# Panhandle Water News

August 2004



## RULES REVISIONS NOT YET COMPLETE

Despite the two public hearings that have been held since the last *"Panhandle Water News"* was mailed, the District Rules are still not completed. Following a public hearing on March 24, the Board of Directors adopted 15 of the 16 proposed operating rules and returned one to the rules committee. Those 15 adopted rules took effect immediately. The Depletion Rule, Rule 15, was returned to the rules committee to further clarify language. The new rules incorporated public comments made during a four-week comment period that ended on March 16 as well as comments and testimony from four public meetings.

On May 26, another public hearing was held on the proposed revisions, including an additional rule, Rule 16, to set the annual decline rate at 1.25%. Board members heard 2 ½ hours of testimony on several issues of concern, including the 1.25 percent depletion rule, lack of metering being imposed on all users, and an emergency use provision. After spending some time in closed session to determine what course of action they would take, the Board decided to eliminate Rule 4.3(r), the emergency use clause, and send proposed Rule 16 back to the Rules committee, to include a provision for sun-setting of the rule and to address the acceptable decline rate. The staff was instructed to survey the effectiveness of the current voluntary metering program and bring a presentation to the Board regarding the feasibility of metering as many wells as possible with a cost-sharing program. The remaining proposed rules were adopted.

A revision of the Depletion Rule, Rule 15, was returned to the Board on August 18, 2004 and the Board approved the rule to be published for public comment.

A copy of the current rules and proposed changes are available on the District's website, **www.panhandlegroundwater.org**, or by calling the office, (806)883-2501.

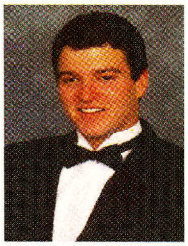
## SECOND ANNUAL GROUNDWATER SCHOLARSHIP WINNERS ANNOUNCED

The Panhandle Groundwater Conservation District is proud to announce the winners of the second annual PGCD scholarship program. The District received essays from fifteen applicants, vying for scholarship monies. To be eligible, the applicants must be senior class students, graduating from schools within the District. Scholarship applicants are required to write a water-related essay on a topic chosen by the District. Scholarship recipients must enroll as a full-time student and attend college the fall semester immediately following selection.

Jennifer Hutchison
Miami High School

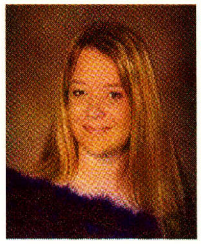
The District is pleased to announce the following selections. Receiving first place, a $4,000 scholarship, is Ms. Jennifer Hutchison, Miami High School.

**PLEASE NOTE:** Ms. Hutchison's essay, explaining her views on whether water should be controlled by local groundwater districts or by the state, will be published in the next edition of "*Panhandle Water News.*"


Jacob Hopkins
Pampa High School

Awarded second place, a $3,000 scholarship, is Mr. Jacob Hopkins, Pampa High School.

Third place, a $2,000 scholarship, was awarded to Ms. Courtney Martin, White Deer High School.


Courtney Martin
White Deer High

Due to the fact that each scholarship applicant was very worthy and each essay well written, competition was extremely tough. All of these applicants will become assets to the university or college they choose.

Congratulations to the winners and to all those that applied. Good luck and best wishes on all of your future endeavors!

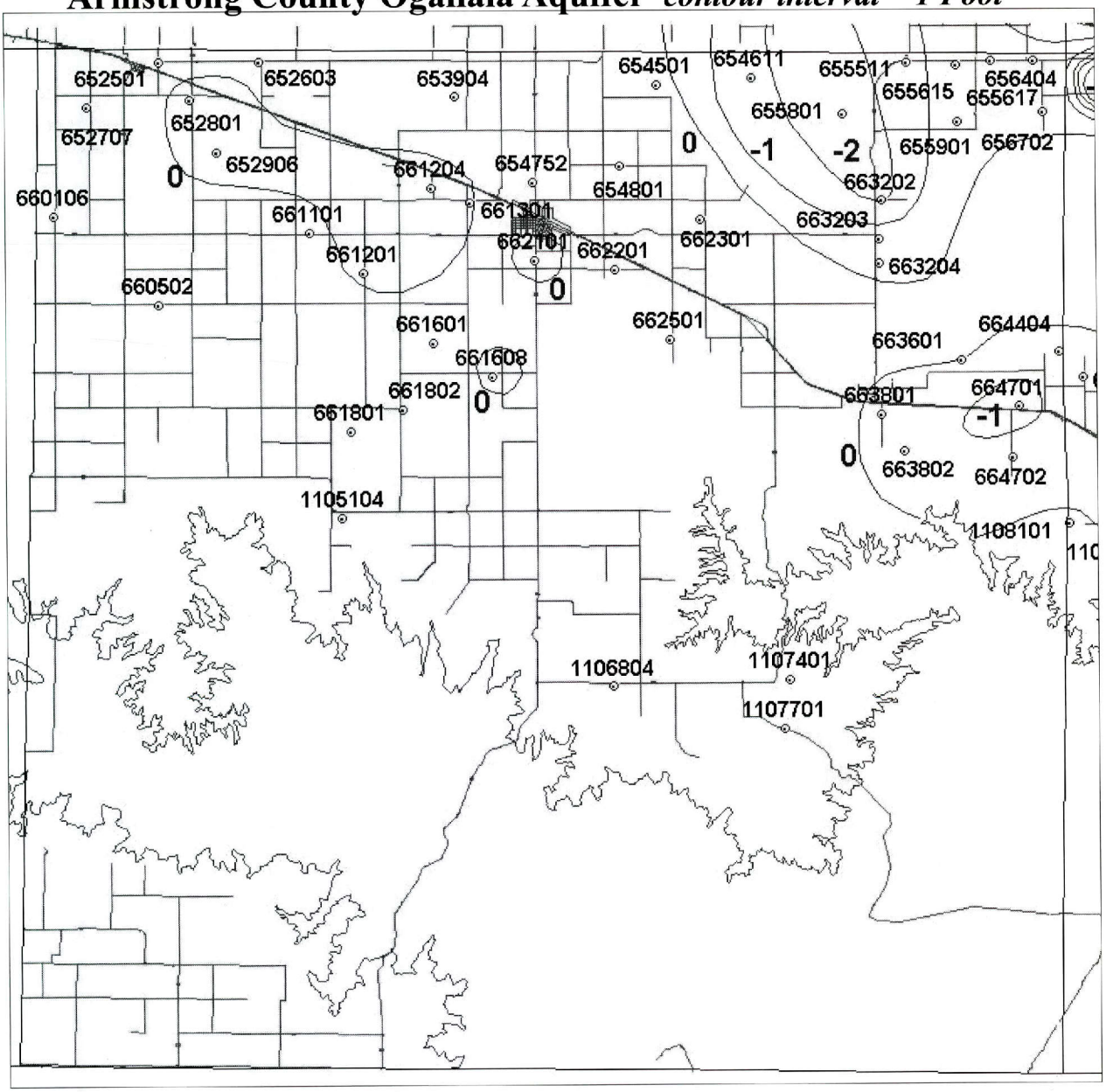
## BOARD SETS TAX RATE AND BUDGET

WHITE DEER - The Panhandle Groundwater Conservation District board of directors set the 2004 tax rate at $0.0152 per $100 valuation.

According to C. E. Williams, general manager of the District, "This is a slight decrease from last year's tax rate of $0.0154." The Board also lowered the 2004-2005 Budget by $75,000.

Mr. Williams said the final bill to property owners may vary from county to county, because of differences in valuations. Property appraisals are made by the individual counties in the District.

# Armstrong County Ogallala Aquifer *contour interval = 1 Foot*




## WATER CONSERVATION EDUCATION WRAP-UP

During the 2003-2004 school year, education director Bart Wyatt, traveled approximately 4,274 miles to bring fifth grade students throughout the District the water conservation program. By the end of May, a total of 2,376 students, in 48 different schools, had been given the presentation and a waterwheel. All but one public school in the District received the program. This would not have been possible without the cooperation and dedication of outstanding school faculty. We hope to add parochial schools and the remaining public school to the program, soon.

Each year, PGCD tries to add something new to the program. This year, students had the opportunity to take home a water saver kit. The kit contains a high efficiency showerhead, kitchen and bathroom sink aerators, a leak gauge, and an assortment of other conservation tools for use around the home. The District feels that this program sends a message, to both students and parents, about the importance of water conservation and the part they can do to preserve our precious resource.

Along with school education, members of the PGCD personnel stayed very busy manning the District's informational booth at events throughout the District. We participated in the Tri-State Fair, farm and ranch shows, agriculture days, health fairs, and science fairs, providing information and answering questions.

Throughout the year, C. E. Williams, Ray Brady, and Bart Wyatt gave numerous presentations to various groups, civic clubs, and organizations, not only within the District but also around the state. These presentations covered a wide range of subjects including, District Information, Water Education and Conservation, Availability of Water, Initial Production Permits, and Rainfall Enhancement. They were also interviewed by local and state radio, television, and newspaper reporters.

Education is the key to awareness, and more and more persons are beginning to realize the importance of water, and what is at stake for the people of the Panhandle. By working together, everyone in the District can become better educated on water and its conservation methods. Future generations are counting on us!

**Armstrong County Ogallala Wells (see map page 2)**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 652501 | 97 | -207.36 | -204.2 | -202.3 | -202 | 5.36 | 2.2 | 0.3 |
| 652603 | 95 | | | -168.6 | -168.2 | | | 0.4 |
| 652707 | 101 | | | -228.2 | -218.8 | | | 9.4 |
| 652801 | 104 | -169.8 | -170.8 | -171.8 | -172.5 | -2.7 | -1.7 | -0.7 |
| 652902 | 106 | -162.86 | -165.8 | -174 | -171.4 | -8.54 | -5.6 | 2.6 |
| 653904 | 112 | | | -187.1 | -186.8 | | | 0.3 |
| 654501 | 83 | | | -254.6 | -254.1 | | | 0.5 |
| 654611 | 196 | -307.42 | -304.2 | -312.6 | -313.3 | -5.88 | -9.1 | -0.7 |
| 654752 | 154 | | | -225.2 | -184.6 | | | 40.6 |
| 654801 | 157 | -296.69 | -294.7 | -294.2 | -293 | 3.69 | 1.7 | 1.2 |
| 655511 | 132 | | | -342.2 | -350.8 | | | -8.6 |
| 655615 | 88 | -344.36 | -349.1 | -352.8 | -353.2 | -8.84 | -4.1 | -0.4 |
| 655617 | 100 | | | -350.3 | -350.6 | | | -0.3 |
| 655801 | 154 | -125.39 | -125.9 | -134.3 | -136.8 | -11.41 | -10.9 | -2.5 |
| 655901 | 101 | -236.4 | -241 | -245.6 | -243.5 | -7.1 | -2.5 | 2.1 |
| 656404 | 89 | -332.52 | -342.1 | -343.7 | -345.9 | -13.38 | -3.8 | -2.2 |
| 656702 | 60 | | -332.5 | -333.6 | -333.6 | | -1.1 | 0 |
| 660106 | 13 | -216.34 | -212.8 | -212 | -211.8 | 4.54 | 1 | 0.2 |
| 660502 | 224 | -152.86 | -153.2 | -152 | -152.2 | 0.66 | 1 | -0.2 |
| 661101 | 173 | -159.75 | -155.8 | -164.5 | -151.2 | 8.55 | 4.6 | 13.3 |
| 661201 | 211 | -204.22 | -191.3 | -206.3 | -191.6 | 12.62 | -0.3 | 14.7 |
| 661204 | 151 | | | -166 | -166.7 | | | -0.7 |
| 661301 | 168 | -160.89 | -158.5 | -158.5 | -158.5 | 2.39 | 0 | 0 |
| 661601 | 249 | -180.77 | -170.6 | -169.4 | -169.2 | 11.57 | 1.4 | 0.2 |
| 661608 | 273 | | -166 | -165.2 | -167.4 | | -1.4 | -2.2 |
| 661801 | 292 | -164.88 | -163.9 | -163.5 | -163.6 | 1.28 | 0.3 | -0.1 |
| 661802 | 290 | -159.21 | -159.7 | -157 | -147.4 | 11.81 | 12.3 | 9.6 |
| 662101 | 195 | -208.06 | -210.3 | -218 | -214.3 | -6.24 | -4 | 3.7 |
| 662201 | 204 | -192.94 | -186.4 | -186.9 | -186.4 | 6.54 | 0 | 0.5 |
| 662301 | 162 | -282.14 | -288.8 | -285.4 | -285.6 | -3.46 | 3.2 | -0.2 |
| 662501 | 243 | -193.05 | -190.9 | -187.8 | -187.4 | 5.65 | 3.5 | 0.4 |
| 663202 | 136 | -173.53 | -157.8 | -164.8 | -167.9 | 5.63 | -10.1 | -3.1 |
| 663203 | 137 | | -166 | -166.2 | -168.6 | | -2.6 | -2.4 |
| 663204 | 137 | -165.03 | -165.4 | -164.2 | -166.8 | -1.77 | -1.4 | -2.6 |
| 663401 | 170 | -193.61 | -194.3 | -194.4 | -194.6 | -0.99 | -0.3 | -0.2 |
| 663601 | 108 | -93.27 | -92.8 | -95.2 | -92.8 | 0.47 | 0 | 2.4 |
| 663801 | 142 | -192.23 | -193.3 | -194 | -194.5 | -2.27 | -1.2 | -0.5 |
| 663802 | 143 | -195.47 | -196.2 | -197.5 | -197.8 | -2.33 | -1.6 | -0.3 |
| 664404 | 1 | -107.34 | -110.2 | -112.8 | -112.8 | -5.46 | -2.6 | 0 |
| 664701 | 69 | -113.98 | -122.2 | -126.55 | -128 | -14.02 | -5.8 | -1.45 |
| 664702 | 71 | -139.86 | -139.1 | -140.1 | -141.8 | -1.94 | -2.7 | -1.7 |
| 1105104 | | | | -174.6 | -174.6 | | | 0 |
| 1106804 | 7 | | | -231.5 | -227 | | | 4.5 |
| 1107401 | 17 | -116.21 | -117.6 | -117 | -115.7 | 0.51 | 1.9 | 1.3 |
| 1107701 | 14 | -119.06 | -120.1 | -122 | -128.4 | -9.3 | -8.3 | -6.4 |

## 2004 WINTER WATER LEVEL MEASURMENTS

The information collected in the Water Level Measurement Program shows the hydrologic diversity within the Panhandle Groundwater Conservation District. There are five aquifer systems in the District: 1) the Ogallala aquifer, the most common aquifer in the District, and some Ogallala sand dune deposits; 2) the Dockum Group of aquifers, including the Santa Rosa Formation; 3) the Permian age formations including the Quartermaster formation and Whitehorse Group; 4) the Blaine Gypsum and associated Dog Creek Shale; and 5) the Seymour formation (in southeast Wheeler County).

Water level changes for previous years are discussed in the various charts in the newsletter. The Ogallala water levels in Carson and Gray counties continue to decline. Significant declines have developed in southwest Roberts County. The Ogallala aquifer in Donley, Wheeler and southeast Gray County continues to show mixed reaction to pumping and rainfall patterns. In southern Wheeler County, the measurements for the Seymour and Blaine aquifers were combined and analyzed as a unit. Studies of these aquifers in Collingsworth County and other areas to the southeast show an integrated relationship of these two units.

The District continued monthly water level monitoring activities in the southeast Roberts County area. Several wells in Gray and Roberts counties have been equipped with automatic recording devices. Installation of more of these types of recorders is planned for 2005.

In addition to measurements made by the District, water level measurements from the US Army Corps of Engineers, the City of Amarillo, CRMWA, USGS, and private contractors were used in developing the water level data. Their participation and assistance is appreciated.

## "RULE OF CAPTURE" SYMPOSIUM

On June 15, 2004, the Texas Water Development Board (TWDB) held an all-day symposium, offering legal, social, and historical commentary on the "rule of capture."

According to Mr. Bill Mullican, Deputy Executive Administrator of TWDB's Office of Planning, "the conference was held almost 100 years to the day after the rule of capture became the law of Texas." The rule of capture, a doctrine of private property rights to groundwater, was first enunciated by the Texas Supreme Court in the *Houston & Texas Central Railway Company v. East (East)* case, decided by the Court on June 13, 1904.

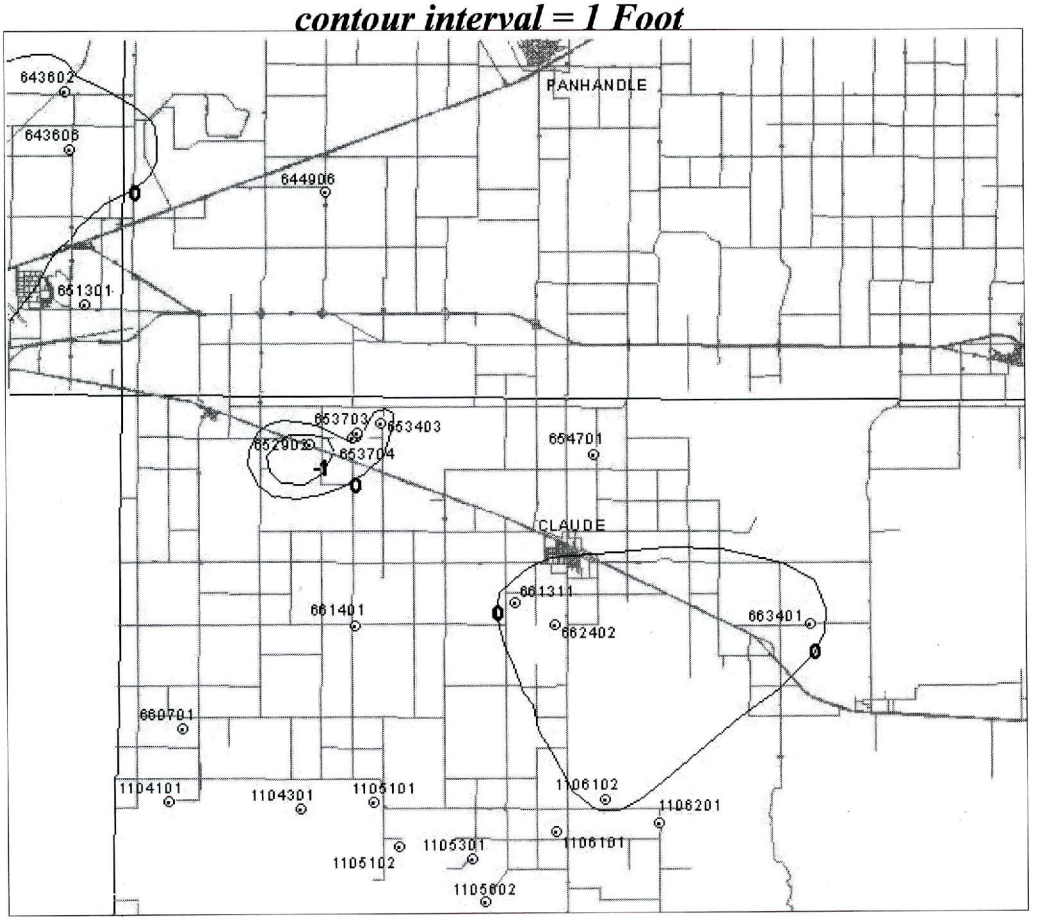
"Intense competition for our State's groundwater resources has greatly amplified interest in the rule of capture and the role it has and will play in Texas. An important aspect of exploring the future of the rule of capture is to explore its past. The symposium looked in both direction --- one hundred years into the past and one hundred years into the future," Mullican said.

General Manager, C. E. Williams, was invited to give a presentation at the symposium. In this presentation, Mr. Williams said, in his opinion, the rule of capture as modified by groundwater conservation districts is still the best way of managing groundwater in Texas, given the vast diversity of the State.

PGCD Director Kim Flowers also attended the meeting, which was held in the State Capitol building, in Austin.

# Armstrong, S Carson, SE Potter Counties Dockum & Ogallala

***contour interval = 1 Foot***




## Armstrong County Ogallala/Dockum Wells

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 652906 | 136 | -109.06 | -113 | -118.2 | -116.3 | -7.24 | -3.3 | 1.9 |
| 653403 | 92 | -181.71 | -181.1 | -184.8 | -181.4 | 0.31 | -0.3 | 3.4 |
| 653703 | 93 | -183.09 | | -195.4 | -182.1 | 0.99 | | 13.3 |
| 653704 | 93 | | -177.2 | -179.5 | -175.4 | | 1.8 | 4.1 |
| 654701 | 115 | -255.97 | -253.1 | -253.1 | -253 | 2.97 | 0.1 | 0.1 |
| 660701 | 299 | -191.01 | -187 | -187.2 | -185.8 | 5.21 | 1.2 | 1.4 |
| 661311 | 208 | -174.28 | -174.4 | -174.2 | -175.1 | -0.82 | -0.7 | -0.9 |
| 662402 | 234 | | -146.1 | -146 | -147 | | -0.9 | -1 |
| 1104101 | 1 | -201.53 | -201.4 | -200.2 | -201 | 0.53 | 0.4 | -0.8 |
| 1105102 | 8 | -164.45 | -161 | -160.8 | -160.9 | 3.55 | 0.1 | -0.1 |
| 1105301 | 10 | -159.82 | -158.5 | -157.2 | -159.5 | 0.32 | -1 | -2.3 |
| 1105602 | 6 | -177.69 | -174.2 | -173.7 | -174.1 | 3.59 | 0.1 | -0.4 |
| 1106101 | 10 | -177.37 | -176.3 | -175.3 | -175.9 | 1.47 | 0.4 | -0.6 |
| 1106102 | 5 | -162.62 | -161.6 | -161.9 | -162.2 | 0.42 | -0.6 | -0.3 |
| 1106201 | 4 | -165.99 | -161.4 | -160.6 | -160.4 | 5.59 | 1 | 0.2 |

## Armstrong County Dockum Wells

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 661401 | 228 | -164.19 | -162.6 | -163.2 | -162.4 | 1.79 | 0.2 | 0.8 |
| 1104301 | 7 | -301.82 | -304.5 | -302 | -303 | -1.18 | 1.5 | -1 |
| 1105101 | 5 | -187.51 | -187.3 | -183.8 | -184.2 | 3.31 | 3.1 | -0.4 |

## Carson County Ogallala/Dockum Wells

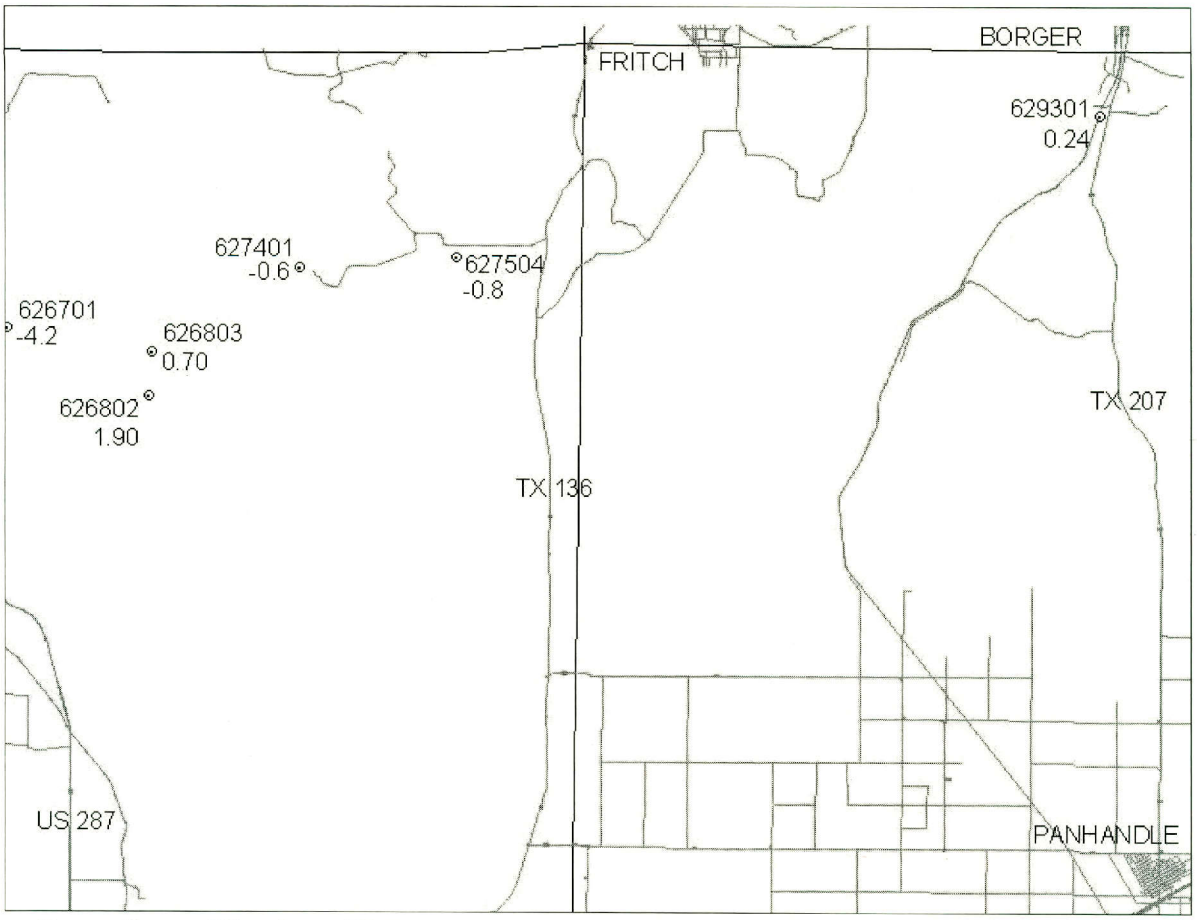
| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 1106201 | 4 | -165.99 | -161.4 | -160.6 | -160.4 | 5.59 | 1 | 0.2 |

## Potter County Ogallala/Dockum Wells

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 633201 | 80 | | | -88.2 | -84.9 | | | 3.3 |
| 633301 | 77 | | | -63.8 | -65.3 | | | -1.5 |
| 634703 | 207 | | | -87.5 | -87.6 | | | -0.1 |
| 641803 | 56 | | | | -127.3 | | | |
| 643602 | 22 | | | -320.4 | -320.4 | | | 0 |
| 643606 | 23 | | | | -278.8 | | | |
| 650604 | 90 | | | -201.7 | -201.5 | | | 0.2 |
| 651301 | 17 | | | -211 | -210.9 | | | 0.1 |
| 732201 | 35 | | | -160.1 | -160.6 | | | -0.5 |
| 732302 | 26 | | | -52.1 | -52.1 | | | 0 |
| 732501 | 28 | | | -61.2 | -60.6 | | | 0.6 |
| 732602 | 20 | | | -40.8 | -40.9 | | | -0.1 |
| 748701 | 192 | | | -81.7 | -91.1 | | | -9.4 |
| 748801 | 158 | | | -40.4 | -43.5 | | | -3.1 |

# Potter & Carson Counties Whitehorse & Other Permian Aquifers

***contour interval = 1 Foot***




**Potter County Whitehorse Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 626701 | 19 | | | -36.5 | -40.7 | | | -4.2 |
| 626802 | 66 | | | -51.9 | -50 | | | 1.9 |
| 626803 | 16 | | | -35.5 | -34.8 | | | 0.7 |

**Carson County Whitehorse Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 629301 | 105 | -183.2 | -180.6 | -180.1 | -179.4 | 3.8 | 1.2 | 0.7 |

**Potter County Whitehorse/Ogallala Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 627504 | 30 | | | -28.8 | -29.6 | | | -0.8 |

**Potter County Quartermaster Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 627401 | 17 | | | -116.2 | -116.8 | | | -0.6 |

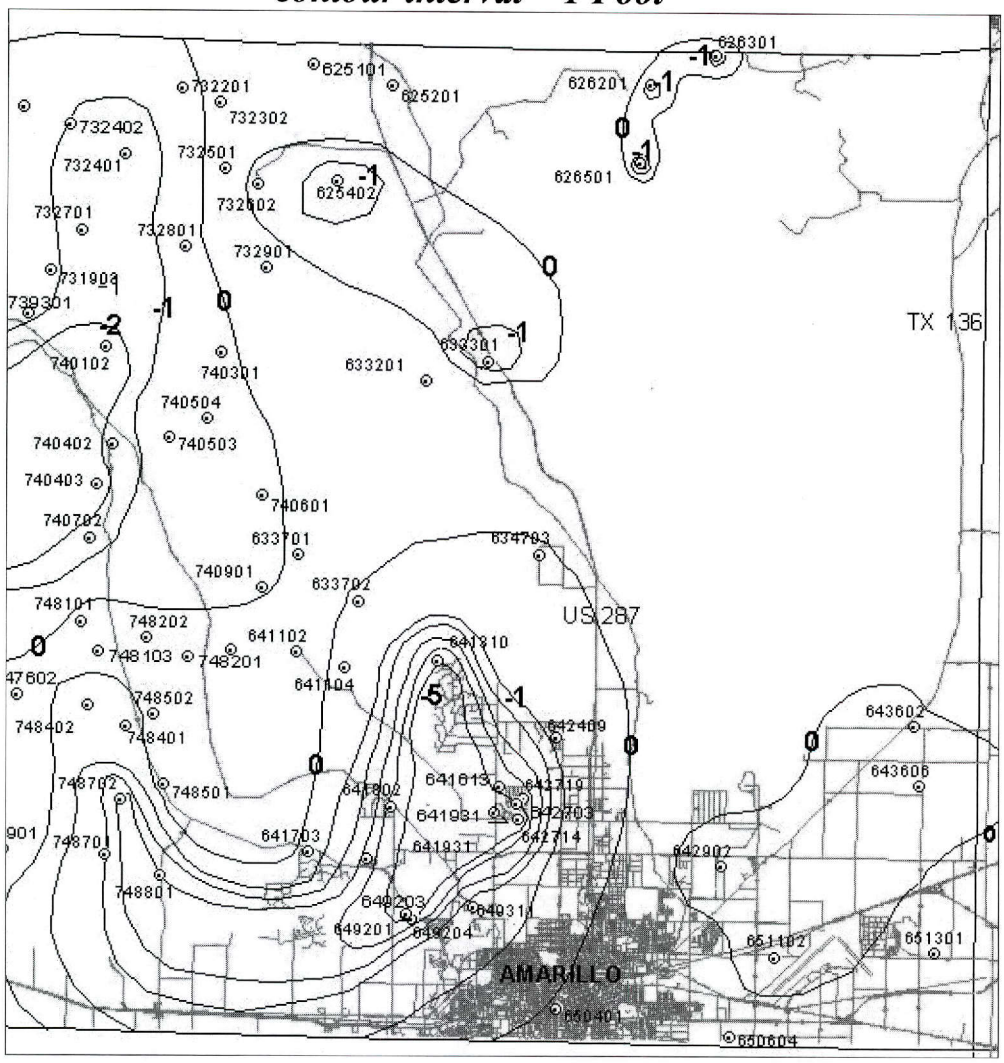
## TWDB'S NEWEST MEMBER HAILS FROM THE PANHANDLE

Governor Rick Perry appointed James Herring to the Texas Water Development Board in January 2004. Mr. Herring is President and CEO of Friona Industries, L.P., the fifth largest cattle feeding operation in the United States. He and his seven partners own four feed yards in the Texas Panhandle, feeding 425,000 head of cattle each year.

A native Texan, Mr. Herring grew up in Amarillo, and earned a BBA in Finance from the University of Texas and an MBA from Harvard. Mr. Herring is pleased to join the TWDB where he can "be of service to the great State of Texas, where I was born and raised." His experience with agriculture makes him keenly interested in water. "The Ogallala Aquifer is directly tied to the cattle feeding business and is very important to the cattle industry and the people of the Panhandle," he notes. "I am fascinated with the complexity of water issues in Texas. Water is an important subject at an important juncture in an important State. People are going to have to be well versed in water issues and be wise in their approach to managing these issues. I hope to try to be a reasoned voice."

# Potter County Dockum Aquifer

***contour interval = 1 Foot***




**Potter County Dockum Wells**

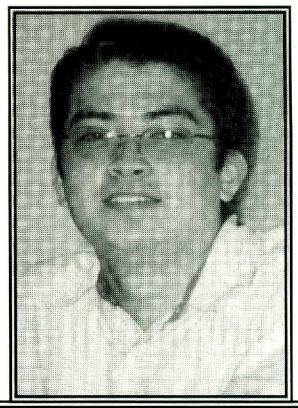
| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 625101 | 13 | | | -262.4 | -351.4 | | | -89 |
| 625201 | 1 | | | -262.5 | -230.7 | | | 31.8 |
| 625402 | 5 | | | -95.8 | -96.9 | | | -1.1 |
| 626201 | 88 | | | -125.1 | -108.6 | | | 16.5 |
| 626301 | 36 | | | -62.5 | -69.6 | | | -7.1 |
| 626501 | 109 | | | -21.7 | -42.6 | | | -20.9 |
| 633401 | 3 | | | -67 | -65.5 | | | 1.5 |
| 633701 | 21 | | | -56.9 | -55.6 | | | 1.3 |
| 633702 | 17 | | | -99.5 | -99.9 | | | -0.4 |
| 641102 | 26 | | | -103.1 | -103.1 | | | 0 |
| 641104 | 19 | | | -138.9 | -139.1 | | | -0.2 |
| 641310 | 7 | | | -39.7 | -44.6 | | | -4.9 |
| 641613 | 219 | -83.57 | -102.53 | -91.5 | -97 | -13.43 | 5.53 | -5.5 |
| 641703 | 90 | | | -306.8 | -307.2 | | | -0.4 |
| 641802 | 54 | | | -96.7 | -101.1 | | | -4.4 |
| 641931 | | | | -57.1 | -62.9 | | | -5.8 |
| 642409 | 195 | | | -64.2 | -65 | | | -0.8 |
| 642703 | 220 | | | -90.8 | -103.1 | | | -12.3 |

**Potter County Dockum Wells Cont'd**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 642714 | 220 | | | -77.5 | -82.5 | | | -5 |
| 642719 | 220 | | | -126.2 | -128 | | | -1.8 |
| 642902 | 102 | | | -221.8 | -223.6 | | | -1.8 |
| 649201 | 46 | | | -110.9 | -121.4 | | | -10.5 |
| 649203 | 46 | | | | -112 | | | |
| 649204 | 46 | | | | -130.5 | | | |
| 649311 | 12 | | | -54.5 | -55.7 | | | -1.2 |
| 650401 | 187 | | | -158.9 | -161.3 | | | -2.4 |
| 651102 | 73 | | | -175.7 | -175.8 | | | -0.1 |
| 731301 | 48 | | | -21.3 | -21.4 | | | -0.1 |
| 731903 | 103 | | | -22.6 | -23.4 | | | -0.8 |
| 732401 | 55 | | | -46.9 | -29.9 | | | 17 |
| 732402 | 30 | | | -16.7 | -17.7 | | | -1 |
| 732701 | 36 | | | -36.41 | -48.1 | | | -11.69 |
| 732801 | 47 | | | -131.8 | -132.2 | | | -0.4 |
| 732901 | 45 | | | -171.1 | -170.5 | | | 0.6 |
| 739301 | 58 | | | -4.5 | -4.8 | | | -0.3 |
| 740102 | 99 | | | -27 | -28.7 | | | -1.7 |

**Potter County Dockum Wells Cont'd** **(see map on page 6)**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 740301 | 42 | | | -164.8 | -164.9 | | | -0.1 |
| 740402 | 89 | | | -83.9 | -85.5 | | | -1.6 |
| 740403 | 10 | | | -60.2 | -62.4 | | | -2.2 |
| 740503 | 53 | | | -31 | -31.4 | | | -0.4 |
| 740504 | 93 | | | -25.7 | -26 | | | -0.3 |
| 740601 | 2 | | | -71.5 | -71.6 | | | -0.1 |
| 740702 | 8 | | | -69.5 | -71.5 | | | -2 |
| 740901 | 4 | | | -127.9 | -128.2 | | | -0.3 |
| 747602 | 14 | | | -94.2 | -93.1 | | | 1.1 |
| 747901 | 38 | | | -114.8 | -113.2 | | | 1.6 |
| 748101 | 6 | | | -111.2 | -110.5 | | | 0.7 |
| 748103 | | | | -42.1 | -41.7 | | | 0.4 |
| 748201 | 10 | | | -128.1 | -72.4 | | | 55.7 |
| 748202 | 14 | | | -8.6 | -7.5 | | | 1.1 |
| 748301 | 3 | | | -86.7 | -83.7 | | | 3 |
| 748401 | 188 | | | -43.9 | -44.5 | | | -0.6 |
| 748402 | 8 | | | -25.9 | -26.3 | | | -0.4 |
| 748501 | 156 | | | -61.1 | -61.1 | | | 0 |
| 748502 | 16 | | | -85.5 | -35.7 | | | 49.8 |
| 748702 | 190 | | | -45.2 | -52.2 | | | -7 |



## BRUCE HO INTERNS WITH DISTRICT

Bruce Ho spent 12 weeks with the District this summer. Bruce was a great help with Geographic Information System (G.I.S.) mapping, Well Survey, and Data Analysis production. He also assisted with several Power Point presentations.

Bruce is currently attending Yale University in New Haven, Connecticut, and will receive his Masters' in Environmental Management in May 2005. He hopes to find employment with a government agency or a non-profit organization.

Bruce, a native of San Antonio, has a sister and two brothers. He attended the University of Texas at Austin, where he earned a Bachelor of Arts in History, with a minor in mathematics.

## WATER QUALITY PROGRAM IN PROGRESS

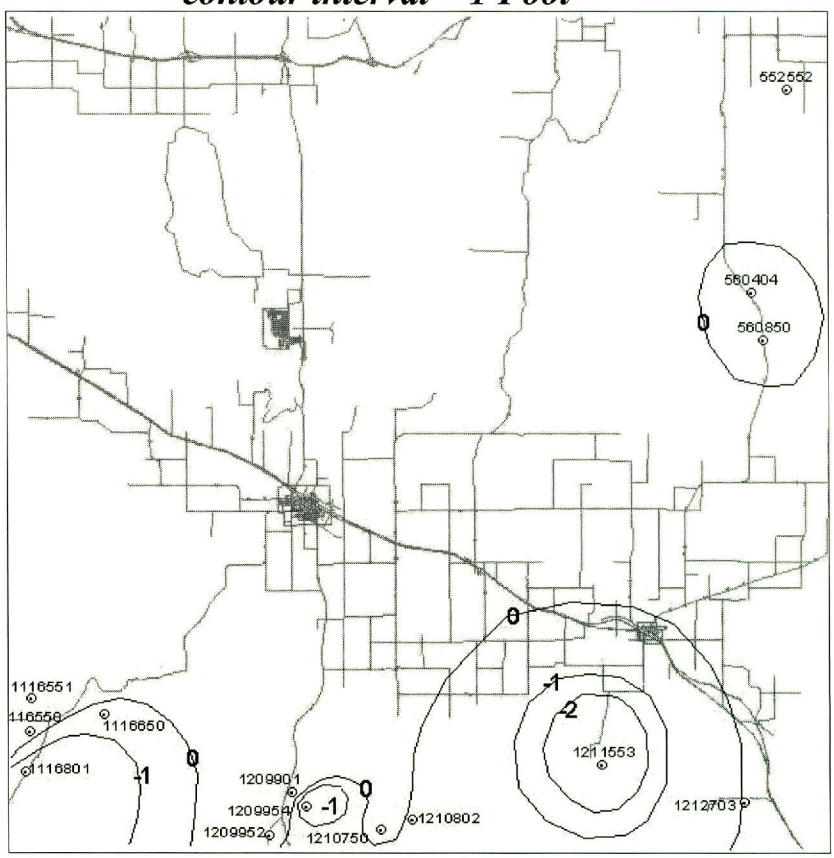
The PGCD staff is currently taking water quality samples from wells throughout the nine counties in the District. This year, approximately 300 wells will be checked for mineral content.

**Donley County Whitehorse Wells**

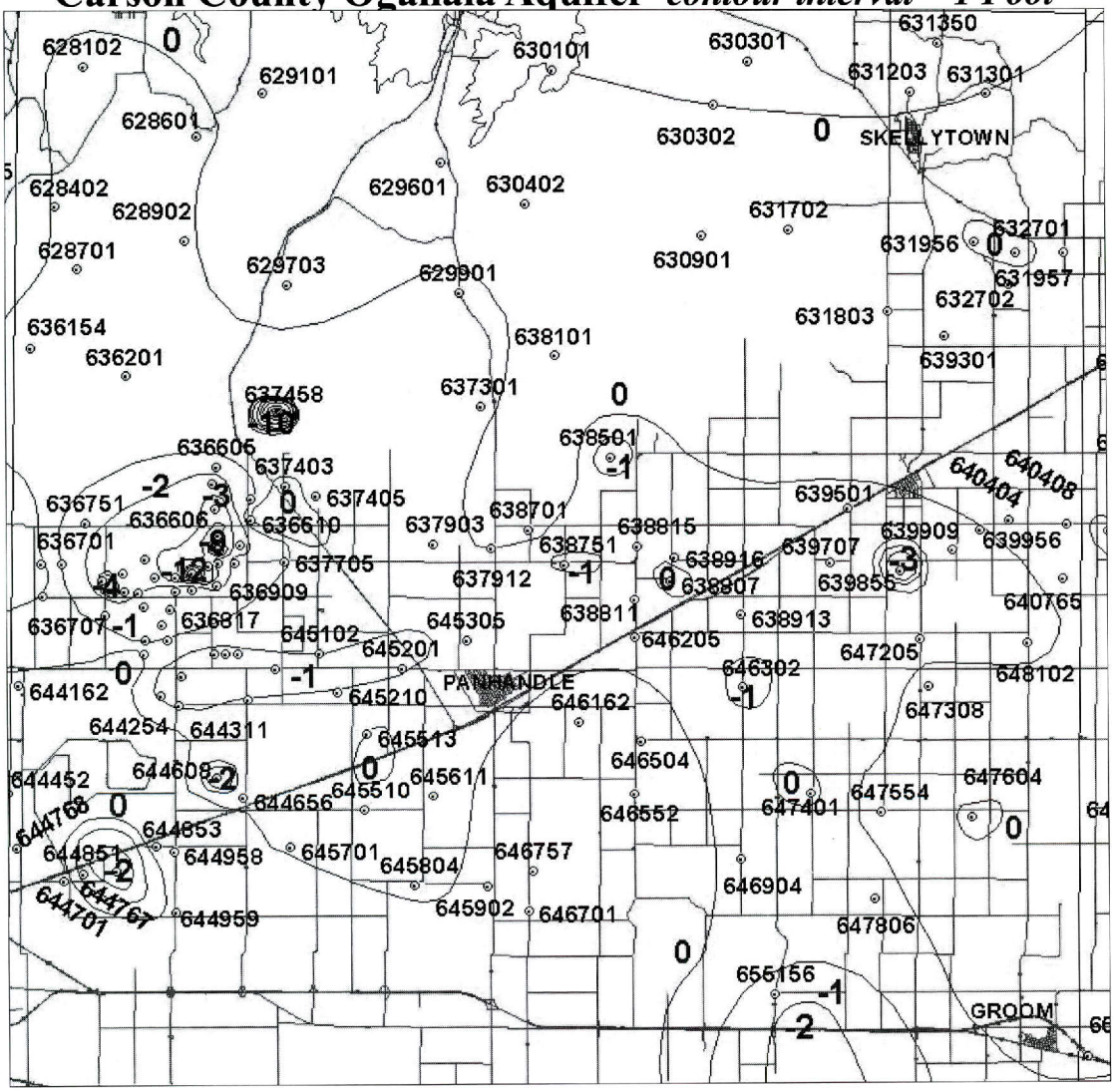
| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 552552 | 12 | | | -94.7 | -91.1 | | | 3.6 |
| 560404 | 40 | -65.92 | | | -54.7 | 11.22 | | |
| 560850 | 14 | | | -119.33 | -119.5 | | | -0.17 |
| 1116550 | 106 | | | -123.1 | -119.7 | | | 3.4 |
| 1116551 | 109 | | | -130.7 | -126.1 | | | 4.6 |
| 1116650 | 11 | | | -5.6 | -6.4 | | | -0.8 |
| 1116801 | 104 | | | -45.2 | -51.1 | | | -5.9 |
| 1209901 | 68 | -51.67 | -57.9 | -52.6 | -50.2 | 1.47 | 7.7 | 2.4 |
| 1209952 | 10 | | | -29.1 | -28.3 | | | 0.8 |
| 1209954 | 172 | | | -154.9 | -156.1 | | | -1.2 |
| 1210750 | 1 | | | -70.4 | -69.6 | | | 0.8 |
| 1210802 | 30 | | | -104.2 | -104.7 | | | -0.5 |
| 1211553 | 52 | | | -22.2 | -24.3 | | | -2.1 |
| 1212703 | 37 | | | -38.2 | -38.2 | | | 0 |

## Donley Counties Whitehorse & Other Permian Aquifers

***contour interval = 1 Foot***



# Carson County Ogallala Aquifer *contour interval = 1 Foot*




## Carson County Ogallala Wells

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 628102 | 23 | -205.8 | | -205.2 | -203.7 | 2.1 | | 1.5 |
| 628402 | 27 | | -194.3 | -201.0 | -194.5 | | -0.2 | 6.5 |
| 628601 | 13 | -59.4 | -59.8 | -61.8 | -62.2 | -2.8 | -2.4 | -0.4 |
| 628701 | 8 | -258.5 | -250.4 | -251.7 | -250.9 | 7.6 | -0.5 | 0.8 |
| 628902 | 6 | -143.2 | -135.8 | -144.1 | -144.6 | -1.4 | -8.8 | -0.5 |
| 629101 | 99 | | -55.5 | -56.0 | -55.9 | | -0.4 | 0.1 |
| 629601 | 83 | -49.3 | -55.2 | -49.7 | -49.4 | -0.1 | 5.8 | 0.3 |
| 629703 | 35 | | | -286.6 | -281.1 | | | 5.5 |
| 629901 | 40 | -82.3 | -82.8 | -81.7 | -82.5 | -0.2 | 0.3 | -0.8 |
| 630101 | | | | -53.4 | -23.8 | | | 29.6 |
| 630301 | 103 | -150.1 | -153.7 | -150.6 | -150.7 | -0.6 | 3.0 | -0.1 |
| 630302 | | | | -236.3 | -225.3 | | | 11.0 |
| 630402 | | | | -121.1 | -118.8 | | | 2.3 |
| 630901 | 57 | | | -333.3 | -333.3 | | | 0.0 |
| 631203 | 107 | -307.9 | -297.9 | -298.3 | -298.5 | 9.4 | -0.6 | -0.2 |
| 631301 | 109 | | | -122.6 | -122.6 | | | 0.0 |

## Carson County Ogallala Wells Cont'd

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 631350 | 5 | | | -256.6 | -256.8 | | | -0.2 |
| 631702 | 60 | -277.1 | -282.0 | -278.0 | -277.6 | -0.5 | 4.4 | 0.4 |
| 631803 | 26 | | | -394.9 | -395.0 | | | -0.1 |
| 631956 | 46 | | | -224.6 | -225.1 | | | -0.5 |
| 631957 | 45 | | | -327.7 | -328.1 | | | -0.4 |
| 632701 | 186 | | | -392.0 | -392.1 | | | -0.1 |
| 632702 | 44 | -414.5 | -403.0 | -401.7 | -401.5 | 13.0 | 1.5 | 0.2 |
| 636154 | 1 | | | -316.1 | -316.7 | | | -0.6 |
| 636201 | 19 | -344.9 | -354.3 | -354.9 | -355.2 | -10.3 | -0.9 | -0.3 |
| 636605 | 16 | | | -481.1 | -483.1 | | | -2.0 |
| 636606 | 16 | | -473.0 | -481.1 | -483.1 | | -10.1 | -2.0 |
| 636608 | 25 | | -488.4 | -498.0 | -499.6 | | -11.2 | -1.6 |
| 636610 | 24 | | | -426.0 | -426.0 | | | 0.0 |
| 636701 | 50 | | | -468.0 | -468.0 | | | 0.0 |
| 636702 | 50 | | | -492.2 | -448.0 | | | 44.2 |
| 636707 | 50 | | | -466.0 | -463.0 | | | 3.0 |

## Carson County Ogallala Wells Cont'd (see map on page 8)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 636751 | 29 | | | -494.3 | -495.8 | | | -1.5 |
| 636801 | 49 | -490.3 | | -512.2 | -516.3 | -26.0 | | -4.1 |
| 636807 | 34 | | | -507.0 | -507.0 | | | 0.0 |
| 636809 | 47 | | | -525.0 | -513.0 | | | 12.1 |
| 636810 | 48 | | | -547.5 | -548.0 | | | -0.5 |
| 636811 | 48 | | | -525.0 | -524.0 | | | 1.0 |
| 636812 | 48 | | | -535.7 | -535.7 | | | 0.0 |
| 636815 | 53 | -490.9 | | -512.1 | -513.3 | -22.4 | | -1.2 |
| 636816 | 54 | | | -538.3 | -536.0 | | | 2.3 |
| 636817 | 54 | | | -534.8 | -534.0 | | | 0.8 |
| 636907 | | | -490.0 | -501.3 | -501.0 | | -11.0 | 0.3 |
| 636909 | 45 | | -480.0 | -490.0 | -492.3 | | -12.3 | -2.3 |
| 636910 | 36 | | | -473.7 | -471.0 | | | 2.7 |
| 636912 | 46 | | -525.0 | -528.5 | -529.0 | | -4.0 | -0.5 |
| 636913 | 46 | | -489.0 | -510.0 | -510.0 | | -21.0 | 0.0 |
| 636914 | 46 | | -504.0 | -533.0 | -525.0 | | -21.0 | 8.0 |
| 636915 | 46 | | -568.0 | -524.8 | -524.8 | | 43.2 | 0.0 |
| 636916 | 46 | | -502.0 | -564.5 | -562.2 | | -60.2 | 2.3 |
| 636919 | 45 | -483.3 | -496.1 | -504.2 | -508.6 | -25.3 | -12.5 | -4.4 |
| 636920 | 36 | | | -500.0 | -523.0 | | | -23.0 |
| 636921 | 36 | | | -526.1 | -526.0 | | | 0.0 |
| 636922 | 24 | | -465.0 | -455.0 | -455.0 | | 10.0 | 0.0 |
| 637301 | 5 | -267.6 | -272.9 | -272.5 | -271.5 | -3.9 | 1.4 | 1.0 |
| 637403 | 18 | -448.0 | -471.8 | -452.4 | -455.2 | -7.2 | 16.6 | -2.8 |
| 637405 | 22 | -430.0 | -444.9 | -439.1 | -440.4 | -10.4 | 4.5 | -1.3 |
| 637458 | 10 | | | -421.7 | -432.1 | | | -10.4 |
| 637705 | 43 | -467.4 | -451.8 | -452.2 | -458.3 | 9.1 | -6.5 | -6.1 |
| 637903 | 87 | -415.0 | -419.2 | -428.6 | -423.6 | -8.6 | -4.4 | 5.0 |
| 637912 | 64 | | | -402.6 | -402.6 | | | 0.0 |
| 638101 | | | | -74.1 | -73.4 | | | 0.7 |
| 638501 | 2 | -373.6 | -375.6 | -383.2 | -383.5 | -9.9 | -7.9 | -0.3 |
| 638701 | 34 | -405.8 | -419.9 | -415.5 | -414.8 | -9.0 | 5.1 | 0.7 |
| 638751 | 26 | | -421.5 | -425.5 | -425.9 | | -4.4 | -0.4 |
| 638807 | 54 | -396.7 | | -405.1 | -404.5 | -7.8 | | 0.6 |
| 638811 | 56 | -418.8 | | -425.1 | -427.7 | -8.9 | | -2.6 |
| 638815 | 34 | | -415.4 | -418.3 | -418.8 | | -3.4 | -0.5 |
| 638913 | 59 | | | -403.3 | -402.6 | | | 0.7 |
| 638916 | 35 | | -404.6 | -406.2 | -408.1 | | -3.5 | -1.9 |
| 639301 | 21 | -417.3 | -398.3 | -397.8 | -397.7 | 19.6 | 0.6 | 0.1 |
| 639501 | 27 | | -367.0 | -368.8 | -369.4 | | -2.4 | -0.6 |
| 639707 | 50 | | | -382.1 | -382.8 | | | -0.7 |
| 639855 | 48 | | | -392.8 | -396.2 | | | -3.4 |
| 639909 | 42 | | | -353.7 | -353.4 | | | 0.3 |
| 639956 | 43 | | | -365.7 | -365.7 | | | 0.0 |
| 640404 | 23 | | -370.0 | -365.6 | -366.0 | | 4.0 | -0.4 |

## Carson County Ogallala Wells Cont'd (see map on page 8)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 640408 | 238 | -360.9 | -373.1 | -375.6 | -370.5 | -9.6 | 2.6 | 5.1 |
| 640765 | 236 | | -345.9 | -326.2 | -342.6 | | 3.3 | -16.4 |
| 644162 | 7 | | | -477.3 | -476.8 | | | 0.5 |
| 644203 | 54 | | | -582.0 | -579.6 | | | 2.3 |
| 644204 | 68 | | | -476.0 | -476.0 | | | 0.0 |
| 644205 | 68 | | | -522.9 | -525.2 | | | -2.3 |
| 644206 | 68 | | | -541.1 | -534.1 | | | 6.9 |
| 644254 | 34 | | | -481.0 | -481.0 | | | 0.0 |
| 644304 | 66 | | | -506.4 | -506.0 | | | 0.4 |
| 644305 | 66 | | | -472.0 | -473.0 | | | -1.0 |
| 644306 | 66 | | | -471.0 | -468.8 | | | 2.2 |
| 644311 | 20 | -470.8 | -478.3 | -486.5 | -485.5 | -14.7 | -7.2 | 1.0 |
| 644312 | 19 | -490.0 | -495.0 | -501.6 | -501.3 | -11.4 | -6.3 | 0.3 |
| 644315 | 3 | | -440.2 | -444.9 | -445.3 | | -5.1 | -0.4 |
| 644608 | 15 | -447.4 | -418.1 | -424.0 | -429.3 | 18.1 | -11.2 | -5.3 |
| 644656 | 15 | | | -433.8 | -434.8 | | | -1.0 |
| 644701 | 59 | -254.1 | -253.1 | -251.7 | -251.4 | 2.7 | 1.7 | 0.3 |
| 644767 | 46 | | | -264.2 | -265.8 | | | -1.6 |
| 644768 | 3 | | | -272.0 | -271.4 | | | 0.6 |
| 644851 | 41 | | | -272.7 | -275.4 | | | -2.7 |
| 644853 | 30 | | | -304.1 | -302.9 | | | 1.2 |
| 644958 | 24 | | | -297.8 | -297.6 | | | 0.2 |
| 644959 | 25 | | | -220.8 | -220.6 | | | 0.2 |
| 645102 | 63 | -430.0 | -431.2 | -435.8 | -434.9 | -4.9 | -3.7 | 0.9 |
| 645104 | 65 | | | -419.5 | -421.1 | | | -1.6 |
| 645201 | 61 | -412.4 | -419.5 | -423.9 | -428.4 | -16.0 | -8.9 | -4.5 |
| 645210 | 16 | | | -433.5 | -434.6 | | | -1.1 |
| 645305 | 67 | | | -431.7 | -431.8 | | | -0.1 |
| 645510 | 13 | | | -423.0 | -423.2 | | | -0.2 |
| 645513 | 15 | | | -435.7 | -435.7 | | | 0.0 |
| 645611 | 80 | -409.8 | -414.0 | -415.9 | -416.4 | -6.6 | -2.4 | -0.5 |
| 645701 | 27 | -385.1 | -386.9 | -387.6 | -387.9 | -2.8 | -1.0 | -0.3 |
| 645804 | 7 | -323.1 | -323.8 | -324.4 | -324.4 | -1.3 | -0.6 | 0.0 |
| 645902 | 74 | -409.2 | | -392.1 | -392.2 | 17.0 | | -0.1 |
| 646162 | 22 | | | -376.7 | -375.4 | | | 1.3 |
| 646205 | 77 | | -418.0 | -419.5 | -419.8 | | -1.8 | -0.3 |
| 646302 | 81 | -357.5 | -365.2 | -371.2 | -371.8 | -14.3 | -6.6 | -0.6 |
| 646504 | 100 | | | -382.3 | -382.1 | | | 0.2 |
| 646552 | 121 | | | -354.2 | -354.5 | | | -0.3 |
| 646701 | 44 | -373.2 | -394.5 | -378.5 | -364.8 | 8.4 | 29.7 | 13.7 |
| 646757 | 43 | | | -375.4 | -374.4 | | | 1.0 |
| 646904 | 140 | | | -361.8 | -362.6 | | | -0.8 |
| 647205 | 69 | -373.0 | -378.2 | -377.8 | -378.3 | -5.3 | -0.1 | -0.5 |
| 647308 | 86 | -299.5 | -298.9 | -298.6 | -298.3 | 1.2 | 0.6 | 0.3 |
| 647401 | 116 | -341.6 | -346.7 | -348.7 | -352.7 | -11.1 | -6.0 | -4.0 |

## Carson County Ogallala Wells Cont'd (see map on page 8)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 647554 | 128 | | | -320.9 | -306.7 | | | 14.2 |
| 647604 | 131 | -304.9 | -315.9 | -316.7 | -317.5 | -12.7 | -1.6 | -0.8 |
| 647806 | 150 | | | -352.4 | -353.0 | | | -0.6 |
| 648102 | 247 | | -350.0 | -351.6 | -352.0 | | -2.0 | -0.4 |
| 655156 | 191 | | | -371.1 | -373.0 | | | -1.9 |

## Donley County Ogallala Wells (see map on page 11)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 549604 | 21 | -239.93 | -237.5 | -237.8 | -237.3 | 2.63 | 0.2 | 0.5 |
| 549708 | 21 | | -316.8 | -319.6 | -318.3 | | -1.5 | 1.3 |
| 549953 | 2 | | | -209.9 | -213.6 | | | -3.7 |
| 550502 | 25 | | -130.7 | -131.5 | -130 | | 0.7 | 1.5 |
| 550701 | 2 | -113.62 | -119 | -117.2 | -112.9 | 0.72 | 6.1 | 4.3 |
| 550801 | 4 | | | -107.6 | -105.3 | | | 2.3 |
| 550903 | 30 | -121.1 | -120.7 | -109.6 | -116.5 | 4.6 | 4.2 | -6.9 |
| 551715 | 9 | | -114.4 | -112.6 | -112.1 | | 2.3 | 0.5 |
| 552851 | 12 | | | -124.1 | -120.4 | | | 3.7 |
| 557502 | 11 | -95.85 | -96.3 | -98.2 | -96.6 | -0.75 | -0.3 | 1.6 |
| 557512 | 13 | | -38.7 | -47.6 | -46.6 | | -7.9 | 1 |
| 557803 | 4 | -88.74 | | -87.1 | -87.4 | 1.34 | | -0.3 |
| 558101 | 37 | | | -107 | -107.6 | | | -0.6 |
| 558303 | 19 | -46.87 | -32.5 | -36.2 | -33.9 | 12.97 | -1.4 | 2.3 |
| 558403 | 22 | | -177 | -153.1 | -141.1 | | 35.9 | 12 |
| 559403 | 15 | -75.87 | -75.9 | -84.9 | -85.6 | -9.73 | -9.7 | -0.7 |
| 656506 | 41 | | -274 | -346.6 | -353.1 | | -79.1 | -6.5 |
| 656603 | 32 | | | -305.2 | -306.1 | | | -0.9 |
| 664501 | 1 | | -112.8 | -112.8 | -114.5 | | -1.7 | -1.7 |
| 664811 | 2 | -90.39 | -95.2 | -94.9 | -96.3 | -5.91 | -1.1 | -1.4 |
| 664951 | 3 | | | -62.7 | -63 | | | -0.3 |
| 1108101 | 10 | | | -100.4 | -94.6 | | | 5.8 |
| 1108201 | 1 | -108.27 | -122.7 | -125.2 | -130.3 | -22.03 | -7.6 | -5.1 |
| 1108203 | 38 | | | -39.2 | -37.2 | | | 2 |
| 1108308 | 3 | -59.1 | -63.2 | -63.5 | -66.1 | -7 | -2.9 | -2.6 |
| 1108309 | 17 | | | -78.3 | -71.6 | | | 6.7 |
| 1108312 | 4 | | -67.9 | -70.2 | -70.2 | | -2.3 | 0 |
| 1108357 | 17 | | | -99.5 | -97.2 | | | 2.3 |
| 1201101 | 7 | -91.54 | | -94.7 | -95.5 | -3.96 | | -0.8 |
| 1201102 | 13 | -31.22 | -34.2 | -33.9 | -33.6 | -2.38 | 0.6 | 0.3 |
| 1201107 | 10 | | | -46.5 | -46.5 | | | 0 |
| 1201131 | 15 | -44.94 | -50.6 | -60.2 | -57.3 | -12.36 | -6.7 | 2.9 |
| 1201301 | 2 | | -40.3 | -47.7 | -39.2 | | 1.1 | 8.5 |
| 1201306 | 25 | -38.7 | -40.4 | -44.7 | -46.3 | -7.6 | -5.9 | -1.6 |

## Donley County Ogallala Wells Cont'd (see map on page 11)

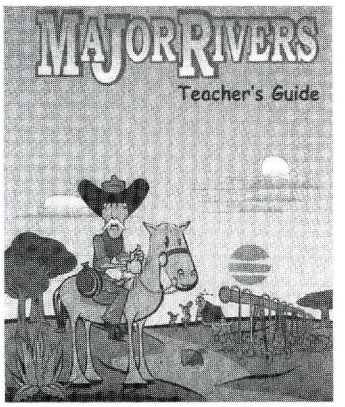
| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 1210307 | 89 | | | -44.4 | -40.5 | | | 3.9 |
| 1210310 | 90 | | -19 | -24 | -29.8 | | -10.8 | -5.8 |
| 1210353 | 87 | | -14.9 | -17.4 | -19.6 | | -4.7 | -2.2 |
| 1210401 | 166 | -115.17 | -115.9 | -115.9 | -116 | -0.83 | -0.1 | -0.1 |
| 1210504 | 35 | -87.01 | -90.1 | -100.6 | -93 | -5.99 | -2.9 | 7.6 |
| 1210508 | 143 | | | -25.1 | -24.7 | | | 0.4 |
| 1210513 | 152 | | | -116.2 | -116.2 | | | 0 |
| 1211207 | 27 | -86.54 | -88.5 | -101.6 | -115 | -28.46 | -26.5 | -13.4 |
| 1211310 | 95 | -76.98 | -72.45 | -73.3 | -77 | -0.02 | -4.55 | -3.7 |
| 1211353 | 87 | | -103.9 | -103.5 | -103.6 | | 0.3 | -0.1 |
| 1211404 | 133 | -190.75 | -191.2 | -195.3 | -193.9 | -3.15 | -2.7 | 1.4 |
| 1211508 | 72 | -166.73 | -166.6 | -167.6 | -167.4 | -0.67 | -0.8 | 0.2 |
| 1212104 | 96 | | -189.9 | -136.1 | -122.9 | | 67 | 13.2 |
| 1212203 | 83 | | | -97 | -98.6 | | | -1.6 |
| 1212552 | 80 | | | -60.4 | -60.7 | | | -0.3 |

### PGCD OFFERS "MAJOR RIVERS" PROGRAM TO DISTRICT FOURTH GRADERS

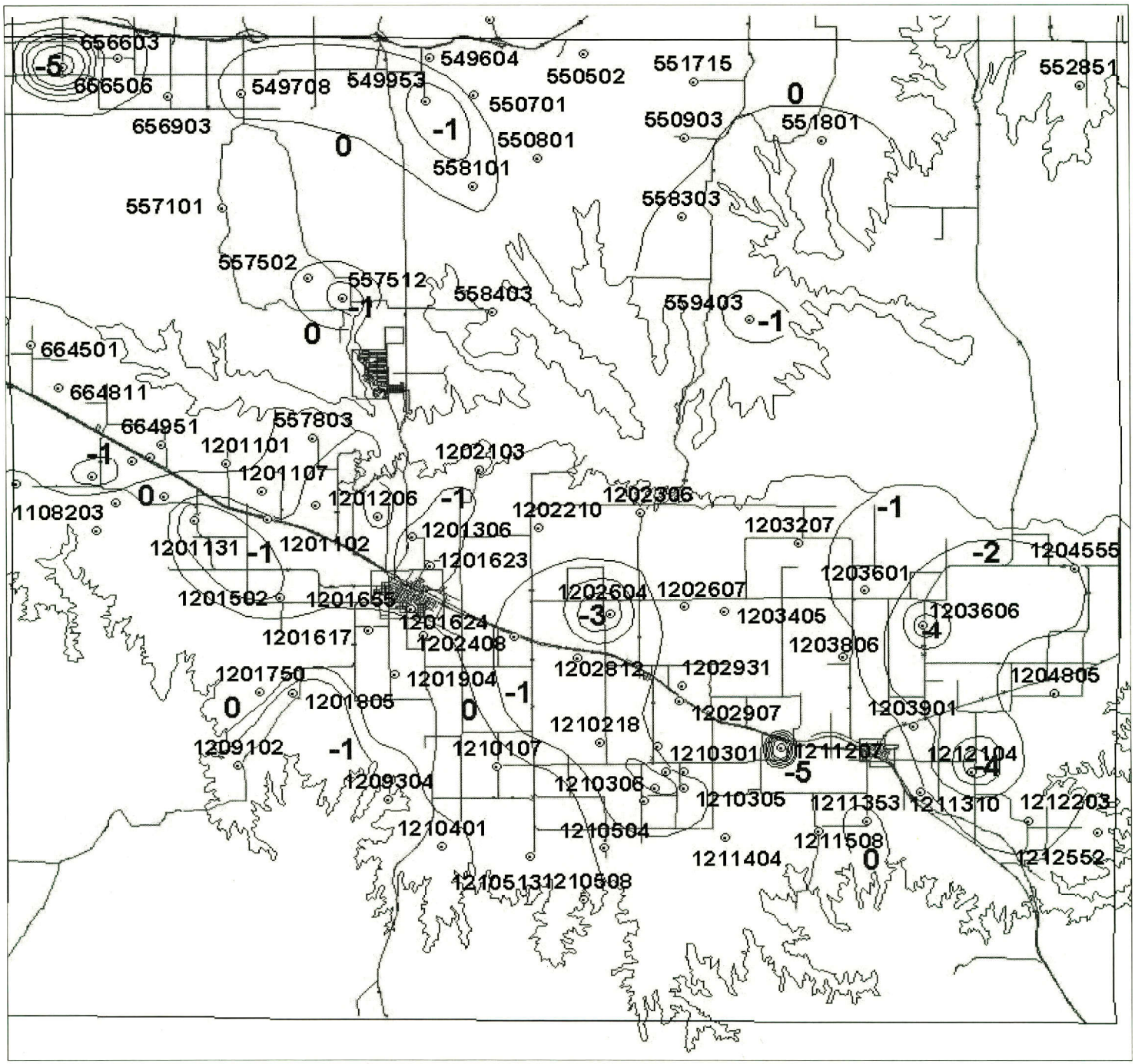
The Panhandle Groundwater Conservation District will be offering the "Major Rivers" program to schools throughout the District, this year. This study is designed to give fourth graders the opportunity to learn about our water. The program will compliment the fifth grade program, started back in 1999, to promote water education and conservation practices.

"Major Rivers" is a TEKS affiliated, two-week course that includes teacher lesson plans, student worksheets, and both fun and educational experiments to be taught by the homeroom teacher. "Major Rivers" and his horse, "Aquifer," will take students through seven lessons ranging from the explaining the water cycle to the importance of conserving our precious resource.

Bart Wyatt, Director of Education, will be sending fourth grade teachers throughout the District a letter further explaining the purpose of "Major Rivers" and how they can obtain a teacher's packet for their students. If you are an interested fourth grade teacher, please call our office at 806/883-2501.



# Donley County Ogallala Aquifer *contour interval = 1 Foot*

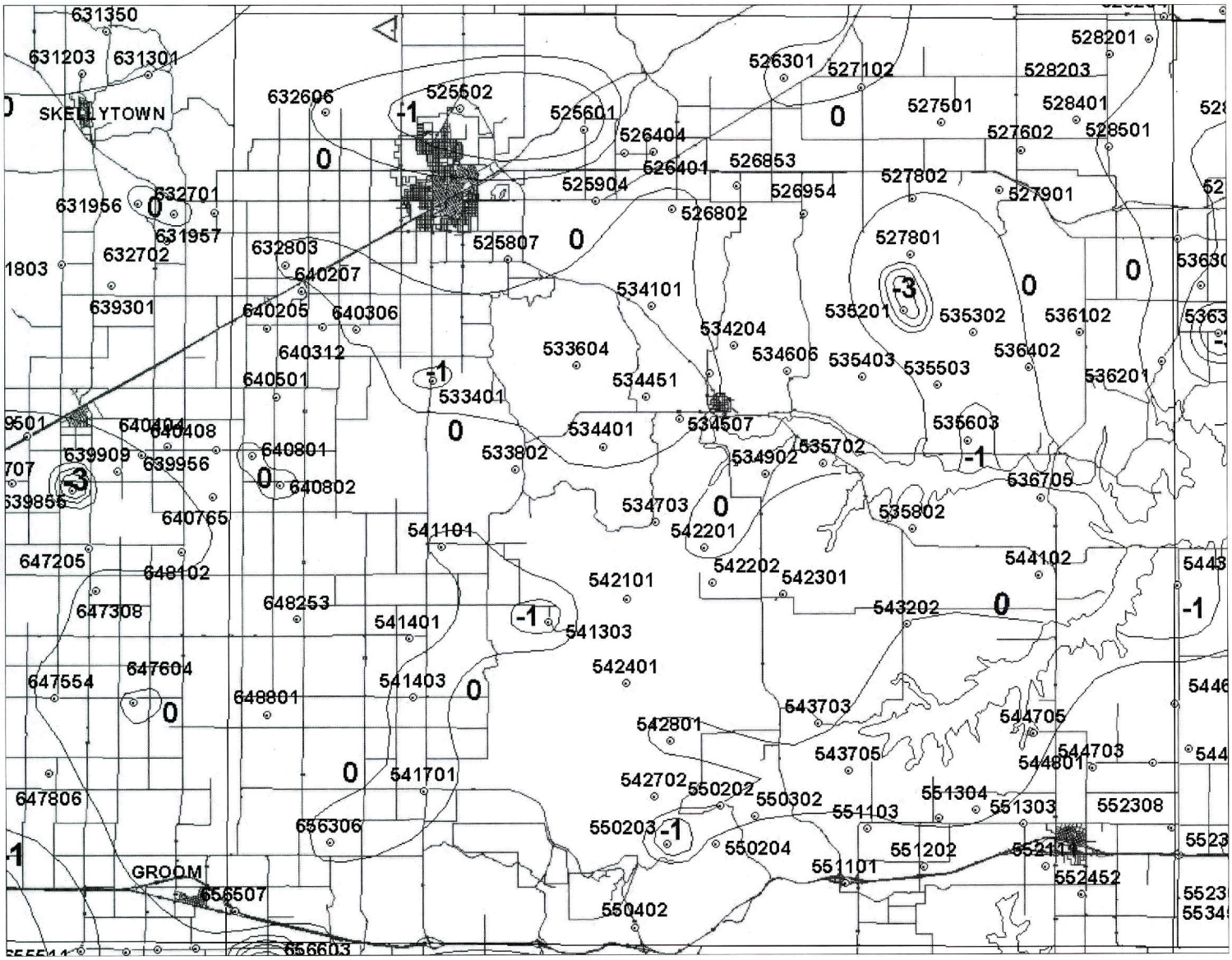



## WATER CONSERVATION IMPLEMENTATION TASK FORCE ACTIVITIES

The Water Conservation Implementation Task Force (Task Force) members were appointed by the Texas Water Development Board (TWDB) in September 2003 to fulfill the mandate of Senate Bill 1094, 78th Legislature, to review, evaluate, and recommend optimum levels of water use and conservation for the State. The Task Force is developing a best management practices (BMP) guide and will create a draft legislative report by its November 1, 2004 deadline. The Task Force is accepting public comment through August 24, 2004, on the final draft BMPs. The Regional Water Planning Groups and political subdivisions responsible for water delivery will use this guidebook to plan water conservation efforts.

The Task Force has drafted a plan to establish a statewide public awareness program for water conservation, recommended a gallon per capita per day (GPCD) methodology, and has adopted recommendations regarding the task of establishing per capita water use targets and goals. It has also recommended that the Texas Legislature establish a Water Conservation Advisory Council to provide ongoing support of statewide conservation activities and updates to the BMP Guide. C. E. Williams, general manager of Panhandle Groundwater Conservation District, serves on the Task Force Committee. For more details on these recommendations, visit TWDB's website at http://www.twdb.state.tx.us/assistance/consrvation/taskforce.as.

# Gray County Ogallala Aquifer *contour interval = 1 Foot*




## Gray County Quartermaster Well

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 535705 | | | -42.4 | -39.1 | -40 | | 2.4 | -0.9 |

## Gray County Ogallala Wells

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 525502 | 93 | -348.02 | -352.9 | -349.2 | -358.7 | -10.68 | -5.8 | -9.5 |
| 525601 | 45 | | | -368.7 | -370.3 | | | -1.6 |
| 525807 | 80 | | | -370.6 | -371.4 | | | -0.8 |
| 525904 | 42 | | -364.7 | -364.3 | -363.9 | | 0.8 | 0.4 |
| 526301 | 186 | | -358.7 | -361 | -361.6 | | -2.9 | -0.6 |
| 526401 | 29 | | -372.1 | -370.5 | -370.5 | | 1.6 | 0 |
| 526404 | 20 | | -367.4 | -367.4 | -367.4 | | 0 | 0 |

## Gray County Ogallala Wells Cont'd

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 526802 | 18 | | -355.2 | -356.7 | -355.4 | | -0.2 | 1.3 |
| 526853 | 217 | | -364.7 | -363.8 | -362.6 | | 2.1 | 1.2 |
| 526954 | 146 | | | -368 | -366.7 | | | 1.3 |
| 527102 | 142 | -357.22 | -359.4 | -360.1 | -360.3 | -3.08 | -0.9 | -0.2 |
| 527501 | 111 | -348.95 | -349.8 | -349.5 | -349.2 | -0.25 | 0.6 | 0.3 |
| 527602 | 53 | -337.47 | -332.1 | -331.9 | -332 | 5.47 | 0.1 | -0.1 |
| 527801 | 57 | | -131.5 | -134 | -136.1 | | -4.6 | -2.1 |
| 527802 | 116 | -355.32 | -338.1 | -337.1 | -338.2 | 17.12 | -0.1 | -1.1 |
| 527901 | 81 | -354.78 | -340 | -339.4 | -339.4 | 15.38 | 0.6 | 0 |
| 528201 | 2 | -352.18 | -347 | -344.8 | -345.7 | 6.48 | 1.3 | -0.9 |
| 528203 | 22 | | | -342.6 | -339.7 | | | 2.9 |
| 528401 | 24 | -327.93 | -329.7 | -334.2 | -329.3 | -1.37 | 0.4 | 4.9 |
| 528501 | 2 | -283.18 | -282.95 | -283.3 | -283.6 | -0.42 | -0.65 | -0.3 |

## Gray County Ogallala Wells Cont'd (see map page 12)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 533401 | 108 | | | -346.7 | -347.5 | | | -0.8 |
| 533604 | 60 | | | -78.7 | -78.6 | | | 0.1 |
| 533802 | 94 | -206.63 | -207.7 | -208.4 | -205.4 | 1.23 | 2.3 | 3 |
| 534101 | 15 | | | -140.5 | -140.7 | | | -0.2 |
| 534204 | 2 | -192.64 | -198.3 | -196.1 | -194.4 | -1.76 | 3.9 | 1.7 |
| 534401 | 57 | | | -121.6 | -119.3 | | | 2.3 |
| 534451 | 30 | | | -109.2 | -109.4 | | | -0.2 |
| 534507 | 2 | | | -32.9 | -34.2 | | | -1.3 |
| 534508 | 1 | -59.16 | -58.9 | -59.1 | -59.4 | -0.24 | -0.5 | -0.3 |
| 534606 | 1 | -73.67 | -72.6 | -72.4 | -71.6 | 2.07 | 1 | 0.8 |
| 534703 | 25 | -74.96 | -76 | -75 | -75.1 | -0.14 | 0.9 | -0.1 |
| 534902 | 8 | -71.17 | -70.2 | -70.5 | -72.9 | -1.73 | -2.7 | -2.4 |
| 535201 | 33 | | -118.2 | -131.1 | -133.6 | | -15.4 | -2.5 |
| 535302 | 18 | -16.01 | -14.7 | -15 | -15.6 | 0.41 | -0.9 | -0.6 |
| 535403 | 11 | -126.49 | -125 | -124.8 | -123.7 | 2.79 | 1.3 | 1.1 |
| 535503 | 8 | -76.92 | -75.2 | -76.4 | -76 | 0.92 | -0.8 | 0.4 |
| 535603 | 14 | -77.48 | -72.3 | -75.8 | -80.1 | -2.62 | -7.8 | -4.3 |
| 535702 | 10 | -24.49 | -22.7 | -23.9 | -24.6 | -0.11 | -1.9 | -0.7 |
| 535802 | 52 | -120.27 | -120.1 | -123.9 | -118.2 | 2.07 | 1.9 | 5.7 |
| 536102 | 21 | -166.08 | -165.6 | -164 | -164.4 | 1.68 | 1.2 | -0.4 |
| 536201 | 24 | -149.42 | -147.7 | -148 | -147.9 | 1.52 | -0.2 | 0.1 |
| 536402 | 5 | -9.23 | -8.7 | -7.9 | -8.8 | 0.43 | -0.1 | -0.9 |
| 536705 | 65 | -5.99 | -5.7 | -4.8 | -5.7 | 0.29 | 0 | -0.9 |
| 541101 | 127 | -366.77 | -369.6 | -370.2 | -370.3 | -3.53 | -0.7 | -0.1 |
| 541303 | 69 | -339.17 | -339.85 | -348.1 | -347.5 | -8.33 | -7.65 | 0.6 |
| 541401 | 141 | -325.56 | -331.9 | -324.6 | -323.7 | 1.86 | 8.2 | 0.9 |
| 541403 | 140 | -293.48 | -294.7 | -298.1 | -296.8 | -3.32 | -2.1 | 1.3 |
| 541701 | 135 | -262.86 | -263.4 | -261.3 | -263.9 | -1.04 | -0.5 | -2.6 |
| 542101 | 38 | -268 | -281.6 | -262.7 | -262.6 | 5.4 | 19 | 0.1 |
| 542201 | 25 | -134.69 | -130.5 | -134.8 | -134.5 | 0.19 | -4 | 0.3 |
| 542202 | 26 | -272.29 | -282.3 | -252.4 | -262 | 10.29 | 20.3 | -9.6 |
| 542301 | 28 | -140.52 | -142.2 | -139.4 | -141.1 | -0.58 | 1.1 | -1.7 |
| 542401 | 41 | -198.17 | -208.7 | -202.3 | -199.5 | -1.33 | 9.2 | 2.8 |
| 542702 | 16 | -145.11 | -148.9 | -145.1 | -145.7 | -0.59 | 3.2 | -0.6 |
| 542801 | 3 | -81.68 | | -82 | -82.1 | -0.42 | | -0.1 |
| 543202 | 29 | -112.88 | -112.9 | -116.6 | -112.5 | 0.38 | 0.4 | 4.1 |
| 543703 | 4 | -21.46 | -16.8 | -26.6 | -16.3 | 5.16 | 0.5 | 10.3 |
| 543705 | 2 | -105.8 | -103.8 | -107.4 | -104 | 1.8 | -0.2 | 3.4 |
| 544102 | 45 | -140.02 | -139.1 | -143.6 | -138.7 | 1.32 | 0.4 | 4.9 |
| 544610 | 120 | -190.96 | -184.9 | -186.7 | -182.3 | 8.66 | 2.6 | 4.4 |
| 544703 | 92 | -129.58 | -127.6 | -131.3 | -125.2 | 4.38 | 2.4 | 6.1 |
| 544705 | 12 | -64.81 | -62.6 | -62.4 | -62.9 | 1.91 | -0.3 | -0.5 |
| 544801 | 115 | -114.4 | -114.3 | -111.4 | -110.9 | 3.5 | 3.4 | 0.5 |
| 550202 | 24 | -24.04 | -25.7 | -24.8 | -25.7 | -1.66 | 0 | -0.9 |
| 550203 | 4 | -57.77 | -58.4 | -59.8 | -65.5 | -7.73 | -7.1 | -5.7 |

## Gray County Ogallala Wells Cont'd (see map page 12)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 550204 | 5 | -53.13 | -55.8 | -49.4 | -48.6 | 4.53 | 7.2 | 0.8 |
| 550302 | 8 | -88.68 | -86.1 | -87.1 | -87.3 | 1.38 | -1.2 | -0.2 |
| 550402 | 18 | | -146.2 | -149.1 | -144.1 | | 2.1 | 5 |
| 551101 | 181 | -218.04 | -216.3 | -218.4 | -213.6 | 4.44 | 2.7 | 4.8 |
| 551103 | 29 | -137.39 | -134.7 | -133.9 | -134.4 | 2.99 | 0.3 | -0.5 |
| 551202 | 37 | -194.69 | -191.7 | -189.1 | -188.9 | 5.79 | 2.8 | 0.2 |
| 551203 | 34 | -149.69 | -150.2 | -150.4 | -150.7 | -1.01 | -0.5 | -0.3 |
| 551303 | 32 | -118.02 | -107.6 | -105.3 | -106.3 | 11.72 | 1.3 | -1 |
| 551304 | 33 | -76.89 | -70.5 | -71.25 | -72.1 | 4.79 | -1.6 | -0.85 |
| 552111 | 189 | -116.44 | -116.3 | -104.6 | -104.3 | 12.14 | 12 | 0.3 |
| 552308 | 68 | -98.57 | -102.3 | -100.4 | -100.6 | -2.03 | 1.7 | -0.2 |
| 552452 | 49 | | | -108.2 | -105.9 | | | 2.3 |
| 632606 | 148 | -364.91 | -363.7 | -362.6 | -364.1 | 0.81 | -0.4 | -1.5 |
| 632803 | 160 | -394.16 | -393.7 | -394.1 | -394.3 | -0.14 | -0.6 | -0.2 |
| 640205 | 179 | -385.69 | -389.8 | -386.8 | -387.1 | -1.41 | 2.7 | -0.3 |
| 640207 | 160 | | | -393.6 | -392.9 | | | 0.7 |
| 640306 | 134 | | -401.8 | -402.2 | -402.8 | | -1 | -0.6 |
| 640312 | 155 | | | -405 | -404.7 | | | 0.3 |
| 640501 | 210 | -367.98 | -371.9 | -371.6 | -371.5 | -3.52 | 0.4 | 0.1 |
| 640801 | 214 | | -367.2 | -371.2 | -370.9 | | -3.7 | 0.3 |
| 640802 | 206 | -358.54 | -356.8 | -360.6 | -361 | -2.46 | -4.2 | -0.4 |
| 648253 | 202 | | | -357.2 | -355.9 | | | 1.3 |
| 648801 | 222 | -281.57 | -285.6 | -284.8 | -284.1 | -2.53 | 1.5 | 0.7 |
| 656306 | 19 | -276.79 | -280.8 | -278.4 | -282.5 | -5.71 | -1.7 | -4.1 |
| 656507 | 57 | -299.44 | -302.1 | -297.7 | -297.5 | 1.94 | 4.6 | 0.2 |

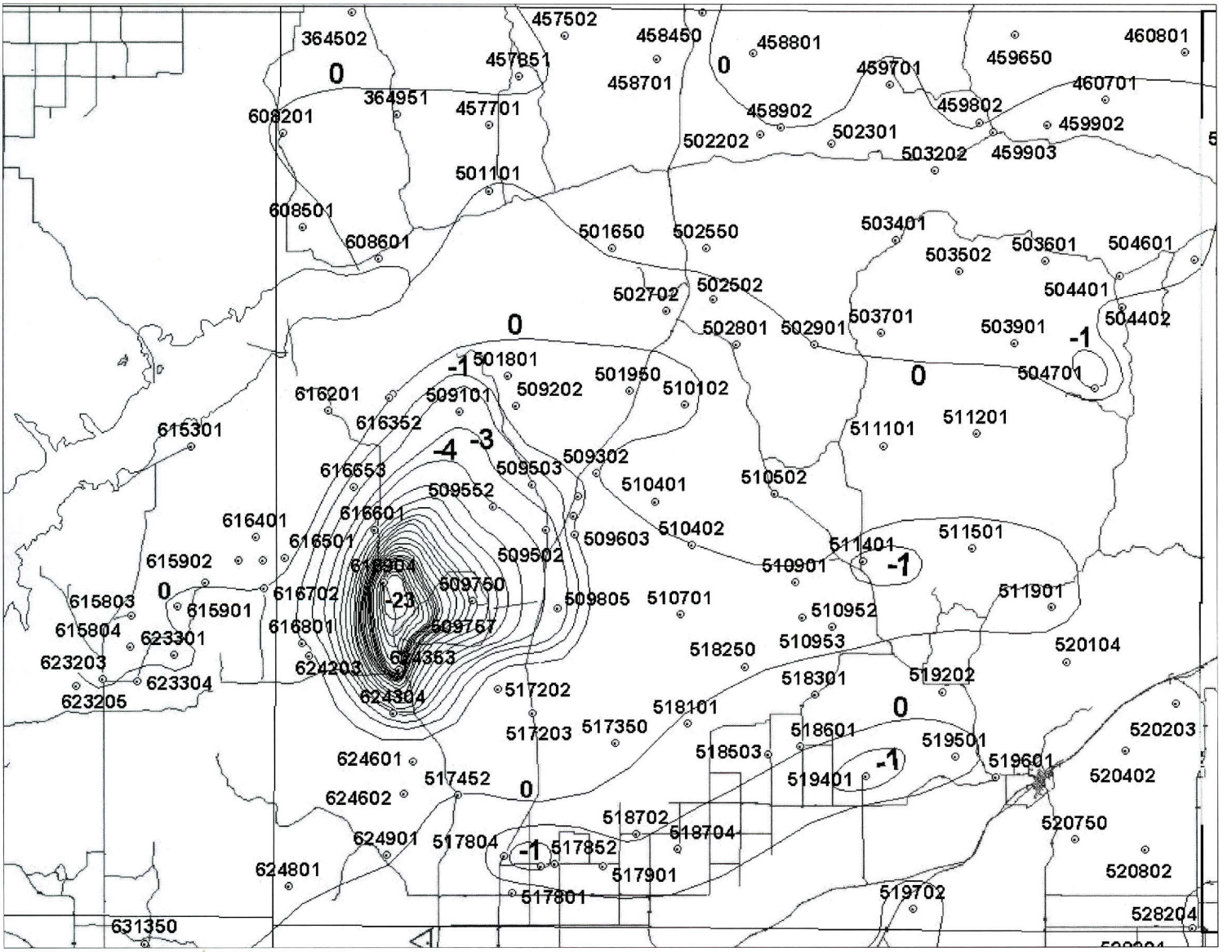
### MASTER GARDENERS REALIZE IMPORTANCE OF CONSERVATION

Thanks to the help of Master Gardeners Maryon and Rosa Bilderback, the xeriscape garden at the Panhandle Groundwater Conservation District blossomed into a successful project. It was now time to return the favor. The Bilderbacks, members of the Master Gardeners of Amarillo, invited Bart Wyatt, Director of Education and Information, to speak about the District, its functions, and the importance of water conservation at the Master Gardeners' August meeting.

Around 45 members were present to see Bart's demonstrations and presentation of the programs and services provided to residents of the District. Not only was the audience shown the groundwater flow model and the amount of fresh water left in the world, but a few new slides of the District's rainwater harvesting system and xeriscape garden were included in the presentation. These new slides, along with slides of the precipitation enhancement program and an informational brochure on well registrations and permits, sparked many questions from the audience. This gave Bart a chance to delve into these areas of discussion with greater detail.

The Panhandle Groundwater Conservation District was happy to have the opportunity to speak at the Master Gardeners meeting and we wish this group much success.

# Roberts/Hutchinson County Ogallala Aquifer *contour interval = 1 Foot*




## Roberts County Alluvium Well

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 503202 | 188 | | -8.2 | -9 | -10.9 | | -2.7 | -1.9 |

## Roberts County Ogallala Wells

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 364502 | 53 | -432.2 | -430.2 | -413.6 | -412.7 | 19.5 | 17.5 | 0.9 |
| 364951 | 30 | | | -109.6 | -110.1 | | | -0.5 |
| 457502 | 154 | | -392.2 | -395.1 | -398 | | -5.8 | -2.9 |
| 457701 | 19 | | | -22 | -22.6 | | | -0.6 |
| 458450 | 159 | | | -357.1 | -357.5 | | | -0.4 |
| 458701 | 133 | | -89.5 | -96.6 | -93.1 | | -3.6 | 3.5 |
| 458801 | 1 | | -397.8 | -391.2 | -391.7 | | 6.1 | -0.5 |

## Roberts County Ogallala Wells Cont'd

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 458902 | 219 | | | -117.3 | -117.1 | | | 0.2 |
| 459650 | 36 | | | -271.4 | -270.7 | | | 0.7 |
| 459701 | 203 | -52.31 | -52.7 | -53.8 | -53.9 | -1.59 | -1.2 | -0.1 |
| 459802 | 183 | -77.45 | -75 | -76.1 | -76.2 | 1.25 | -1.2 | -0.1 |
| 459902 | 171 | | -46.6 | -47.5 | -47.5 | | -0.9 | 0 |
| 459903 | 183 | | -39.7 | -40.2 | -40.5 | | -0.8 | -0.3 |
| 460701 | 158 | | -96.2 | -97 | -97.3 | | -1.1 | -0.3 |
| 460801 | 144 | -186.81 | -187.2 | -186.9 | -186.8 | 0.01 | 0.4 | 0.1 |
| 501101 | 23 | -57.12 | -58.05 | -53.8 | -54.3 | 2.82 | 3.75 | -0.5 |
| 501650 | 8 | | | -79.8 | -80 | | | -0.2 |
| 501801 | 16 | | -209 | -209.3 | -212.2 | | -3.2 | -2.9 |
| 501950 | 1 | | | -128.3 | -128.1 | | | 0.2 |
| 502202 | 9 | | | -68 | -68.1 | | | -0.1 |

## Roberts County Ogallala Wells Cont'd (see map page 14)

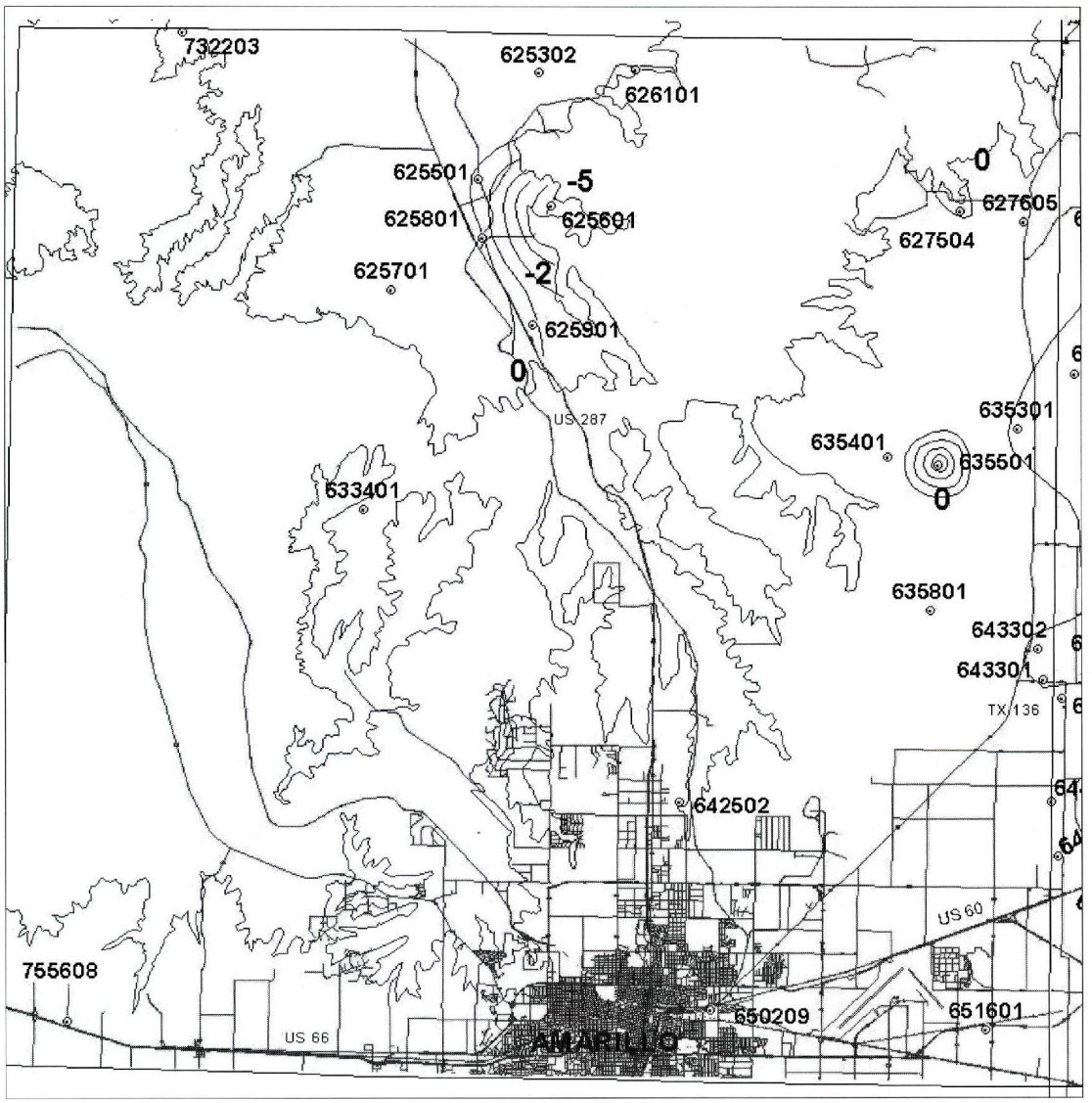
| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 502301 | 213 | | | -58.5 | -61 | | | -2.5 |
| 502502 | 60 | | -108.2 | -107.6 | -107.8 | | 0.4 | -0.2 |
| 502550 | 4 | | | -99.8 | -100 | | | -0.2 |
| 502702 | 4 | -55.93 | -54.1 | -54.7 | -55.9 | 0.03 | -1.8 | -1.2 |
| 502801 | 2 | | | -6.7 | -7.5 | | | -0.8 |
| 502901 | | -132.83 | | -132.7 | -133 | -0.17 | | -0.3 |
| 503401 | 1 | | | -99.1 | -99.4 | | | -0.3 |
| 503502 | 5 | | -29.5 | -30 | -30.5 | | -1 | -0.5 |
| 503601 | 16 | | -84.6 | -84.9 | -85.4 | | -0.8 | -0.5 |
| 503701 | | -85.52 | -85.6 | -85.9 | -86.2 | -0.68 | -0.6 | -0.3 |
| 503901 | 8 | | -64.7 | -64.8 | -65 | | -0.3 | -0.2 |
| 504401 | 115 | | -99.5 | -99.3 | -99.3 | | 0.2 | 0 |
| 504402 | 111 | | -166.9 | -167.4 | -166.5 | | 0.4 | 0.9 |
| 504502 | | | -115.1 | -115.1 | -115.6 | | -0.5 | -0.5 |
| 504701 | 98 | -320.78 | | -317.6 | -324.1 | -3.32 | | -6.5 |
| 509101 | 3 | -43 | -43.4 | -53.8 | -55 | -12 | -11.6 | -1.2 |
| 509202 | 30 | | -240.2 | -241.2 | -243.2 | | -3 | -2 |
| 509302 | 35 | | -184.5 | -181.7 | -181.1 | | 3.4 | 0.6 |
| 509502 | | | | -282.6 | -286.1 | | | -3.5 |
| 509503 | | | | -251.4 | -252.5 | | | -1.1 |
| 509552 | 46 | | | -83.2 | -87.2 | | | -4 |
| 509601 | 49 | | | -231 | -232.4 | | | -1.4 |
| 509603 | 77 | -185.62 | -186.1 | -186.3 | -186.8 | -1.18 | -0.7 | -0.5 |
| 509604 | 51 | | | -180.2 | -181.6 | | | -1.4 |
| 509750 | 126 | | -283.49 | -405 | -414 | | -130.51 | -9 |
| 509757 | 126 | | -283.33 | -406.2 | -415.3 | | -131.97 | -9.1 |
| 509758 | 126 | | -279.03 | -324.1 | -330.9 | | -51.87 | -6.8 |
| 509805 | | | -302.25 | -304.8 | -308.1 | | -5.85 | -3.3 |
| 510102 | 9 | | -129.4 | -133 | -129.5 | | -0.1 | 3.5 |
| 510401 | 56 | | -149.7 | -148.2 | -147.6 | | 2.1 | 0.6 |
| 510402 | 25 | | | -250.2 | -251.4 | | | -1.2 |
| 510502 | 68 | | -241.2 | -242.1 | -243.2 | | -2 | -1.1 |
| 510701 | 27 | | | -274.7 | -274.7 | | | 0 |
| 510901 | 45 | -155.6 | -155.6 | -155.7 | -155.8 | -0.2 | -0.2 | -0.1 |
| 510952 | 13 | | | -344.6 | -344.7 | | | -0.1 |
| 510953 | 17 | | | -184.5 | -184.6 | | | -0.1 |
| 511101 | 72 | -283.09 | -285.6 | -285.3 | -285.5 | -2.41 | 0.1 | -0.2 |
| 511201 | 88 | | -293.5 | -292.5 | -292.8 | | 0.7 | -0.3 |
| 511401 | 42 | | -339.3 | -334.1 | -346.3 | | -7 | -12.2 |
| 511501 | 52 | | -306.8 | -306.4 | -306.5 | | 0.3 | -0.1 |
| 511901 | 25 | -273.06 | -276.2 | -272.3 | -272.5 | 0.56 | 3.7 | -0.2 |
| 517202 | 108 | | -165.8 | -167.2 | -168.9 | | -3.1 | -1.7 |
| 517203 | 97 | | -319.94 | -321.1 | -321.7 | | -1.76 | -0.6 |
| 517350 | 69 | | | -340 | -340.5 | | | -0.5 |
| 517452 | 137 | | | -356.3 | -356.4 | | | -0.1 |

## Roberts County Ogallala Wells Cont'd (see map page 14)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 517801 | 114 | | -394.9 | -388.4 | -388.9 | | 6 | -0.5 |
| 517802 | 91 | | -397.2 | -400.7 | -401.7 | | -4.5 | -1 |
| 517804 | 113 | -423.7 | -395.1 | -398.2 | -399.2 | 24.5 | -4.1 | -1 |
| 517852 | 92 | | | -406 | -406.1 | | | -0.1 |
| 517901 | 65 | | -391.1 | -391.4 | -394.4 | | -3.3 | -3 |
| 518101 | 30 | | -324.2 | -322.4 | -322.1 | | 2.1 | 0.3 |
| 518250 | 4 | | | -334 | -334.2 | | | -0.2 |
| 518301 | 195 | -363.18 | -357.5 | -358.1 | -358 | 5.18 | -0.5 | 0.1 |
| 518503 | 7 | | -386.2 | -376 | -375.6 | | 10.6 | 0.4 |
| 518601 | 193 | -366.95 | -366.1 | -364.3 | -368.6 | -1.65 | -2.5 | -4.3 |
| 518702 | 60 | -387.61 | -388.6 | -388.8 | -387.5 | 0.11 | 1.1 | 1.3 |
| 518704 | 35 | | -382 | -385.6 | -383 | | -1 | 2.6 |
| 519202 | 129 | | -377.2 | -361.9 | -361.3 | | 15.9 | 0.6 |
| 519401 | 158 | | -325 | -327.1 | -328.5 | | -3.5 | -1.4 |
| 519601 | 94 | -117.98 | -115.2 | -113.5 | -117.8 | 0.18 | -2.6 | -4.3 |
| 519702 | 139 | -263.05 | -257.4 | -258.9 | -259.5 | 3.55 | -2.1 | -0.6 |
| 520104 | 66 | -142.23 | -145.9 | -141 | -141.3 | 0.93 | 4.6 | -0.3 |
| 520203 | 10 | -112.83 | -112.9 | -110.6 | -112 | 0.83 | 0.9 | -1.4 |
| 520402 | 33 | | -285.6 | -286.6 | -286.5 | | -0.9 | 0.1 |
| 520750 | 43 | | | -291.9 | -291.8 | | | 0.1 |
| 520802 | 18 | | -251.1 | -243.3 | -243.2 | | 7.9 | 0.1 |
| 528204 | 2 | | -347.9 | -348.9 | -349.5 | | -1.6 | -0.6 |
| 608201 | 184 | -167.74 | -171.5 | -173.8 | -173 | -5.26 | -1.5 | 0.8 |
| 608501 | 3 | -58.61 | -63.8 | -62.6 | -62.8 | -4.19 | 1 | -0.2 |
| 608601 | 36 | -7.78 | -4.8 | -6.2 | -6 | 1.78 | -1.2 | 0.2 |
| 616201 | 2 | | | -144.5 | -143.4 | | | 1.1 |
| 616301 | 7 | -175.33 | -176.7 | -176.1 | -178.5 | -3.17 | -1.8 | -2.4 |
| 616352 | 7 | | | -179.8 | -179.2 | | | 0.6 |
| 616501 | 206 | | | -216.5 | -215 | | | 1.5 |
| 616601 | | | -215.93 | -222 | -227.9 | | -11.97 | -5.9 |
| 616653 | | | | -228.3 | -229.2 | | | -0.9 |
| 616801 | 203 | | -214.3 | -219.5 | -215.2 | | -0.9 | 4.3 |
| 616904 | 156 | | -224.7 | -261.2 | -291.5 | | -66.8 | -30.3 |
| 624203 | 202 | | -240.4 | -241 | -241.3 | | -0.9 | -0.3 |
| 624304 | 159 | | -279.28 | -283.1 | -287.2 | | -7.92 | -4.1 |
| 624353 | | | -295.11 | -315.65 | -362.1 | | -66.99 | -46.45 |
| 624357 | 159 | | -294.96 | -316.5 | -362.7 | | -67.74 | -46.2 |
| 624358 | 159 | | -292.98 | -298 | -304 | | -11.02 | -6 |
| 624601 | 147 | | -200.5 | -201.4 | -201.8 | | -1.3 | -0.4 |
| 624602 | 163 | | | -323.4 | -323.9 | | | -0.5 |
| 624801 | 195 | | -110.3 | -115 | -111.1 | | -0.8 | 3.9 |
| 624901 | 165 | | -354.6 | -355.5 | -355.2 | | -0.6 | 0.3 |

*"Water is life, money isn't."*
-- Ray Brady

# Potter County Ogallala Aquifer *contour interval = 1 Foot*




**Potter County Ogallala Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 625302 | 63 | | | -91 | -91 | | | 0 |
| 625501 | 10 | -76.84 | -78.47 | -79.4 | -79.5 | -2.66 | -1.03 | -0.1 |
| 625601 | 108 | | | -235.5 | -241 | | | -5.5 |
| 625701 | 56 | | | -156.1 | -153.4 | | | 2.7 |
| 625801 | 81 | -87.48 | -85.53 | -86.9 | -87.2 | 0.28 | -1.67 | -0.3 |
| 625901 | 12 | | | -165.5 | -166.5 | | | -1 |
| 626101 | 90 | | | -30.4 | -30.7 | | | -0.3 |
| 627605 | 37 | | | -114.4 | -111 | | | 3.4 |
| 635301 | 27 | | -295.4 | -297.5 | -298.2 | | -2.8 | -0.7 |
| 635401 | 22 | | | -282.1 | -281.3 | | | 0.8 |
| 635501 | 22 | | | -310.1 | -310.5 | | | -0.4 |
| 635801 | 18 | | | -135.2 | -133.5 | | | 1.7 |
| 642502 | 162 | | | -78.4 | -81.2 | | | -2.8 |
| 643301 | 48 | | | -489.6 | -488.2 | | | 1.4 |
| 643302 | 48 | -458.76 | | -467 | -469 | -10.24 | | -2 |

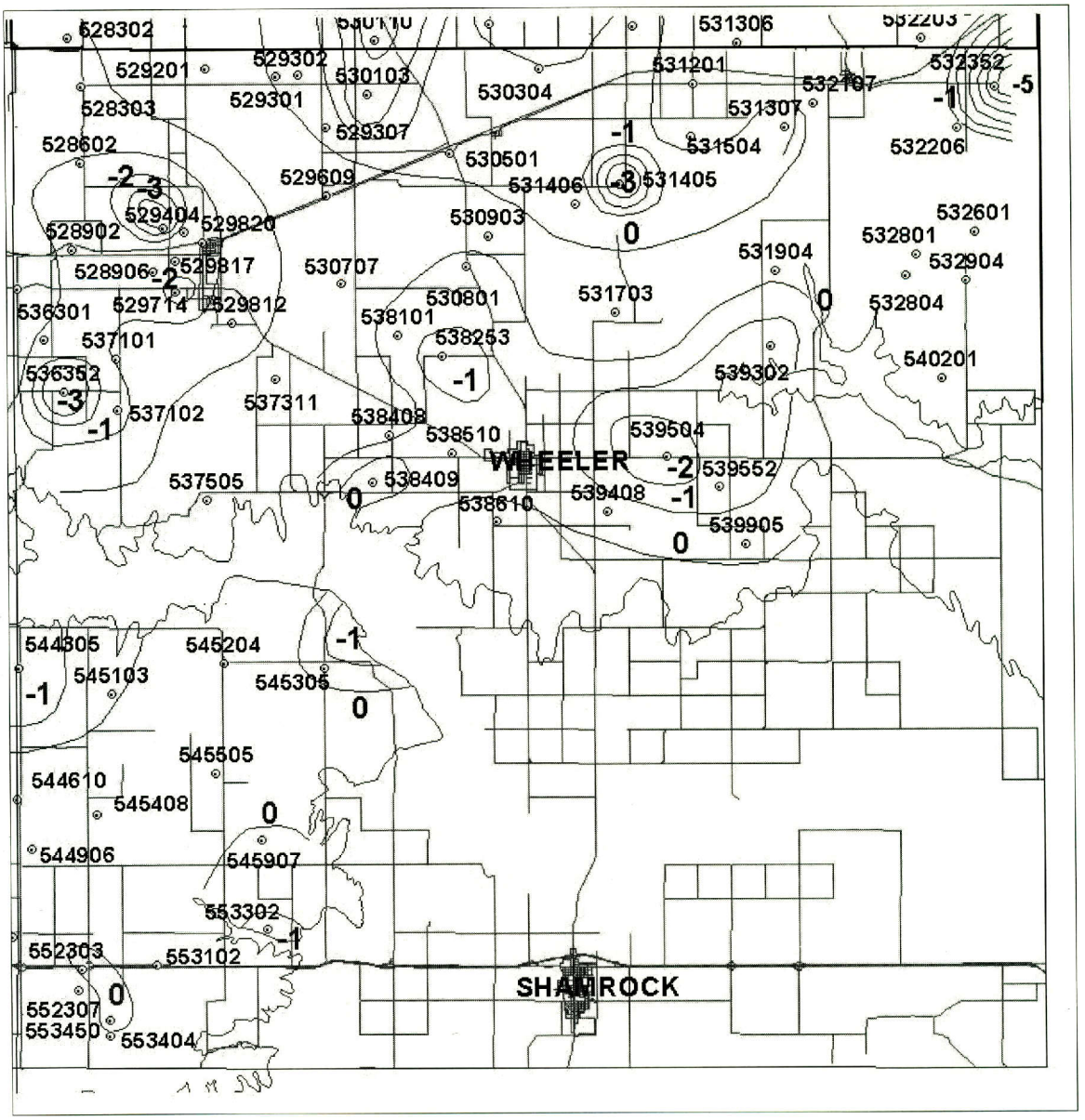
**Potter County Ogallala Wells Cont'd**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 644452 | 1 | | | -301.7 | -300.6 | | | 1.1 |
| 650209 | 137 | | | -216 | -232.6 | | | -16.6 |
| 651601 | 30 | | | -196.1 | -196.1 | | | 0 |
| 755608 | 9 | | | -254 | -254.8 | | | -0.8 |

Would you like to become a raingauge cooperator? We will provide the gauge, cards and postage.
We just need you to report the rainfall.

If you want to help, please contact Ray Brady at (806) 883-2501

# Wheeler County Ogallala Aquifer *contour interval = 1 Foot*




**Wheeler County Ogallala Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 528303 | 3 | | | -297.3 | -297.6 | | | -0.3 |
| 528602 | 88 | -107.49 | -103.1 | -107.6 | -108.2 | -0.71 | -5.1 | -0.6 |
| 528902 | 69 | -27.1 | -19.7 | -27.2 | -29 | -1.9 | -9.3 | -1.8 |
| 528906 | 51 | | | -167 | -167.3 | | | -0.3 |
| 529201 | 4 | -143.63 | -143.2 | -141 | -142.7 | 0.93 | 0.5 | -1.7 |
| 529301 | 79 | -121.9 | -123.3 | -123.1 | -123.6 | -1.7 | -0.3 | -0.5 |
| 529302 | 74 | | -131 | -117.6 | -110.8 | | 20.2 | 6.8 |
| 529307 | 100 | -120.12 | -119.9 | -118.6 | -120.4 | -0.28 | -0.5 | -1.8 |
| 529404 | 66 | | | -60.7 | -65.4 | | | -4.7 |
| 529609 | 79 | | -57.9 | -58.2 | -57.5 | | 0.4 | 0.7 |
| 529714 | 55 | | -2.9 | -1.8 | -4.4 | | -1.5 | -2.6 |
| 529812 | 37 | | -21.6 | -20.1 | -24.3 | | -2.7 | -4.2 |

**Wheeler County Ogallala Wells Cont'd**

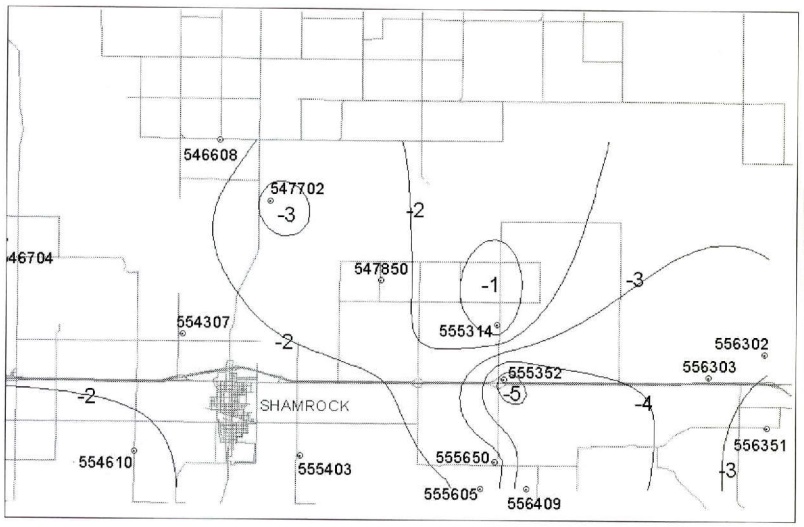
| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 529817 | 55 | -64 | -67.7 | -65.1 | -68.6 | -4.6 | -0.9 | -3.5 |
| 529818 | 46 | | | -56.1 | -61.8 | | | -5.7 |
| 529820 | | | | -75.3 | -75.3 | | | 0 |
| 529821 | 66 | | -66.6 | -67.3 | -70.5 | | -3.9 | -3.2 |
| 530103 | 64 | | | -73.4 | -78 | | | -4.6 |
| 530304 | 34 | | | -86.8 | -87.9 | | | -1.1 |
| 530501 | | | | -107 | -107.1 | | | -0.1 |
| 530707 | 60 | | | -12.6 | -9.8 | | | 2.8 |
| 530801 | | -65.17 | -64.6 | -64.9 | -65.1 | 0.07 | -0.5 | -0.2 |
| 530903 | 59 | | | -75.1 | -76.6 | | | -1.5 |
| 531201 | | -110.1 | -110.3 | -108.3 | -107.8 | 2.3 | 2.5 | 0.5 |
| 531307 | 25 | | | -49.7 | -50.3 | | | -0.6 |

## Wheeler County Ogallala Wells Cont'd (see map page 17)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 531405 | 11 | | | -10.7 | -14.4 | | | -3.7 |
| 531406 | 9 | -80.9 | | -78.6 | -79.4 | 1.5 | | -0.8 |
| 531504 | 18 | | | -33.2 | -33.2 | | | 0 |
| 531703 | 43 | -98.95 | -99.3 | -94.3 | -94.4 | 4.55 | 4.9 | -0.1 |
| 531904 | 4 | | | -51.5 | -50.4 | | | 1.1 |
| 532107 | 20 | | -50.8 | -50 | -50.5 | | 0.3 | -0.5 |
| 532206 | 29 | -71.39 | -69.6 | -64.5 | -64.4 | 6.99 | 5.2 | 0.1 |
| 532352 | 26 | | | -98.4 | -103.7 | | | -5.3 |
| 532601 | 10 | | | -65.7 | -64.3 | | | 1.4 |
| 532801 | 44 | | 0 | -0.6 | -0.2 | | | 0.4 |
| 532804 | 44 | | -18 | -16.9 | -16.6 | | 1.4 | 0.3 |
| 532904 | 3 | | | -70.8 | -60.9 | | | 9.9 |
| 536301 | 31 | | | -132.2 | -133.6 | | | -1.4 |
| 536352 | 12 | | | -48.5 | -52.1 | | | -3.6 |
| 537101 | 28 | | | -78.8 | -80.2 | | | -1.4 |
| 537102 | 13 | | | -54.1 | -55.6 | | | -1.5 |
| 537311 | 23 | | -22.8 | -21.6 | -22.5 | | 0.3 | -0.9 |
| 537505 | 26 | -61.96 | | -61.6 | -59 | 2.96 | | 2.6 |
| 538101 | 32 | | -4.5 | -4.4 | -5.7 | | -1.2 | -1.3 |
| 538253 | 33 | | | -92 | -93.2 | | | -1.2 |
| 538408 | 10 | -91.3 | -98.5 | -95.2 | -89.3 | 2 | 9.2 | 5.9 |
| 538409 | 56 | -74.15 | -71.6 | -73.7 | -80.4 | -6.25 | -8.8 | -6.7 |
| 538510 | 8 | | -29.2 | -28.2 | -30.4 | | -1.2 | -2.2 |
| 538610 | 51 | -66.72 | -63.4 | -62.2 | -61.9 | 4.82 | 1.5 | 0.3 |
| 539408 | 4 | -6.51 | -6.3 | -5.2 | -7.5 | -0.99 | -1.2 | -2.3 |
| 539504 | | | | -40.8 | -43.7 | | | -2.9 |
| 539905 | 9 | -34.15 | -35.5 | -33.2 | -37.4 | -3.25 | -1.9 | -4.2 |
| 540201 | 23 | | -7.3 | -17.2 | -5.9 | | 1.4 | 11.3 |
| 544305 | 31 | -86.5 | -78.9 | -84.7 | -84.8 | 1.7 | -5.9 | -0.1 |
| 544906 | 114 | | -109.1 | -106.7 | -107 | | 2.1 | -0.3 |
| 545103 | 33 | | -6.7 | -6.5 | -7.3 | | -0.6 | -0.8 |
| 545204 | 37 | -115.62 | -126.9 | -114.3 | -116.8 | -1.18 | 10.1 | -2.5 |
| 545305 | 40 | -75.88 | -72.6 | -72 | -77.4 | -1.52 | -4.8 | -5.4 |
| 545408 | 123 | -115.9 | -110.3 | -105.4 | -106.1 | 9.8 | 4.2 | -0.7 |
| 545505 | 5 | -103.19 | -100.6 | -99.2 | -98.5 | 4.69 | 2.1 | 0.7 |
| 545907 | 101 | | -42.5 | -44.6 | -44.1 | | -1.6 | 0.5 |
| 552303 | 61 | -44.85 | -39.7 | -40.2 | -41.3 | 3.55 | -1.6 | -1.1 |
| 552307 | 61 | -77.67 | | -73 | -72.7 | 4.97 | | 0.3 |
| 553102 | 23 | -63.91 | -65.8 | -58.2 | -59.5 | 4.41 | 6.3 | -1.3 |
| 553302 | 81 | | -16.6 | -20.8 | -22.2 | | -5.6 | -1.4 |
| 553404 | 24 | | -36.4 | -7.2 | -7.9 | | 28.5 | -0.7 |
| 553450 | 45 | | | -38.3 | -38.7 | | | -0.4 |

# Seymour & Blaine Aquifers

***contour interval = 1 Foot***




## Wheeler County Seymour Wells (see map above)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 555314 | 53 | | -78.9 | -71.4 | -73 | | 5.9 | -1.6 |
| 555352 | | | | -51.8 | -57.5 | | | -5.7 |
| 555650 | | | | -32.6 | -35.1 | | | -2.5 |
| 556409 | 27 | | -103 | -44.9 | -49.8 | | 53.2 | -4.9 |

## Wheeler County Blaine Wells (See map above)

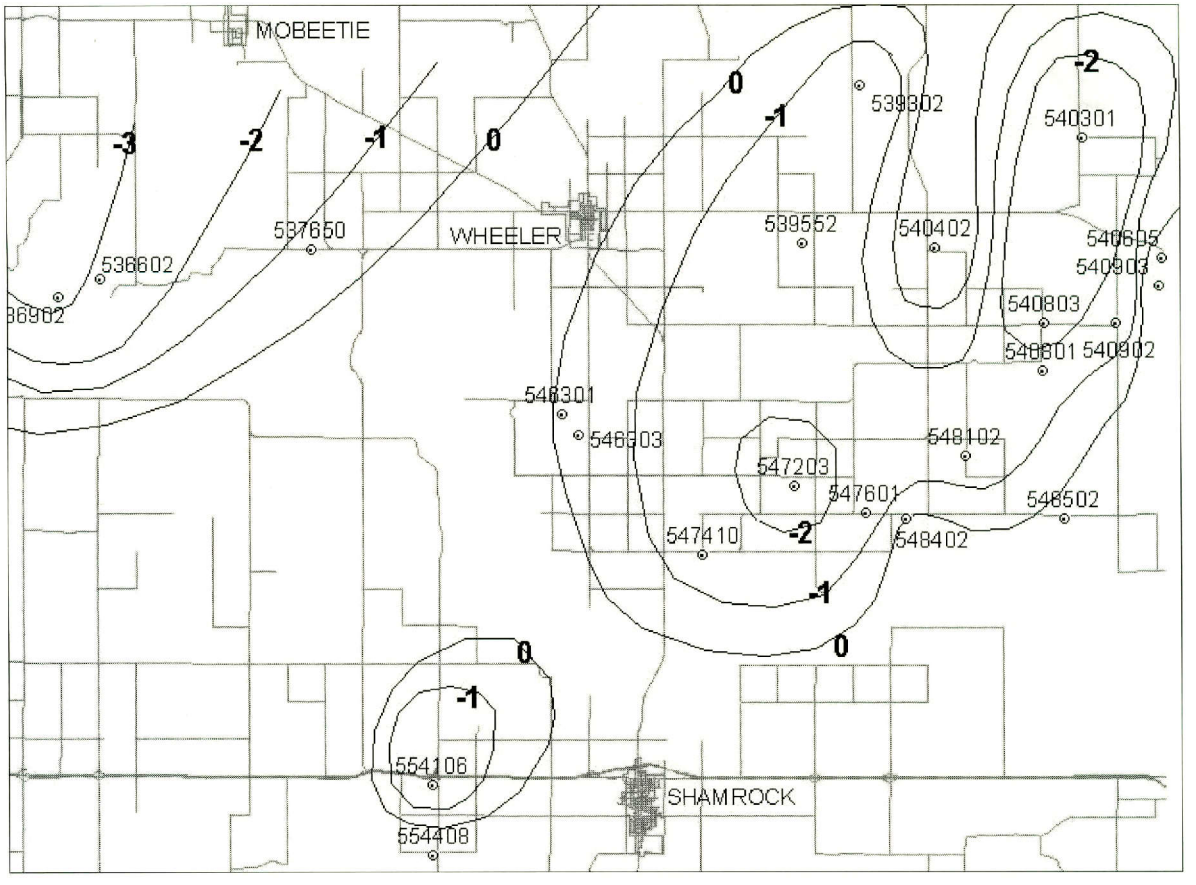
| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 546704 | 90 | | -89.5 | -94.5 | -98.2 | | -8.7 | -3.7 |
| 547850 | | | | -89.9 | -92.5 | | | -2.6 |

## Wheeler County Seymour/Blaine Wells (See map above)

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 546608 | 4 | | -19.5 | -23.6 | -24.8 | | -5.3 | -1.2 |
| 547702 | 98 | | -30.3 | -37.8 | -47.2 | | -16.9 | -9.4 |
| 554307 | 65 | | | -44.9 | -46.1 | | | -1.2 |
| 554610 | 35 | | -29.7 | -42.5 | -41.5 | | -11.8 | 1 |
| 555403 | 39 | | -74 | -90.6 | -79.6 | | -5.6 | 11 |
| 555605 | 28 | | | -83.1 | -85.3 | | | -2.2 |
| 556302 | 60 | | | -3.8 | -7.1 | | | -3.3 |
| 556303 | 59 | | | -32.5 | -36.3 | | | -3.8 |
| 556351 | 41 | | | -58.2 | -60.2 | | | -2 |

# Whitehorse & Other Permian Aquifers

***contour interval = 1 Foot***




**Wheeler County Ogallala/Whitehorse Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 539302 | 33 | | | -49.6 | -51.3 | | | -1.7 |
| 539552 | 2 | | | -24.4 | -26 | | | -1.6 |

**Wheeler County Whitehorse Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 536602 | 23 | | -9.5 | -36.4 | -38.2 | | -28.7 | -1.8 |
| 536902 | 9 | | | -5.6 | -38.4 | | | -32.8 |
| 537650 | 28 | | -7 | -7.7 | -7.9 | | -0.9 | -0.2 |
| 540301 | 19 | | -34.7 | -34.6 | -47.2 | | -12.5 | -12.6 |
| 540402 | 2 | | | -29.5 | -27.6 | | | 1.9 |
| 540605 | 21 | | -50.5 | -43.8 | -44.4 | | 6.1 | -0.6 |
| 540801 | 52 | | | -19.1 | -25.4 | | | -6.3 |
| 540803 | 60 | | | -9.1 | -20.9 | | | -11.8 |
| 540902 | 62 | | | -35.2 | -39.8 | | | -4.6 |
| 540903 | 21 | | -68 | -63.2 | -61.6 | | 6.4 | 1.6 |
| 546301 | 34 | | -7.5 | -9.1 | -11.1 | | -3.6 | -2 |
| 546303 | 35 | | -8.9 | -8.3 | -10.1 | | -1.2 | -1.8 |
| 547203 | 30 | -18.49 | -19.8 | -23.2 | -27.6 | -9.11 | -7.8 | -4.4 |

**Wheeler County Ogallala/Whitehorse Wells**

| Well # | Section | Depth to Water in Feet | | | | Water Level Variation | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | 1999 | 2003 | 2004 | 10 Yr | 5 Yr | 1 Yr |
| 547410 | 2 | | -21.1 | -25.7 | -27.6 | | -6.5 | -1.9 |
| 547601 | 28 | | | -49.7 | -51.1 | | | -1.4 |
| 548102 | 36 | | -40.2 | -44.6 | -46.9 | | -6.7 | -2.3 |
| 548402 | 14 | | 0 | 0 | 0 | | | |
| 548502 | 18 | | -31.1 | -32.7 | -32.7 | | -1.6 | 0 |
| 554106 | 50 | | -47.6 | -55.3 | -55.1 | | -7.5 | 0.2 |
| 554408 | 30 | | -85 | -83.9 | -83.1 | | 1.9 | 0.8 |

**Come Visit our booth in the Commercial Exhibits building at the Tri-State Fair September 17 - 25**

DISTRICT OFFICE
201 W. Third St, PO Box 637
White Deer, TX 79097
Phone: 806/883-2501
FAX: 806/883-2162
E-Mail: cwilliams8@aol.com

Web Page:
www.panhandlegroundwater.org



*Panhandle Water News* is published quarterly by the Panhandle Groundwater Conservation District. Subscriptions are free upon request.

PANHANDLE GROUNDWATER
CONSERVATION DISTRICT
P.O. BOX 637
WHITE DEER, TEXAS 79097

RETURN SERVICE REQUESTED

PRSRT STD
US POSTAGE PAID
WHITE DEER, TX

PERMIT NO.2



PANHANDLE GROUNDWATER DISTRICT
"Conserving Water for Future Generations"

## WATER WELL DRILLERS ATTEND INFORMATIONAL MEETING

Water well drillers operating within the boundaries of the Panhandle Groundwater Conservation District were treated to a barbeque lunch on July 7, 2004. The purpose of the luncheon was to promote knowledge and understanding of the changes to the District Rules, which were adopted on May 26, and to demonstrate the ease of compliance.

A portion of the changes addressed were new spacing rules, permits vs. registrations, the permit timeframe, and the basic reasons for changing the Rules. A question and answer period followed.

General Manager C. E. Williams said, "I think that this was a very productive meeting, fostering cooperation between the water well drillers and the District."

C.E. addressed water well drillers at Driller's Barbeque Luncheon July 7, 2004