter from 1707-1708, alternating limestone/dolostone lenses and laminae
1740-1759	Increased visibility, interbedded limestone/ dolostone laminae and beds, some cavities, vertical fractures 1747-1759 -darker brown dolostone
1759-1860	Borehole irregular shape, light colored limestone, 1764-1765 dark brown dolostone, cavities visible at 1766, 1788, 1823.
1860-1899	No to low visibility, when visible BHW are light colored and smooth, small voids.
1899-1982	Larger cavities present from 1934-1938, 1944, and 1953-1982, borehole walls relatively smooth
1982-2003	Vertical fractures from 1982-1987- darker rougher color/textured dolomite, vuggy textured BHW.
2003-2010	Larger voids, interbedded limestone/dolostone beds
2010-2038	Smaller diameter borehole, pitted/vuggy walls, no large cavities.
2038-2045	Rough textured BHW, some larger voids
2045-2064	Pitted dolomitic limestone walls, no large cavities.
2064-2065	Irregular shaped borehole-camera will not go further, other geophysical tools got to TD (2100 ft)

Depth (ft bpl)	Description
2092-2093	Brownish orange , smooth BHW, visibility good.
2094-2100	BHW smooth, light gray dolomitic limestone.
2101-2105	Blocks broken from BHW, gray dolostone.
2106-2129	BHW coarser texture dolostone interbedded with smoother pale dolomitic limestone layers at 2106-2108, 2121-2110, 2127-2124. This looks pitted at camera switch.
2130-2152	BHW smooth, poorer visibility
2153-2171	BHW smooth texture, improved visibility interbedded with coarser layers at 2154-2157, 2168-2165 and 2170-2171.
2172-2179	Irregular borehole shape, cavernous.
2180-2219	Dark gray dolostone, coarser BHW.
2220-2292	Light gray dolostone with smooth BHW. This sandwiches a cavernous area from 2264-2267.
2293-2295	Bore hole has a rough, blocky appearance.
2296-2301	Irregular borehole shape, cavernous.
2302-2359	BHW is smooth dolostone with irregular cavernous areas from 2313-2319 and 2343-2346.
2360-2365	Irregular bore hole shape. Camer switches
2366- 2394	BHW is smooth. There is either cable or plant debris at 2368 and 2392.
2395-2484	From 2395-2405 and 2424-2425 irregular shape and cavernous. BHW is smooth dolostone between these depths.
2485-2495	BHW coarse texture, poorer visibility.
2496-2540	Brown/gray dolostone, pitted. Cavities at 2499 and 2517. Vertical fractures from 2525-2527 and 2530-2535.

Depth (ft bpl)	Description
2541-2550	BHW smooth with chucnks broken off.
2551-2559	Brown/gray dolostone. White object (bottle cap?) at 2552.
2560-2585	Poor visibility. Images blurred.
2586-2597	Visibility still poor. Camera switches.
2598-2605	BHW relatively smooth. Poor visibility.
2606-2612	Irregular borehole shape, cavernous.
2613-2700	Visibility decreases.
2701-2757	BHW has pitted light gray dolostone., 2726 is darker.
2758-2759	Irregular borehole shape.
2760-2840	BHW has semi-rough texture. Camera switches.
2841-2856	BHW has rough texture. Brown gray dolostone with pitted surfaces.
2853-2856	Vertical fractures in BHW. Good visibility.
2857-2879	Medium gray dolostone. Decrease in visibility. Camera switches.
2880-2902	BHW smooth, poor visibility.
2903-2966	BHW texture more coarse.
2967-3000	Poor visibility, blurred images.
3001-3044	BHW smooth and regular in shape.
3045-3047	Dark gray dolostone, irregular borehole shape, small cavities.
3048-3058	BHW is rougher, medium gray dolostone.
3059-3102	Smooth BHW. Visibility decreases.

Depth (ft bpl)	Description
3103-3315	Visibility improves. Fine, light gray dolostone. Smooth BHW.
3316-3323	Cavities. Good visibility. Camera switches.
3324-3359	BHW smooth, medium and light gray dolostone. Interbedded with two thick black layers at 3332 and two thin black layers at 3335 and 3341. Some cavities at 3335.
3360-3367	Vertical fractures in BHW. Cavities at 3361.3367 has a horizontal fracture.
3368-3374	Blurred. Borehole is cavernous. Ledge at 3374.
3375-3390	Blurred, poor visibility, cavernous.

APPENDIX N

Packer Test Data Plots

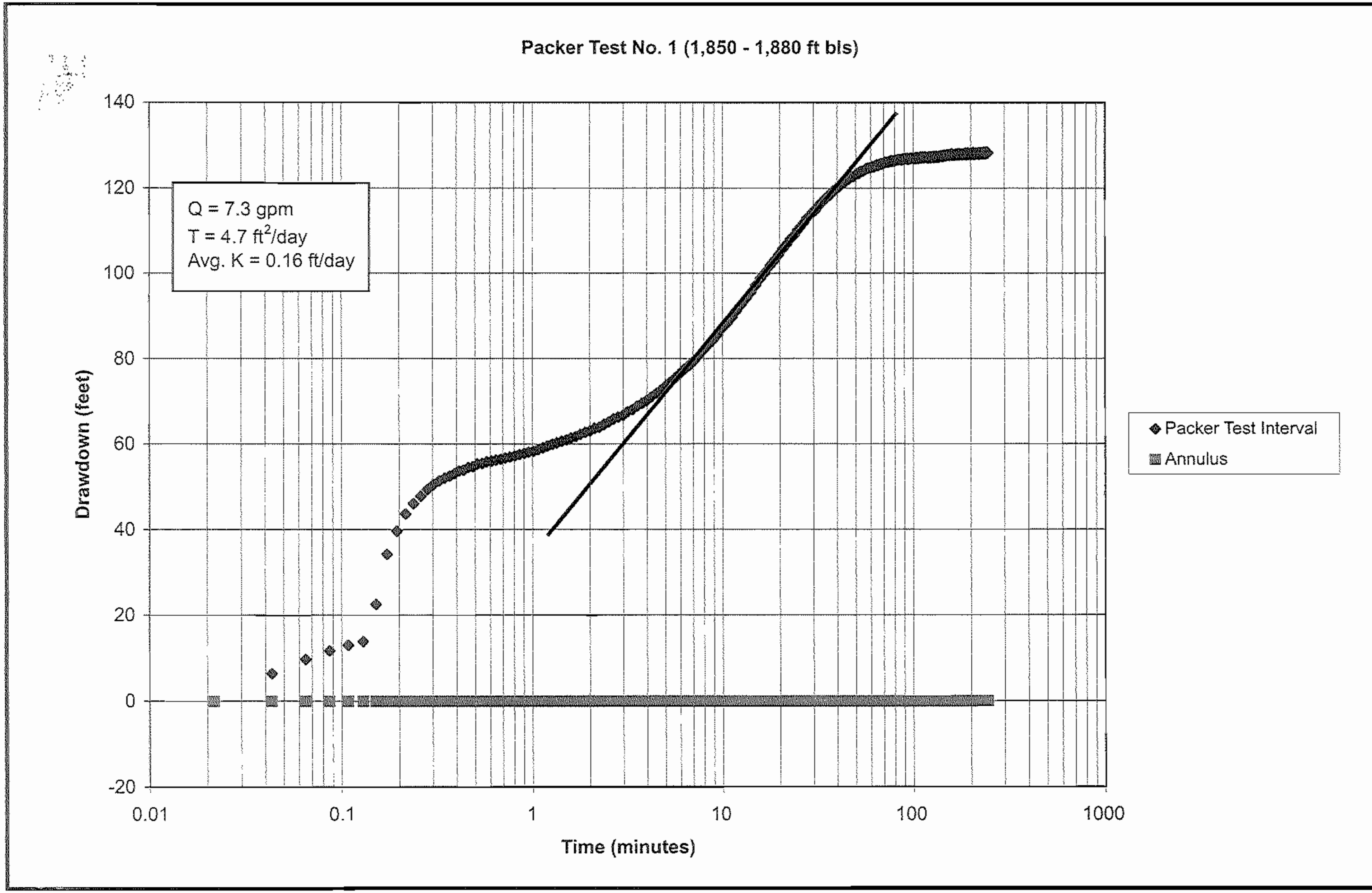

Figure M-1
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

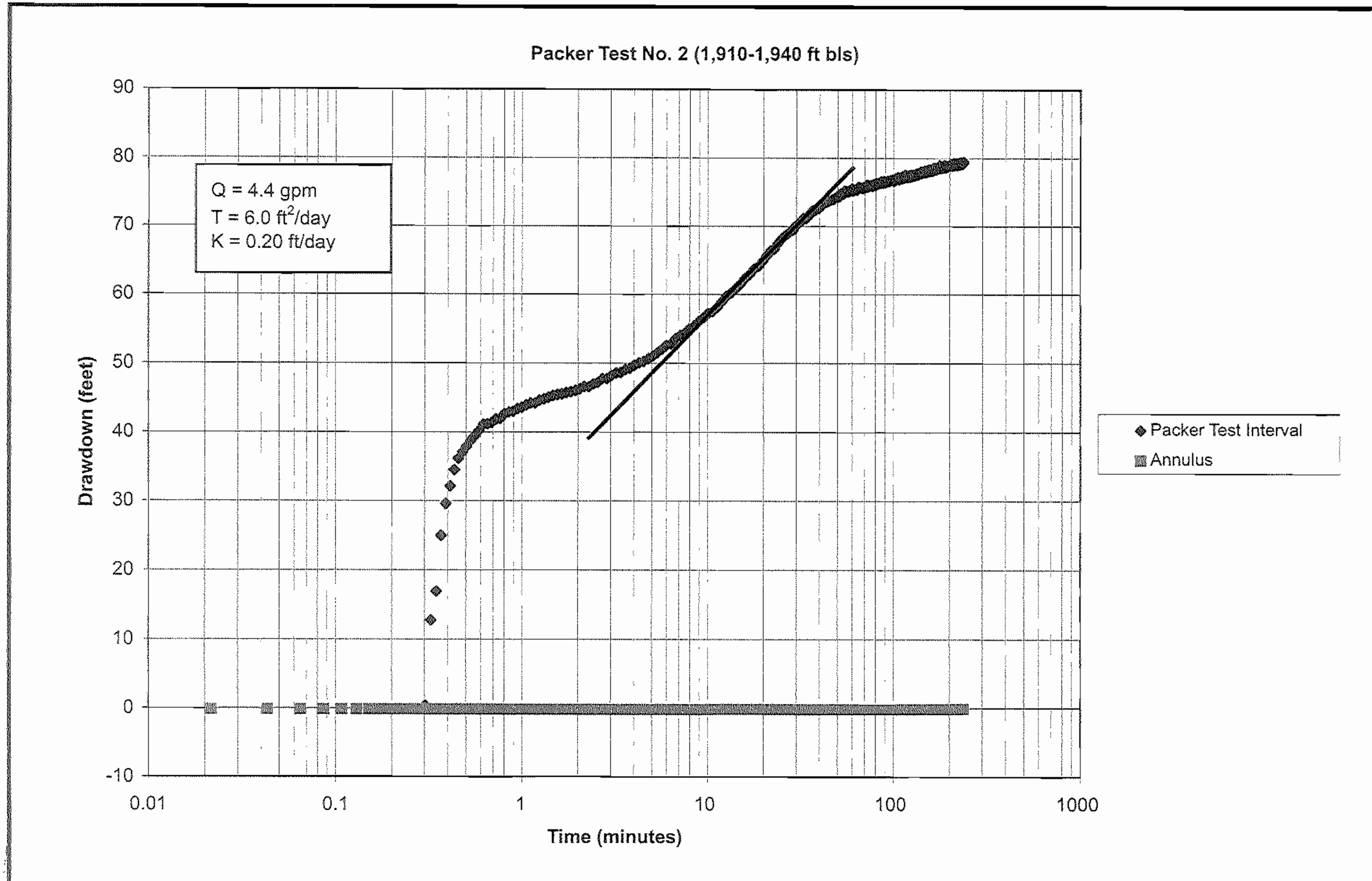

Figure M-2
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

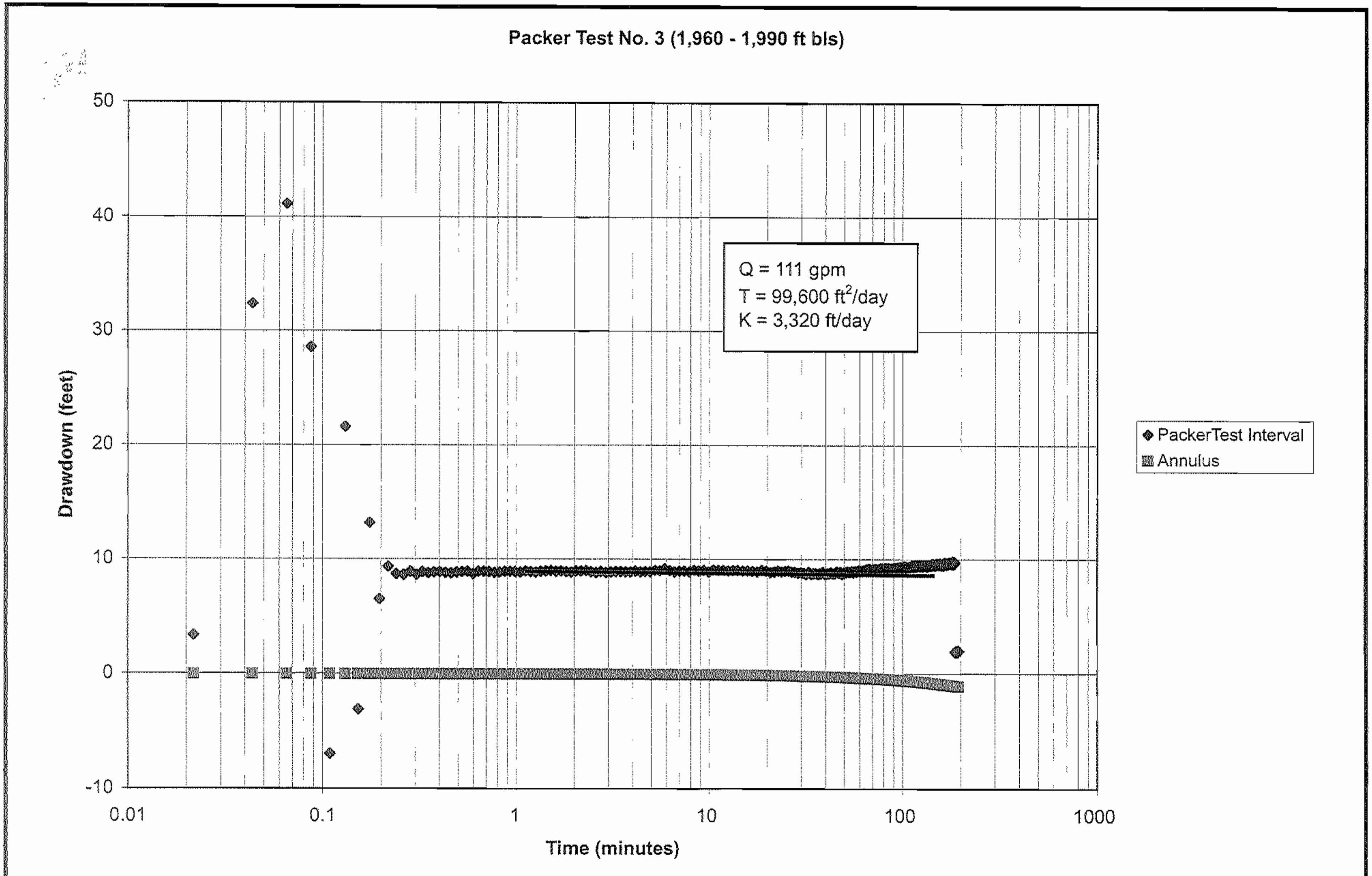

Figure M-3
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

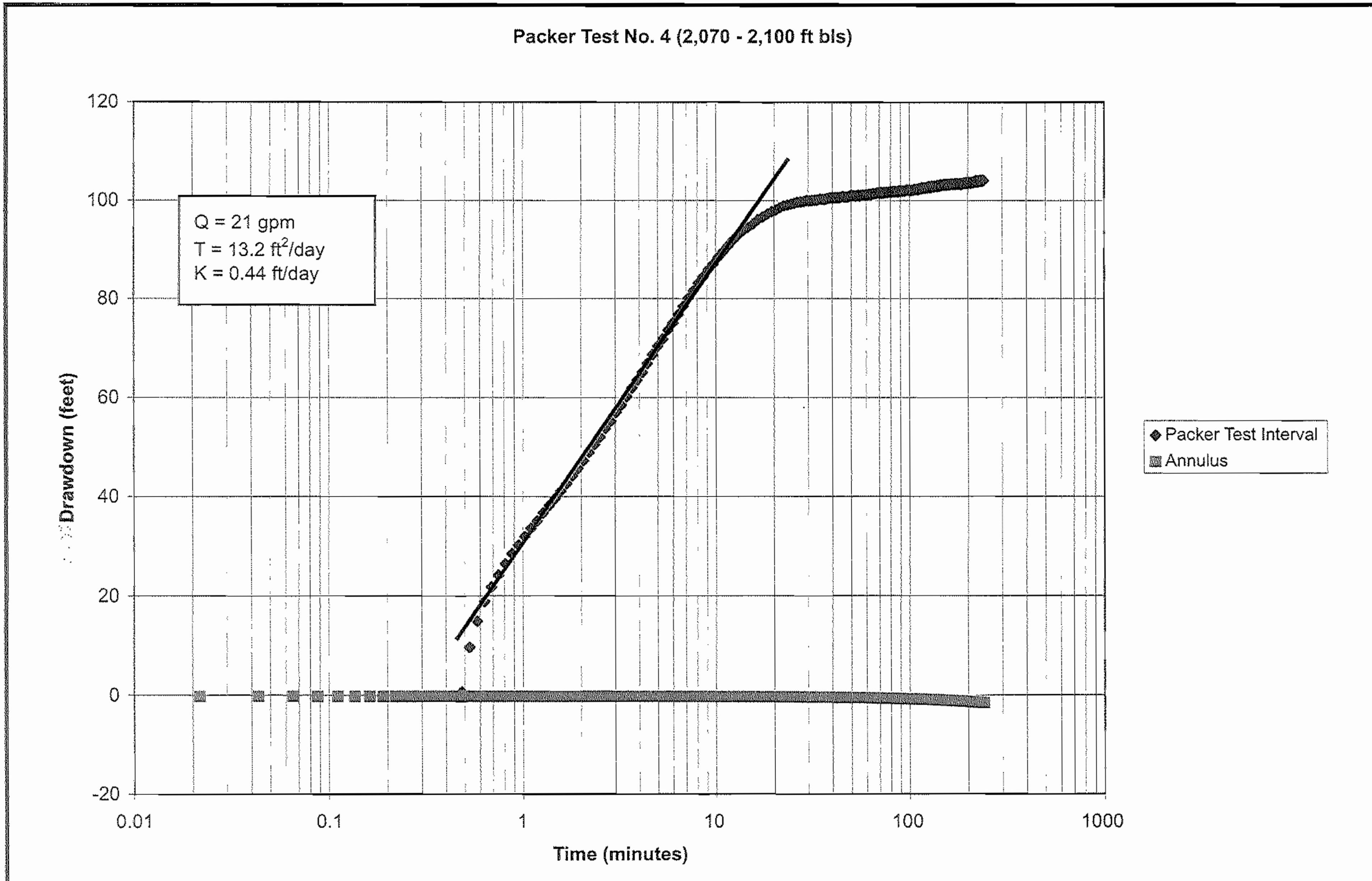

Figure M-4
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

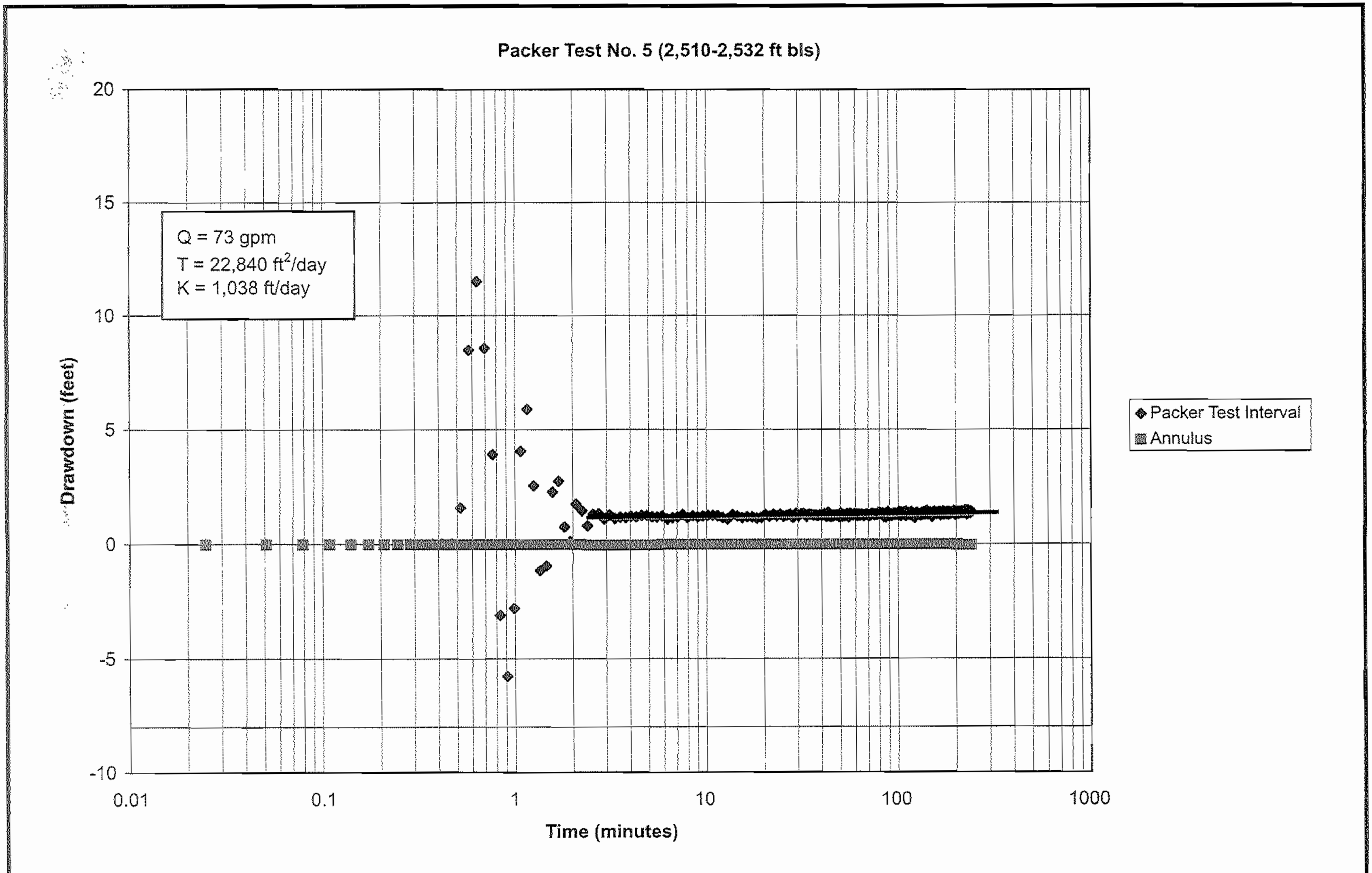

Figure M-5
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

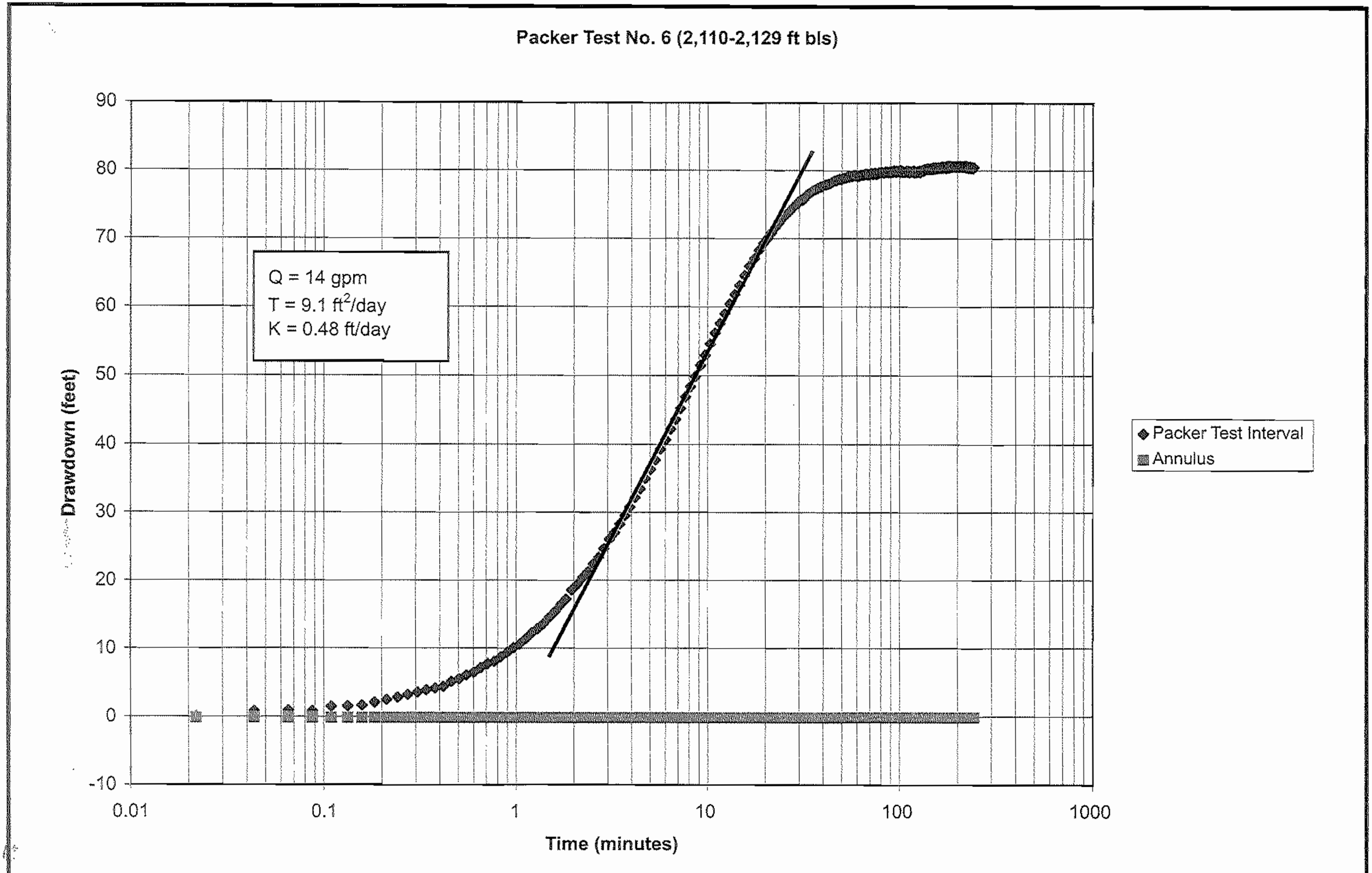

Figure M-6
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

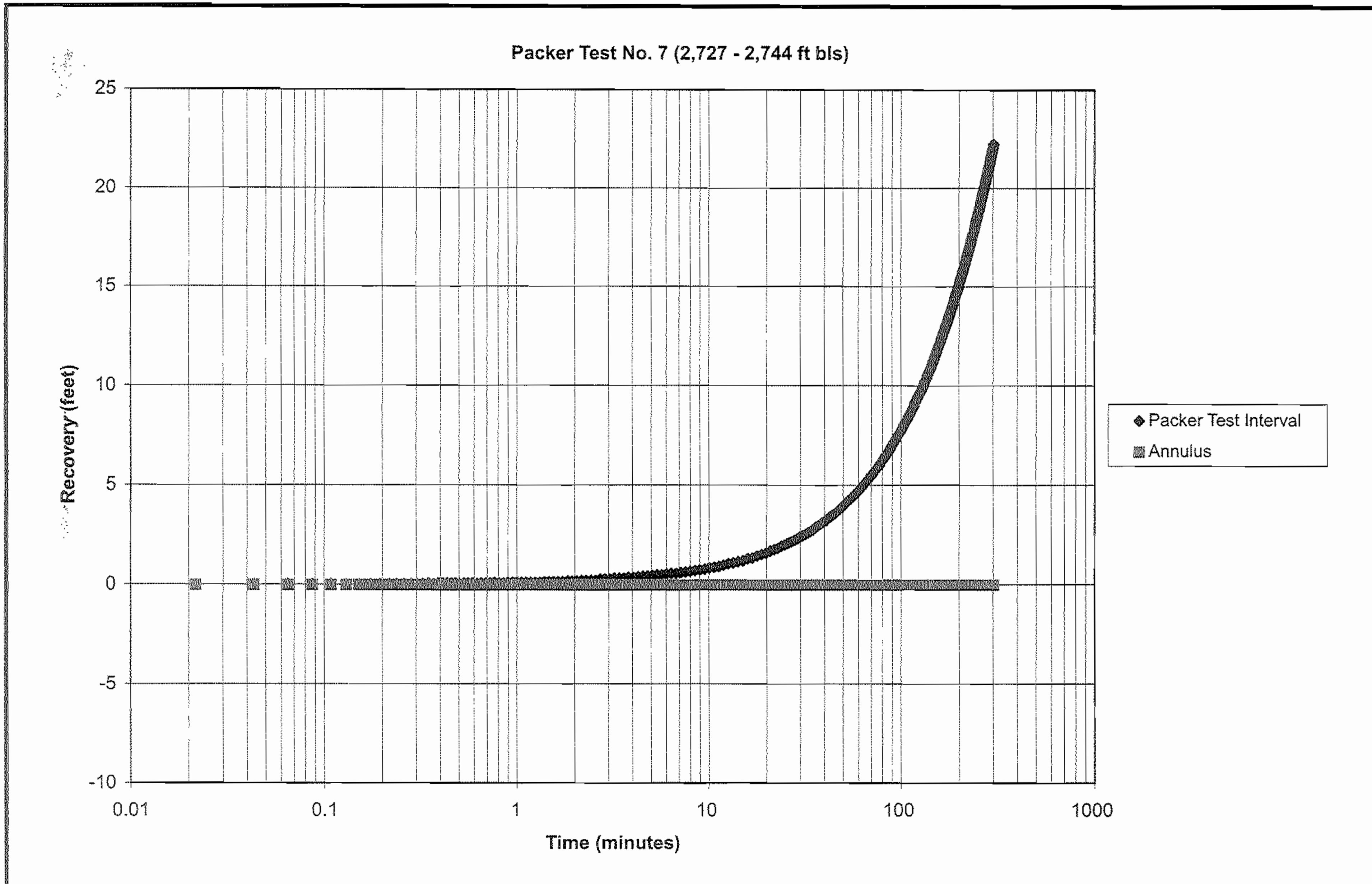

Figure M-7
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

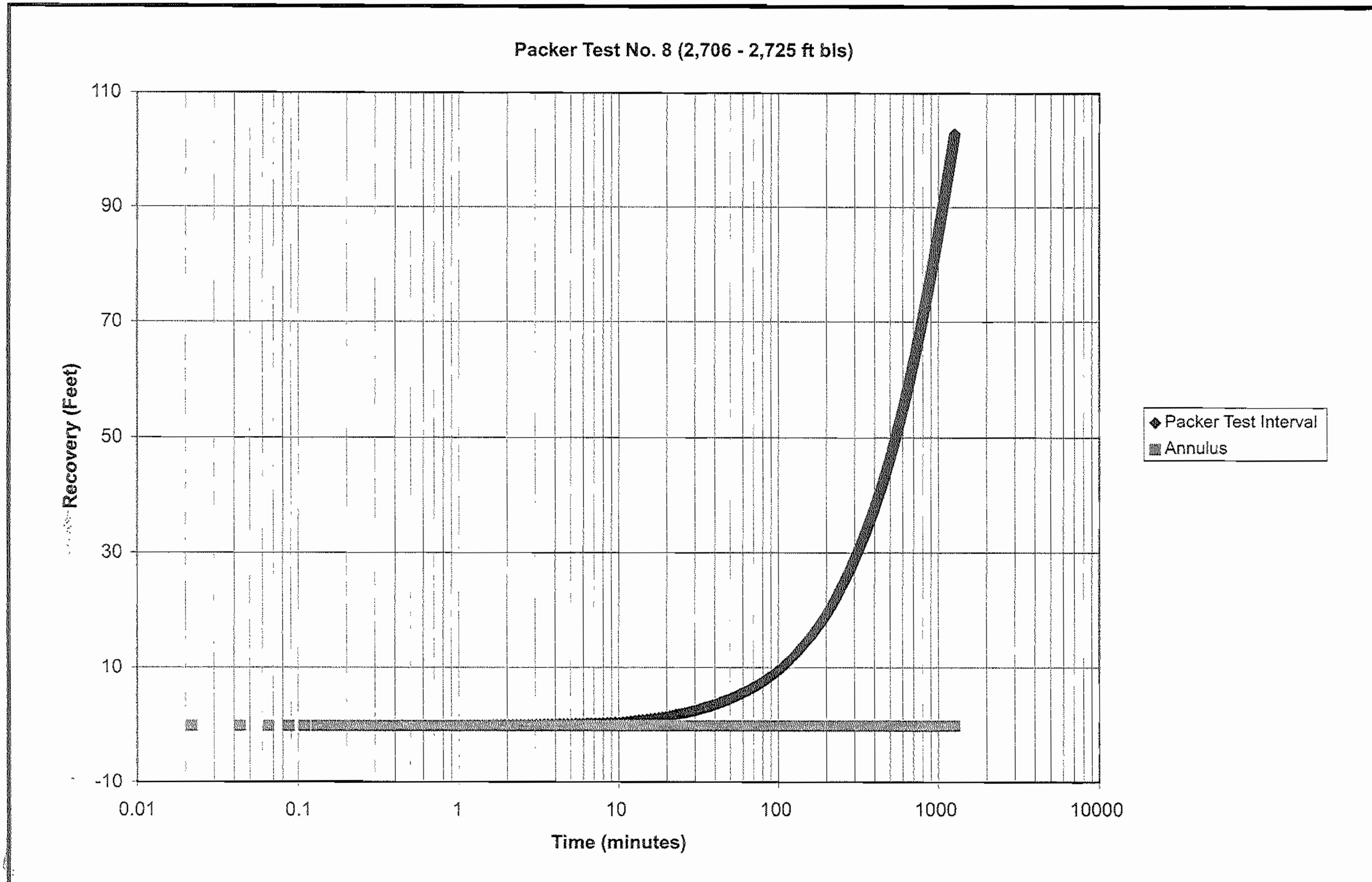

Figure M-8
Clewiston WTP Injection Well System, IW-1
Packer Test No.1- Pumping Phase Data

CDM

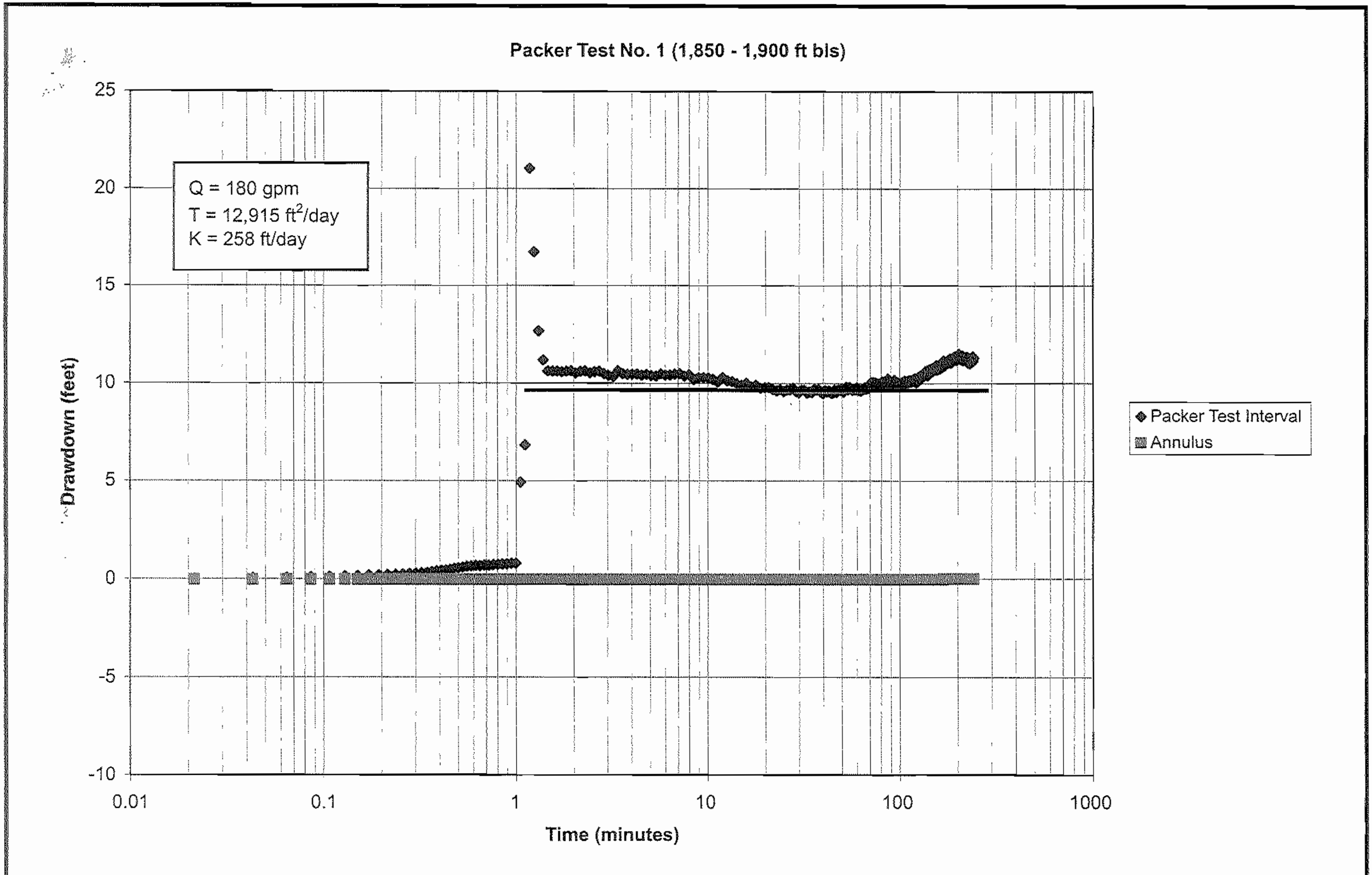

Figure M-9
Clewiston WTP Injection Well System, DZMW-1
Packer Test No.1- Pumping Phase Data

CDM

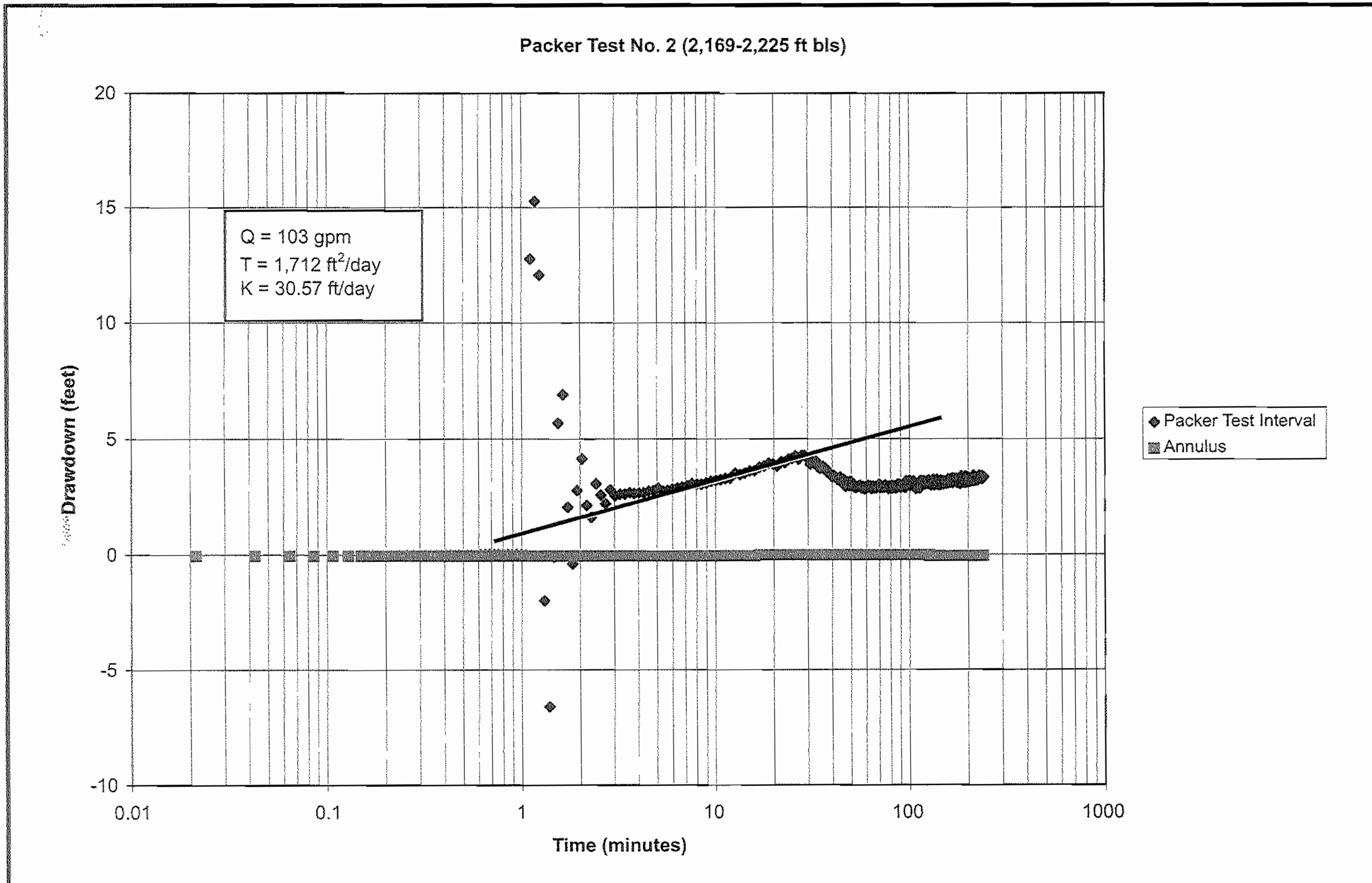

Figure M-10
Clewiston WTP Injection Well System, DZMW-1
Packer Test No.1- Pumping Phase Data

CDM

APPENDIX O

Injection and Pressure Test Data

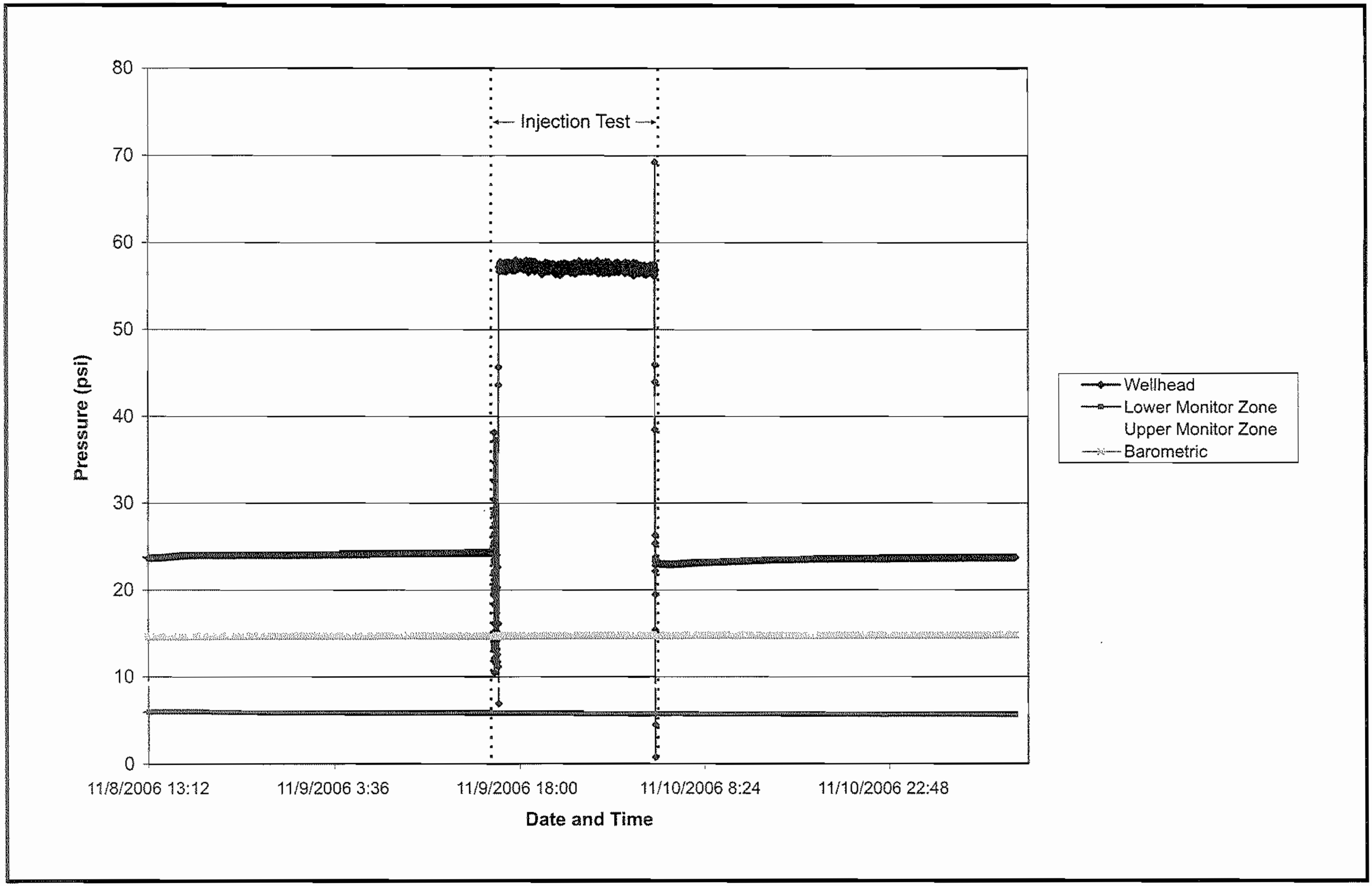

Figure N-1
Clewiston WTP Injection Well System
Injection Test

CDM

BLUE
RIBBON

Blue Ribbon Sales & Services
1940 Howell Branch Rd.
Winter Park, FL 32792

Phone: (877) 677-8899
Fax: (407) 657-6622
www.blueribboncorp.com

CALIBRATION CERTIFICATE
05/23/06

Youngquist Brothers, Inc
15465 Pine Ridge Rd.
Fort Myers, FL 33908

P.O. 19779

S/N: 040305-1

This certificate will certify that your gauge authorized for calibration on your Purchase Order 19779, tested this date, and is in calibration. The gauge tested is identified as a 6", McDaniels gauge 0-200 psi.

This gauge was tested on a Mansfield & Green Deadweight Tester model T-100 Serial Number 11353, certified by QUALITY SYSTEMS LAB, INC., on August 11, 2005 to be accurate to within +/-.25%, traceable to NIST standards.

The subject gauge performed to within +/-1.5% accuracy.

Sincerely,

Juan Nova

FINAL PRESSURE TEST RESULTS

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1 0f 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC DATE: 8/21/06 (Day)

CASING SIZE: 16" OD x 0.50" wall RECORDED BY: D. Legett

CASING DEPTH: 2749 ft. bpl WITNESSED BY (FDEP): Doug Wells

PACKER DEPTH: 2726 ft. bpl

TIME (HOURS)	ELAPSED TIME (MINUTES)	CASING PRESSURE (PSI)	PRESSURE CHANGE (PSI)	CUMULATIVE PERCENT PRESSURE CHANGE (%)
0940	0	158.1		
0945	5	158.1	0.0	0.00
0950	10	158.0	0.1	0.06
0955	15	158.0	0.0	0.06
1000	20	158.0	0.0	0.06
1005	25	157.8	0.2	0.19
1010	30	157.6	0.2	0.32
1015	35	157.6	0.0	0.32
1020	40	157.4	0.2	0.44
1025	45	157.3	0.1	0.51
1030	50	157.1	0.2	0.63
1035	55	157.0	0.1	0.70
1040	60	156.8	0.2	0.82
		Total pressure change =	1.3 psi	

Witness signatures:

See original handwritten form for signature of Doug Well, FDEP-Ft. Myers

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TRIAL PRESSURE TEST RESULTS

WELL: IW-1 | PROJECT NO.: 27335-45307 | PAGE: 1 0f 1

SITE LOCATION: Clewiston | PERMIT NO.: 249635-001-UC | DATE: 8/21/06 (Day)

CASING SIZE: 16" OD x 0.50" wall | RECORDED BY: D. Legett

CASING DEPTH: 2749 ft. bpl | WITNESSED BY (FDEP): Doug Wells

PACKER DEPTH: 2726 ft. bpl

TIME (HOURS)	ELAPSED TIME (MINUTES)	CASING PRESSURE (PSI)	PRESSURE CHANGE (PSI)	CUMULATIVE PERCENT PRESSURE CHANGE (%)
0940	0	158.1		
0945	5	158.1	0.0	0.00
0950	10	158.0	0.1	0.06
0955	15	158.0	0.0	0.06
1000	20	158.0	0.0	0.06
1005	25	157.8	0.2	0.19
1010	30	157.6	0.2	0.32
1015	35	157.6	0.0	0.32
1020	40	157.4	0.2	0.44
1025	45	157.3	0.1	0.51
1030	50	157.1	0.2	0.63
1035	55	157.0	0.1	0.70
1040	60	156.8	0.2	0.82
		Total pressure change =	1.3 psi	

Witness signatures:

Wal Wells FDEP

III

Thur

PRESSURE TEST RESULTS 16-inch Casing / 11.7-inch Fiberglass Tubing Annulus		
WELL: IW-1	PROJECT NO: 27335-45307	PAGE: 1 of 1
SITE: Clewiston	PERMIT NO: 249635-001-UC	DATE: 09/01/06

16" CASING DEPTH: 2749 ft bpl
11.7" F/G DEPTH: 2742 ft bpl

RECORDED BY: AMM
WITNESSED BY: Alyssa Mork

DATE AND TIME	ELAPSED TIME (MINS)	CASING PRESSURE (PSI)	PRESSURE CHANGE PSI	PRESSURE CHANGE % CHANGE
9/01/06 0935	0.0	153.0	0.0	0.0
0940	5.0	153.0	0.0	0.0
0945	10.0	153.0	0.0	0.0
0950	15.0	153.0	0.0	0.0
0955	20.0	153.0	0.0	0.0
1000	25.0	153.0	0.0	0.0
1005	30.0	153.0	0.0	0.0
1010	35.0	153.0	0.0	0.0
1015	40.0	153.0	0.0	0.0
1020	45.0	153.0	0.0	0.0
1025	50.0	153.0	0.0	0.0
1030	55.0	153.0	0.0	0.0
1035	60.0	153.0	0.0	0.0

Witness Signatures:

(see handwritten form for signature)

PRESSURE TEST RESULTS
16-inch Casing / 11.7inch Fiberglass Tubing Annulus

WELL: IW-1 PROJECT NO: 27335-45307 PAGE: 1 of 1

SITE: Clewiston PERMIT NO: 249635-001-UC DATE: 9/1/06

~~CASING SIZE~~:

16" CASING DEPTH: 2749 ft bpl

F/G TUBING DEPTH: 2742 ft bpl

RECORDED BY: AMM

WITNESSED BY: Alyssa Mork

DATE AND TIME	ELAPSED TIME (MINS)	CASING PRESSURE (PSI)	PRESSURE CHANGE PSI	PRESSURE CHANGE % CHANGE
9/1/06 0935	0.0	153.0	—	—
0940	5.0	153.0	0.0	0
0945	10.0	153.0	0.0	0
0950	15.0	153.0	0.0	0
0955	20.0	153.0	0.0	0
1000	25.0	153.0	0.0	0
1005	30.0	153.0	0.0	0
1010	35.0	153.0	0.0	0
1015	40.0	153.0	0.0	0
1020	45.0	153.0	0.0	0
1025	50.0	153.0	0.0	0
1030	55.0	153.0	0.0	0
1035	60.0	153.0	0.0	0

Witness Signatures:

Alyssa Mork

FINAL PRESSURE TEST RESULTS

WELL: DZMW-1	PROJECT NO.: 27335-45307	PAGE: 1 of 1
SITE LOCATION: Clewiston	PERMIT NO.: 249635-001-UC	DATE: 10/23/06 (Day)

CASING SIZE: 12" OD x 0.375" wall	RECORDED BY: J. Prewitt
CASING DEPTH: 1950 ft. bpl	WITNESSED BY (FDEP): Alyssa Mork
PACKER DEPTH: 1930 ft. bpl	

TIME (HOURS)	ELAPSED TIME (MINUTES)	CASING PRESSURE (PSI)	PRESSURE CHANGE (PSI)	CUMULATIVE PERCENT PRESSURE CHANGE (%)
1340	0	68.0		
1355	15	68.0	0.0	0.00
1410	30	68.0	0.0	0.00
1420	40	68.0	0.0	0.00
1430	50	68.0	0.0	0.00
1440	60	68.0	0.0	0.00
		Total pressure change =	0.0 psi	

Witness signatures:

See daily log form for signature of Alyssa Mork, FDEP-Ft. Myers

DAILY LOG

WEEK NO.: ENDING DATE:

WELL: IW-1 PROJECT NO.: 27335-45307 PAGE: 1

SITE LOCATION: Clewiston PERMIT NO.: 249635-001-UC CONTRACTOR: YOUNGQUIST

PREPARED BY: JMP DATE: 10/23/06 Day HOURS: 0700 - 1900

DATE/TIME	DESCRIPTION OF ACTIVITIES
10/23/06 0700	JMP On Site, Welder arrived on site
	Status: Pipe and packer in hole. Welding top on
0950	Packer Inflated 520 psi set at 1936 ft. bgs.
10:29	Start pressure test 66.25 psi
10:59	pressure test - 66.75 psi FDEP contacted - ETA 13:00 ~~pm~~
11:14	pressure test - 67.0 psi
11:29	pressure test - 67.25 psi 1.5% change over 1 hr.
11:59	pressure test 68.0 psi
12:14	pressure test 68.0 psi
12:29	pressure test 68.0 psi 1.1% change over 1 hr.
12:59	pressure test 68.0 psi
13:29	pressure test 68.0 psi 0 change over 1 hr
13:40	Allyssa Mork - FDEP On site Start Final pressure test
	68.0 psi - down hole 450 psi on packer
13:55	68.0 psi
14:10	68.0 psi
14:20	68.0 psi
14:30	68.0 psi
14:40	68.0 psi 0 change over 1 hr. A Mork DEP
14:45	Obtained 4 Gal. water discharge from pressure release
	Begin tripping steel out of hole
17:10	JMP off site
1900	JMP On Site

PRESSURE TEST RESULTS SHEET

WELL: DZMW-1 | PROJECT NUMBER: 27335-45307 | PAGE: 1 of 1

SITE LOCATION: Clewiston | PERMIT NO: 249635-001-UC
WALL THICKNESS: 0.52" | CASING DEPTH: 2132 ft bpl | Drill Floor =
CASING DIAMETER: 6.5" OD | DATUM: Pad Level = 19.78 ft NGVD | 3.60 ft above pad

ELAPSED TIME (min)	CASING PRESSURE (psi)	CHANGE IN PRESSURE	PERCENT CHANGE	
0	69.75	0.00	0.00%	
15	69.75	0.00	0.00%	
30	69.75	0.00	0.00%	
45	69.75	0.00	0.00%	
55	69.75	0.00	0.00%	
60	69.75	0.00	0.00%	
Total Change	0.00		Percent Change - Total	0.00%