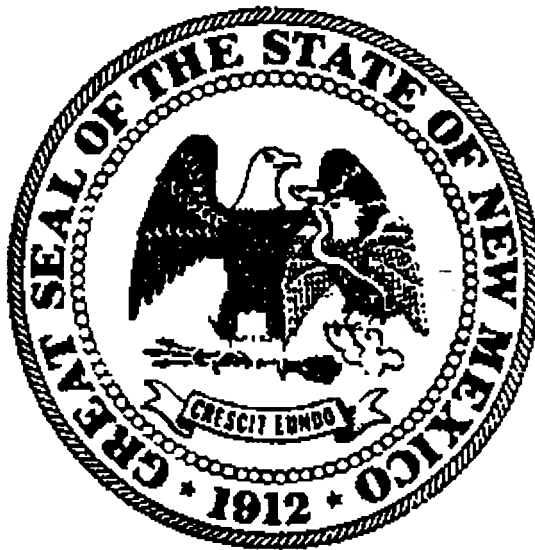


Impacts of the Proposed Groundwater Diversions by New Mexico American Water Company in the Curry County and Portales Underground Water Basins



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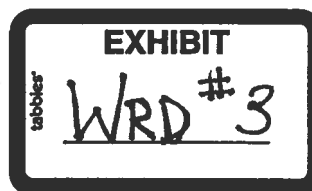


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Impacts of the Proposed Groundwater Diversions by New Mexico American Water Company in the Curry County and Portales Underground Water Basins

I. Summary and Conclusions.

On July 30, 2008 the New Mexico American Water Company (NMAW) filed with the Office of the State Engineer (OSE) an application for permit to combine a consumptive use amount of 51,139.58 acre-feet per year (afy) from its existing and proposed wells in the Curry County and Portales Underground Water Basins (Basins). The proposed purpose of this application is to enable NMAW to continue its operations for providing water to residents in the city of Clovis and other areas. The application also seeks an emergency authorization so that NMAW would continue to meet the demands of the residents of Clovis without interruption in services. Several parties protested this application including the cities of Clovis and Portales, numerous dairies and the State of New Mexico Commissioner of Public lands.

The drawdown impacts of the proposed diversions under this application were evaluated using the Curry-Portales Groundwater Flow Model (CPGFM) and the Theis Analytical (Theis) model. The CPGFM was used to compute the average drawdown in the basin due to the proposed diversions under this application. The Theis model was used to compute drawdown in nearby wells of other ownership in the vicinity of NMAW wells. Diversions under this application resulted in forty-year incremental drawdowns ranging from less than one (1) foot to more than 24 feet as computed by the CPGFM. Forty-year incremental drawdowns in nearby wells of other ownership computed by the Theis model ranged from less than one foot to approximately 19 feet in some nearby wells. These ranges of incremental drawdowns have significant adverse effects on aquifer saturated thickness and on nearby wells of other ownership. Nearby wells in the vicinity of NMAW wells may not be able to sustain production for forty years. Predictions using both models indicated that NMAW wells and nearby wells of other ownership in some areas will go dry in less than 10 years if this application is approved.

Under this application NMAW also requested an emergency authorization. The proposed wells for combining water rights are located within the same source aquifer. The time period for this emergency authorization was not specified in the application. Moreover, John Shomaker & Associates Inc. (Shomaker) indicated through personal communication that NMAW may be considering pumping groundwater under this application for only ten years. Accordingly, ten-year and forty-year drawdown impacts due to diversions under this application were evaluated using the CPGFM and the Theis model. Simulated CPGFM drawdowns ranged from less than one (1) foot to more than 10 feet. The Theis model simulated drawdowns in nearby wells ranging from less than one (1) foot to approximately 12.5 feet. Again, the drawdown effects due to diversions under this application are significant and would result in adverse effects on aquifer saturated thickness and on nearby wells of other ownership in the vicinity of NMAW wells. The predicted drawdowns exceeded the drawdown allowance applied in other basins which have a much greater water supply than the Curry County and Portales Basins.

The capability of NMAW wells to produce the applied for amount sought under this application is dubious. Measured NMAW well capacities have dropped significantly in recent years mainly due to the significant decline in water levels in the High Plains aquifer in the vicinity of these wells. Well capacities are expected to continue to decline sharply in the future and it is doubtful that these wells could sustain production for any significant length of time. Model simulations are predicting declines in water levels such that wells will become unusable. When combined with existing rights in the basin, the CPGFM simulation predicted that diversions under this application would result in most model cells in the vicinity of NMAW drying out in less than ten years. Realizing that the High Plains aquifer is the only water resource that supplies all demands in the area, prolonging the life of this aquifer should be a high priority. We recommend that NMAW revise their pumping distributions and amounts and provide us with probable future diversions from their wells that would not result in excessive drawdowns to the aquifer and to nearby wells in the area.

II. Introduction.

On July 30, 2008 NMAW filed with the OSE an application to combine its existing water rights in the Curry County Basin and some water rights in the Portales Basin. The rights to be combined under this application are shown in Appendix A. Appendix A shows the file number, the quantity of water for each file number, the well location, the well capacity, and an indicator on whether an increased diversion is requested under this application from that well. The well capacity column shows the recently measured maximum quantity of water that each well can currently produce. It is apparent that most NMAW existing wells are unable to produce the required amount under the current aquifer conditions due to the rapid decline in water levels in the basin. NMAW currently claims more than 40,000 afy of groundwater rights in Curry County, and it has been experiencing difficulty in producing the current demands of about 8,000 afy as a water supply for the residents in the city of Clovis. Some NMAW wells are showing significantly reduced production due to water level declines in some areas while others are showing surpluses due to water level rises in other areas. Thus the ability of NMAW to meet the demands of its customers is constrained by either the aquifer's ability to produce the desired amounts as reflected by the wells' capacities or by the water right that limits the amount that can be produced from a particular well(s). By combining all its water rights under this application, NMAW hopes to be able to manage its water rights efficiently and withdraw more of its demands from those wells showing surpluses or a rise in water levels and less or none from those wells showing significant reduction in yield. Currently NMAW pumps less than 8,000 afy from all its wells. Appendix B shows NMAW water rights under their several permits obtained from the OSE Water Rights Division.

The area's hydrogeology consists of Quaternary alluvium (including reworked Ogallala sediments), Tertiary Ogallala formation, Cretaceous sediments, and Triassic Chinle Group mudstones and siltstones. The Triassic red beds (Chinle Group) form the base of the High Plains aquifer. The High Plains aquifer (sometimes cited as the Ogallala formation or aquifer) consists of Quaternary alluvium, Ogallala formation and Cretaceous

sediments. In this area, the lithologic logs from drilling identify the top of the Triassic red beds at depths of approximately 150 to 400 feet below ground surface (Water Rights Reporting System, WRRS, database). The High Plains aquifer is the sole aquifer for water supply in the vicinity of Clovis and Portales. The aquifer's recharge rate estimates are low (less than one inch per year) except for some sand dunes, playas or arroyos that may experience higher recharge rates (Musharrafieh & Logan, 1999). Transmissivity and storativity values are summarized in the documentation for the CPGFM (Musharrafieh & Logan, 1999).

Recognizing that under the current conditions the High Plains aquifer cannot produce the amount of water sought under this application, NMAW indicated to us through verbal communication that they would like to limit the quantity of water sought under this application to 7,103 afy or the amount that has been historically diverted. Accordingly, on September 18, 2009 NMAW provided us with a projected forty-year pumping distribution from its existing wells under this application. Under this pumping distribution, NMAW proposed to limit or cap its annual diversion from all its wells up to a maximum of 7,103 acre-feet. Subsequent discussions with Shomaker indicated that individual wells showing an increased diversion under this application may also be capped to the amount proposed in the pumping schedule. The proposed pumping distribution by NMAW is shown in Appendix C as Scenario 1.

III. Model Simulations.

Drawdown effects due to the proposed diversions under this application were evaluated by performing forty-year simulations using the CPGFM and the Theis model. The superposition version of the CPGFM was used to determine the net regional drawdown effects. The incremental (or net) drawdown effects were computed as the difference between forty-year drawdowns due to projected diversions under baseline conditions and projected diversions under this application.

The Theis model simulations focused on the local assessment for the NMAW wells that showed increases in diversion under this application. In addition to these selected NMAW wells, all other nearby NMAW wells in the vicinity of each model run area were included in the Theis model even when the pumping of these additional NMAW wells remained unchanged or decreased. Using the GIS software, wells were selected based on their proximity to NMAW pumping wells of interest. Figures 1, 1A, 1B, 2, 3, 4, 5 and 6 illustrate the six areas simulated using the Theis model. The Theis model evaluates drawdown impacts for nearby wells based upon the distance from the pumping well(s). The distances are based upon available well location information from WRRS database, which may have errors, omissions or limitations as to the accuracy of the well location to the nearest quarter-quarter-quarter section. Transmissivity estimates and storativity values were calculated from the CPGFM model values by averaging the values for the area of interest.

Three scenarios were evaluated for this analysis. Scenarios 1 and 2 were evaluated using both the CPGFM and the Theis model and each included two simulations, a projected baseline simulation and a projected future simulation under this application. Scenario 3

was evaluated using the CPGFM and included only one simulation, a future simulation under this application. Scenarios 1 and 2 simulated pumping of only NMAW wells under this application. Scenario 3 simulated the full exercise of existing rights in the basin and NMAW diversions under this application.

The following paragraphs describe each simulation performed in detail.

A. Scenario 1.

- a. Baseline simulation: Baseline simulation assumed the September 18, 2009 pumping distributions among NMAW wells provided to us by Shomaker and is shown in Table 1 (Theis model) and Appendix C (CPGFM). NMAW proposed that it would limit its annual future diversions under the existing permit(s) to the historically produced amount of 7,103 afy (4,404 gpm) under baseline conditions although it could produce (if the aquifer productivity is not limiting) up to its full permitted amount under baseline conditions. The proposed total diversion cap of 7,103 afy is about 47 percent of the total measured pumping capacity (9,307 gpm) of the NMAW wells under this application.
- b. Future Pumping Simulation under this Application: Shomaker also provided us on September 18, 2009 with a probable future pumping distribution from NMAW wells under this application. Similar to baseline conditions, the proposed future diversions would be capped at 7,103 afy which may be produced from any well or group of wells if the High Plains aquifer can supply it. Also, it was proposed that individual wells showing an increased diversion under this application may also be capped to the amount proposed in the pumping schedule.

B. Scenario 2

- a. Baseline Simulation: NM OSE Hydrology Bureau developed a baseline pumping scenario based on the minimum of the well's water right and the well's measured pumping capacity provided by NMAW. This scenario represents a worst case pumping distribution for NMAW wells. As a practical operational constraint wells were pumped to 60% of their measured capacity¹. The NMAW wells evaluated were limited to those under this application (Appendix A). For the baseline scenario, the water rights were divided equally amongst wells for a given file number. In a couple of instances, water rights for multiple files have been moved into a single file or combined. Some NMAW water rights in Appendix A have the type of use listed as irrigation. Since the type of use will actually be municipal, the technical evaluation considered a lower quantity of water rights would be available due to the change in use. Irrigation rights were assumed pumped at the consumptive use rate of 1.29 acre-feet per acre.

¹ Practically, wells cannot produce to their full capacity 100 % of the time. Accordingly, the reported maximum capacity for NMAW wells was reduced to 60% for this simulation.

Some pumping capacities were revised and updated by NMAW correspondence several times. The revised or updated capacities provided on August 25, 2009 (Table 1 for Theis model and Appendix C for CPGFM) were used as a basis for the maximum well yields of individual wells. For the Theis model, the baseline pumping is 20,629 afy or 12,791 gallons per minute (gpm).

- b. **Future Pumping Simulation under this Application:** The future pumping simulation under this application was based on well capacities. Similar to the baseline simulation, future pumping rates were reduced to 60 percent of the wells' capacities based on operational considerations. In some instances, no pumping capacity was available because either the well is not yielding due to a depleted High Plains aquifer or because no measurement was done for this well. The water right was used as the maximum pumping rate for this well. NMAW has a large amount of declared, licensed and permitted water rights, such that water rights do not represent a constraint for pumping individual wells. Table 1 (Theis model) summarizes the future pumping scenario, which totals 23,186 afy or 14,377 gpm.

C. Scenario 3.

- a. Scenario 3 was performed to determine the forty-year drawdown effects due to full exercise of existing rights plus NMAW diversions under this application. Baseline simulation was not needed for this scenario since the objective is to predict aquifer response if NMAW and all existing rights were fully exercised. For this scenario, NMAW diversions assumed the Scenario 1 pumping distribution.

IV. Results.

A. Simulated Drawdown Effects by CPGFM.

Simulated forty-year incremental drawdown effects for Scenarios 1 and 2 are shown in Figures 7 and 9 respectively. The incremental drawdown is computed as the difference between drawdowns for future simulations under this application and the respective baseline simulation. The incremental forty-year drawdowns for Scenario 1 ranged from less than one (1) foot to approximately 19 feet and from less than one foot to approximately 24 feet for Scenario 2. The largest incremental drawdown occurred in the vicinity of NMAW wells where additional diversions under this application (Figures 7 and 9) were simulated. Based on the current saturated thickness of the High Plains aquifer and the short life expectancy of the aquifer, this magnitude of drawdown is considered to have significant adverse effects on existing water rights.

The ten-year incremental drawdown for Scenario 1 ranged from less than 1 foot to approximately 10 feet in the vicinity of NMAW wells as shown in Figure 8. Again, this

magnitude of drawdown is considered to have significant adverse effects on existing water rights.

Figure 10 shows the remaining forty-year saturated thickness under Scenario 3. It is apparent that if this application is approved and pumping was performed according to the proposed distribution, almost all the High Plains aquifer in the vicinity of the NMAW wells will be depleted in less than forty years. Actually, a significant portion of the Ogallala aquifer will dry out before the year 2020 (Figure 11) affecting both NMAW wells and nearby wells of other ownerships in the area.

B. Drawdown Effects on Nearby wells of Other Ownership.

Table 2 presents a summary of results for the Theis model evaluation for Scenario 1. Theis model Areas 1, 2 and 3 predict incremental drawdowns that are approximately two feet or more at nearby wells for the 40-year and 10-year simulations. The 40-year estimates of drawdown ranged from 0.0 to 13.9 feet for Area 1 (Figures 1A & 1B), which includes wells CC 659 and CC 239 amongst other NMAW pumping wells. The 10-year estimates of drawdown ranged from -1.5 to 9.1 feet for Area 1. The 40-year estimates of drawdown ranged from 0.8 to 4.7 feet for Area 2 (Figure 2), which includes wells CC 549 and CC 553 amongst other NMAW pumping wells. The 10-year estimates of drawdown ranged from -0.3 to 3.4 feet for Area 2. The 40-year estimates of drawdown ranged from 1.3 to 3.5 feet for Area 3 (Figure 3), which includes wells CC 1660, CC 1660 S and CC 1660 S2 amongst other NMAW pumping wells. The 10-year estimates of drawdown ranged from 0.4 to 2.5 feet for Area 3.

Table 3 presents a summary of results for the Theis model evaluation for Scenario 2. Theis model Areas 1, 2, 3 and 5 predict incremental drawdowns that are approximately two feet or more at nearby wells for the 40-year and 10-year simulations. The 40-year estimates of drawdown ranged from 2.9 to 16.1 feet for Area 1 (Figures 1A & 1B), which includes wells CC 659 and CC 239 amongst other NMAW pumping wells. The 10-year estimates of drawdown ranged from 0.4 to 10.3 feet for Area 1. The 40-year estimates of drawdown ranged from 1.4 to 3.8 feet for Area 2 (Figure 2), which includes wells CC 549 and CC 553 amongst other NMAW pumping wells. The 10-year estimates of drawdown ranged from 0.7 to 2.8 feet for Area 2. The 40-year estimates of drawdown ranged from 1.7 to 4.9 feet for Area 3 (Figure 3), which includes wells CC 1660, CC 1660 S and CC 1660 S2 amongst other NMAW pumping wells. The 10-year estimates of drawdown ranged from 0.7 to 3.6 feet for Area 3. The 40-year estimates of drawdown ranged from 0.5 to 2.7 feet for Area 5 (Figure 5), which includes wells CC 528 and CC 536 amongst other NMAW pumping wells. The 10-year estimates of drawdown ranged from 0.1 to 1.8 feet for Area 5.

The drawdown estimates in Table 2 and Table 3 resulted from the simulated pumping of NMAW wells and do not account for other sources of drawdown such as drawdown due to existing wells and dynamic drawdown. Also the range of water columns reported in these tables is based upon a limited number of nearby wells that have total depth and water level data for wells drilled over the last ten years. These data show a range of 12 to 124 feet for the water column. Many wells have less than 70 feet for a water column. In most cases, the water column equals the saturated thickness because drilling most often

stops at the top of the Chinle formation or red beds. In some instances the water column does not represent the saturated thickness. For example, shallow wells do not fully penetrate the High Plains aquifer, or a well may extend beyond the contact between the High Plains aquifer and the Chinle formation. Wells drilled during the irrigation season show seasonal lows while wells drilled at other times of the year would tend to show a greater saturated thickness. Also, erosional features (e.g., channels) in the Chinle formation may create a variable saturated thickness for the High Plains aquifer. As presented in Tables 2 and 3, water column estimates for the last 10 years were not adjusted for the intervening years of water level declines after drilling the well. If adjusting the water columns for wells drilled from 2000 to 2008 in Theis Areas 1 and 6, the current length may be reduced by up to 40 feet in nine years. In Theis Areas 2 through 5, recently drilled wells may have water column adjustments up to 9 feet in 9 years. These water column adjustments are based on water level trends described in Section V.

Appendix D tabulates the wells used for the six areas that were simulated using the Theis model.

C. Drawdown Effects to Protestants' Wells.

Forty-year drawdowns in protestant wells are shown for the cities of Clovis and Portales in Figure 12 and for the other protestants in Figure 13. Forty-year drawdowns in these wells are only reported for Scenario 1. Drawdowns in these wells under Scenarios 2 and 3 are expected to be much larger than those for Scenario 1.

For the City of Portales wells the CPGFM computed drawdowns are reported only since they are located in adjacent model cells to the NMAW pumping wells. Figure 12 shows that simulated drawdowns in these wells were less than 1 foot. The OSE WRRS database reported water column lengths in these wells at the time they were drilled ranging from approximately 60 feet to more than 100 feet (Table 4). The impacts of the proposed NMAW diversions under Scenario 1 should not have significant adverse effects on these city of Portales wells.

Most of the city of Clovis wells are also located in adjacent model cells to NMAW wells except for three wells as shown in Figure 12. The forty-year CPGFM simulated drawdowns in these wells under Scenario 1 ranged from less than a foot in most areas to 1.26 feet in wells CC-00079 and CC-01861. The Theis simulated forty-year drawdown for the three wells (CC-1090, CC-1090-S, and CC-1090-S-2) located in the same model cell as NMAW wells were approximately 5 feet. Table 5 shows water column lengths for only two city of Clovis wells as reported by WRRS. Based on the measurements made when the wells were drilled, the water columns exceeded 70 feet. Drawdown effects due to pumping NMAW wells under Scenario 1 should not have significant adverse impacts on most city of Clovis wells with the exception of the 5 wells mentioned above.

Drawdown effects in all other protestants' wells under Scenario 1 ranged from less than one foot to more than 19 feet as computed by the CPGFM (Figure 13). Forty-year drawdowns computed by the Theis model ranged from less than one (1) foot to

approximately 13.9 feet in wells located in the same model cells as NMAW wells. As shown in Table 6 and based on the WRRS database from measurements following the well drilling, the water column length in these wells ranged from 23 to 121 feet. These wells may not be able to sustain production for forty years.

V. Water Level Trends

Water level measurements for the Curry County and Portales Basins were queried from the U. S. Geological Survey's Ground Water Site Inventory (GWSI) database. In the area of NMAW pumping wells, representative GWSI wells illustrate water level declines that range from 0.65 to 4.65 feet per year as summarized in Table 7. Hydrographs of water level measurements show water level declines for Figures 14 through Figure 20. In general, the depth to water below ground surface ranges from approximately 100 feet to 300 feet for the portion of the aquifer inclusive of the NMAW pumping wells of Appendix A. Generally, the wells located in the eastern portions of Township 01 North have the greatest water level declines of 3 to 4 feet per year. The Townships 02 North and 01 South have water level declines of 1 foot or more per year. These water level trends indicate that some of the Curry County and Portales Basins will go dry or have insufficient saturated thickness in less than 40 years. As the aquifer is drained, the dry areas will further accelerate water level declines. In the final column of Table 7, the water column estimates highlighted in green are based on 2009 water level measurements subtracted from the reported well depth. As mentioned previously, the water column generally represents the saturated thickness except for the instances noted above in Section IV.B.

VI. Special Consideration.

The OSE declared the Portales and Curry County Basins in 1950 and 1989, respectively. Located in eastern New Mexico, the basins are hydrologically connected. The primary aquifers in the study area are the High Plains aquifer and more recent sediments representing reworked Ogallala sediments. Water resource administrative guidelines adopted for Portales Valley using a block system approach based on the volume of groundwater stored in each Township expired in 1996, and guidelines have not been adopted for Curry County.

Basin criteria and guidelines have been adopted for a number of basins since the early 1980s based on new groundwater flow models and allowable water level declines. Each of the basin policies is based on the same principles and objectives. The Water Rights Division requested the Hydrology Bureau recommend new computational procedures and basin guidelines for the Curry County and Portales Basins. A model has been completed, and draft guidelines are being developed. The guidelines are very similar to the Lea County basin guidelines that were adopted recently (OSE, 2009). The Lea County basin guidelines limit average drawdown in Critical Management Areas (model cells with less than a 40-year water supply for existing water rights) through 2045 to 0.025 feet per year (1 foot in 40 yrs). Based on a comparison of supply and demand, the Hydrology Bureau recommends that average allowable water level declines on model cells in the Curry County and Portales Basins not exceed 0.025 feet per year. This limit would be imposed on areas with a water supply of less than forty years such as the one under consideration

here. Based on the scenarios evaluated, it is clear that the proposed diversions under this application would have negative effects on the High Plains aquifer by de-watering the area at some of the pumping well locations, and by causing water level declines exceeding 0.025 feet per year in adjacent areas that have less than forty-year supply.

VII. References.

Ground Water Site Inventory (GWSI) database maintained by the U. S. Geological Survey.

Musharrafieh, Ghassan R. and Linda M. Logan, Numerical Simulation of Groundwater Flow For Water Rights Administration in the Curry and Portales Valley Underground Water Basins, New Mexico, NM OSE Technical Report 99-2, March 1999, pp169.

New Mexico Office of the State Engineer (OSE), Lea County Underground Water Basin Guidelines for Review of Water Right Applications, adopted September 16, 2009.

Water Rights Reporting System (WRRS) database of wells and water rights maintained by NM OSE. Also referenced as W.A.T.E.R.S. prior to a revision of the database.

Figures

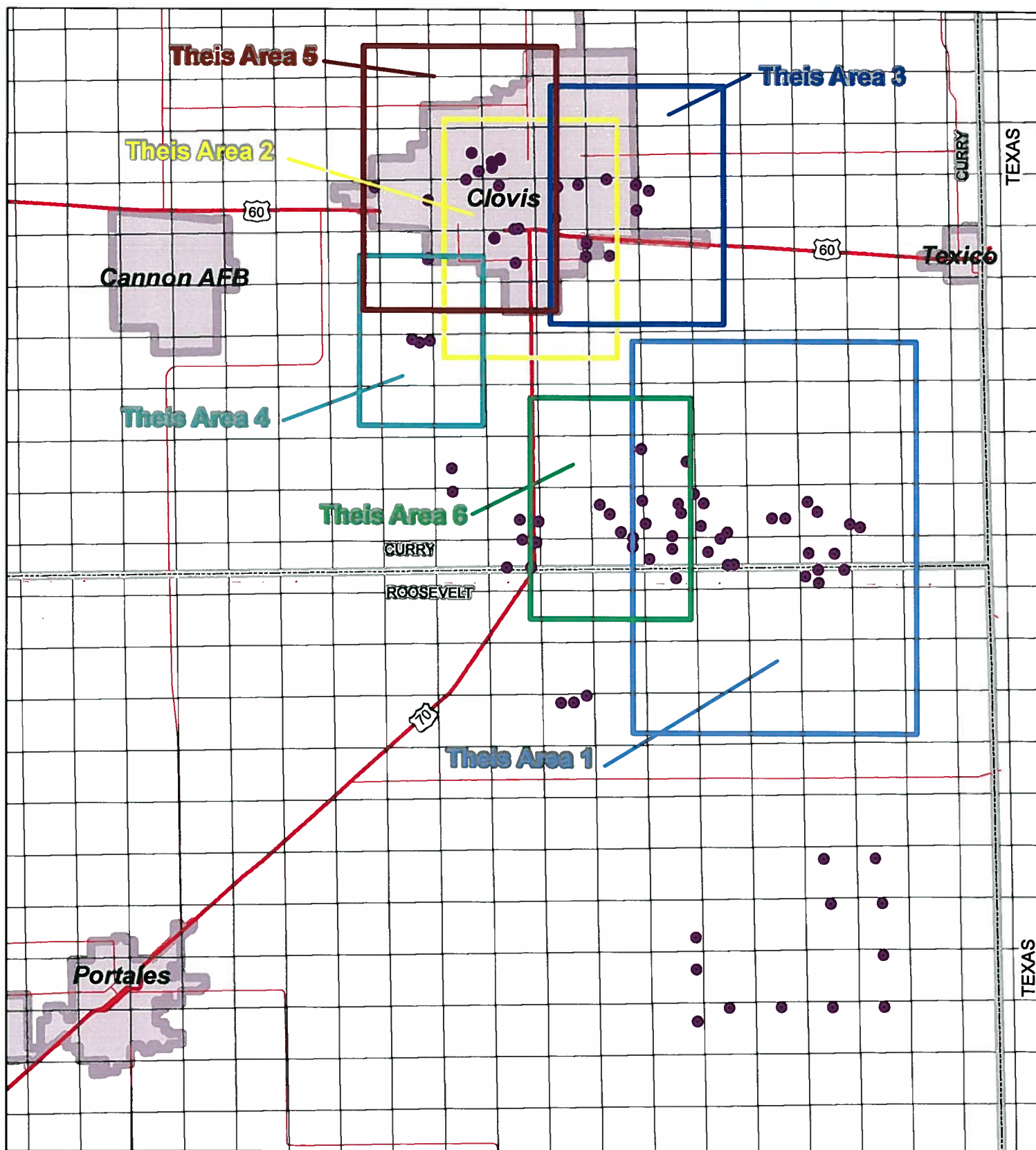


FIGURE 1. Location Map for CPGFM and Theis Model Areas 1 through 6

Legend

- NMAW Wells



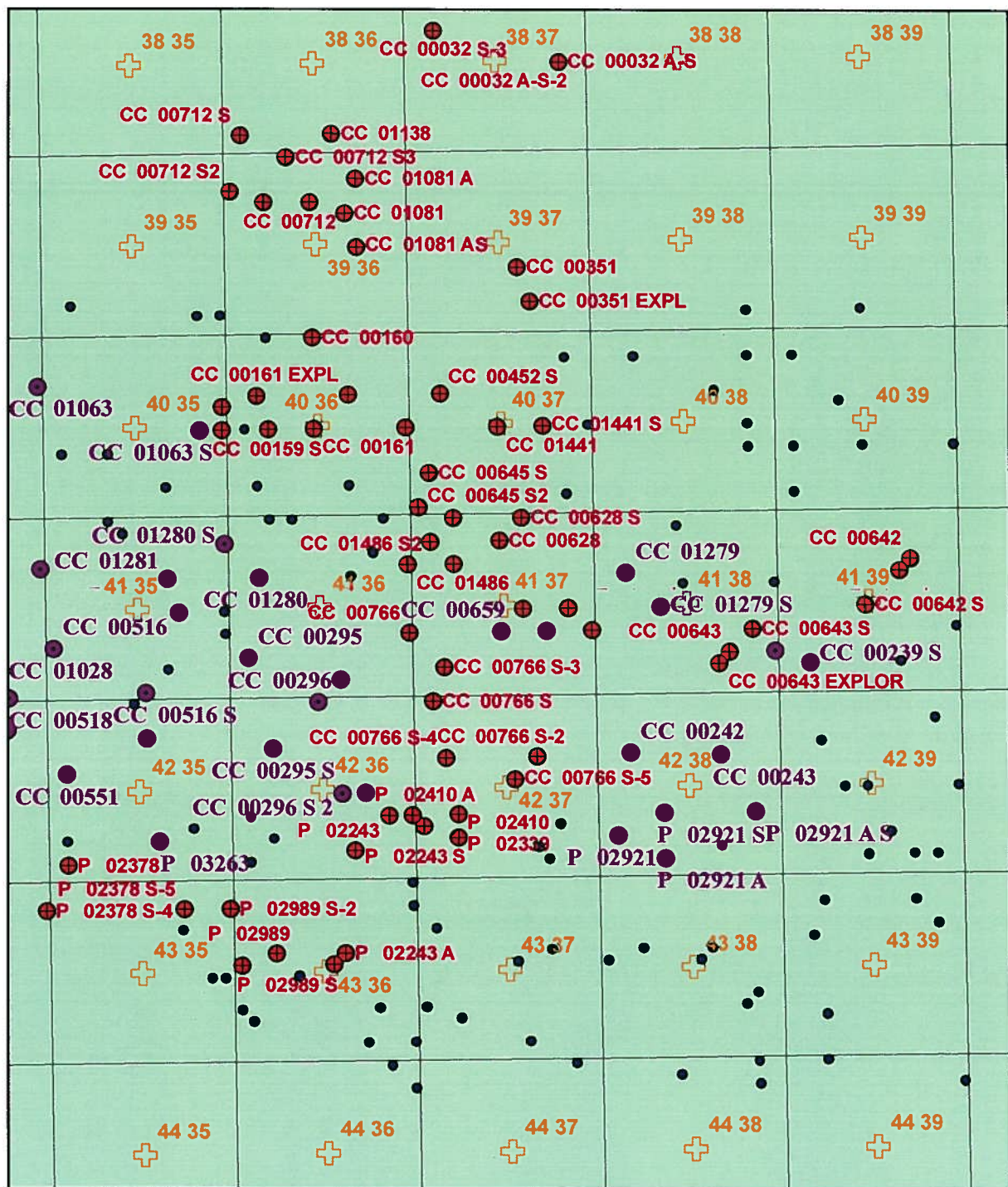
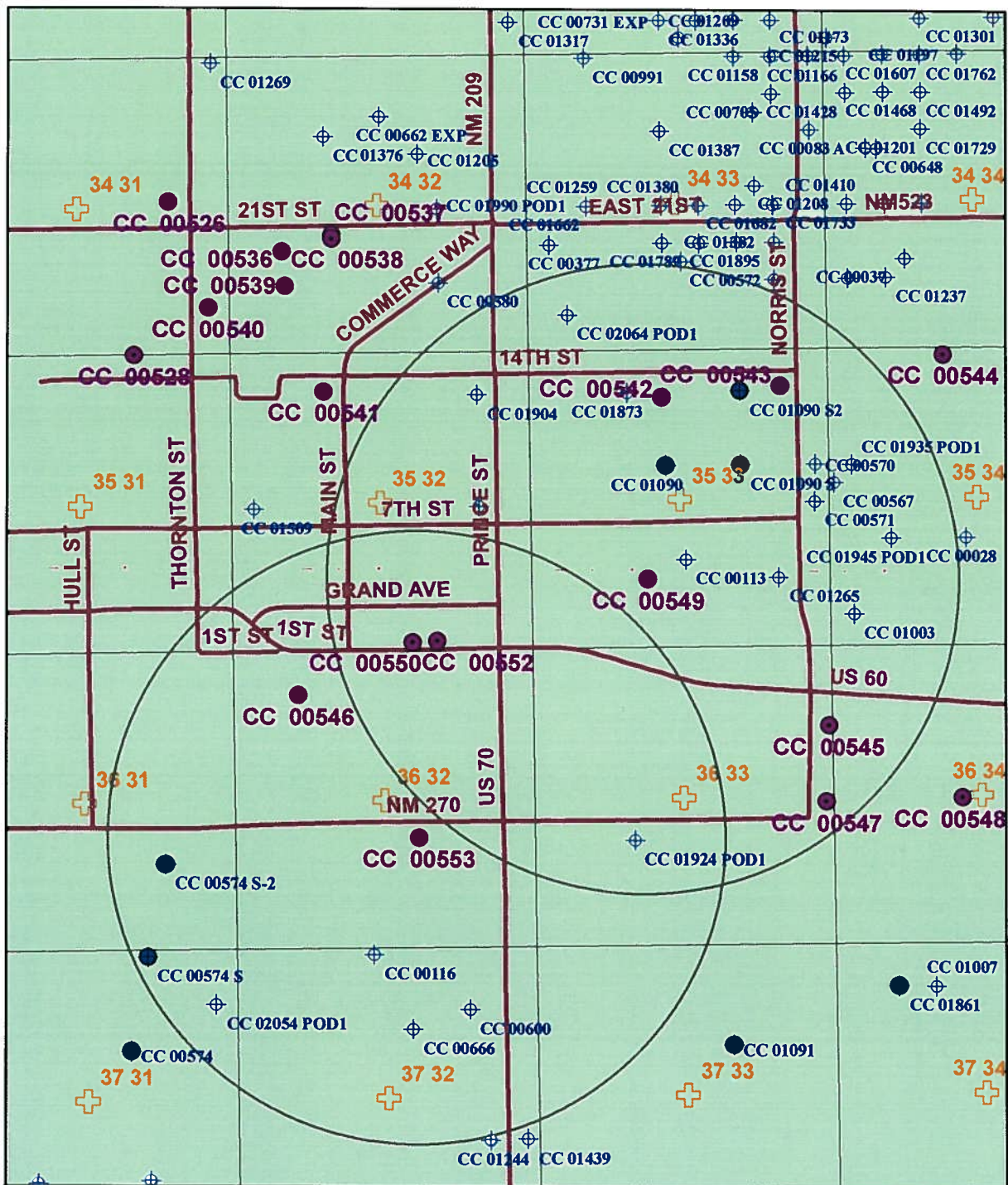


Figure 1A Theis Model Area 1 – CC-239, CC-1281, CC-296-S, P-2921 and other NMAW pumping wells

Legend

- NMAW Wells
- Protests
- Theis Area1 Pods
- ⊕ Row-Column CPGFM
- Clovis
- Portales



**Figure 2 Theis Model Area 2 -
CC-549 and CC-553 Wells**

Circles approximate 1-mile radius from pumping wells

0 0.5 1 2 Miles

Legend

- NMAW Wells
- Clovis
- ⊕ WRRS PODs 7/09
- Protests
- ⊕ Row Column CPGFM
- ⊕ Portales

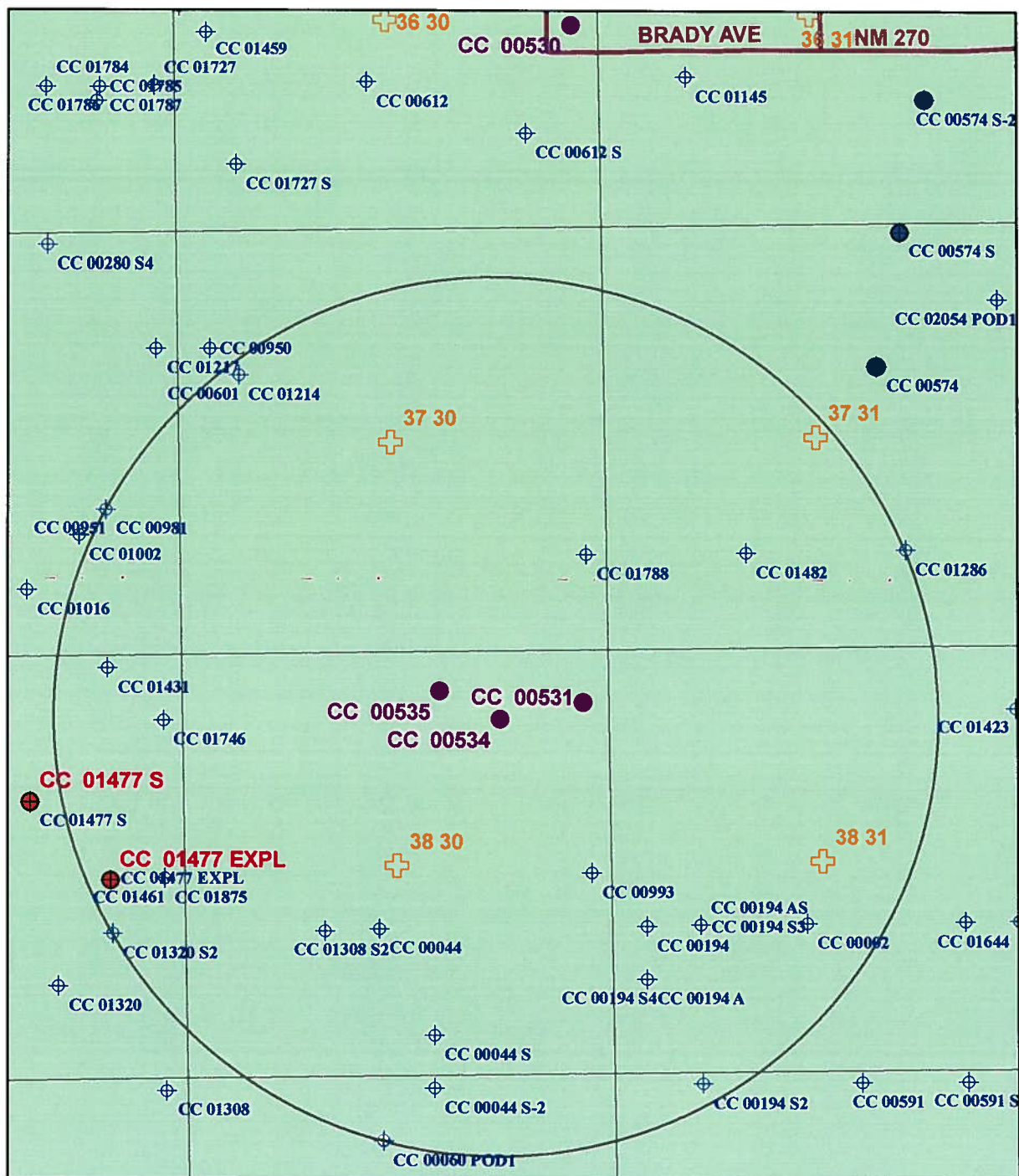


Figure 4 Theis Model Area 4 -
CC-534 Well

Circle approximates 1-mile radius from pumping wells



Legend

- NMAW Wells
- Clovis
- Protests
- ⊕ WRRS PODs 07/09
- ⊕ Row Column CPGFM

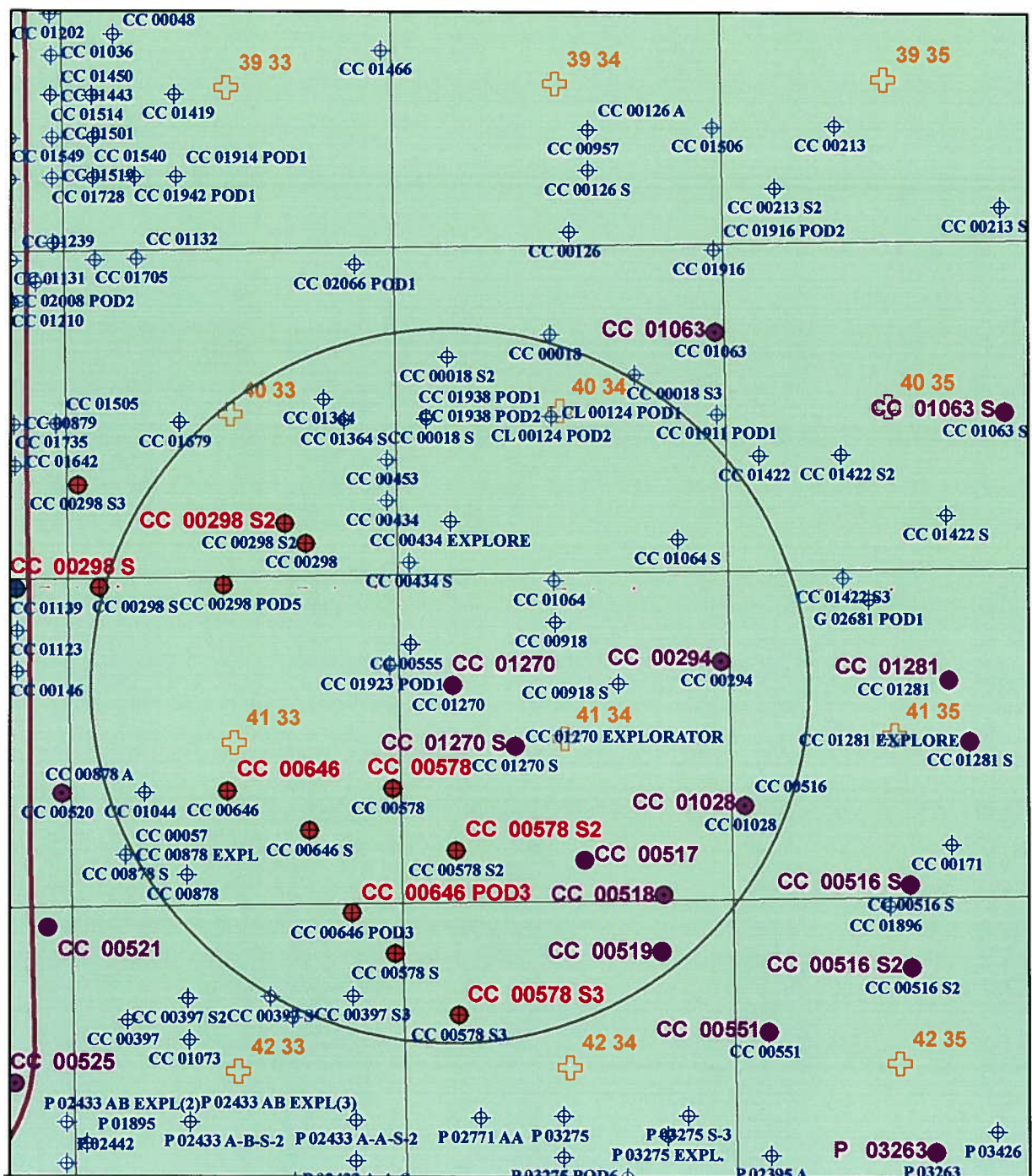


Figure 6 Theis Model Area 6 -
CC-1270 Well

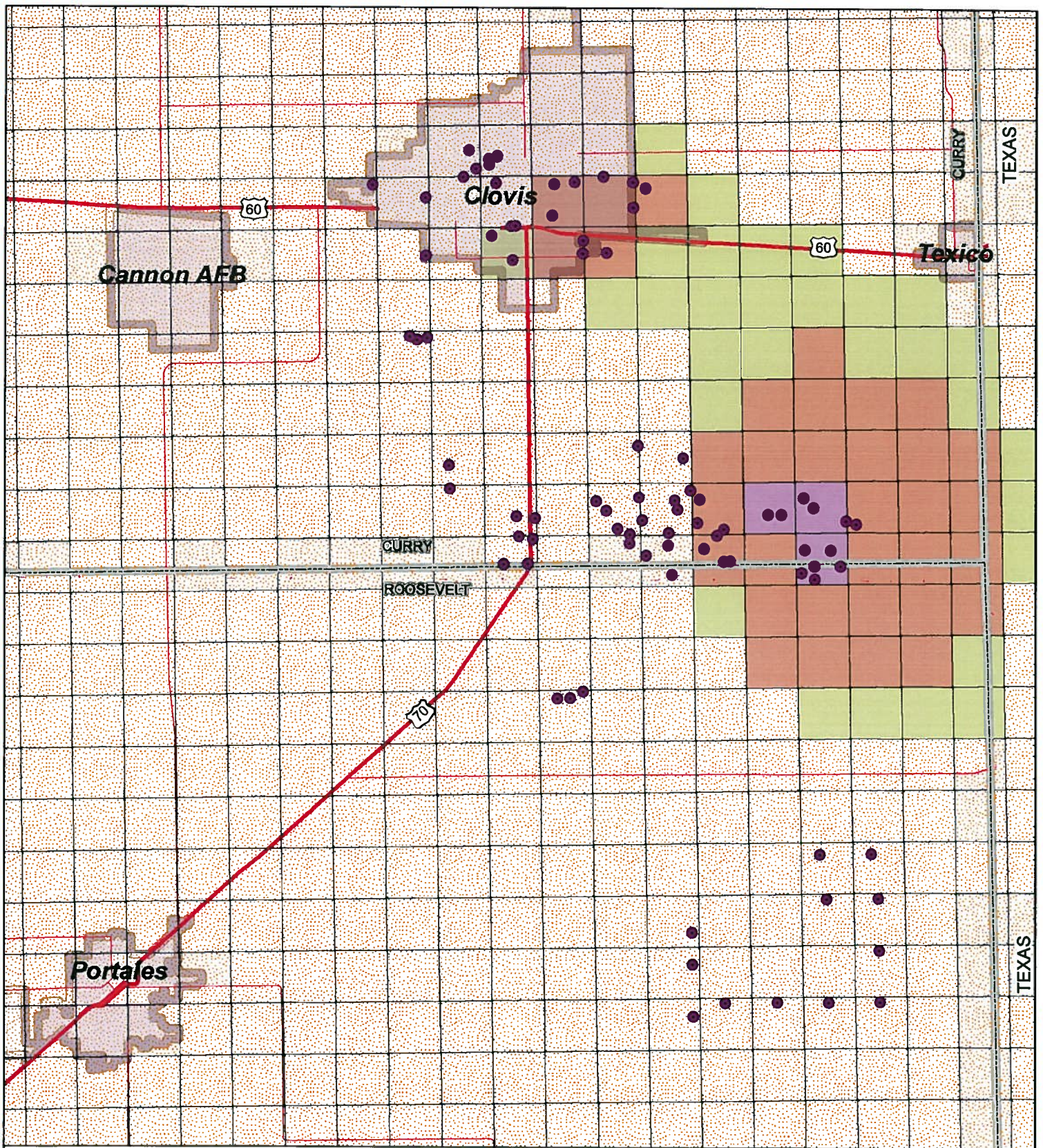
Circles approximate 1-mile radius from pumping well

0 0.5 1 Miles



Legend

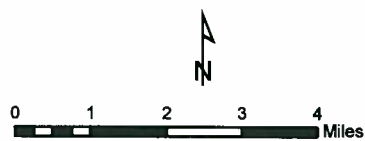
- NMAW Wells
- Protests
- Clovis
- ⊕ WRRS PODs 07/09
- ⊕ Row Column CPGFM

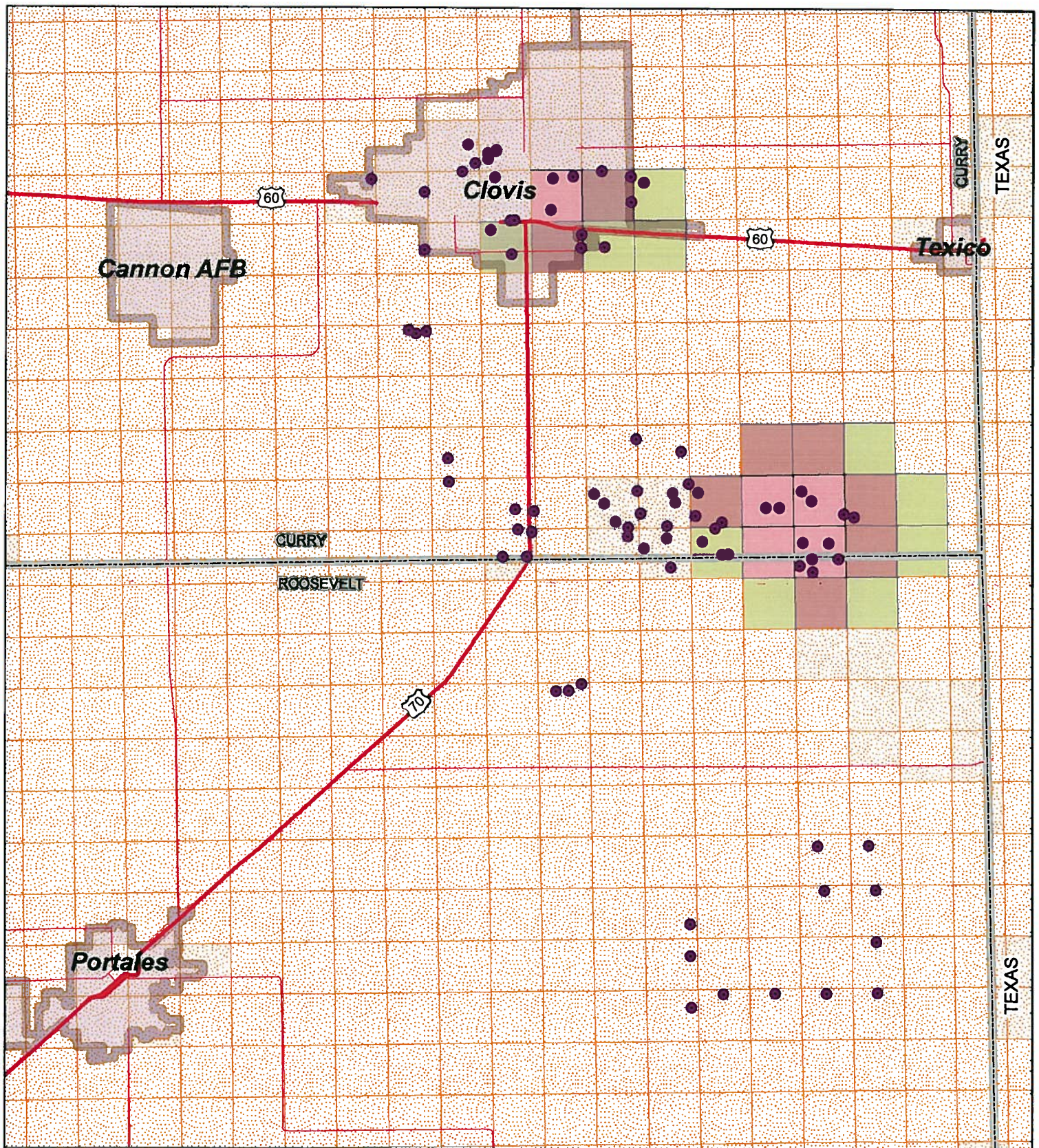


Legend

- NMAW Wells
- Less than 1 foot
- 1 - 2
- 2 - 10
- 10 - 19

**FIGURE 7. Forty-Year Incremental Drawdowns
CPGFM Simulation for Scenario 1**

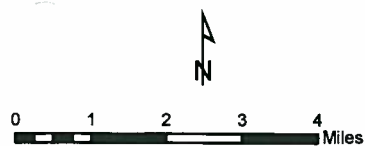


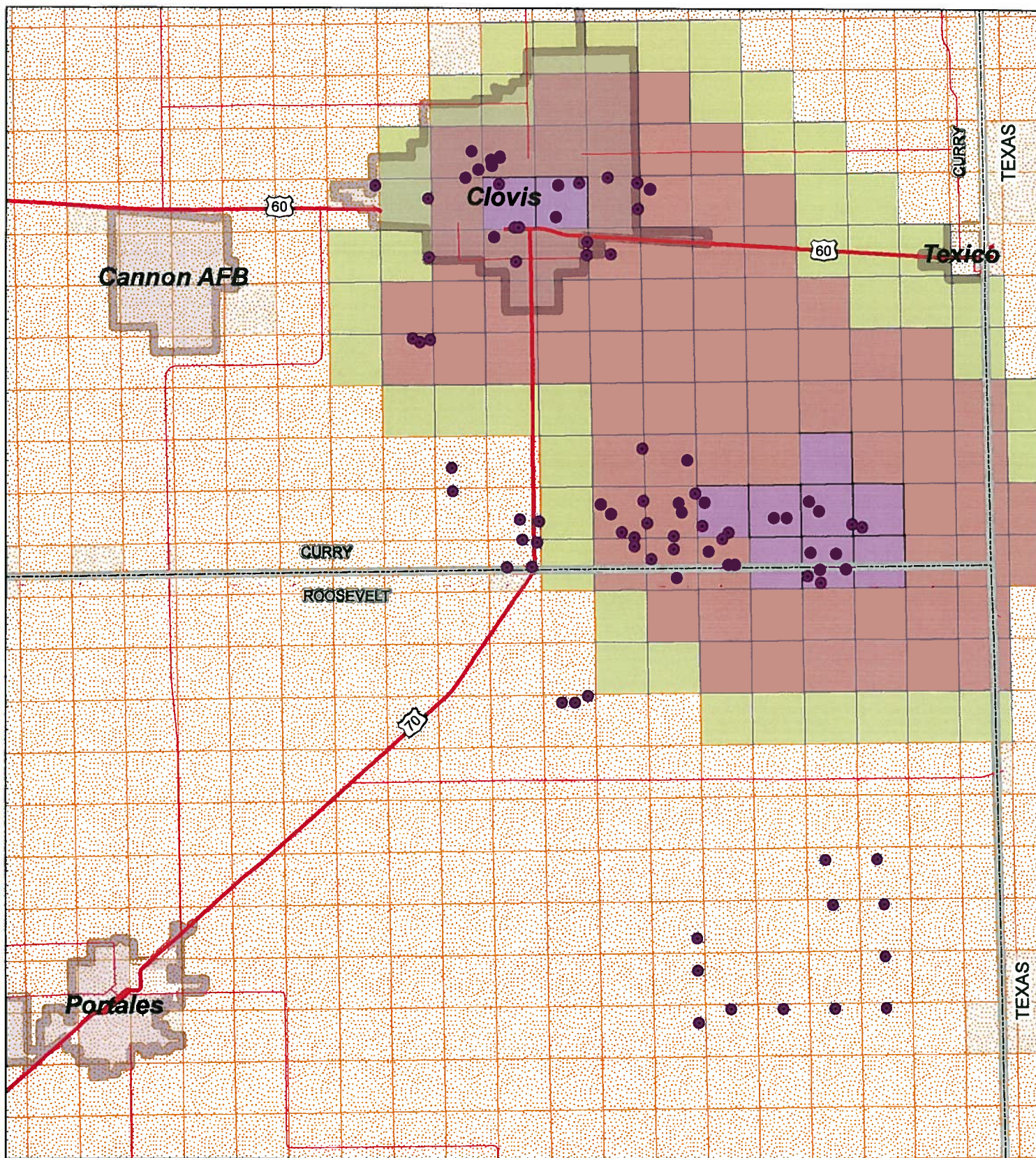


Legend

- NMAW wells
- Less than 1 foot
- 1 - 2
- 2 - 4
- 4 - 10

FIGURE 8. Ten-Year Incremental Drawdowns CPGFM Simulation for Scenario 1



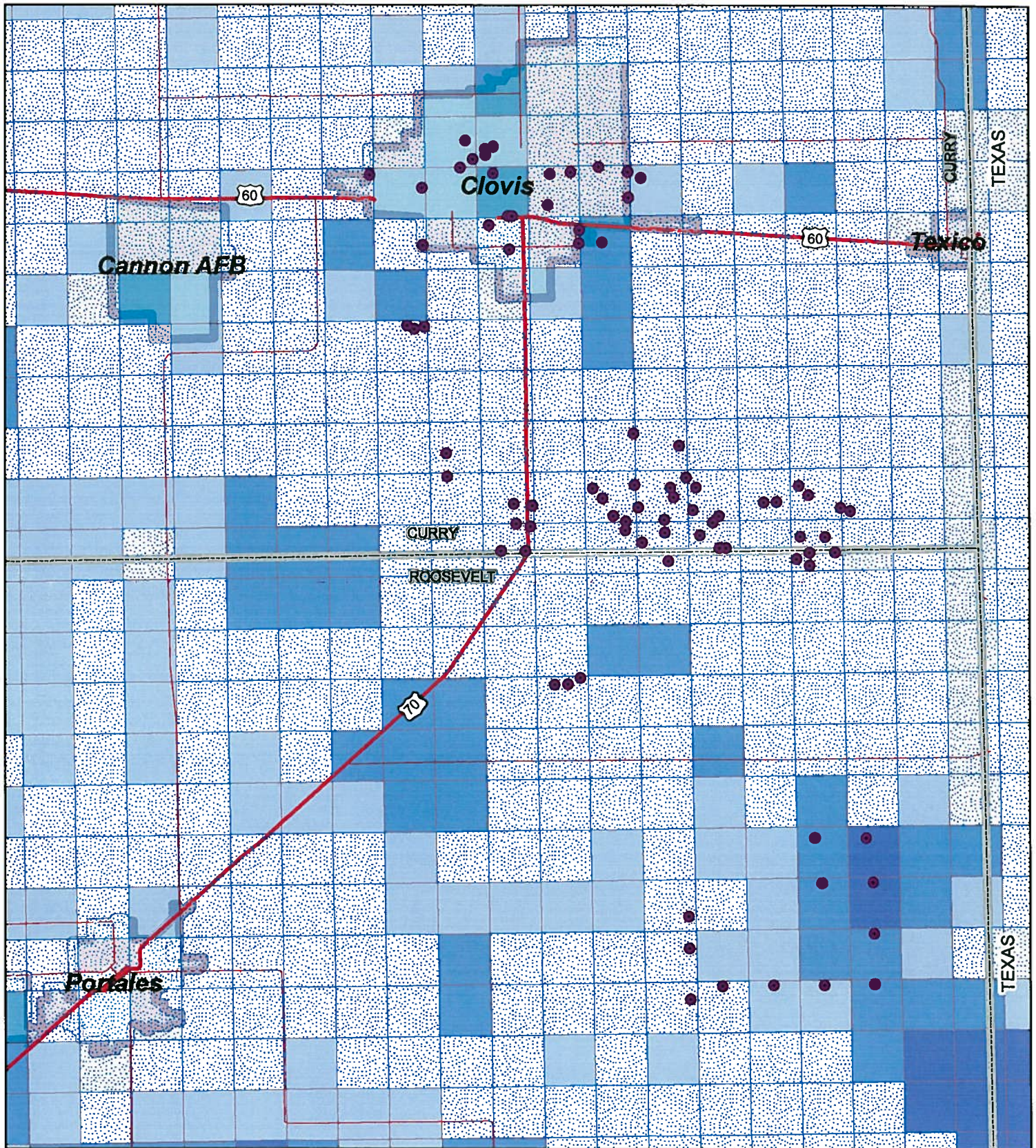


Legend

- NMAW wells
- Less than 1 foot
- 1 - 2
- 2 - 10
- 10 - 24

**FIGURE 9. Forty-Year Incremental Drawdowns
CPGFM Simulation for Scenario 2**





● NMAW wells

0

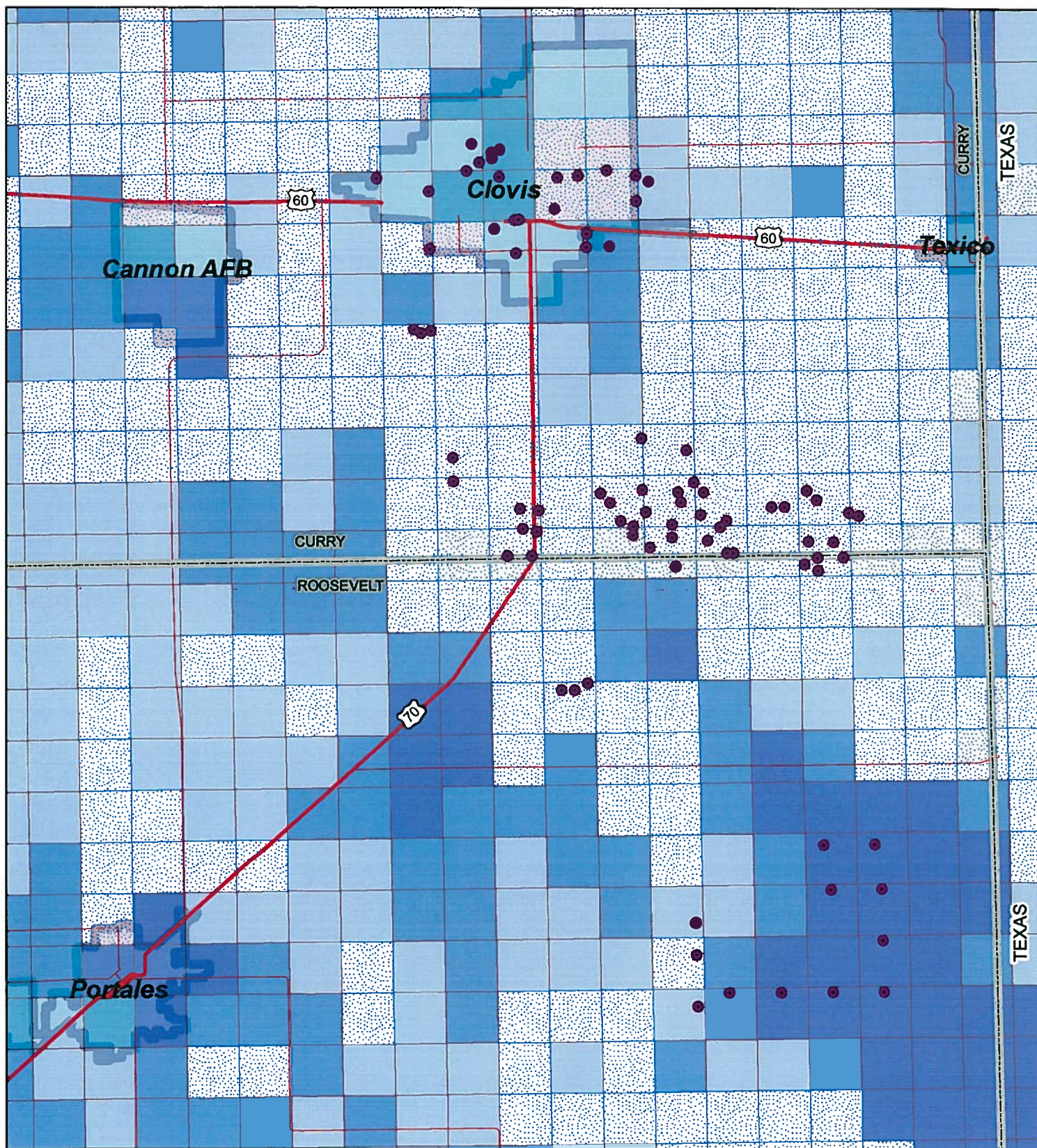
0 - 20

20 - 40

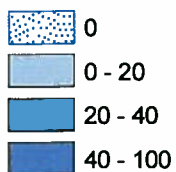
40 - 100

**FIGURE 10. Forty-Year Remaining Saturated Thickness
CPGFM Simulation for Scenario 3**

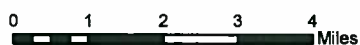


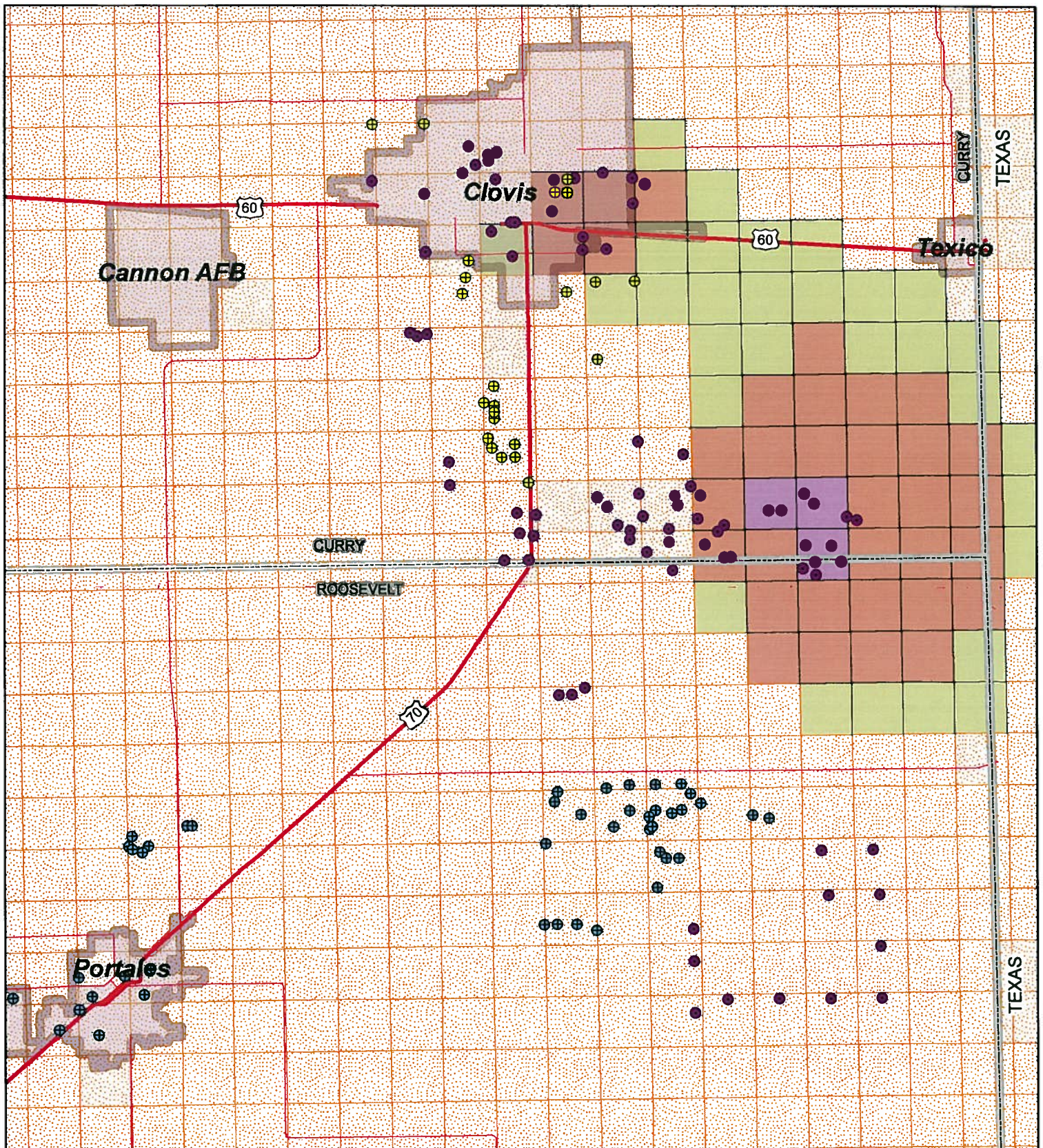


● NMAW wells



**FIGURE 11. Ten-Year Remaining Saturated Thickness
CPGFM Simulation for Scenario 3**



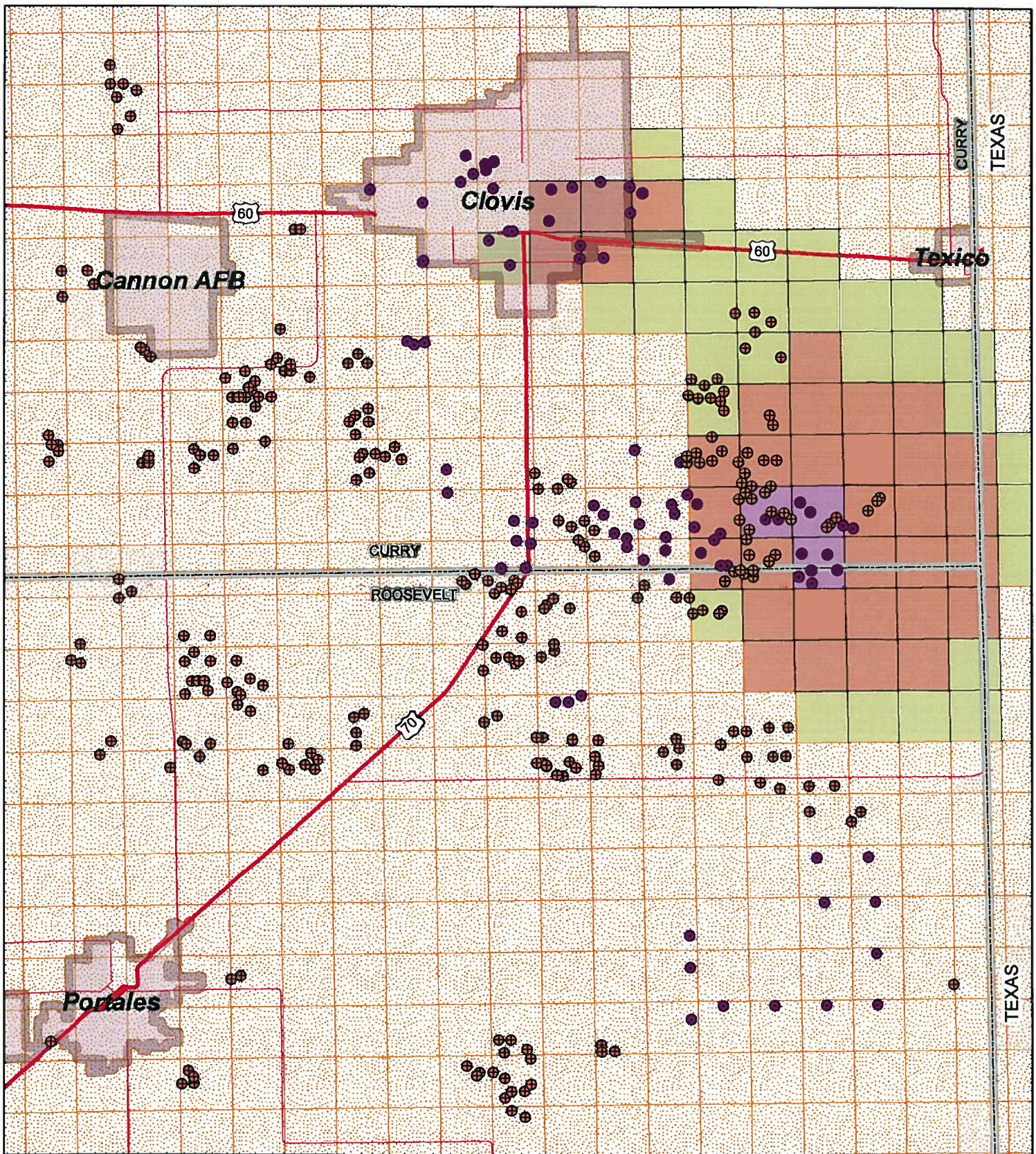


Legend

- ⊕ Portales
- ⊕ Clovis
- NMAW Wells
- Less than 1 foot
- 1 - 2
- 2 - 10
- 10 - 19

FIGURE 12. Forty-Year Incremental Drawdowns City of Portales and City of Clovis Wells CPGFM Simulation Scenario 1





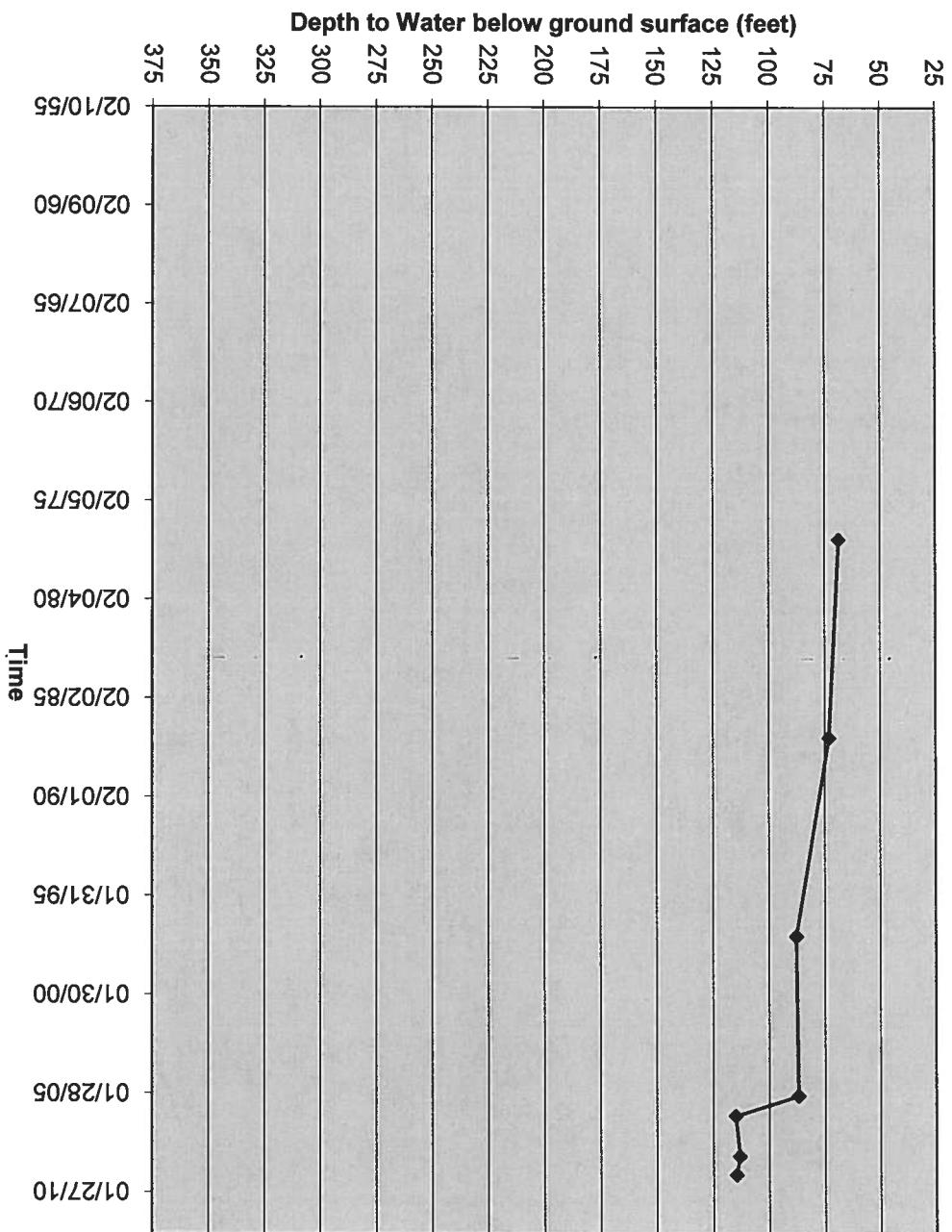
Legend

- ⊕ Protests
- NMAW Wells
- Less than 1 foot
- 1 - 2
- 2 - 10
- 10 - 19

**FIGURE 13. Forty-Year Incremental Drawdowns Other Protestants' Wells
CPGFM Simulation Scenario 1**



**Figure 14 Hydrograph of Measured Water Levels
Nearby NMAW Well P 2938-S; CPGFM row,column (50,35)**



—◆— 01S.36E.27.31144A-
Coldwater Cattle Co.

**Figure 15 Hydrographs of Measured Water Levels
nearby NMAW well P 2851-X; CPGFM row, column (49,38)**

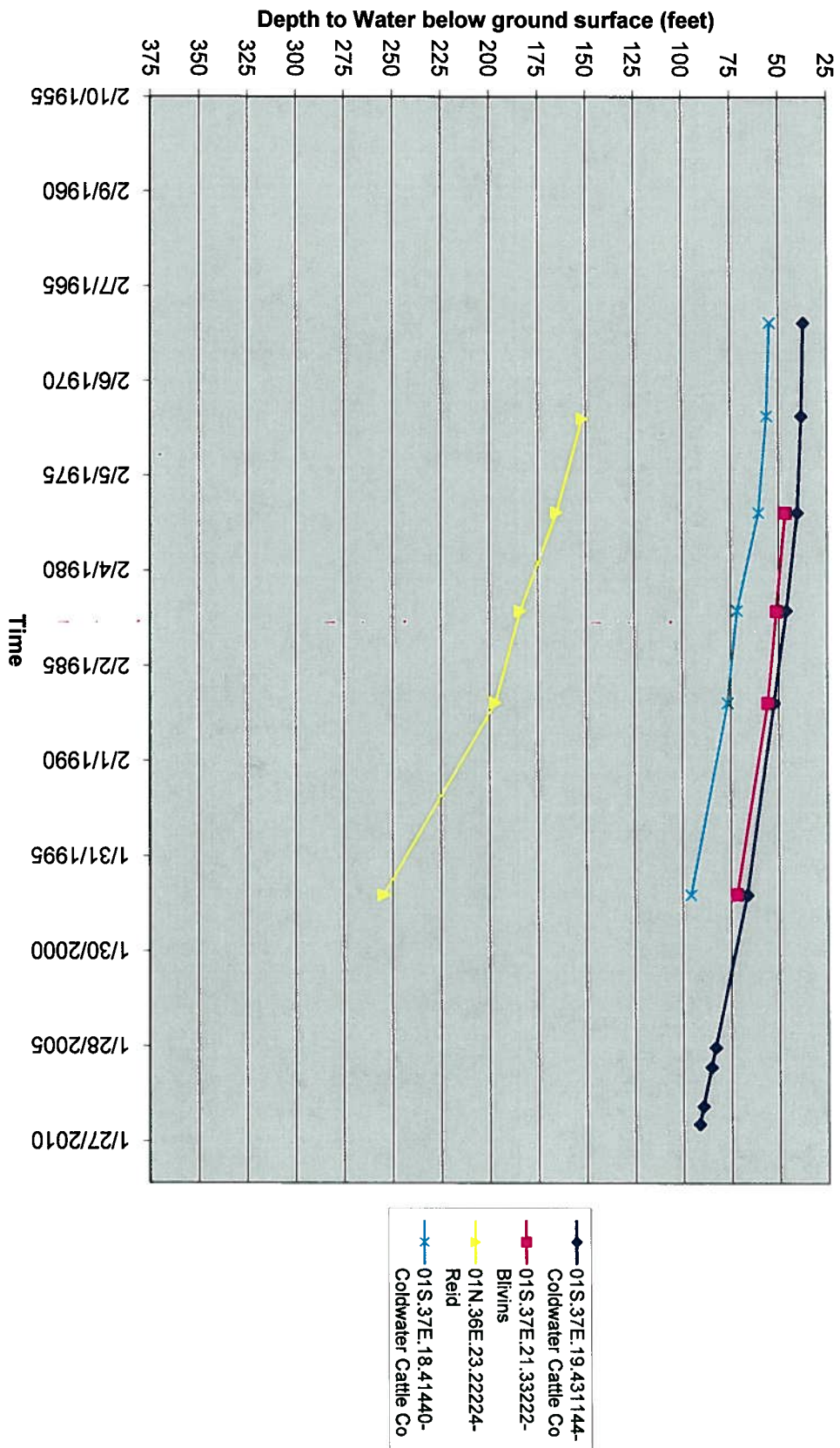


Figure 16 Hydrographs of Measured Water Levels
nearby NMAW well P 2939; CPGFM row, column (45,33)

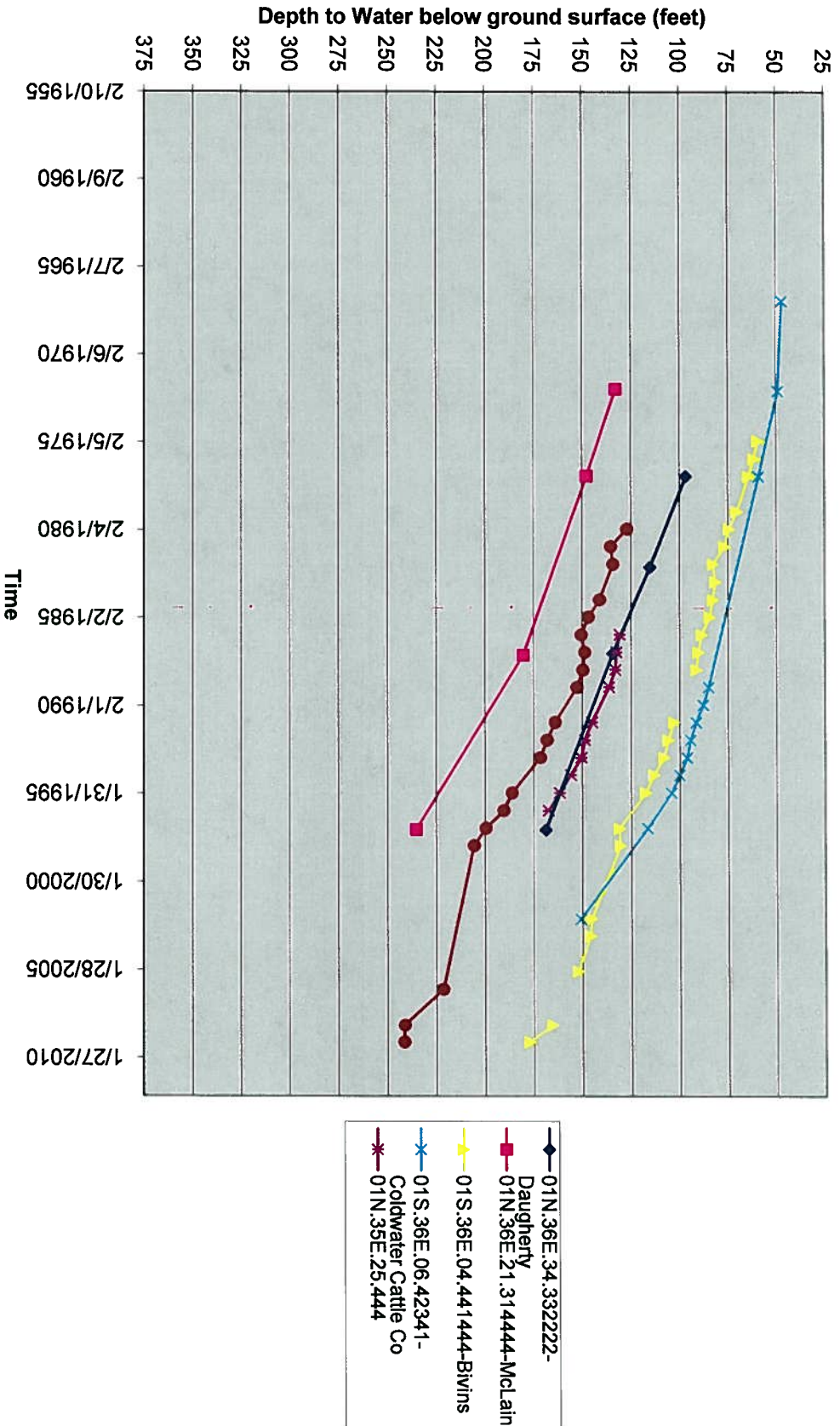


Figure 17 Hydrographs of Measured Water Levels
nearby NMAW well P 2242; CPGFM row,column (37,43)

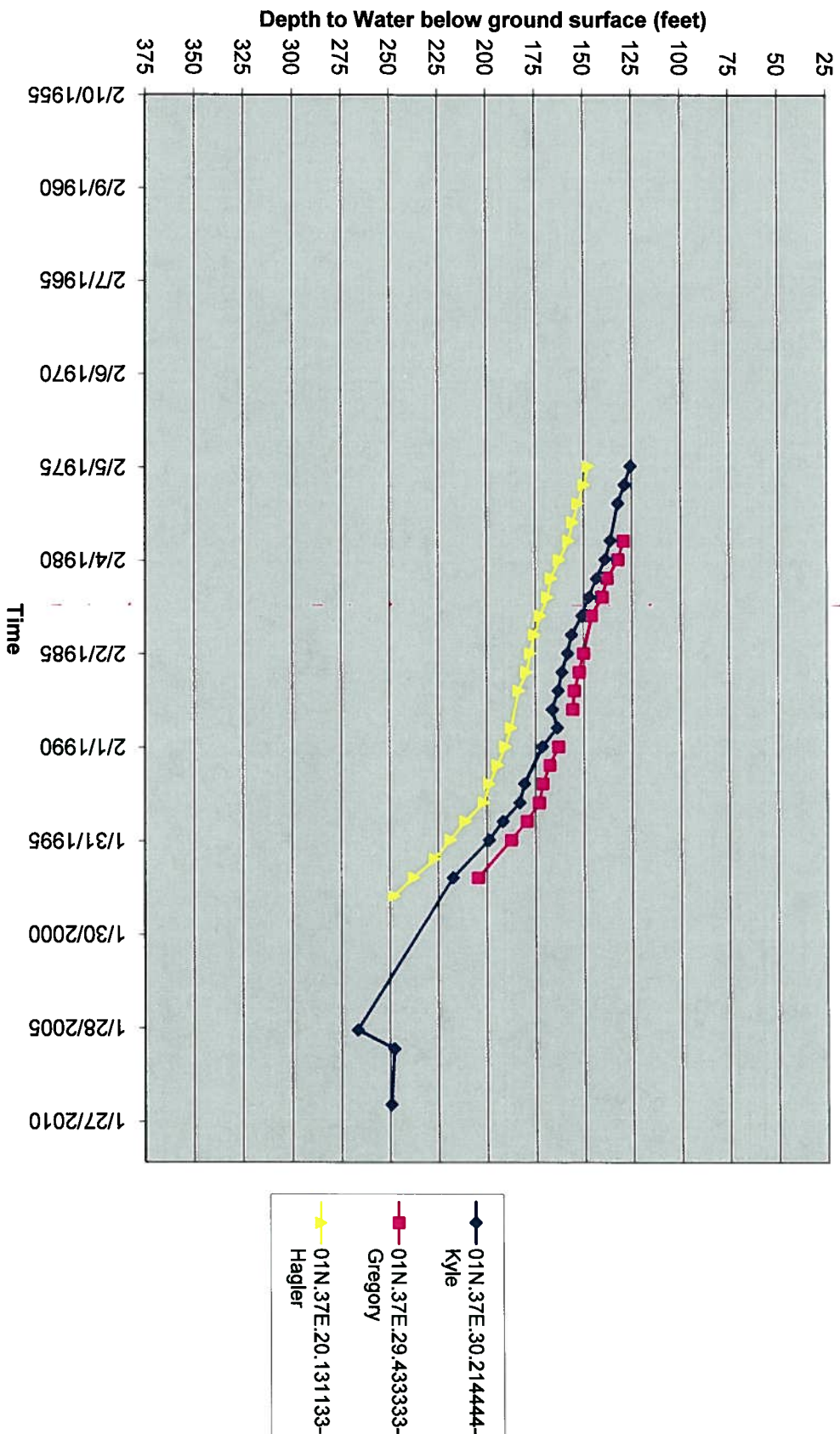


Figure 18 Hydrographs of Measured Water Levels
nearby NMAW well CC-516; CPGFM row,column (41,35)

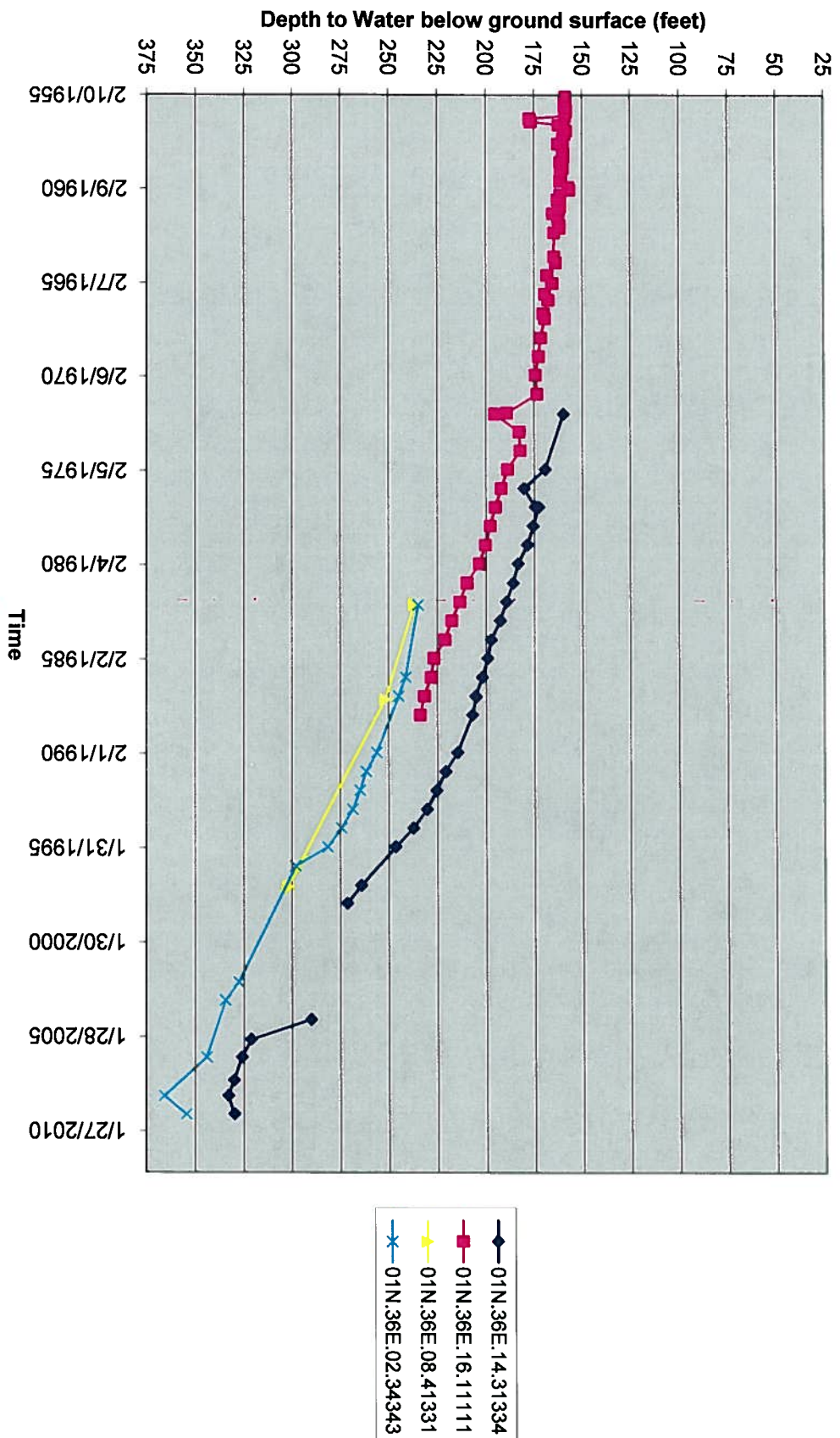


Figure 19 Hydrographs of Measured Water Levels
nearby NMAW well CC-1660; CPGFM row,column (35,34)

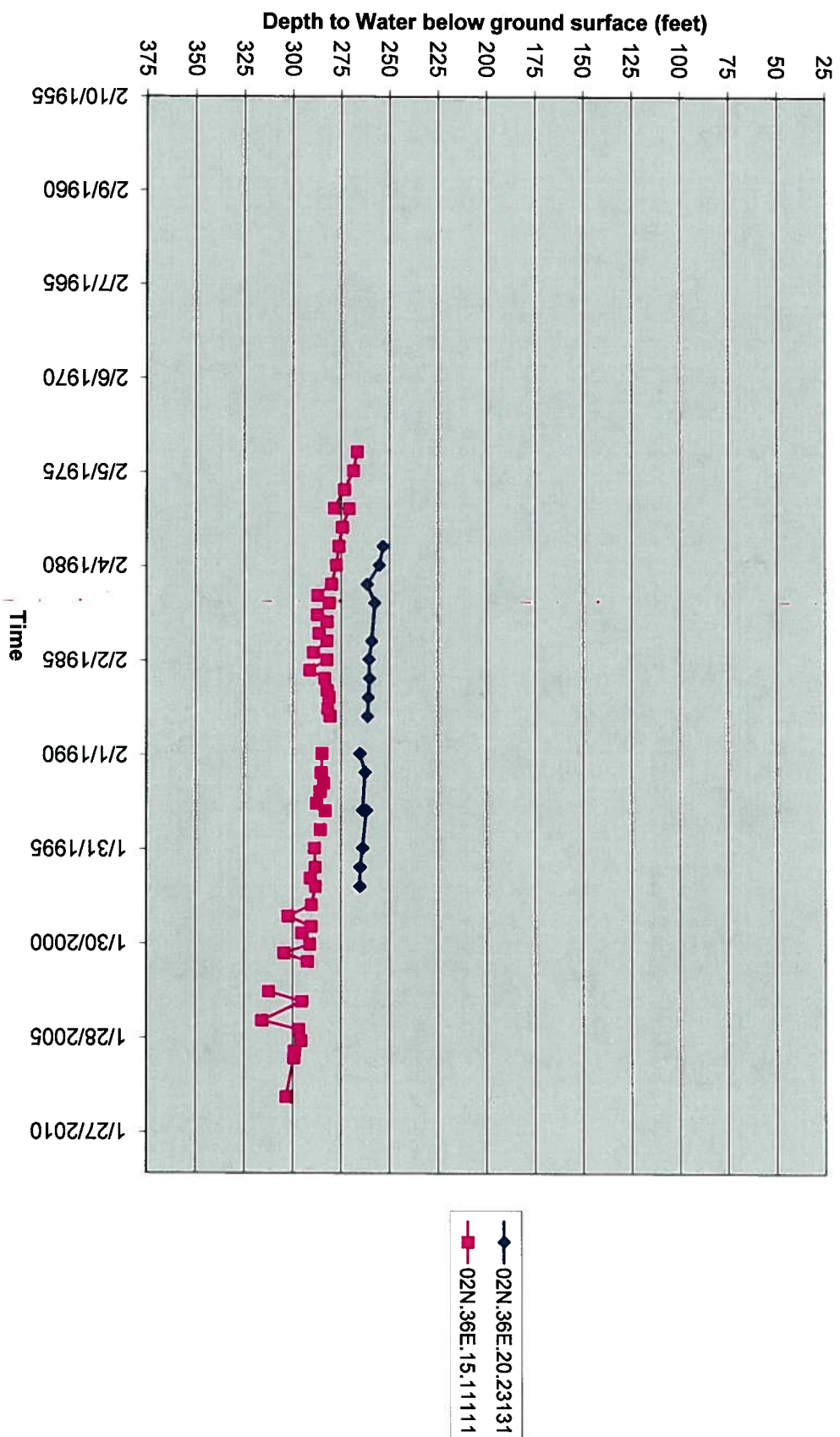
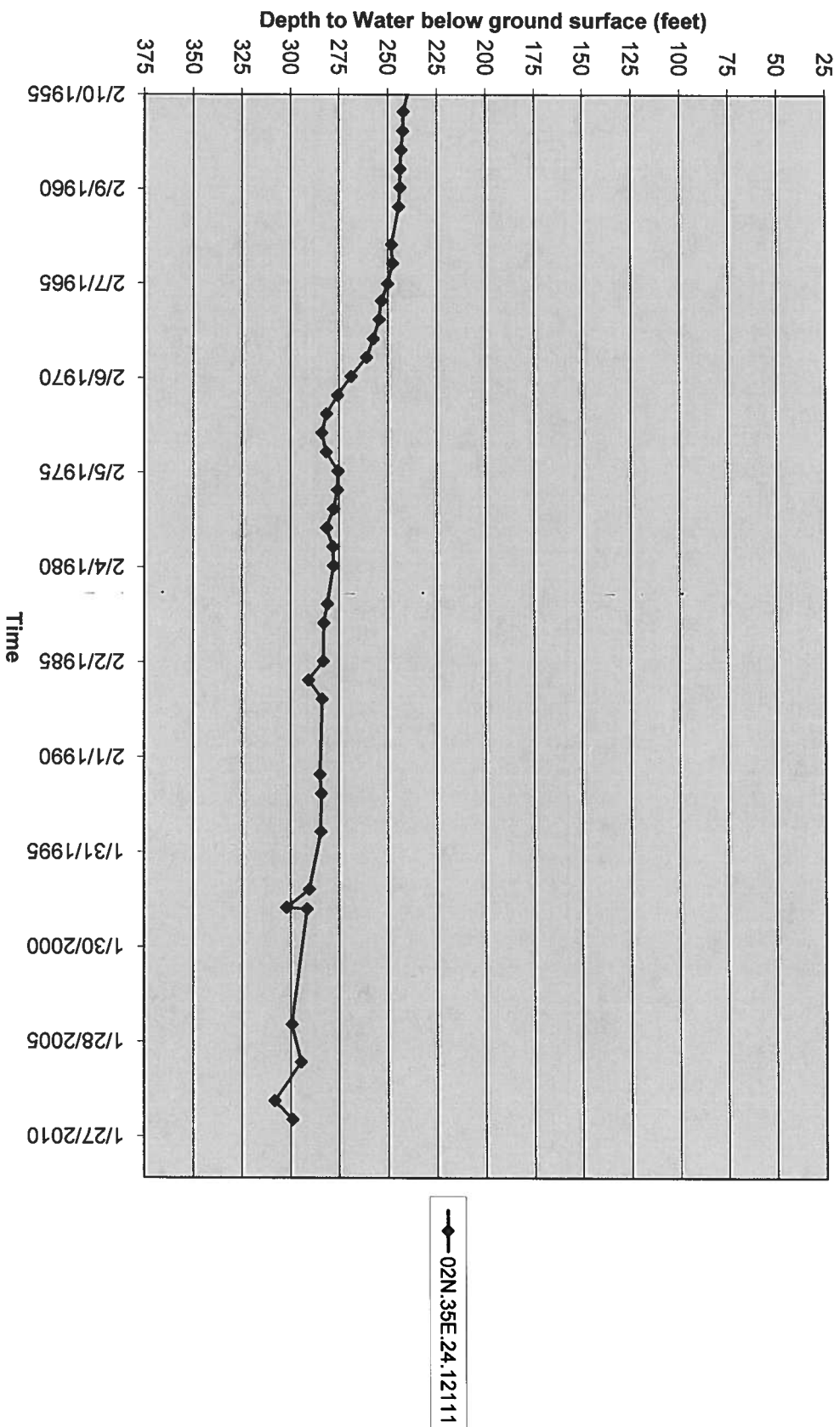


Figure 20 Hydrograph of Measured Water Levels
nearby NMAW well CC-528; CPGFM row,column (34,32)



Tables

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Table 1 Pumping Schedule for Scenarios 1 and 2 Simulated by the Theis Model																			
OSE Curry County (CC) or Fortales (P) Basin	NMAW well number	Scenario 1		Scenario 1		Scenario 1		Scenario 2		Scenario 2		Scenario 2		Scenario 2		Scenario 2		Scenario 2	
		Baseline Pumping	Baseline Pumping	Future Pumping	Future Pumping	Well Pumping Capacity as of 8-25-09*	Well Pumping Capacity as of 9-18-09	Baseline Pumping	Baseline Pumping	Future Pumping	Future Pumping	Baseline Pumping	Baseline Pumping	Future Pumping	Future Pumping	Township Range Section	Eastings	Northings	CPGWF Model Row
CC 00239	68	103	64.0	420	260.4	316.0	316	103.2	64.0	305.8	189.6	01N.37E.17.113	675715	3798666	41	38			
CC 00239 S	67					237.0		103.2	64.0	229.4	142.2	01N.37E.17.1	676023	3798585	41	39			
CC 00242	64	206	128.0	221	137.1	197.0	197	190.6	118.2	190.6	118.2	01N.37E.18.3	674440	3797782	42	38			
CC 00243	65	23	14.1	136	84.5	145.0	145	140.3	87.0	140.3	87.0	01N.37E.18.4	675231	3797768	42	38			
CC 00294	55	1	0.7	0	0.0	100.0	100	96.8	60.0	96.8	60.0	01N.36E.10.313	669255	3799394	41	34			
CC 00295	60	158	98.0	158	98.0	97.9	98	94.8	58.8	94.8	58.8	01N.36E.14.114	671081	3798612	41	36			
CC 00295 S	61	255	157.9	265	164.1	174.0	174	168.4	104.4	168.4	104.4	01N.36E.14.323	671297	3797812	42	36			
CC 00296	58	191	118.5	184	114.1	130.0	130	125.8	78.0	125.8	78.0	01N.36E.14.232	671894	3798421	41	36			
CC 00296 S						82.4		132.9	82.4	132.9	82.4	01N.36E.14.443	672111	3797421	42	36			
CC 00296 S 2	62	98	60.6	126	78.0	126.0	126	121.9	75.6	121.9	75.6	01N.36E.14.434	671907	3797415	42	36			
CC 00296 A	97					14.2		14.2	8.8	14.2	8.8	01N.36E.14.233	671694	3798221	42	36			
CC 00514	38	11	6.5	0	0.0	65.0	65	62.9	39.0	62.9	39.0	01N.35E.12.144	663392	3799654	41	31			
CC 00515	37	47	28.9	0	0.0	90.0	90	87.1	54.0	87.1	54.0	01N.35E.12.122	663365	3800384	40	31			
CC 00516	45	2	1.1	0	0.0	71.0	71	68.7	42.6	68.7	42.6	01N.36E.15.11	669370	3798689	41	35			
CC 00516 S	49	292	180.9	292	180.9	180.7	181	174.9	108.4	174.9	108.4	01N.36E.15.23	670182	3798298	41	35			
CC 00516 S 2	50	295	182.9	295	182.9	182.8	183	176.9	109.7	176.9	109.7	01N.36E.15.41	670189	3797895	42	35			
CC 00517	44	71	44.2	0	0.0	74.0	74	71.6	44.4	71.6	44.4	01N.36E.16.23	668590	3798417	41	34			
CC 00518	46	178	110.3	0	0.0	125.0	125	121.0	75.0	121.0	75.0	01N.36E.16.24	668976	3798249	41	34			
CC 00519	43	265	164.4	0	0.0	190.0	190	183.9	114.0	183.9	114.0	01N.36E.16.42	668965	3797969	42	34			
CC 00520	35A	6	3.6	0	0.0	48.0	48	46.5	28.8	46.5	28.8	01N.36E.17.111	666045	3798737	41	32			
CC 00521	36	7	4.3	0	0.0	50.0	50	48.4	30.0	48.4	30.0	01N.36E.17.133	665979	3798080	42	32			
CC 00522	39	16	10.2	0	0.0	72.0	72	69.7	43.2	69.7	43.2	01N.36E.18.212	665458	3798792	41	32			
CC 00523	42	38	23.5	0	0.0	83.0	83	80.3	49.8	80.3	49.8	01N.36E.18.243	665550	3798161	42	32			
CC 00524	41					53.2		53.2	33.0	53.2	33.0	01N.36E.18.433	665064	3797307	42	32			
CC 00525	40	6	3.4	0	0.0	50.0	50	48.4	30.0	48.4	30.0	01N.36E.18.444	665822	3797315	42	32			
CC 00526	15	314	194.9	0	0.0	230.0	230	222.6	138.0	222.6	138.0	02N.35E.01.444	663992	3810242	34	31			
CC 00527	21	93	57.8	147	91.0	140.0	140	135.5	84.0	135.5	84.0	02N.35E.11.311	660980	3809159	35	29			
CC 00528	19	96	59.7	0	0.0	190.0	190	183.9	114.0	183.9	114.0	02N.35E.12.243	663807	3809411	34	31			
CC 00529	17	314	194.9	0	0.0	380.0	380	367.7	228.0	367.7	228.0	02N.35E.12.351	662620	3808761	35	30			
CC 00530	29	4	2.5	58	35.8	58.0	58	56.1	34.8	56.1	34.8	02N.35E.13.333	662643	3806043	36	30			
CC 00531	25							111.3	69.0	111.3	69.0	02N.35E.25.311	662689	3804363	38	30			
CC 00534	33							0.0	0.0	96.8	60.0	02N.35E.26.42	662375	3804301	38	30			
CC 00535	28							96.8	60.0	96.8	60.0	02N.35E.26.412	662149	3804405	38	30			
CC 00536	9	314	194.9	0	0.0	280.0	280	271.0	168.0	271.0	168.0	02N.36E.07.121	664603	3809975	34	32			
CC 00537	10	314	194.9	0	0.0	235.0	235	227.4	141.0	227.4	141.0	02N.36E.07.122	664867	3810066	34	32			
CC 00538	18							188.7	117.0	188.7	117.0	02N.36E.07.122	664867	3810047	34	32			
CC 00539	8	23	14.3	0	0.0	88.0	88	85.2	52.8	85.2	52.8	02N.36E.07.123	664618	3809787	34	32			
CC 00540	11	26	16.3	0	0.0	140.0	140	135.5	84.0	135.5	84.0	02N.36E.07.131	664208	3809668	34	31			

Table 1 Pumping Schedule for Scenarios 1 and 2 Simulated by the Theis Model																				
		Scenario 1	Scenario 1				Scenario 2				Scenario 2									
OSE Curry County (CC) or Portales (P) Basin	NMAW well number	Baseline Scenario Pumping af-yr	Baseline Scenario Pumping GPM	Future Scenario Pumping af-yr	Future Scenario Pumping GPM	Well Pumping Capacity as of 8-25-09* GPM	Well Pumping Capacity as of 9-18-09 GPM	Baseline Scenario Pumping af-yr	Baseline Scenario Pumping GPM	Future Scenario Pumping af-yr	Future Scenario Pumping GPM	Township Range Section	Eastings	Northings	CPGWF Model Row	CPGWF Model Column				
CC 00541	4	314	194.9	0	0.0	205.0	205	198.4	123.0	198.4	123.0	02N.36E.07.322	664829	3809217	35	32				
CC 00542	16	154	95.6	152	94.3	150.0	150	145.2	90.0	145.2	90.0	02N.36E.08.411	666443	3809197	35	33				
CC 00543	22	228	141.3	387	240.0	300.0	300	290.3	180.0	290.3	180.0	02N.36E.08.422	667286	3809259	35	33				
CC 00544	30	113	69.8	157	97.5	160.0	160	154.8	96.0	154.8	96.0	02N.36E.09.144	668167	3809435	35	34				
CC 00545	14	508	315.3	480	297.7	315.0	315	304.8	189.0	304.8	189.0	02N.36E.16.313	667547	3807425	36	33				
CC 00546	32**					230.0		222.6	138.0	222.6	138.0	02N.36E.18.323	664695	3807574	36	32				
CC 00547	32	297	184.4	302	187.0		230	464.5	288.0	464.5	288.0	02N.36E.16.333	667535	3807015	36	33				
CC 00548	31							116.1	72.0	116.1	72.0	02N.36E.16.344	668270	3807042	36	34				
CC 00549	13	0	0.0	475	294.2	254.0	294	0.0	0.0	245.8	152.4	02N.36E.17.124	666574	3808210	35	33				
CC 00550	2							645.2	400.1	645.2	400.1	02N.36E.18.234	665307	3807865	35	32				
CC 00551	48	296	183.8	117	72.6	183.6	184	177.7	110.2	177.7	110.2	02N.36E.15.332	669490	3797579	42	35				
CC 00552	5							242.0	150.0	242.0	150.0	02N.36E.18.243	665437	3807873	35	32				
CC 00553	20	0	0.0	316	196.2	148.0	196	0.0	0.0	143.2	88.8	02N.36E.19.212	665342	3806809	36	32				
CC 00659	63	5	3.1	121	74.8	127.0	127	103.2	64.0	122.9	76.2	01N.36E.13.211	673299	3798850	41	37				
CC 00659 S	67	103	64.0	210	130.0		237	103.2	64.0	103.2	64.0	01N.36E.13.221	673701	3798856	41	37				
CC 01028	47	154	95.7	0	0.0	135.0	135	130.6	81.0	130.6	81.0	01N.36E.15.111	669370	3798689	41	35				
CC 01063	51	1	0.9	0	0.0	127.0	127	122.9	76.2	122.9	76.2	01N.36E.03.313	669228	3801008	40	34				
CC 01063 S	52	1	0.6	0	0.0	100.0	100	96.8	60.0	96.8	60.0	01N.36E.03.444	670644	3800623	40	35				
CC 01270	54	136	84.5	0	0.0	84.5	84	79.4	49.2	81.7	50.7	01N.36E.09.3	667950	3799269	41	34				
CC 01270 S								79.4	49.2	79.4	49.2	01N.36E.09.344	668251	3798973	41	34				
CC 01279	66					357.0		82.6	51.2	345.5	214.2	01N.37E.07.3	674399	3799368	41	38				
CC 01279 S	66	165	102.4	367	227.5		357	82.6	51.2	360.0	223.2	01N.37E.07.344	674700	3799072	41	38				
CC 01280	57	86	53.0	212	131.3	280.0	280	82.5	51.2	271.0	168.0	01N.36E.11.3	671176	3799317	41	36				
CC 01280 S								82.5	51.2	82.5	51.2	01N.36E.11.311	670867	3799618	41	35				
CC 01281	56	3	2.1	52	32.5	49.0	49	47.4	29.4	47.4	29.4	01N.36E.10.4	670370	3799305	41	35				
CC 01281 S								103.2	64.0	103.2	64.0	01N.36E.10.443	670471	3799009	41	35				
CC 01660	102	93	57.6	197	122.2	255.0	255	54.0	33.5	246.8	153.0	02N.36E.15.111	669100	3808460	35	34				
CC 01660 S	100	281	174.5	351	217.8	60.0	340	54.0	33.5	58.1	36.0	02N.36E.10.311	669086	3809266	35	34				
CC 01660 S2	101	0	0.3	63	39.0	340.0	60	54.0	33.5	329.0	204.0	02N.36E.10.323	669488	3809074	35	35				
P 02851	113							1000.0	620.1	1000.0	620.1	01S.37E.17.322	676472	3788294	48	39				
P 02851 X	114							1000.0	620.1	1000.0	620.1	01S.37E.18.322	674870	3788268	48	38				
P 02851 X2	103							1000.0	620.1	1000.0	620.1	01S.37E.19.233	675090	3786867	49	38				
P 02851 X3	104							1000.0	620.1	1000.0	620.1	01S.37E.20.233	676694	3786894	49	39				
P 02853	105							333.3	206.7	333.3	206.7	01S.37E.29.233	676721	3785285	50	39				
P 02853 X	111							333.3	206.7	333.3	206.7	01S.37E.31.233	675144	3783649	51	38				
P 02853 X2	112							333.3	206.7	333.3	206.7	01S.37E.32.233	676747	3783675	51	39				
P 02854	109							1000.0	620.1	1000.0	620.1	01S.36E.35.233	671933	3783625	51	36				
P 02854 X	110							1000.0	620.1	1000.0	620.1	01S.36E.36.233	673539	3783644	51	37				

Table 2 Drawdowns Simulated by the Theis Model for Scenario 1

Theis Model Area	NM American Water Pumping Wells	NMAW Baseline Pumping (gpm)	NAMW Future Pumping (gpm)	Pumping well 40-yr incremental drawdown	Range of 40-yr incremental drawdown in nearby wells (ft)	Range of 10-yr incremental drawdown in nearby wells (ft)	Range of Water Column in nearby wells (ft) and date drilled [Year]	Average Transmissivity (GPD/FT)	Storativity	Maps	Area CPGWF Model Rows	Area CPGWF Model Columns
1	CC 00239	64.0	260.4	27.4	0.0 to 13.9	-1.5 to 9.1	31 [2005] to 124 [2002]	24,621	0.255	Figure 1A	40 to 44	35 to 39
	CC 00239 S	0.0	0.0	12.7						Figure 1B		
	CC 00242	128.0	137.1	13.9								
	CC 00243	14.1	84.5	18.8								
	CC 00295 S	157.9	164.1	5								
	CC 00296	118.5	114.1	6								
	CC 00296 S	0.0	0.0	6.4								
	CC 00296 S 2	60.6	78.0	7.1								
	CC 00296 A	5.3	0.0	5.3								
	CC 00659	3.1	74.8	16								
	CC 01279	0.0	0.0	11.9								
	CC 01279 S	102.4	227.5	21.9								
	CC 01280	53.0	131.3	11								
	P 02921	58.0	181.4	21.4								
	P 02921 A	0.0	0.0	12.3								
	P 02921 S	58.0	143.0	19.6								
	P 03263	102.7	107.3	2.0								
2	CC 00549	0.0	254.0	18.7	0.8 to 4.7	-0.3 to 3.4	60 [2000] to 80 [2006]	40,397	0.255	Figure 2	35 to 37	31 to 33
	CC 00553	0.0	148.0	13.3								
3	CC 01660	57.6	122.2	6.2	1.3 to 3.5	0.4 to 2.5	22 [2002] to 90 [2000]	38,968	0.255	Figure 3	34 to 36	34 to 36
	CC 01660 S	174.5	217.8	5.4								
	CC 01660 S2	0.3	39.0	5.0								
4	CC 00534	0.0	0.0	0.3	0.2 to 0.4	0.0 to 0.2	12 [2005] to 95 [2002]	30,074	0.255	Figure 4	37 to 38	31 to 32
5	CC 00528	59.7	0.0	-13.0	-2.7 to -10.0	-0.9 to -7.6	13 [2004] to 93 [2008]	37,006	0.255	Figure 5	34 to 35	30 to 32
	CC 00536	194.9	0.0	-22.2								
6	CC 01270	84.5	0.0	-16.7	-3.0 to -11.0	-0.6 to -6.8	40 [2004] to 112 [2004]	21,545	0.255	Figure 6	40 to 42	33 to 35

Table 3 Drawdowns Simulated by the Theis Model for Scenario 2

Theis Model Area	NM American Water Pumping Wells	60 % Baseline Pumping (gpm)	60 % Future Pumping (gpm)	Pumping well 40-yr incremental drawdown	Range of 40-yr incremental drawdown in nearby wells (ft)	Range of 10-yr incremental drawdown in nearby wells (ft)	Range of Water Column in nearby wells (ft) and date drilled [Year]	Average Transmissivity (GPD/FT)	Storativity	Maps	Area CPGWF Model Rows	Area CPGWF Model Columns
1	CC 00239	64.0	189.6	23.7	2.9 to 16.1	0.4 to 10.3	31 [2005] to 124 [2002]	24,621	0.255	Figure 1A	40 to 44	35 to 39
	CC 00239 S	64.0	142.2	19.4						Figure 1B		
	CC 00242	118.2	118.2	14.6								
	CC 00243	87.0	87.0	14								
	CC 00295 S	104.4	104.4	6.7								
	CC 00296	78.0	78.0	8.2								
	CC 00296 S	82.4	82.4	7.8								
	CC 00296 S 2	75.6	75.6	7.4								
	CC 00296 A	8.8	8.8	7.7								
	CC 00659	64.0	76.2	12.4								
	CC 01279	51.2	214.2	27.2								
	CC 01279 S	51.2	223.2	28.7								
	CC 01280	51.2	168.0	16.4								
	P 02921	29.0	178.6	25.2								
	P 02921 A	29.0	94.2	18.8								
	P 02921 S	29.0	136.2	22.8								
	P 03263	79.2	79.2	4.5								
2	CC 00549	0.0	152.4	10.1	1.4 to 3.8	0.7 to 2.8	60 [2000] to 80 [2006]	40,397	0.255	Figure 2	35 to 37	31 to 33
	CC 00553	0.0	88.8	6.8								
3	CC 01660	33.5	153.0	10.0	1.7 to 4.9	0.7 to 3.6	22 [2002] to 90 [2000]	38,968	0.255	Figure 3	34 to 36	34 to 36
	CC 01660 S	33.5	36.0	4.6								
	CC 01660 S2	33.5	204.0	12.6								
4	CC 00534	0.0	60.0	4.9	0.5 to 1.0	0.2 to 0.8	12 [2005] to 95 [2002]	30,074	0.255	Figure 4	37 to 38	31 to 32
5	CC 00528	114	114.0	1.5	0.5 to 2.7	0.1 to 1.8	13 [2004] to 93 [2008]	37,006	0.255	Figure 5	34 to 35	30 to 32
	CC 00536	168	168.0	1.6								
6	CC 01270	49.2	50.7	0.2	0 to 0.1	0 to 0.1	40 [2004] to 112 [2004]	21,545	0.255	Figure 6	40 to 42	33 to 35

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 4 City of Portales Wells and Water Column Lengths																	
2	Owner	POD Number	Sd	Tws	Rng	Sec	q	q	Zc	UT	Eastng	Northng	Drilling Date	Drilling Date	Depth Well	Depth Water	Water Column	
3	CITY OF PORTALES	P 02203	Sf	01S	36E	11	3	1	#	671127	3789750	11/7/1991	11/9/1991		200	91	109	
4	CITY OF PORTALES	P 02560	Sf	01S	36E	12	3	3	#	672742	3789376						not measured	
5	CITY OF PORTALES	P 02560 S	Sf	01S	36E	12	3	4	#	673243	3789282	8/12/1998	8/21/1998		228	111	117	
6	CITY OF PORTALES, NEW MEX	P 02713 A-A-	S	01S	36E	8	3	2	#	666592	3789788						not measured	
7	CITY OF PORTALES, NEW MEX	P 02713 AA	Sf	01S	36E	8	4	4	#	667405	3789396						not measured	
8	A MUNICIPAL CORPORATION	P 03123 A	Sf	01S	36E	10	2		#	670515	3790343						not measured	
9	A MUNICIPAL CORPORATION	P 03123 A S	Sf	01S	36E	9	2		#	668902	3790321						not measured	
10	A MUNICIPAL CORPORATION	P 03123 A S	Sf	01S	36E	10	3		#	669722	3789526						not measured	
11	A MUNICIPAL CORPORATION	P 03123 A S	Sf	01S	36E	10	1		#	669709	3790332						not measured	
12	A MUNICIPAL CORPORATION	P 03123 A S	Sf	01S	36E	9	4		#	668916	3789515						not measured	
13	A MUNICIPAL CORPORATION	P 03123 A S	Sf	01S	36E	10	4		#	670529	3789538						not measured	
14	A MUNICIPAL CORPORATION	P 03123 A S	Sf	01S	36E	10	2	4	#	670816	3790046						not measured	
15	A MUNICIPAL CORPORATION	P 03123 A S	Sf	01S	36E	10	3	3	#	669521	3789325						not measured	
16	A MUNICIPAL CORPORATION	P 03123 A-S-	Sf	01S	36E	10	4	3	#	670227	3789436					193	not measured	
17	CITY OF PORTALES, NM	P 03124	Sf	01S	36E	15	3	2	#	669844	3788222						not measured	
18	CITY OF PORTALES, NM	P 03124 S	Sf	01S	36E	15	1	1	#	669528	3788923						not measured	
19	CITY OF PORTALES NM MUNI	P 03165	Sf	01S	36E	9	1	4	#	668197	3790214						not measured	
20	NEW MEXICO CITY OF PORTA	P 03475 APPR	O	01S	36E	16	1	2	#	668418	3789005	7/17/1982	8/20/1982		184	70	114	
21	CITY OF PORTALES, NM	P 03505	Sf	01S	36E	8	1	4	#	666686	3790092						not measured	
22	CITY OF PORTALES NM	P 03569	Sf	01S	36E	15	1	1	#	669627	3789022	6/23/1997	6/24/1997		204	144	60	
23	CITY OF PORTALES NM	P 03569 S-2	Sf	01S	36E	22	1		#	669765	3787110						not measured	
24	PRUDENTIAL INSURANCE CON	P 02801	Sf	01S	36E	17	1	3	#	666313	3788473						not measured	
25	PRUDENTIAL INSURANCE CON	P 02801 -S-4	Sf	01S	36E	20	4	3	#	667262	3785966					200	not measured	
26	PRUDENTIAL INSURANCE CON	P 02801 S	Sf	01S	36E	28	1	1	#	667875	3785775						not measured	
27	PRUDENTIAL INSURANCE CON	P 02801 S 2	Sf	01S	36E	20	3	3	#	666257	3785955						not measured	
28	PRUDENTIAL INSURANCE CON	P 02801 S 3	Sf	01S	36E	20	3	4	#	666660	3785960						not measured	
29	BLACKWATER FARMS, INC NM	P 02910	Sf	01S	36E	15	4	1	#	670447	3788028						not measured	
30	BLACKWATER FARMS, INC NM	P 02910 -S	Sf	01S	36E	15	3	2	#	670044	3788022					200	not measured	
31	BLACKWATER FARMS, INC.,	P 02910	Sf	01S	36E	15	4	1	#	670447	3788028						not measured	
32	BLACKWATER FARMS, INC.,	P 02910 S	Sf	01S	36E	15	3	2	#	670044	3788022						not measured	
33	KANSAS CITY LIFE INSURANC	P 01017	Sf	01S	34E	28	3	2	#	649198	3784442						not measured	
34		P 01017 S	Sf	01S	34E	28	4	1	#	649403	3784451						not measured	
35		P 01017 S-2	Sf	01S	34E	28	2	3	#	649398	3785057						not measured	
36	CITY OF PORTALES	P 01110	Sf	01S	34E	26	3	3	#	651841	3784301						not measured	
37		P 01110 S	Sf	01S	35E	7	3	3	#	655214	3789016						not measured	
38		P 01110 S-10	Sf	01S	34E	35	1	2	#	652251	3783706						not measured	
39		P 01110 S-11	Sf	01S	34E	36	1	2	#	653873	3783744						not measured	
40		P 01110 S-12	Sf	01S	34E	35	3	4	#	652467	3782492						not measured	
41		P 01110 S-13	Sf	01S	34E	25	3	2	#	654063	3784552						not measured	

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 4 City of Portales Wells and Water Column Lengths																	
2	Owner	POD Number	Sq	Tws	Rng	Sec	q	q	q	Zo	UT	Easting	Northing	Drilling Date	Drilling Date	Depth Well	Depth Water	Water Column
42		P 01110 S-14	01S	34E	35	1	2	3		#		652251	3783706					not measured
43		P 01110 S-15	01S	34E	26	4	4	2		#		653257	3784329					not measured
44		P 01110 S-16	01S	34E	13	1	3	1		#		653405	3788379					not measured
45		P 01110 S-2	01S	34E	13	1	4	2		#		654010	3788387					not measured
46		P 01110 S-3	01S	35E	7	3	4	3		#		655372	3789021					not measured
47		P 01110 S-4	01S	34E	13	1	4	2		#		654010	3788387					not measured
48		P 01110 S-5	01S	34E	34	4	3	2		#		651252	3782662					not measured
49		P 01110 S-6	01S	34E	35	1	3	3		#		651851	3783291					not measured
50		P 01110 S-7	01S	34E	35	3	4	4		#		652467	3782492					not measured
51		P 01110 S-8	01S	34E	33	2	2	3		#		649820	3783650					not measured
52		P 01110 S-9	01S	34E	36	1	2	3		#		653873	3783744					not measured
53	CITY OF PORTALES	P 01933 APPR	O	01S	34E	13	1	3		#		653506	3788280	6/27/1961	6/27/1961			not measured
54	CITY OF PORTALES	P 01934 EXPL	S	01S	34E	13	1	4	3	#		653810	3788187	6/27/1961	6/27/1961			not measured
55	CITY OF PORTALES	P 01935 EXPL	S	01S	34E	13	1	1		#		653500	3788684	6/27/1961	6/27/1961			not measured
56	City of Portales	P-3075		01S	34E	33				#	NV	649431	3782625					not measured
57	City of Portales	P 02201 POD1	01S	36E	16					#		667822	3788596					not measured
58	City of Portales	P 02201 POD2	01S	36E	15					#		669449	3787814					not measured
59	City of Portales	P 02201 POD3	01S	36E	16					#		668628	3788408					not measured
60	City of Portales	P 02201 POD4	01S	36E	15					#		670254	3787625					not measured
61	City of Portales	P 02202 POD1	01S	36E	14					#		671053	3788240					not measured
62	City of Portales	P 02402 POD1	01S	36E	23					#		671066	3787434					not measured
63	City of Portales	P 02403 POD1	01S	36E	23					#		671870	3787448					not measured
64	City of Portales	P 02403 POD2	01S	36E	23					#		671072	3786832					not measured
65	City of Portales	P 02565	01S	36E	24					#		672796	3786155					not measured
66	City of Portales	P 02565 POD2	01S	36E	24					#		673478	3787475					not measured
67	City of Portales	P 02565 POD3	01S	36E	13					#		672661	3788267					not measured
68	City of Portales	P 02565 POD4	01S	36E	13					#		673256	3788476					not measured
69	City of Portales	P 03165 POD3	01S	36E	9					#		667801	3789805					not measured

D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 5 City of Clovis Wells and Water Column Lengths																
2	Owner	POD Number	St	Tw	Ring	Sec	q	q	q	Zone	UTM	Easting	North	Drilling	Drilling	Depth	Water
3	CITY OF CLOVIS	CC 00574	02N	35E	24	4	4	4	4	13	663803	3805646		Date	Date	Well	Column
4		CC 00574 S	02N	35E	24	2	4	3		13	663890	3806156					not measured
5		CC 00574 S-2	02N	35E	24	2	2			13	663985	3806660					not measured
6	CITY OF CLOVIS	CC 00590 B	02N	36E	31	3	4	3		13	664775	3802140					not measured
7		CC 00590 BS	02N	36E	31	3	2	1		13	664768	3802743					not measured
8		CC 00590 BS 2	02N	36E	31	3	3			13	664662	3802233					not measured
9	CITY OF CLOVIS	CC 00816	02N	36E	33	1	2	1		13	667974	3803601		6/1/1986		320	232
10		CC 00816 S	02N	36E	33	1	2	1		13	667974	3803601					not measured
11	CITY OF CLOVIS	CC 00964	St	03N	36E	2	3	1	4	13	670688	3820397	4/25/1995	4/26/1995		370	300
12	CITY OF CLOVIS	CC 01089	St	02N	35E	1	1	3	3	13	662601	3810962					not measured
13	CITY OF CLOVIS	CC 01090	St	02N	36E	8	4	3	1	13	666669	3808823					not measured
14		CC 01090 S	St	02N	36E	8	4	4	1	13	667072	3808830					not measured
15		CC 01090 S2	St	02N	36E	8	4	2	1	13	667065	3809232					not measured
16	CITY OF CLOVIS	CC 01861	02N	36E	21	3	2	1		13	667930	3806020		1/31/1953		328	not measured
17	CITY OF CLOVIS A	CC 01091	02N	36E	20	4				13	667031	3805698					not measured
18	BESSIE E. TATUM	CC 00069	02N	35E	2	1	3	3		13	660989	3810936					not measured
19	THE CITY OF CLOVIS	CC 00030	01N	36E	6	3	4	4		13	665004	3800527					not measured
20		CC 00030 S	01N	36E	6	1	2	3		13	664782	3801736					not measured
21		CC 00030 S2	01N	36E	6	3	1	2		13	664584	3801123					not measured
22		CC 00030 S3	01N	36E	6	1	2	1		13	664782	3801936					not measured
23		CC 00030 S4	01N	36E	6	4	3	4		13	665407	3800535					not measured
24		CC 00030 S5	01N	36E	6	4	1	4		13	665389	3800937					not measured
25		CC 00030 S6	01N	36E	6	3				13	664694	3800821					not measured
26	THE CITY OF CLOVIS	CC 00720	01N	36E	7	2	4	4		13	665823	3799737					not measured
27	CITY OF CLOVIS	CC 00079	02N	36E	22	3	1	1		13	669141	3806040					not measured
28	City of Clovis	CC-1082	04N	36E	32	SW1/4SW1			333	13	665624	3821527					not measured
29	City of Clovis	CC-1082	03N	37E	33				311	13	677071	3813243					not measured
30	City of Clovis	CC-1083	03N	37E	33				112	13	677876	3813458					not measured
31	City of Clovis	CC-1083 S	03N	37E	33				213	13	677876	3813258					not measured
32	City of Clovis	CC-1084	03N	37E	33				334	13	677899	3812051					not measured
33	City of Clovis	CC-1085	03N	37E	33				133	13	677094	3812235					not measured
34	City of Clovis	CC-1086	02N	37E	5				332	13	676301	3811192					not measured
35	City of Clovis	CC-1086 S	02N	37E	5				431	13	675697	3811176					not measured
36	City of Clovis	CC-1087	02N	37E	4				111	13	677100	3811810					not measured
37	City of Clovis	CC-1088	02N	37E	5				111	13	675491	3811778					not measured
38	City of Clovis	CC-1091	02N	36E	20				4	13	667031	3805698					not measured

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths																	
2	Owner	POD Number	STws	Rng	Sec	q	q	Zd	UT	Easting	Northing	Drilling Date	Date	Depth Well	Depth Water	Water Column		
3	HERITAGE DAIRY	CC 00159	01N 36E	2	3	4	3	13	671250	3800635				430		not measured		
4		CC 00159 EXPL	01N 36E	2	3			13	671149	3800931						not measured		
5		CC 00159 S	01N 36E	2	3	3	3	13	670847	3800629				430		not measured		
6		CC 00159 S2	01N 36E	2	3	3	1	13	670847	3800829						not measured		
7	HERITAGE DAIRY	CC 00160	01N 36E	2	2	3	3	13	671639	3801448						not measured		
8	HERITAGE DAIRY	CC 00452	01N 36E	1	3	3	3	13	672462	3800653						not measured		
9		CC 00452 EXPLO	R01N 36E	1	3			13	672764	3800955						not measured		
10		CC 00452 S	01N 36E	1	3			13	672764	3800955						not measured		
11	HERITAGE DAIRY	CC 00475	01N 37E	18	1	1	1	13	674104	3798863				379		not measured		
12	HERITAGE DAIRY	CC 00712	02N 36E	35	3	2	3	13	671213	3802646						not measured		
13		CC 00712 S	02N 36E	35	1	3	2	13	671003	3803243						not measured		
14		CC 00712 S2	02N 36E	35	3	1		13	670911	3802740						not measured		
15		CC 00712 S3	02N 36E	35	1	4	4	13	671407	3803050						not measured		
16	DALE ERIC & TAMI, TEUNE HERIT	CC 00766	01N 36E	13	1	1	1	13	672494	3798836						not measured		
17		CC 00766 S	01N 36E	13	1	3	4	13	672701	3798233						not measured		
18		CC 00766 S-2	01N 36E	13	4			13	673621	3797743						not measured		
19		CC 00766 S-3	01N 36E	13	1			13	672803	3798535						not measured		
20		CC 00766 S-4	01N 36E	13	3			13	672816	3797730						not measured		
21		CC 00766 S-5	01N 36E	13	4	3		13	673420	3797542						not measured		
22	HERITAGE DAIRY	CC 01081	02N 36E	35	4			13	671925	3802551						not measured		
23		CC 01081 S	02N 36E	35	4	1	3	13	671617	3802653						not measured		
24	HERITAGE DAIRY	CC 01081 A	S02N 36E	35	4	2	1	13	672021	3802860						not measured		
25		CC 01081 A EXPL	02N 36E	35	4	4	3	13	672027	3802256						not measured		
26		CC 01081 AS	02N 36E	35	4	4	3	13	672027	3802256						not measured		
27	HERITAGE DAIRY	CC 01138	02N 36E	35	2	3	2	13	671810	3803257	1/29/1981	1/29/1981	346		not measured			
28	HERITAGE DAIRY	CC 01917 POD1	01N 36E	12	4	4	4	13	673895	3799059				370		not measured		
29	EL DORADO DAIRY A NM GEN PTSH	CC 01520 EXPL	02N 35E	34	4	4	4	13	660530	3802071	6/26/2003	6/27/2003	406		not measured			
30		CC 01520 S	S02N 35E	34	4	4	2	13	660933	3802277	6/22/2004	8/4/2004	410	330	not measured			
31	EL DORADO DAIRY A NM GEN PART	CC 00366	S01N 35E	10	2	1	4	13	660564	3800058						not measured		
32		CC 00366 S	01N 35E	10	2	3	1	13	661159	3800875						not measured		
33		CC 00366 S-2	01N 35E	2	3	1	3	13	661468	3800776						not measured		
34		CC 00366 S-3	01N 35E	2	3			13	661468	3800776						not measured		
35		CC 00366 S-4	01N 35E	3	4			13	660659	3800763						not measured		
36		CC 00366 S-5	01N 35E	3	2	3	2	13	660544	3801465						not measured		
37		CC 00366 S-6	S01N 35E	3	2	1	1	13	660337	3801868	1/27/1999	1/28/1999	414		not measured			
38		CC 00366 S-7	S01N 35E	3	2	2	2	13	660940	3801873	1/20/1999	1/21/1999	408		not measured			
39		CC 00366 S-8	S01N 35E	2	3	2	2	13	661761	3801081	1/13/1999	1/14/1999	388	274	114			
40		CC 00366 S-9	S01N 35E	10	2	2	2	13	660968	3800265	1/15/1999	1/16/1999	359	275	84			
41		CC 00366 S2	01N 35E	2	3	1	3	13	661159	3800875						not measured		
42		CC 00366 S3	01N 35E	2	3			13	661468	3800776						not measured		
43		CC 00366 S4	01N 35E	3	4			13	660659	3800763						not measured		
44		CC 00366 S5	01N 35E	3	2	3	2	13	660544	3801465						not measured		
45	BONESTROO DAIRY, L.L.C.	P 00014	02S 35E	6	3	4	1	13	655496	3781153						not measured		
46		P 00014 S-2	02S 35E	6	3	1	2	13	655323	3781553						not measured		

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths	STWS	Rng	Seq	q	q	Zc	UT	Eastng	Northng	Drilling Date	Date	Depth	Water	Water	Water	Water	Water
2	Owner	POD Number	STWS	Rng	Seq	q	q	Zc	UT	Eastng	Northng	Date	Date	Well	Water	Water	Water	Water
47		P 00014 S-3	02S	35E	6	3	2	3	13	655490	3781358							not measured
48		P 00014 S-4	02S	35E	6	3	3	1	13	655129	3781147							not measured
49	IDSINGA BROTHERS DAIRY,	P 01017 A	01S	34E	28	3	2	4	13	649198	3784442							not measured
50	A NM GENERAL PARTNERSHIP BONES	P 01856	01S	35E	5	4			13	657654	3790964							not measured
51		P 01856 S	01S	35E	4	1			13	658442	3791781							not measured
52		P 01856 S-2	01S	35E	4	3			13	658459	3790976							not measured
53		P 01856 S-3	01S	35E	4	3	1		13	658250	3791177							not measured
54	BONESTROO & SONS DAIRY	P 02101	01S	35E	4	4			13	659264	3790987							not measured
55		P 02101 S	01S	35E	4	4			13	659264	3790987							not measured
56		P 02101 S-2	01S	35E	4	2	3	4	13	659146	3791490							not measured
57		P 02101 S-3	S01S	35E	4	4	2	1	13	659356	3791293							not measured
58	FOUR-WAY DAIRY, LLC	P 02151	01N	35E	29	3	2	3	13	656826	3794370							not measured
59		P 02151 S	01N	35E	30	4	2	3	13	656021	3794357							not measured
60		P 02151 S-10	01N	35E	30				13	655520	3794637							not measured
61		P 02151 S-2	01N	35E	30				13	655520	3794637							not measured
62		P 02151 S-3	01N	35E	31	1	4	1	13	655237	3793334							not measured
63		P 02151 S-4	01N	35E	31	1	2	2	13	655431	3793737							not measured
64		P 02151 S-5	01N	35E	30	3	2	3	13	655216	3794343							not measured
65		P 02151 S-7	01N	35E	31	2	1	1	13	655633	3793744							not measured
66		P 02151 S-8	01N	35E	30	1	2	3	13	655200	3795149							not measured
67		P 02151 S-9	01N	35E	30	2	2	3	13	656005	3795163							not measured
68	MITCHELL DAIRY, INC.,	P 02151 C	S01N	35E	31	2	1	2	13	655833	3793744							not measured
69		P 02151 C-S	01N	35E	31	2			13	655942	3793443							not measured
70	A NM GENERAL PARTNERSHIP HERIT	P 02243	01N	36E	23	2	2	2	13	672317	3797218							not measured
71		P 02243 S	01N	36E	23	2			13	672022	3796911							not measured
72	PREMIER DAIRY, L.L.C.	P 02243 A	01N	36E	23	4	3	2	13	671934	3796003							not measured
73		P 02243 A-S	01N	36E	23	4	3		13	671835	3795904							not measured
74	MITCHELL DAIRY INC	P 02323	01N	34E	26	3	2	3	13	651991	3794292							not measured
75		P 02323 S	01N	34E	26	3	1		13	651689	3794387							not measured
76		P 02323 S 2	01N	34E	26	1	4	1	13	651985	3794895							not measured
77	GREENFIELD PARK DAIRY	P 02713 A	01S	36E	5	3	1	3	13	666161	3791195							not measured
78		P 02713 A EXPL	01S	36E	5	4	3	3	13	666974	3790803					200		not measured
79		P 02713 AS	01S	36E	5	3			13	666470	3791094							not measured
80		P 02713 AS2	01S	36E	5	2			13	667263	3791910							not measured
81	MILLAGRO DAIRY NM	P 02902 A	01S	37E	8	3	2	3	13	676245	3789704							not measured
82		P 02902 A S	01S	37E	8	3	3		13	675951	3789396							not measured
83	MILLAGRO DAIRY, A NM GENERAL	P 02902 A	01S	37E	8	3	2	3	13	676245	3789704							not measured
84	MILLAGRO DAIRY, A NM GENERAL	P 02902 A S	01S	37E	8	3	3		13	675951	3789396							not measured
85	GREENFIELD PARK DAIRY	P 02975	01S	36E	5	1	1	4	13	666348	3792001							not measured
86		P 02975 A	01S	36E	5	3	1	4	13	666361	3791195							not measured
87		P 02975 S2	S01S	36E	5	1	1	3	13	666148	3792001	02/15/199	5	02/15/19	95	203		not measured
88		P 02975 S3	S01S	36E	5	3	1	3	13	666161	3791195	02/14/199	5	02/15/19	95	204		not measured
89	PREMIER DAIRY, L.L.C.	P 02989	01N	36E	23	3	4	1	13	671330	3795996							not measured
90		P 02989 S	01N	36E	23	3	3		13	671028	3795890							not measured

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water	Column Lengths												Drilling		Depth	Water	
2	Owner	POD Number	STws	Ring	Sec	q	q		Zc	UT	Easting	Northing	Date	Date	Well	Water	Column	
91		P 02989 S-2	01N 36E	23	3	1	1		13	670920	3796392					350		not measured
92	GREENFIELD PARK DAIRY	P 03123 C	01S 36E	4	1				13	668070	3791921							not measured
93		P 03123 C S	01S 36E	4	3				13	668082	3791116							not measured
94		P 03123 C S 2	01S 36E	4	3	1	2		13	667974	3791416							not measured
95	MITCHELL DAIRY	P 03605	01S 35E	6	1	1	4		13	655158	3791837							not measured
96	BONESTROO DAIRY	P 04383	01S 34E	1	4	2	4		13	654771	3791026					120		not measured
97	GREENFIELD PARK DAIRY	P 04461 POD1	S01S 36E	5	4	4	3		13	666783	3790823	11/21/2008	11/21/2008			186	152	34
98	BONSTRO DAIRY	P 04471 POD1	01S 34E	2	2	3	3		13	652591	3791423							not measured
99	EDDIE S SCHAAP	CC 00005	04N 37E	28	4	1	1		13	677695	3823944							not measured
100		CC 00005 S	04N 37E	28	2	1	1		13	677683	3824748							not measured
101	EDDIE S SCHAAP	CC 00183	04N 36E	22	3	3	1		13	668791	3825020			10/31/1954		432		not measured
102		CC 00183 EXPL	04N 36E	27	3				13	669124	3823503							not measured
103		CC 00183 EXPL-2	04N 36E	28	1				13	667494	3824284							not measured
104		CC 00183 S	04N 36E	27	4	1	1		13	669620	3823819			5/31/1984		450		not measured
105		CC 00183 S-2	04N 36E	28	1	1	1		13	667185	3824587					470		not measured
106		CC 00183 S-3	04N 36E	21	4	1	3		13	667977	3825211			2/28/1964		460		not measured
107		CC 00183 S-4	04N 36E	21	4	4	3		13	668388	3824813			4/11/1984		481	360	121
108		CC 00183 S5	S04N 36E	28	1	3	3		13	667192	3823982	6/7/2005	7/9/2005					not measured
109		CC 00183 S6	04N 36E	27	1	3	3		13	668807	3824011					480	395	85
110	EDDIE S. & SHERRI J. SCHAAP	CC 01251	S04N 36E	20	3	1	2		13	665759	3825367	4/5/2000	4/5/2000					not measured
111	EDDIE SCHAAP	CC 01448	04N 36E	25	2	2	1		13	673233	3824686			3/15/1961		400	320	80
112	EDDIE S SCHAAP	CC 01898	05N 37E	29	3	1	3		13	678305	3832921			9/10/1986		379	320	59
113		CC 01898 S	05N 37E	29	3	1	1		13	678305	3833121					405	315	90
114	EDDIE S SCHAAP	CC 01910 POD	05N 37E	32	1	1	2		13	678523	3832315					400	325	75
115		CC 01910 POD	05N 37E	32	1	3	3		13	678334	3831712					406	315	91
116		CC 01910 POD	05N 37E	32	1	1	2		13	678523	3832315			4/24/1965		382	313	69
117		CC 01910 POD	04N 37E	3	1	1	2			678796	3830686			4/28/1965				not measured
118	EDDIE SCHAAP	CC 02004	04N 36E	24	2	1	1		13	672753	3826351							not measured
119		CC 02004 S	04N 36E	24	4	1	1		13	672787	3825513							not measured
120		CC 02004 S2	04N 36E	24	4	3	3		13	672805	3824829							not measured
121	EDDIE AND SHERRI SCHAAP	CC 02010	04N 37E	8	3	1	1		13	675158	3828757							not measured
122	J ALBIN SMITH	CC 00568	01N 34E	1	4	3	2		13	654106	3800560							not measured
123	J ALBIN SMITH	CC 00568 A	S01N 34E	1	4	3	2		13	654106	3800560							not measured
124		CC 00568 AS	01N 34E	1	4	3	1		13	653906	3800560							not measured
125		CC 00568 AS2	01N 34E	1	4	3	2		13	654106	3800560							not measured
126	J ALBIN SMITH	CC 00581	01N 35E	2	4	3	1		13	661972	3800685					250		not measured
127	JAMES ALBIN AKA J. ALBIN SMITH	CC 00920	01N 34E	3	2	4	4		13	651275	3801118							not measured
128		CC 00920 S	01N 34E	3	2				13	650975	3801412							not measured
129		CC 00920 S2	01N 34E	3	4	2	2		13	651282	3800916							not measured
130		CC 00920 S3	01N 34E	3	4				13	650988	3800608							not measured
131		CC 00920 S4	01N 34E	3	2	4	3		13	651075	3801118							not measured
132	DAVID STONE	P 03738	S02S 34E	16	2	4			13	649999	3778487	4/25/1986	4/30/1986			120	97	23
133	DAVID STONE	P 03739	S02S 34E	16	2	4			13	649999	3778487	6/18/1986	6/22/1986			105	76	29
134	DAVID STONE	P 04271	S01S 34E	34	4	3	3		13	651052	3782462	7/31/2003	7/31/2003			123	98	25

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths													Drilling		Depth	Water	
2	Owner	POD Number	\$Tws	Rng	Sec	q	q		Zc	UT	Easting	Northing	Date	Date	Well	Water	Column	
135	NELLIE TEUNE, TRUSTEE 1985 FAM	P 02300	\$01N 35E	24	2					13	663957	3796784				300	not measured	
136		P 02300 EXPL.	01N 35E	24	2	2	2	2		13	664251	3797090					not measured	
137		P 02300 S	\$01N 35E	24	2					13	663957	3796784					not measured	
138		P 02300 S 2	\$01N 35E	24	2	1	4	4		13	663848	3796884					not measured	
139		P 02300 S-3	\$01N 35E	24	2	2	2	2		13	664251	3797090				300	not measured	
140	TONY AND NELLIE TEUNE	P 02378	01N 36E	22	1	3	2	2		13	669504	3796772					not measured	
141		P 02378 S-4	\$01N 36E	22	3	1	1	1		13	669311	3796369	4/20/2002	4/22/2002		335	not measured	
142		P 02378 S-5	\$01N 36E	22	4	2	1	1		13	670518	3796387	5/1/2002	5/2/2002		320	not measured	
143	TEUNIS J. AND NELLIE TEUNE, TR	P 02430	01N 36E	19	1	4	3	3		13	664869	3796501					not measured	
144		P 02430 EXPL.	01N 36E	19	1	4	2	2		13	665069	3796701				280	not measured	
145		P 02430 S	01N 36E	19	2	1	4	4		13	665465	3796911					not measured	
146		P 02430 S-2	01N 36E	19	1	1	4	4		13	664655	3796896					not measured	
147		P 02430 S-3	01N 36E	19	2					13	665574	3796810					not measured	
148		P 02430 S-4	01N 36E	19	2	3				13	665373	3796809					not measured	
149	TEUNIS J. AND NELLIE C. TEUNE	P 02772	01N 36E	30	3	2	3	3		13	664900	3794487					not measured	
150		P 02772 S	01N 36E	30	1	3	3	3		13	664489	3794883					not measured	
151		P 02772 S-2	01N 36E	30	3	2	3	3		13	664900	3794487					not measured	
152		P 02772 S-3	01N 36E	30	4	1	3	3		13	665302	3794493					not measured	
153	TEUNIS J. & NELLIE C. TEUNE	P 02772 -E	01N 36E	29	3	2	2	2		13	666712	3794712				243	not measured	
154		P 02772 -E-S	01N 36E	29	3	1	4	4		13	666308	3794506				257	not measured	
155		P 02772 -E-S-2	\$01N 36E	29	1	4	4	4		13	666705	3794915	9/10/2000	9/11/2000		287	not measured	
156	TEUNIS J. AND NELLIE TEUNE, TR	P 02772 A	01N 36E	30	3	3	3	3		13	664503	3794077					not measured	
157	TONY AND NELLIE TEUNE	P 02772 C-A	01N 36E	31	3	4	1	1		13	664928	3792672					not measured	
158		P 02772 C-A-S	01N 36E	31	3	3	3	3		13	664525	3792465					not measured	
159	TONY AND NELLIE TEUNE	P 02772 D	01N 36E	30	4	3	2	2		13	665508	3794290					not measured	
160		P 02772 POD24	\$01N 36E	30	4					13	666610	3794392	3/15/2006	3/16/2006		252	205	47
161	TEUNIS J. AND NELLIE TEUNE	P 02941	01N 34E	24	1	4	1	1		13	653569	3796530					not measured	
162		P 02941 EXPL.	\$01N 34E	24	1	1	1	1		13	653161	3796925	4/5/2002	4/6/2002		168	not measured	
163		P 02941 S	01N 34E	24	1	3	3	3		13	653167	3796323					not measured	
164	TEUNIS TEUNE	P 04374	\$01S 37E	34	1	1	1	1		13	679151	3784318	7/27/2005	7/27/2005		162	not measured	
165	ALAN ANDERSON	P 04072	\$01S 33E	15	3	2	4	4		13	641081	3787531	10/19/1998	10/19/1998		120	83	37
166	ART AND RENEE SCHAAP	CC 00158	02N 35E	33	1	2	1	1		13	658296	3803446					not measured	
167		CC 00158 S	02N 35E	33	1	2	2	2		13	658496	3803446					not measured	
168		CC 00158 S-2	02N 35E	33	2	2	3	3		13	659101	3803259					not measured	
169	ARTHUR AND RENEE SCHAAP	CC 00164	02N 35E	32	1	1	4	4		13	656478	3803213					not measured	
170		CC 00164 S	02N 35E	32	3	2	1	1		13	656694	3802615					not measured	
171	ARTHUR AND SANDRA RENEE SCHAAP	CC 00403	02N 35E	32	2	1	1	1		13	657086	3803426					not measured	
172		CC 00403 A-S	02N 35E	32	2	3	4	4		13	657292	3802824					not measured	
173		CC 00403 EXPL	\$02N 35E	32	4	1	1	1		13	657097	3802622	4/3/2004	5/21/2004		440	325	115
174		CC 00403 S	02N 35E	32	4	1	1	1		13	657097	3802622					not measured	
175		CC 00403 S2	02N 35E	32	4	2	1	1		13	657501	3802628					not measured	
176		CC 00403 S3	02N 35E	32	2					13	657394	3803126					not measured	
177		CC 00403 S4	02N 35E	32	4					13	657405	3802322					not measured	
178	ARTHUR & SANDRA RENEE AND SCHAA	CC 00403 A	\$02N 35E	32	2	3				13	657193	3802925	5/15/1992	5/15/1992		380	260	120

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths													Drilling		Depth	Water	
2	Owner	POD Number	STWS	Ring	Sec	q	q		Zc	UT	Easting	Northing	Date	Date	Well	Water	Column	
179	ARTHUR FRED AND SANDRA SCHAAP	CC 00403 AS	04N 35E 32 2 3						13	656855	3822295						not measured	
180	ARTHUR FRED AND SANDRA SCHAAP	CC 00438	01N 35E 5 2 1						13	657109	3801818						not measured	
181		CC 00438 S	01N 35E 5 2 4						13	657719	3801223						not measured	
182		CC 00438 S2	01N 35E 5 1 2						13	656705	3801811						not measured	
183		CC 00438 S3	01N 35E 5 3 2						13	656717	3801007						not measured	
184	ARTHUR F. & SANDRA RENEE SCHAA	CC 00463	02N 35E 33 3 1						13	657905	3802635						not measured	
185	ART AND RENEE SCHAAP	CC 00650	02N 34E 25 4						13	654157	3803879						not measured	
186		CC 00650 EXPLORE	02N 34E 25 4 1						13	653950	3804080						not measured	
187		CC 00650 S	02N 34E 25 4 1						13	653849	3804179						not measured	
188	ARTHUR FRED SCHAAP	CC 01032	02N 34E 23 1 1						13	651387	3806561						not measured	
189		CC 01032 POD1	02N 34E 23 1 1						13	651387	3806561						not measured	
190		CC 01032 POD2	02N 34E 23 2 1						13	652193	3806573						not measured	
191		CC 01032 POD3	02N 34E 23 2 3						13	652400	3806170						not measured	
192		CC 01032 S	02N 34E 23 2 1						13	652193	3806573						not measured	
193	ART AND RENEE SCHAAP	CC 01049	01N 35E 6 4 1						13	655507	3800987						not measured	
194		CC 01049 S	01N 35E 6 4 1						13	655707	3800787						not measured	
195		CC 01049 S-2	01N 35E 6 4 2						13	656110	3800793						not measured	
196		CC 01049 S-3	01N 35E 6 4 3						13	655513	3800385						not measured	
197	ART SCHAAP	CC 01070	S02N 35E 32 3 2						13	656894	3802615	10/15/1996	10/19/1996			373	298	
198	ARTHUR F. SCHAAP	CC 01476	02N 35E 28 1						13	658176	3804747						not measured	
199		CC 01476 EXPL	S02N 35E 28 3 3						13	657888	3803641	9/16/2004	9/23/2004			410	305	
200		CC 01476 S	S02N 35E 28 3 2						13	658088	3803841	2/4/2003	2/13/2003				260	
201	ARTHUR F SCHAAP	CC 01476 S2	02N 35E 28 3 4						13	658490	3803648						not measured	
202		CC 01477	02N 35E 27 4 3						13	660303	3803680						not measured	
203		CC 01477 EXPL	02N 35E 27 4 4						13	660906	3803686						not measured	
204		CC 01477 S	02N 35E 27 4						13	660605	3803982						not measured	
205	ART SCHAAP	CC 01901	S02N 34E 23 3 1						13	651401	3805755	10/28/2005	10/28/2005			360		
206	ARTHUR FRED SCHAAP	P 00752 A	02S 35E 21 4 3						13	659199	3776141						not measured	
207	ALVA C CARTER	P 00015	01S 35E 29 3 3						13	656659	3784405						not measured	
208		P 00015 EXPL.	S01S 35E 29 3						13	656961	3784507	2/7/2006	2/10/2006			135	102	
209		P 00015 POD2	01S 35E 29 3 3						13	656659	3784405						not measured	
210	ALVA C. CARTER	P 02087	01S 35E 3 2 3						13	660558	3791712						not measured	
211		P 02087 REPAR	01S 35E 3 2 3						13	660558	3791712						not measured	
212		P 02087 S	01S 35E 3 2 1						13	660551	3792115						not measured	
213		P 02087 S-2	01S 35E 3 2 3						13	660558	3791712						not measured	
214	ALVA C. CARTER	P 02110	01N 35E 34 4 3						13	660492	3792607						190	
215		P 02110 EXPL.	01N 35E 34 4						13	660794	3792709						175	
216		P 02110 REPAR	01N 35E 34 4 3						13	660492	3792607						not measured	
217		P 02110 S	01N 35E 34 4						13	660794	3792709						not measured	
218	STATE OF NEW MEXICO	CC 00156	02N 35E 16 2 3						13	658624	3807878						not measured	
219		CC 00156 S	02N 35E 16 2 3						13	658824	3807878						not measured	
220	STATE OF NEW MEXICO	CC 00578	01N 36E 16 1 1						13	667655	3798764						not measured	
221		CC 00578 S	01N 36E 16 3 1						13	667668	3797957						not measured	
222		CC 00578 S2	01N 36E 16 1						13	667963	3798462	5/14/1991				368	not measured	

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths	POD Number	STws	Ring	Secq	q	q	Zc	UT	Easting	Northing	Drilling Date	Date	Depth Well	Water Column	Water Column		
2	Owner																	
223	GEORGE VANDER DUSSEN	CC 00578 S3	01N 36E	16	3			13	667977	3797655			2/12/1995	387	295	not measured		
224	GEORGE VANDER DUSSEN	CC 00051 A	S04N 37E	32	1	1	4	13	675492	3822895				450		not measured		
225	GEORGE & PAULA VANDER DUSSEN	CC 01322	03N 37E	5	1	1	2	13	675519	3821464			1/1/1952	380		not measured		
226	GEORGE & PAULA VANDER DUSSEN	CC 01790	04N 36E	32	1	1	4	13	665803	3822741						not measured		
227	DOUGLAS D. AND DEBORAH S. IDSI	P 02409	01S 36E	1	3	1		13	672710	3791387						not measured		
228		P 02409 S	01S 36E	1	4	1		13	673514	3791402						not measured		
229		P 02409 S-2	01S 36E	1	3	1		13	672710	3791387						not measured		
230		P 02409 S-3	01S 36E	1	4	2		13	673915	3791409						not measured		
231		P 02409 S-4	01S 36E	2	2	3		13	671898	3791775						not measured		
232		P 02409 S-5	01S 36E	1	1	1		13	672697	3792191						not measured		
233		P 02409 S-6	01S 36E	2	2	2		13	672294	3792184						not measured		
234		P 02409 S7	01S 36E	1	2	2	2	13	674001	3792314						not measured		
235		P 02409 S8	01S 36E	1	2	1	1	13	673399	3792306						not measured		
236	DOUGLAS D. AND DEBORAH S. IDSI	P 02409 A	01S 36E	12	1	2		13	673125	3790590						not measured		
237		P 02409 A-S	01S 36E	12	2			13	673734	3790396						not measured		
238	DEBORAH IDISINGA	P 02409 S7	01S 36E	1	2	2	2	13	674001	3792314						not measured		
239		P 02409 S8	01S 36E	1	2	1	1	13	673399	3792306						not measured		
240	JAMES SR. IDISINGA	P 02433	01N 36E	19	4	4	1	13	665687	3795909						not measured		
241		P 02433 EXPL.	01N 36E	20	3	2	2	13	666686	3796325				320		not measured		
242		P 02433 S	01N 36E	20	3	2	3	13	666486	3796125						not measured		
243		P 02433 S-2	01N 36E	20	3			13	666392	3796017						not measured		
244		P 02433 S-3	01N 36E	20	3	2	2	13	666686	3796325				320		not measured		
245	JAMES SR. AND JOANN M. IDISINGA	P 02433 -A	01N 36E	20	4			13	667198	3796030				350		not measured		
246	JAMES SR. AND JOANN M. IDISINGA	P 02433 A EXPL.	01N 36E	20	4			13	667198	3796030						not measured		
247	JAMES, SR. AND JOANN IDISINGA	P 02772 B	01N 36E	30	1	2	4	13	665088	3795293						not measured		
248	JAMES, SR. AND JOANN IDISINGA	P 02772 B-S	01N 36E	30	2	4	1	13	665699	3795102						not measured		
249	JAMES, SR. AND JOANN IDISINGA	P 02772 B-S-2	01N 36E	30	2	4	1	13	665699	3795102						not measured		
250	DOUGLAS D IDISINGA	P 02902 AD	01S 37E	7	3	2	3	13	674643	3789678						not measured		
251	DOUGLAS D. AND DEBORAH S. IDSI	P 03123 B	01S 36E	3	2			13	670487	3791953						not measured		
252	DOUGLAS D. AND DEBORAH S. IDSI	P 03123 B EXPL.	01S 36E	3				13	670097	3791540				210		not measured		
253	DOUGLAS D. AND DEBORAH S. IDSI	P 03123 B-S	01S 36E	3	4			13	670502	3791148						not measured		
254	DOUGLAS D. AND DEBORAH S. IDSI	P 03123 B-S-2	01S 36E	3	2	4	3	13	670588	3791656						not measured		
255	DOUGLAS D. AND DEBORAH S. IDSI	P 03241 A	01S 37E	7	1	2	3	13	674630	3790483						not measured		
256	DOUGLAS D IDISINGA	P 03241 B	01S 37E	7	2	2	3	13	675430	3790496						not measured		
257	DEBBIE IDISINGA	P 04351	S01S 36E	11	2	1	1	13	671817	3790668		12/3/2004	12/3/2004	227	175	not measured		
258	RON S. AND JACQUE D. SCHAAP	CC 00182	04N 36E	18	3	1	1	13	663932	3826955				500		not measured		
259	RON S. AND JACQUE D. SCHAAP	CC 00182 S	04N 36E	18	3	1	1	13	663932	3826955						not measured		
260	RON S AND JACQUE SCHAAP	CC 00349	04N 35E	24	4	1	2	13	663354	3825325			3/11/1962	450		not measured		
261	RON S AND JACQUE SCHAAP	CC 00349 EXPLORE	04N 35E	24	2			13	663448	3825832		6/14/2000	6/15/2000	470	387	not measured		
262	RON S AND JACQUE SCHAAP	CC 00349 S	04N 35E	24	1	1	1	13	662332	3826122						not measured		
263	RON S AND JACQUE SCHAAP	CC 00349 S-2	04N 35E	24	1	1	3	13	662332	3825922						not measured		
264	RON S AND JACQUE SCHAAP	CC 00349 S-3	04N 35E	24	3	1	3	13	662347	3825114						not measured		
265	RON S AND JACQUE SCHAAP	CC 00349 S-4	04N 35E	24	4	2	3	13	663557	3825131						not measured		
266	RON S AND JACQUE SCHAAP	CC 00349 S-5	04N 35E	24	2	2	3	13	663543	3825940						not measured		

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths	POD Number	STWS	Rng	Seq	q	q	Zc	UT	Easting	Northing	Drilling Date	Date	Depth Well	Water	Column		
2	Owner	POD Number	STWS	Rng	Seq	q <td>q<td>Zc</td><td>UT</td><td>Easting</td><td>Northing</td><td>Drilling Date</td><td>Date</td><td>Depth Well</td><td>Water</td><td>Column</td></td>	q <td>Zc</td> <td>UT</td> <td>Easting</td> <td>Northing</td> <td>Drilling Date</td> <td>Date</td> <td>Depth Well</td> <td>Water</td> <td>Column</td>	Zc	UT	Easting	Northing	Drilling Date	Date	Depth Well	Water	Column		
267	RON S AND JACQUE SCHAAP	CC 00349 S2	04N 35E	24	1	1	1	13	662332	3826122						not measured		
268	RON S AND JACQUE SCHAAP	CC 00349 S3	04N 35E	24	1	1	3	13	662332	3825922						not measured		
269	RONALD SCHAAP	CC 00847	04N 35E	14	2	1	1	13	661498	3827728			12/31/1982	475		not measured		
270	RONALD SCHAAP	CC 00847 S	04N 35E	13	2	2	3	13	663514	3827559			12/31/1980	475		not measured		
271	RONALD SCHAAP	CC 00847 S2	04N 35E	12	4	4	1	13	663506	3828163			3/18/1988	481		not measured		
272	ROBERT VANDER DUSSEN	P 02339 POD3	01N 36E	24	1	2	3	13	672924	3797031						not measured		
273	ROBERT VANDER DUSSEN	P 02339 POD4	01N 36E	24	1	1	1	13	672521	3797225						not measured		
274	ROBERT VANDER DUSSEN	P 02339 POD9	01N 36E	24	1	1	1	13	672622	3797126						not measured		
275	ROBERT AND HEIDI VANDER DUSSEN	P 02410 -S	01N 36E	24	1	2	1	13	672924	3797231				388		not measured		
276	ROBERT AND HEIDI VANDER DUSSEN	P 02410 A	01N 36E	24	1	2	1	13	672924	3797231				400		not measured		
277	ROBERT AND HEIDI VANDER DUSSEN	P 04137	01N 36E	24	1	1	1	13	672521	3797225				400		not measured		
278	ANDLE VAN DER PLOEG	CC 00032	02N 36E	25	1	2	2	13	672987	3805297						not measured		
279	ANDLE VAN DER PLOEG	CC 00032 S-2	02N 36E	25	1	4	4	13	672994	3804693						not measured		
280	ANDLE VAN DER PLOEG	CC 00032 S-3	02N 36E	25	3			13	672706	3804180						not measured		
281	ANDLE VAN DER PLOEG	CC 00032 S-4	02N 36E	25	1	1	1	13	672383	3805289						not measured		
282	ANDLE VAN DER PLOEG	CC 00032 A	02N 36E	25	2			13	673500	3805003						not measured		
283	ANDLE VAN DER PLOEG	CC 00032 A-S	02N 36E	25	4	4	4	13	673817	3803902						not measured		
284	ANDLE VAN DER PLOEG	CC 00032 A-S-2	02N 36E	25	4	4	4	13	673817	3803902						not measured		
285	JIM WAGNER	P 00256	02S 35E	1	4	2	3	13	664372	3781491						not measured		
286	JIM WAGNER	P 00256 EXPL.	02S 35E	1	4			13	664275	3781384				145		not measured		
287	JIM WAGNER	P 00256 S	02S 35E	1	4	1	1	13	663967	3781686				168		not measured		
288	JIM WAGNER	P 00404 A	02S 36E	6	1	2	2	13	665327	3782509						not measured		
289	JIM WAGNER	P 00404 A-S	02S 36E	6	1	4	1	13	665134	3782106						not measured		
290	JIM WAGNER	P 00404 A A	S02S 36E	6	1	1	2	13	664963	3782503	7/15/2002	7/16/2002	171	115	56	not measured		
291	JIM WAGNER	P 00404 B	02S 36E	6	2	4	3	13	665938	3781921						not measured		
292	JIM WAGNER	P 00404 BS	02S 36E	6	2			13	665838	3782215						not measured		
293	JIM WAGNER	P 02315	02S 36E	7	4	1	2	13	665771	3780093						not measured		
294	JIM WAGNER	P 02315 S	02S 36E	7	1	4	4	13	665361	3780291						not measured		
295	JIM WAGNER	P 02315 A	02S 36E	6	3	4	1	13	665147	3781299						not measured		
296	JIM WAGNER	P 02315 A-S	02S 36E	7	1	2	3	13	665154	3780895				160		not measured		
297	JIM WAGNER	P 02315 A-S-2	02S 36E	7	1	2	2	13	665354	3780895						not measured		
298	JIM WAGNER	P 02315 A-S-3	02S 36E	6	3	1	3	13	664777	3781496						not measured		
299	JIM WAGNER	P 02315 B	02S 36E	7	2	1	2	13	665756	3780902						not measured		
300	JIM WAGNER	P 02315 BS	02S 36E	6	4	4	3	13	665951	3781113				160		not measured		
301	JIM WAGNER	P 02912 D	02S 36E	4	1	3	2	13	668144	3782150						not measured		
302	JIM WAGNER	P 02912 D EXPL.	02S 36E	4	1	1	4	13	668137	3782352				185		not measured		
303	JIM WAGNER	P 02912 D-S	02S 36E	4	1	4	2	13	668546	3782156						not measured		
304	JIM WAGNER	P 02912 D-S-2	02S 36E	4	1	3	2	13	668144	3782150						not measured		
305	ALBIN SMITH	CC 00812	03N 34E	36	1	3	3	13	652899	3812427						not measured		
306	ALBIN SMITH	CC 00812 S	03N 34E	36	1	4	3	13	653304	3812432						not measured		
307	ALBIN SMITH	CC 00812 S2	03N 34E	36	1	1	1	13	652892	3813032						not measured		
308	ALBIN SMITH	CC 00812 S3	02N 34E	1	1	2	2	13	653525	3811422						not measured		
309	ALBIN SMITH	CC 00812 S4	03N 34E	36	3	1	4	13	653107	3812022						not measured		
310	ALBIN SMITH	CC 00812 S5	03N 34E	36	4	1	1	13	653715	3812231						not measured		

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths	POD Number	STWS	Ring	Sec	q	q	Zc	UT	Easting	Northing	Drilling Date	Date	Depth Well	Water Column	Water Column		
2	Owner																	
311	ALBIN SMITH	CC 00812 S6	02N 34E	1	1	3	2	13	653126	3811017								not measured
312	ALBIN AND SANDI SMITH	CC 01194	01N 34E	1	4	1	4	13	654100	3800762	3/3/1999	3/3/1999	270	212			not measured	
313	SOUTHERN DRAW DAIRY, A NM GENE	CC 00072	04N 36E	19	1	1	1	13	663946	3826146							not measured	
314	SOUTHERN DRAW DAIRY, A NM GENE	CC 00072 S	04N 36E	19	2	1	1	13	664739	3826161							not measured	
315	SOUTHERN DRAW DAIRY, A NM GENE	CC 00072 S3	04N 36E	19	4	1	3	13	664754	3825152	10/2/2006	10/4/2006	532	438			not measured	
316	SOUTHERN DRAW DAIRY, A NM GENE	CC 00072 S4	04N 36E	19	3			13	664270	3825035							not measured	
317	SOUTHERN DRAW DAIRY, A NM GENE	CC 00072 B	04N 36E	19	1	1	1	13	663946	3826146	3/23/1998	3/25/1998	510	400			not measured	
318	SOUTHERN DRAW DAIRY, A NM GENE	CC 00072 BS	04N 36E	19	1			13	664256	3825843							not measured	
319	HERITAGE DAIRY A NM GENERAL PA	CC 00298	01N 36E	8	2	4	1	13	667232	3799965							not measured	
320	HERITAGE DAIRY A NM GENERAL PA	CC 00298 POD5	01N 36E	8	2	3	3	13	666830	3799758							not measured	
321	HERITAGE DAIRY A NM GENERAL PA	CC 00298 S	01N 36E	8	1	3	4	13	666225	3799744							not measured	
322	HERITAGE DAIRY A NM GENERAL PA	CC 00298 S2	01N 36E	8	2			13	667132	3800060							not measured	
323	HERITAGE DAIRY A NM GENERAL PA	CC 00298 S3	01N 36E	8	1	1		13	666120	3800248							not measured	
324	HERITAGE DAIRY, A NM GENERAL P	CC 00351	01N 36E	1	2	1	2	13	673446	3802078	1/28/2003	1/29/2003	375	300			not measured	
325	HERITAGE DAIRY, A NM GENERAL P	CC 00351 EXPL	01N 36E	1	2			13	673555	3801773							not measured	
326	HERITAGE DAIRY, A NM GENERAL P	CC 00628	01N 36E	12	4	1	1	13	673286	3799656							not measured	
327	HERITAGE DAIRY, A NM GENERAL P	CC 00628 S	01N 36E	12	2	3	4	13	673480	3799859							not measured	
328	HERITAGE DAIRY, A NM GENERAL P	CC 00628	01N 36E	12	4	1	1	13	673286	3799656							not measured	
329	HERITAGE DAIRY, A NM GENERAL P	CC 00628 AS	01N 36E	12	4	3	4	13	673492	3799053							not measured	
330	HERITAGE DAIRY A NM GENERAL PA	CC 00642	01N 37E	8	4	2	3	13	676909	3799508							not measured	
331	HERITAGE DAIRY A NM GENERAL PA	CC 00642 EXPLORE	01N 37E	8	4			13	676815	3799402							not measured	
332	HERITAGE DAIRY A NM GENERAL PA	CC 00642 S	01N 37E	8	4	3	3	13	676513	3799180	11/12/2000	11/13/2000	370	299			not measured	
333	HERITAGE DAIRY A NM GENERAL PA	CC 00643	01N 37E	18	2	2	3	13	675312	3799860							not measured	
334	HERITAGE DAIRY A NM GENERAL PA	CC 00643 EXPLORE	01N 37E	18	2			13	675218	3799574							not measured	
335	HERITAGE DAIRY A NM GENERAL PA	CC 00643 S	01N 37E	18	2	2	2	13	675512	3799880	11/15/2000	11/16/2000	377	298			not measured	
336	HERITAGE DAIRY, A NM GENERAL P	CC 00645	01N 36E	12	1	4	3	13	672877	3799852							not measured	
337	HERITAGE DAIRY, A NM GENERAL P	CC 00645 S	01N 36E	12	1	1	4	13	672668	3800250							not measured	
338	HERITAGE DAIRY, A NM GENERAL P	CC 00645 S2	01N 36E	12	1	3		13	672576	3799947							not measured	
339	HERITAGE DAIRY A NM GENERAL PA	CC 00646	01N 36E	17	2	1	1	13	666850	3798750							not measured	
340	HERITAGE DAIRY A NM GENERAL PA	CC 00646 POD3	01N 36E	17	2	4	4	13	667459	3798154							not measured	
341	HERITAGE DAIRY A NM GENERAL PA	CC 00646 S	01N 36E	17	2	2	3	13	667252	3798557							not measured	
342	HERITAGE DAIRY, A NM GENERAL P	CC 01441	01N 36E	1	4	3	3	13	673267	3800665							not measured	
343	HERITAGE DAIRY, A NM GENERAL P	CC 01441 S	01N 36E	1	4	4	3	13	673670	3800671							not measured	
344	HERITAGE DAIRY A NM GENERAL PA	CC 01486	01N 36E	12	3	1	3	13	672481	3799443							not measured	
345	HERITAGE DAIRY A NM GENERAL PA	CC 01486 S	01N 36E	12	3	2	3	13	672883	3799449							not measured	
346	HERITAGE DAIRY A NM GENERAL PA	CC 01486 S2	01N 36E	12	3	1	2	13	672681	3799643							not measured	
347	BONESTROO & SONS DAIRY & A NM	P 01541	01S 35E	6	1			13	655268	3791736							not measured	
348	BONESTROO & SONS DAIRY & A NM	P 01541 EXPL.	01S 35E	6				13	655689	3791333							not measured	
349	BONESTROO & SONS DAIRY & A NM	P 01541 S	01S 35E	6	2			13	656027	3791746							not measured	
350	BONESTROO & SONS DAIRY & A NM	P 01541 S 2	01S 35E	6	2			13	656027	3791746							not measured	
351	BONESTROO & SONS DAIRY A NM GE	P 02101 A	01S 35E	4	4	1	3	13	658954	3791088							not measured	
352	BONESTROO AND SONS DAIRY A NM	P 02113	01N 35E	32	4	1	3	13	657259	3792763							not measured	
353	BONESTROO AND SONS DAIRY A NM	P 02113 S	01N 35E	32	3	2	1	13	656856	3792957							not measured	
354	BONESTROO AND SONS DAIRY A NM	P 02114	01N 35E	32	2	2	3	13	657647	3793575							not measured	

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water	Column Lengths												Drilling Date		Depth Well	Depth Water	Water Column
2	Owner	POD Number	STWS	Rng	Seq	q	q	Zc	UT	Eastng	Northng	Date						
355	BONESTROO AND SONS DAIRY A NM	P 02114 S	01N	35E	32	2	1	1	13	657244	3793769							not measured
356	BONESTROO AND SONS DAIRY A NM	P 02150	01N	35E	32	1	4	1	13	656849	3793360							not measured
357	BONESTROO AND SONS DAIRY A NM	P 02150 S	01N	35E	32	1	4		13	656950	3793261							not measured
358	BONESTROO AND SONS DAIRY A NM	P 02150 S 2	01N	35E	32	1	1		13	656540	3793658							not measured
359	BONESTROO AND SONS DAIRY A NM	P 02647	01S	34E	2	2	2	3	13	652939	3791810							not measured
360	GREENFIELD PARK DAIRY A NM GEN	P 02713 -A	S01S	36E	5	4	1	4	13	667167	3791206							not measured
361	GREENFIELD PARK DAIRY A NM GEN	P 02713 -A-B-S	S01S	36E	5	4	4	1	13	667377	3791009					206		not measured
362	GREENFIELD PARK DAIRY A NM GEN	P 02713 -A-S	01S	36E	5	3			13	666470	3791094							not measured
363	GREENFIELD PARK DAIRY A NM GEN	P 02713 -A-S-2	01S	36E	5	2			13	667263	3791910							not measured
364	GREENFIELD PARK DAIRY A NM GEN	P 02713 ABPOD26	01S	36E	4	3	3	4	13	667980	3790814							not measured
365	NADINE WILHITE AS TRUSTEE OF N	CC 00161	01N	36E	2	4	3	3	13	671654	3800641							not measured
366	NADINE WILHITE AS TRUSTEE OF N	CC 00161 EXPL	01N	36E	2	4			13	671956	3800943					430		not measured
367	NADINE WILHITE AS TRUSTEE OF N	CC 00161 S	01N	36E	2	4	3	3	13	671654	3800641					430		not measured
368	CHRIS VISSER	P 00193	01S	33E	17	1	1	1	13	637207	3788472							not measured
369	CHRIS VISSER	P 00193 S	01S	33E	17	1	3	1	13	637212	3788066							not measured
370	CHRIS VISSER	P 00193 S-2	01S	33E	18	2	2	1	13	636800	3788465							not measured
371	CHRIS VISSER	P 00193 S-3	01S	33E	17	2	2	1	13	638430	3788495							not measured
372	Parkland Dairy, Alice Visser	P-1538	01S	33E	8				#	NE	638207	3790114						not measured
373	Parkland Dairy, Alice Visser	P-1538-S	01S	33E	8				#	NE	638210	3789707						not measured
374	Parkland Dairy, Alice Visser	P-1538-S-2	01S	33E	8				#	NW	638414	3790121						not measured
375	Parkland Dairy, Alice Visser	P-1538-S-3	01S	33E	8				#	NE	638617	3789715						not measured
376	Tony Teune	P-2340-A	01N	36E	27				#	NW	669733	3795166						not measured
377	Tony Teune	P-2340-A-S	01N	36E	27				#	NW	669324	3795563						not measured
378	James Idsinga Sr. & Sons Dairy	P-2392 POD2	01N	36E	34				#	SW	650815	3792263						not measured
379	James Idsinga Sr. & Sons Dairy	P-2392 POD3	01N	36E	34				#	SW	669371	3792544						not measured
380	James Idsinga Sr. & Sons Dairy	P-2772-BA	01N	36E	30				#	SE	665088	3795293						not measured
381	James Idsinga Sr. & Sons Dairy	P-2772-BAS	01N	36E	30				#	SW	664888	3795293						not measured
382	Tony Teune	P-2772-E-S-3	01N	36E	29				#	SE	666718	3794109						not measured
383	Tony Teune	P-2897	01N	36E	28				3	SW	668031	3794431						not measured
384	Green Field Park Dairy, John Heavyside	P-3038	01N	37E	32				#	SW	676194	3793861						not measured
385	Green Field Park Dairy, John Heavyside	P-3038-S	01N	37E	31				#	NE	675195	3793636						not measured
386	Green Field Park Dairy, John Heavyside	P-3038-S-2	01N	37E	31				#	SE	674799	3793026						not measured
387	Green Field Park Dairy, John Heavyside	P-3038-S-3	01N	37E	31				#	NE	674700	3793127						not measured
388	Green Field Park Dairy, John Heavyside	P-3038-S-4	01N	37E	31				#	NE	675610	3792838						not measured
389	Green Field Park Dairy, John Heavyside	P-3038-S-5	01N	37E	31				#	SE	674398	3793018						not measured
390	Green Field Park Dairy, John Heavyside	P-3038-S-6	01N	37E	32				#	NW	675792	3794054						not measured
391	Green Field Park Dairy, John Heavyside	P-3038-S-7	01N	37E	32				#	SE	676012	3792645						not measured
392	Green Field Park Dairy, John Heavyside	P-3038-S-8	01N	37E	32				#	SW	676194	3793861						not measured
393	Green Field Park Dairy, John Heavyside	P-3038-S-9	01N	37E	31				#	NE	674398	3793218						not measured

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths	POD Number	STWS	Rng	Secq	q	q	Zc	UT	Easting	Northing	Drilling Date	Date	Depth Well	Water	Water Column		
2	Owner																	
394	Green Field Park Dairy, John Heavyside	P-3038-S-10	01N	37E	32			#	NW	675805	3793248							not measured
395	James Idsinga Sr. & Sons Dairy	P-3159	01N	36E	34			#	NE	669571	3792744							not measured
396	Green Field Park Dairy, John Heavyside	P-3241	01S	37E	6			#	NW	674318	3791382							not measured
397	Green Field Park Dairy, John Heavyside	P-3241-S	01S	37E	6			LO		674928	3791583							not measured
398	James Idsinga Sr. & Sons Dairy	P-3887	01S	34E	28			#	NE	648793	3784633							not measured
399	Tony Teune	P-3891	01S	33E	7			#	NW	635622	3789259							not measured
400	Randy Knudson	P-3968	01S	35E	31			#	SW	655096	3783372							not measured
401	Bonestroo Dairies, Gary Bonestroo	P-4009	01S	35E	6			#	NE	655531	3791236							not measured
402	Crosswinds Dairy Doug Insinga Jr.	P-622	01S	34E	29			#	NW	647771	3785428							not measured
403	Crosswinds Dairy Doug Insinga Jr.	P-622-S	01S	34E	29			#	W1	648177	3785436							not measured
404	Crosswinds Dairy Doug Insinga Jr.	P-622-S-2	01S	34E	29			#	SW	647771	3785228							not measured
405	Crosswinds Dairy Doug Insinga Jr.	P-622-S-3	01S	34E	29			#	N1	648377	3785436							not measured
406	Crosswinds Dairy Doug Insinga Jr.	P-622-S-4	01S	34E	29			#	NE	647976	3785022							not measured
407	Crosswinds Dairy Doug Insinga Jr.	P-622-S-5	01S	34E	29			#	SE	648377	3785236							not measured
408	Tony Teune	P-692	01S	33E	7			#	NW	636388	3788864							not measured
409	Tony Teune	P-692-S	01S	33E	7			#	SW	636384	3789071							not measured
410	Tony Teune	P-692-S-2	01S	33E	7			#	NW	636791	3789278							not measured
411	Tony Teune	P-692-A	01S	33E	7			#	SW	636489	3788765							not measured
412	Tony Teune	P-692-A-S	01S	33E	7			#	SW	636489	3788765							not measured
413	Tony Teune	P-692-A-S-2	01S	33E	7			#	W1	636388	3788664							not measured
414	Tony Teune	P-692-A-S-3	01S	33E	7			#	W1	636388	3788664							not measured
415	Tony Teune	P-692-A-S-4	01S	33E	7			#	W1	636388	3788664							not measured
416	Tony Teune	P-940	01S	33E	7			#	SW	635627	3788652							not measured
417	Tony Teune	P-940-S	01S	33E	7			#	NE	635627	3788652							not measured
418	Tony Teune	P-940-S-2	01S	33E	7			#	NW	635622	3789259							not measured
419	Tony Teune	P-940-S-3	01S	33E	7			#	NW	635622	3789259							not measured
420	J. Albin Smith	CC-1105-A	01N	34E	1			#	NE	654088	3801767							not measured
421	Roberts - Schaap	CC-1955-POD3	02N	36E	27			#	NE	669758	3805240			CC-1955-POD3				not measured
422	Roberts - Schaap	CC-1955-POD4	02N	36E	27			#	SE	670572	3804651			CC-1955-POD4				not measured
423	Alva Carter Sr	P-2983	1S	34E	25	2	2	3	N/NA	NA								not measured
424	Alva Carter Sr	P-1381	01S	36E	31			#		664858	3782807							not measured
425	Alva Carter Sr	P-1381 EXPL	01S	36E	31			#		664738	3783711							not measured
426	Alva Carter Sr	P-1381 S	01S	36E	31			#		664728	3783913							not measured
427	Alva Carter Sr	P-1381 S-2	01S	36E	31			#		664757	3782706							not measured
428	Alva Carter Sr	P-1381 S-3	01S	36E	31			#		664757	3783108							not measured
429	Alva Carter Sr	P-1381 S-4	01S	36E	31			#		664757	3782906							not measured

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water Column Lengths	POD Number	STws	Rng	Sec	q	q	Zd	UT	East	ing	North	ing	Date	Date	Depth	Water	Water
2	Owner																	
430	Tony Teune	P-3416	02S	37E	10	1	2	N/NA	NA			NA						not measured
431	Andle van der Ploeg	CC-502	02N	37E	30			#		673998		3805116						not measured
432	Andle van der Ploeg	CC-502 POD7	02N	37E	30			#		674949		3805333						not measured
433	Andle van der Ploeg	CC-502 S	02N	37E	30			#		674399		3805324						not measured
434	Andle van der Ploeg	CC-502 S2	02N	37E	30			#		674013		3804512						not measured
435	Andle van der Ploeg	CC-502 S3	02N	37E	30			#		674622		3803918						not measured
436	Andle van der Ploeg	CC-502 S4	02N	37E	30			#		674599		3805324						not measured
437	Andle van der Ploeg	CC-502 S5	02N	37E	30			#		675024		3803926						not measured
438	Andle van der Ploeg	CC-32 A-A	02N	36E	25			2		673500		3805003						not measured
439	Andle van der Ploeg	CC-32 A-A-S	02N	36E	25			2		673500		3805003						not measured
440	Andle van der Ploeg	CC-32 POD3	02N	36E	25			#		673794		3805313						not measured
441	Alice Visser	P-992	NA	NA	NA			N/NA	NA			NA						not measured
442	Alice Visser	P-764	01N	32E	31					626542		3792671						not measured
443	Alice Visser	P-764 S	01N	32E	31					626735		3793276						not measured
444	Alice Visser	P-764 S2	01N	32E	31					626844		3792973						not measured
445	J. Albin Smith	CC-1105	01N	34E	2			#		652477		3801740						not measured
446	J. Albin Smith	CC-1105 EXPL1	01N	34E	1			#		653485		3801760						not measured
447	J. Albin Smith	CC-1105 EXPL2	01N	34E	1			3		653403		3800649						not measured
448	J. Albin Smith	CC-1105 S	01N	34E	2			#		652880		3801747						not measured
449	J. Albin Smith	CC-1105 S2	01N	34E	1			#		653095		3800949						not measured
450	J. Albin Smith	CC-1105 S3	01N	34E	2			#		652483		3801338						not measured
451	J. Albin Smith	CC-568	01N	34E	1			#		654106		3800560						not measured
452	J. Albin Smith	CC-568-A	01N	34E	1			#		654106		3800560						not measured
453	J. Albin Smith	CC-568-AS2	01N	34E	1			#		654106		3800560						not measured
454	Eddie Schaap	CC-462 POD1	04N	36E	15			#		668861		2826540	CC-462-A					not measured
455	Eddie Schaap	CC-462 POD4	04N	36E	15			#		668752		3827043						not measured
456	Eddie Schaap	CC-462 POD7	04N	36E	22			#		669170		3826241						not measured
457	Eddie Schaap	CC-462 POD8	04N	36E	22			#		668869		3826135						not measured
458	Eddie Schaap	CC-462 POD9	04N	36E	15			#		669007		3827148						not measured
459	Eddie Schaap	CC-422	04N	36E	20			#		666364		3825382						not measured
460	Eddie Schaap	CC-422 S	04N	36E	20			#		666372		3824977						not measured
461	Eddie Schaap	CC-196	05N	37E	31			#		677315		3832290						not measured
462	Eddie Schaap	CC-196 S	05N	37E	31			#		676712		3832281						not measured
463	Eddie Schaap	CC-354	04N	37E	29			#		675268		3824702						not measured
464	Eddie Schaap	CC-354 S	04N	37E	29			#		675468		3824702						not measured
465	Eddie Schaap	CC-462	04N	36E	15			#		668736		3827852						not measured
466	Eddie Schaap	CC-462	04N	36E	15			#		669564		3826452						not measured

	D		E		F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U				
1	Table 6 Other Protestants' Wells and Water Column Lengths															Drilling		R		S		T		U
2	Owner	POD Number	STws	Rng	Secq	q	q	Zc	UT	Easting	Northng	Date	Date	Depth	Well	Water	Depth	Water	Column					
467	Eddie Schaap	CC-462	04N	36E	22			#		668784	3825425									not measured				
468	Eddie Schaap	CC-462	04N	36E	22			#		669386	3825232									not measured				
469	Art Schaap	CC-322	02N	35E	30			NA		655365	3804292									not measured				
470	Eric Daale	CC-10 POD4	01N	37E	17			2		676828	3798597									not measured				
471	Eric Daale	CC-10 S	01N	37E	17			#		676538	3797490									not measured				
472	Eric Daale	CC-10 S2	01N	37E	17			#		677134	3798098									not measured				
473	Robert Vander Dussen	P-2406	NA	NA	NA			N/cor	NA	NA										not measured				
474	Robert Vander Dussen	P-3129	NA	NA	NA			N/cor	NA	NA										not measured				
475	Robert Vander Dussen	P-2410-A	01N	36E	24			#		672924	3797231									not measured				
476	John Heavyside	P-2713 A	01S	36E	5			#		666161	3791195									not measured				
477	John Heavyside	P-2713 A EXPL	01S	36E	5			#		666974	3790803									not measured				
478	John Heavyside	P-2713 AS	01S	36E	5			3		666470	3791094									not measured				
479	John Heavyside	P-2713 AS2	01S	36E	5			2		667263	3791910									not measured				
480	John Heavyside	P-2713 A	01S	36E	5			#		667167	3791206	P-2713-A-B								not measured				
481	John Heavyside	P-2713 A-B-S	01S	36E	5			#		667377	3791009									not measured				
482	John Heavyside	P-2713 A-S	01S	36E	5			3		666470	3791094									not measured				
483	John Heavyside	P-2713 A-S-2	01S	36E	5			2		667263	3791910									not measured				
484	John Heavyside	P-2713 ABPOD26	01S	36E	5			#		667980	3790814									not measured				
485	Steve Hanson	CC-366 A	NA	NA	NA			N/NA	NA	NA										not measured				
486	Ron Schaap	CC-361	02N	36E	23			#		671343	3806883									not measured				
487	Ron Schaap	CC-361-S	02N	36E	23			#		671158	3805876									not measured				
488	Ron Schaap	CC-361-S2	02N	36E	23			#		670739	3806877									not measured				
489	Ron Schaap	CC-361-S3	02N	36E	23			#		670754	3805870									not measured				
490	Ron Schaap	CC-361-S4	02N	36E	23			#		671158	3805876									not measured				
491	Ron Schaap	CC-347	04N	35E	23			#		661325	3825296									not measured				
492	Ron Schaap	CC-347	04N	35E	23			#		661139	3825296									not measured				
493	Ron Schaap	CC-347	04N	35E	23			#		661734	3825506									not measured				
494	Gary Bonestroo	P-4358	01N	35E	NA	3	3	N/NA	NA	NA										not measured				
495	Jim Wagner	P-284	02S	36E	29			#		667247	3776085									not measured				
496	Jim Wagner	P-284-A	02S	36E	5			3		666656	3781422									not measured				
497	Jim Wagner	P-284-S	02S	36E	29			#		667454	3775683									not measured				
498	Jim Wagner	P-284-A	02S	36E	29			#		667247	3776085									not measured				
499	Jim Wagner	P-284-A	02S	36E	29			#		667247	3776085									not measured				
500	George Vander Dussen	CC-222	04N	37E	19			#		673603	3826277									not measured				
501	George Vander Dussen	CC-222	04N	37E	19			#		674440	3826293									not measured				
502	George Vander Dussen	CC-222	04N	37E	19			#		674949	3825800									not measured				
503	George Vander Dussen	CC-222	04N	37E	19			#		673803	3826277									not measured				

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table 6 Other Protestants' Wells and Water	Column Lengths												Drilling		Depth	Water	
2	Owner	POD Number	STws	Rng	Sec	q	q			Zc	UT	East	North	Date	Date	Well	Water	Column
504	George Vander Dussen	CC-626	04N	37E	32					#		676098	3823110					not measured
505	George Vander Dussen	CC-51	04N	37E	32					#		676111	3822305					not measured
506	George Vander Dussen	CC-51 S	04N	37E	32					#		675292	3823095					not measured
507	George Vander Dussen	CC-51 S2	04N	37E	32					#		675305	3822290					not measured
508	George Vander Dussen	CC-51 S3	04N	37E	32					#		676111	3822105					not measured
509	James Idsinga Sr & Son	CC-1013	03N	37E	9					#		678381	3818896					not measured
510	James Idsinga Sr & Son	P-2998	01N	36E	29					#		667109	3795122					not measured
511	James Idsinga Sr & Son	P-2998 S	01N	36E	29					#		666902	3795325					not measured
512	James Idsinga Sr & Son	P-2998 S2	01N	36E	29					#		667505	3795531					not measured
513	4-Way Dairy	P-2713 C	01S	36E	7					#		664815	3790156					not measured
514	4-Way Dairy	P-2713 D Comb	01S	36E	7					#		665576	3790170					not measured
515	State of NM Public Lands	CC-1982 POD1	06N	36E	36					#		675938	3841916					not measured
516	State of NM Public Lands	CC-1982 POD2	06N	36E	35					#		674125	3841886					not measured
517	State of NM Public Lands	CC-1982 POD3	06N	36E	35					#		674728	3841894					not measured
518	State of NM Public Lands	CC-1982 POD4	06N	36E	36					#		675738	3841916					not measured
519	State of NM Public Lands	CC-1982 POD5	06N	36E	35					#		674331	3841484					not measured
520	State of NM Public Lands	CC-1982 POD6	06N	36E	36					#		675335	3841909					not measured
521	State of NM Public Lands	CC-1983 POD1	06N	36E	35					#		674740	3841090					not measured
522	State of NM Public Lands	CC-154	02N	34E	36					#		654464	3803381					not measured
523	State of NM Public Lands	CC-154 S	02N	34E	36					#		654464	3803181					not measured
524	State of NM Public Lands	CC-154 S-2	02N	34E	36					#		653672	3802565					not measured
525	State of NM Public Lands	CC-154 S-3	02N	34E	36					#		654471	3802779					not measured
526	State of NM Public Lands	CC-154 S-4	02N	34E	36					#		654264	3803381					not measured
527	Cooper Legacy Dairy	P-3341-A	01N	36E	23					#		671310	3797005					not measured
528	Cooper Legacy Dairy	P-3341-A-S	01N	36E	23					#		671113	3796796					not measured

Table 7 Water Level Trends and Water Column Lengths for GWSI Wells

(Water Level Data from the USGS GWSI data base and OSE records for a 2 mile radius in the vicinity of the specified well and model node)												
Figure Number	USGS well ID	Owner	PLSS-Township Range Section	Date	Water Level Below Ground Surface (feet)	Date	Water Level Below Ground Surface (feet)	Change in Water Level (ft/yr)	Nearby NM American Water Well	Nearby CPGWF Model Row	Nearby CPGWF Model Column	Last measured water column - green for 2009
15	341117103092801	COLDWATER CATTLE CO.	01S.36E.27.31144A	1/12/1977	68.73	3/2/2009	114.73	1.43	P 2938-S	50	35	58
16	341158103054801	COLDWATER CATTLE CO	01S.37E.19.431144	1/17/1967	37.18	3/2/2009	91.90	1.30	P 2851-X	49	38	NA
16	341200103040301	BIVINS, JULIAN	01S.37E.21.33222	1/12/1977	46.73	1/30/1997	71.96	1.26	P 2851-X	49	38	109
16	341241103073001	REID, ALLEN	01N.36E.23.222224	1/27/1972	151.7	2/14/1997	254.71	4.11	P 2851-X	49	38	88
16	341256103054001	COLDWATER CATTLE CO	01S.37E.18.41440	1/19/1967	54.74	2/11/1997	95.88	1.37	P 2851-X	49	38	69
17	341446103094701	BIVINS, JULIAN	01S.36E.04.441444	1/6/1975	59.53	3/3/2009	177.15	3.44	P 2939	45	33	35
17	341642103112401	RUSHING, MRS. E.V.	01N.36E.29.31423	1/9/1980	126.98	3/4/2009	241.50	3.93	P 2939	45	33	16
17	341016103084801	DAUGHERTY, FRED	01N.36E.34.332222	1/13/1977	96.78	2/20/1997	168.96	3.59	P 2939	45	33	81
17	341203103102201	MC LAIN, R.M. & K.J.	01N.36E.21.314444	1/28/1972	132.88	2/5/1997	235.19	4.09	P 2939	45	33	95
17	341447103115201	COLDWATER CATTLE CO	01S.36E.06.42341	1/27/1967	47.14	3/6/2002	151.04	2.96	P 2939	45	33	NA
17	341626103125201		01N.35E.25.444	1/11/1986	130.9	1/10/1996	167.5	3.66	P 2939	45	33	NA
18	341140103053701	KYLE, DAVID C.	01N.37E.30.214444	1/6/1975	125.86	3/3/2009	249.48	3.62	P 2242	37	43	36
18	341232103051901	GREGORY	01N.37E.20.131133	1/6/1975	147.48	1/6/1998	248.04	4.37	P 2242	37	43	87
18	341626103045001	HAGLER	01N.37E.29.433333	1/9/1979	129.47	1/9/1997	204.57	4.17	P 2242	37	43	75
19	341808103082901		01N.36E.14.31334	1/27/1972	159.87	3/4/2009	329.9	4.58	CC 516	41	35	51
19	341954103080901		01N.36E.02.34343	3/17/1982	234.86	3/4/2009	354.51	4.43	CC 516	41	35	25
19	341846103104001		01N.36E.16.11111	2/23/1954	156.56	1/12/1988	233.85	2.28	CC 516	41	35	35
19	341917103110501		01N.36E.08.41331	3/17/1982	236.9	2/20/1997	302.18	4.37	CC 516	41	35	107
20	342358103093601		02N.36E.15.11111	1/4/1974	266.89	3/14/2008	303.46	1.07	CC 1660	35	34	67
20	342305103111501		02N.36E.20.23131	1/9/1979	253.52	1/21/1997	265.33	0.65	CC 1660	35	34	71
21	342308103133301		02N.35E.24.12111	2/10/1954	239.05	3/6/2009	299.1	1.09	CC 528	34	32	NA

Appendix A

NMAW Wells under This Application

1. 1. 1.

2. 2. 2.

3. 3. 3.

4. 4. 4.

5. 5. 5.

6. 6. 6.

Attachment A - Groundwater Rights and Wells

SEO File Number	Rights AF/year	Note	Township	Range	Section	Quarter 160	Quarter 40	Quarter 10	Pump Capacity	NMAW Well No.	Possible Increase in Pumping
CC-239	206.40	1	1N	37E	17	NW	NW	SW	308	67	**
CC-239-S		1	1N	37E	17	NW			355	68	**
CC-242	206.40		1N	37E	18	SW			203	64	**
CC-243	206.40		1N	37E	18	SE			160	65	**
CC-294	206.40		1N	36E	10	SW	NW	SW	99	55	
CC-295	412.80	2	1N	36E	14	NW	NW	SE	129	60	**
CC-295-S		2	1N	36E	14	SW	NE	SW	125	61	**
CC-296	398.61	13	1N	36E	14	NE	NW	NE	158	58	
CC-296-S2		13	1N	36E	14	SE	SW	SE		62	
CC-296-A	14.19		1N	36E	14	NE	SW	SW		97	**
CC-514	1,935.61		1N	35E	12	NW	SE		79	38	
CC-515	1,613.01		1N	35E	12	NW	NE	NE	75	37	
CC-516	2,874.38	3	1N	36E	15	NW	NW		73	45	
CC-516-S		3	1N	36E	15	NE	SW		230	49	
CC-516-S-2		3	1N	36E	15	SE	NW		222	50	
CC-517	1,209.76		1N	36E	16	NE	SW		80	44	
CC-518	1,613.01		1N	36E	16	NE	SE		80	46	
CC-519	1,209.76		1N	36E	16	SE	NE		110	43	
CC-520	967.80		1N	36E	17	NW	NW	NW	62	35A	
CC-521	1,935.61		1N	36E	17	NW	SW	SW	58	36	
CC-522	1,613.01		1N	36E	18	NE	NW	NE	68	39	
CC-523	1,613.01		1N	36E	18	NE	SE	SW	90	42	
CC-524	1,613.01		1N	36E	18	SE	SW	SW	55	41	
CC-525	1,613.01		1N	36E	18	SE	SE	SE	55	40	
CC-526	645.20		2N	35E	1	SE	SE	SE	100	15	
CC-527	435.51		2N	35E	11	SW	NW	NW	120	21	
CC-528	225.82		2N	35E	12	NE	SE	SW	170	19	**
CC-529	806.50		2N	35E	12	SW	SW	NW	420	17	
CC-530	645.20		2N	35E	13	SW	SW	SW	55	29	
CC-531	443.58		2N	35E	25	SW	NW	NW	115	25	
CC-534		6	2N	35E	26	SE	NE		100	33	**
CC-535	161.30		2N	35E	26	SE	NW	NE	100	28	**
CC-536	403.25		2N	36E	7	NW	NE	NW	290	9	**
CC-537	645.20		2N	36E	7	NW	NE	NE	190	10	
CC-538	483.90		2N	36E	7	NW	NE	NE	195	18	
CC-539	241.95		2N	36E	7	NW	NE	SW	84	8	
CC-540	645.20		2N	36E	7	NW	SW	NW	105	11	
CC-541	1,290.41		2N	36E	7	SW	NE	NE	202	4	
CC-542	806.50		2N	36E	8	SE	NW	NW	153	16	
CC-543	871.02		2N	36E	8	SE	NE	NE	300	22	
CC-544	806.50		2N	36E	9	NW	SE	SE	155	30	
CC-545	806.50		2N	36E	16	SW	NW	SW	325	14	
CC-546	725.85		2N	36E	18	SW	NE	SW	210	32	
CC-547	854.89		2N	36E	16	SW	SW	SW	480	23	
CC-548	645.20		2N	36E	16	SW	SE	SE	120	31	
CC-549		6	2N	36E	17	NW	NE	SE	410	13	**
CC-550	645.20		2N	36E	18	NE	SW	SE	0	2	
CC-551		3	1N	36E	15	SW	SW	NE	204	48	

Attachment A - Groundwater Rights and Wells

SEO File Number	Rights AF/year	Note	Township	Range	Section	Quarter 160	Quarter 40	Quarter 10	Pump Capacity	NMAW Well No.	Possible Increase in Pumping
CC-552	241.95		2N	36E	18	NE	SE	SW	0	5	
CC-553		14	2N	36E	19	NE	NW	NE		20	**
CC-659	206.40		1N	36E	13	NE	NE	NW	135	63	**
CC-1028		3	1N	36E	15	NW	NW		198	47	
CC-1063	410.22	4	1N	36E	3	SE	NE		128	51	**
CC-1063-S		4	1N	36E	3	SW	NE		116	52	**
CC-1270	369.20		1N	36E	9	SW			122	54	
CC-1279	165.12		1N	37E	7	SW	NW	NW	366	66	**
CC-1279-S			1N	37E	7	SW	SE	SE	372	69	**
CC-1280	165.25		1N	36E	11	SW			271	57	**
CC-1281	206.40		1N	36E	10	SE	SE	SW	55	56	
CC-1660	376.83	5	2N	36E	15	NW	NW	NW	380	102	**
CC-1660-S		5	2N	36E	10	NW	NW	SW	60	101	**
CC-1660-S2		5	2N	36E	10	SW	NE	SW	335	100	**
P-2851	4,000.00	7	1S	37E	17	SW	NE	NE		113	
P-2851-X		7	1S	37E	18	SW	NE	NE		114	
P-2851-X-2		7	1S	37E	19	NE	SW	SW		103	
P-2851-X-3		7	1S	37E	20	NE	SW	SW		104	
P-2853	3,000.00	8	1S	37E	29	NE	SW	SW		105	
P-2853-X		8	1S	37E	31	NE	SW	SW		111	
P-2853-X-2		8	1S	37E	32	NE	SW	SW		112	
P-2854	2,000.00	9	1S	36E	35	NE	SW	SW		109	
P-2854-X		9	1S	36E	36	NE	SW	SW		110	
P-2855	1,000.00		1N	36E	32	SE	SE	NE		98	
P-2921	187.05		1N	37E	19	NW	NW	SE	260	70	**
P-2921-A	198.66	12	1N	37E	19	NW	SE	NE	257	71	**
P-2921-A-S		12	1N	37E	19	NE	NE	NE		??	**
P-2938	2,250.00	10	1S	36E	34	SE	NE	SE		108	
P-2938-S		10	1S	36E	27	SE	NE	SE	338	107	
P-2938-S-2		10	1S	36E	27	NE	NE	NE		106	
P-2939	1,500.00	11	1N	36E	32	SW	NE	NE		99	
P-2939-S		11	1N	36E	32	NE	NW	SW		115	
P-3263	165.64		1N	36E	22	NE	NW	SE	156	59	**

51,139.58

- 1 C-239 and CC-239-S are combined for a total of 206.4 AF
- 2 CC-295 and CC-295-S are combined for a total of 412.8 AF
- 3 CC-516, CC-516-S, CC516-S-2, CC-551, and CC-1028 are combined for a total of 2,874.38 AF
- 4 CC-1063 and CC-1063-S are combined for a total of 410.22 AF
- 5 CC-1660, CC-1660-S, and CC-1660-S-2 are combined for a total of 376.83 AF
- 6 Rights previously transferred to CC-1028
- 7 P-2851, P-2851-X, P-2851-X-2, P-2851-X-3 are combined for a total of 4,000 AF
- 8 P-2853, P-2853-X, P-2853-X-2, are combined for a total of 3,000 AF
- 9 P-2854, P-2854-X are combined for a total of 2,000 AF
- 10 P-2838, P-2838-S, P-2838-S-2, are combined for a total of 2,250 AF
- 11 P-2839, P-2839-S are combined for a total of 2,250 AF
- 12 P-2921-A and P-2921-A-S are combined for a total of 198.66 AF
- 13 CC-296 and CC-296-S2 are combined for a total of 398.61 AF
- 14 Water rights were previously transferred away from these wells

Appendix B

NMAW Water Rights from the OSE

File Number	Right	Acres	afy	Type
CC-239	Declared	160	480	Irrigation
CC-242	Declared	160	480	Irrigation
CC-243	Declared	160	480	Irrigation
CC-294	permit		206.4	Municipal
CC-295	Declared	320	960	Irrigation
CC-296	permit	309	927	Irrigation
CC-296-A	permit	11	33	Irrigation
CC-514	Declared		1935.61	Municipal
CC-515	Declared		1613.01	Municipal
CC-516, CC-516-S, CC-516-S-2	Permit		2874.38	Municipal
CC-517	Declared		1209.76	Municipal
CC-518	Declared		1613.01	Municipal
CC-519	Declared		1209.76	Municipal
CC-520	permit		967.8	Municipal
CC-521	Declared		1935.61	Municipal
CC-522	Declared		1613.01	Municipal
CC-523	Declared		1613.01	Municipal
CC-524	Declared		1613.01	Municipal
CC-525	Declared		1613.01	Municipal
CC-526	Declared		645.2	Municipal
CC-527	Declared		435.51	Municipal
CC-528	Declared		225.82	Municipal
CC-529	Declared		806.5	Municipal
CC-530	Declared		645.2	Municipal
CC-531	Declared		443.58	Municipal
CC-534& CC-549 into CC-1028	Permit		346	Municipal
CC-535	Declared		161.3	Municipal
CC-536	Declared		403.25	Municipal
CC-537	Declared		645.2	Municipal
CC-538	Declared		483.9	Municipal
CC-539	Declared		241.95	Municipal
CC-540	Declared		645.2	Municipal
CC-541	Declared		1290.41	Municipal
CC-542	Declared		806.5	Municipal
CC-543	Declared		871.02	Municipal

CC-544	Declared		806.5	Municipal
File Number	Right	Acres	afy	Type
CC-545	Declared		806.5	Municipal
CC-546	Declared		725.85	Municipal
CC-547	Declared		854.89	Municipal
CC-548	Declared		645.2	Municipal
CC-550	Declared		645.2	Municipal
CC-552	permit		61	Municipal
CC-1063	permit		410.22	Municipal
CC-1270& CC-1064 Comb	Permit		369.2	Municipal
CC-659	Permit	160	480	Irrigation
CC-1279	Permit	128	384	Irrigation
CC-1280	Permit	165.25		Municipal
CC-1281	Permit	206.4		Municipal
P-2851 thru P- 2851-X-3	Permit	4,000		
P-2853 thru P- 2853-X-2	Permit	3,000		
P-2854 and P- 2854-X	Permit	2,000		
P-2855	Permit	1,000		
P-2938 thru P- 2938-S-2	Permit	2,250		
P-2939 and P- 2939-S	Permit	1,500		
P-2242	IRR	160	480	L1C
P-2242-A	IRR	158.21	474.63	L1C
P-2393-D	IRR	364.19	1092.57	L1C
P-2394-C	IRR	129.16	387.48	L1C
P-2396	IRR	128.42	385.26	L1C
P-2396-C	IRR	124.17	372.51	Lie
P-2397	IRR	124.52	373.56	L1C
P-2397-A	IRR	124.15	372.45	L1C
P-2397-B	IRR	125.47	376.41	L1C
P-2397-C	IRR	127.19	381.57	L1C
P-2407	IRR	134	402	L1C
P-2921	MUN		187.05	PERMIT
P-2921-A	MUN		198.66	PERMIT
File Number	Right	Acres	Afy	Type
P-3068	IRR	139.2	417.6	LIC
P-3263	MUN		165.64	

Appendix C

NMAW proposed Pumping distributions under Scenario 1.

File Number	Baseline	Future
	afy	afy
CC 00541	314.4	0.0
CC 00539	23.0	0.0
CC 00536	314.4	0.0
CC 00537	314.4	0.0
CC 00540	26.4	0.0
CC 00545	508.4	480.1
CC 00526	314.4	0.0
CC 00542	154.2	152.0
CC 00529	314.4	0.0
CC 00528	96.2	0.0
CC 00527	93.3	146.8
CC 00543	227.9	387.1
CC 00530	4.1	57.7
CC 00544	112.6	157.3
CC 00547	297.5	301.6
CC 00520	5.7	0.0
CC 00521	7.0	0.0
CC 00515	46.6	0.0
CC 00514	10.5	0.0
CC 00522	16.4	0.0
CC 00525	5.5	0.0
CC 00523	37.9	0.0
CC 00519	265.2	0.0
CC 00517	71.3	0.0
CC 00516	1.7	0.0
CC 00518	177.9	0.0
CC 01028	154.4	0.0
CC 00551	296.4	117.2
CC 00516 S	291.7	291.7
CC 00516 S 2	295.0	295.0
CC 01063	1.5	0.0
CC 01063 S	0.9	0.0
CC 01270	136.3	0.0
CC 00294	1.2	0.0
CC 01281	3.4	52.4
CC 01280	85.5	211.8
CC 00296	191.1	184.0
P 03263	165.6	173.0
CC 00295	158.1	158.1
CC 00295 S	254.7	264.7

File Number	Baseline	Future
	afy	afy
CC 00296 S 2	97.7	125.8
CC 00659	5.0	120.6
CC 00242	206.4	221.1
CC 00243	22.7	136.3
CC 01279	165.1	367.0
CC 00659 S	103.2	209.7
CC 00239	103.2	420.0
P 02921	93.5	292.5
P 02921 S	93.5	230.7
P 02921 A S	40.8	146.8
CC 01660 S	281.5	351.2
CC 01660 S2	0.5	62.9
CC 01660	92.9	197.1
CC 00549	0.0	474.5
CC 00553	0.0	316.4

NMAW proposed Pumping distributions under Scenario 2.

File Number	Measured Capacity Gpm	Base-line diversion afy	Future diversions afy
CC 00239	316.00	103	306
CC 00239 S	237.00	103	229
CC 00242	197.00	191	191
CC 00243	145.00	140	140
CC 00294	100.00	97	97
CC 00295	97.94	95	95
CC 00295 S	174.00	168	168
CC 00296	130.00	126	126
CC 00296 S		133	133
CC 00296 S 2	126.00	122	122
CC 00296 A		14	14
CC 00514	65.00	63	63
CC 00515	90.00	87	87
CC 00516	71.00	69	69
CC 00516 S	180.73	175	175
CC 00516 S 2	182.76	177	177
CC 00517	74.00	72	72
CC 00518	125.00	121	121
CC 00519	190.00	184	184
CC 00520	48.00	46	46
CC 00521	50.00	48	48
CC 00522	72.00	70	70
CC 00523	83.00	80	80
CC 00524		53	53
CC 00525	50.00	48	48
CC 00526	230.00	223	223
CC 00527	140.00	135	135
CC 00528	190.00	184	184
CC 00529	380.00	368	368
CC 00530	58.00	56	56
CC 00531		111	111
CC 00534		0	97
CC 00535		97	97
CC 00536	280.00	271	271
CC 00537	235.00	227	227
CC 00538		189	189
CC 00539	88.00	85	85

File Number	Measured Capacity Gpm	Base-line diversion afy	Future diversions afy
CC 00540	140.00	135	135
CC 00541	205.00	198	198
CC 00542	150.00	145	145
CC 00543	300.00	290	290
CC 00544	160.00	155	155
CC 00545	315.00	305	305
CC 00546	230.00	223	223
CC 00547		465	465
CC 00548		116	116
CC 00549	254.00	0	246
CC 00550		645	645
CC 00551	183.61	178	178
CC 00552		242	242
CC 00553	148.00	0	143
CC 00659	127.00	103	123
CC 00659 S		103	103
CC 01028	135.00	131	131
CC 01063	127.00	123	123
CC 01063 S	100.00	97	97
CC 01270	84.47	79	82
CC 01270 S		79	79
CC 01279	357.00	83	345
CC 01279 S		83	360
CC 01280	280.00	83	271
CC 01280 S		83	83
CC 01281	49.00	47	47
CC 01281 S		103	103
CC 01660	255.00	54	247
CC 01660 S	60.00	54	58
CC 01660 S2	340.00	54	329
P 02851		1000	1000
P 02851 X		1000	1000
P 02851 X2		1000	1000
P 02851 X3		1000	1000
P 02853		333	333
P 02853 X		333	333
P 02853 X2		333	333
P 02854		1000	1000

File Number	Measured Capacity Gpm	Base-line diversion afy	Future diversions afy
P 02854 X		1000	1000
P 02855		1000	1000
P 02921	298.00	47	288
P 02921 A	157.00	47	152
P 02921 A S		47	47
P 02921 S	227.00	47	220
P 02938		750	750
P 02938 S		327	327
P 02938 S2		750	750
P 02939		750	750
P 02939 S		750	750
P 03263	132.00	128	128

APPENDIX D

Well list for Theis Model Areas

	E	F	G
	Theis Area 1 Well List -- ----- -----		
1	Well Number	NORTHING	EASTING
2	CC 00010 POD4	3798597	676828
3	CC 00010 S	3797490	676538
4	CC 00010 S2	3798098	677134
5	CC 00089	3799828	671264
6	CC 00089 S	3800124	671162
7	CC 00089 S2	3799828	671464
8	CC 00159	3800635	671250
9	CC 00159 EXPL	3800931	671149
10	CC 00159 S	3800629	670847
11	CC 00159 S2	3800829	670847
12	CC 00160	3801448	671639
13	CC 00161	3800641	671654
14	CC 00161 EXPL	3800943	671956
15	CC 00161 S	3800641	671654
16	CC 00171	3798499	670383
17	CC 00213 S	3801629	670628
18	CC 00213 S2	3801713	669522
19	CC 00239	3798686	675715
20	CC 00239 S	3798585	676023
21	CC 00242	3797782	674440
22	CC 00243	3797768	675231
23	CC 00258	3799840	672271
24	CC 00258 S	3799538	672179
25	CC 00258 S-2	3800136	671970
26	CC 00258 S-3	3799329	671983
27	CC 00295	3798612	671081
28	CC 00295 S	3797812	671297
29	CC 00296	3798421	671894
30	CC 00296 A	3798221	671694
31	CC 00296 EXPLORE	3798421	671894
32	CC 00296 EXPLORE(1)	3797415	671907
33	CC 00296 EXPLORE(2)	3797421	672111
34	CC 00296 S	3797421	672111
35	CC 00296 S 2	3797415	671907
36	CC 00296 S2	3797415	671907
37	CC 00413 S	3801714	676476
38	CC 00452	3800653	672462
39	CC 00452 EXPLORE	3800955	672764
40	CC 00452 S	3800955	672764
41	CC 00475	3798863	674104
42	CC 00516	3798689	669370
43	CC 00516 S	3798298	670182
44	CC 00516 S2	3797895	670189
45	CC 00551	3797579	669490
46	CC 00615	3800507	676494
47	CC 00617	3797887	676130

	E	F	G
	Theis Area 1 Well List -- ----- -----		
1	Well Number	NORTHING	EASTING
48	CC 00618 S2	3800519	677299
49	CC 00628	3799656	673286
50	CC 00628 AS	3799053	673492
51	CC 00628 S	3799859	673480
52	CC 00642	3799508	676909
53	CC 00642 EXPLORE	3799402	676815
54	CC 00642 S	3799100	676513
55	CC 00643	3798680	675312
56	CC 00643 EXPLORE	3798574	675218
57	CC 00643 S	3798880	675512
58	CC 00645	3799852	672877
59	CC 00645 S	3800250	672668
60	CC 00645 S2	3799947	672576
61	CC 00659	3798850	673299
62	CC 00659 EXPLORE	3798856	673701
63	CC 00659 S	3798856	673701
64	CC 00766	3798836	672494
65	CC 00766 S	3798233	672701
66	CC 00766 S-2	3797743	673621
67	CC 00766 S-3	3798535	672803
68	CC 00766 S-4	3797730	672816
69	CC 00766 S-5	3797542	673420
70	CC 00788	3801274	673863
71	CC 01022 S	3797502	677342
72	CC 01028	3798689	669370
73	CC 01033 S	3801441	671235
74	CC 01033 S2	3801635	670831
75	CC 01034	3800693	675480
76	CC 01035	3801295	675474
77	CC 01035 EXPL	3800989	675180
78	CC 01035 S	3801284	674469
79	CC 01035 S2	3800989	675180
80	CC 01054	3800065	673882
81	CC 01063 S	3800623	670644
82	CC 01111 S4	3801697	675468
83	CC 01074	3797484	676336
84	CC 01255	3800629	671047
85	CC 01118	3798909	677324
86	CC 01186	3800490	675487
87	CC 01219	3800093	675896
88	CC 01219 S	3799289	675709
89	CC 01219 S2	3800496	675889
90	CC 01279	3799368	674399
91	CC 01279 S	3799072	674700
92	CC 01280	3799317	671176
93	CC 01280 EXPLORE	3799618	670867

	E	F	G
	Theis Area 1 Well List -- ----- -----		
1	Well Number	NORTHING	EASTING
94	CC 01280 S	3799618	670867
95	CC 01281	3799305	670370
96	CC 01281 EXPLORE	3799009	670471
97	CC 01281 S	3799009	670471
98	CC 01422	3800401	669442
99	CC 01422 S	3800112	670356
100	CC 01422 S2	3800407	669845
101	CC 01422 S3	3799804	669852
102	CC 01441	3800665	673267
103	CC 01441 S	3800671	673670
104	CC 01455	3800677	674072
105	CC 01484 EXPL	3800904	676285
106	CC 01484 S	3801300	675877
107	CC 01484 S2	3800904	676285
108	CC 01486	3799443	672481
109	CC 01486 S	3799449	672883
110	CC 01486 S2	3799643	672681
111	CC 01555	3801274	673863
112	CC 01617	3799015	670874
113	CC 01896	3798197	670081
114	CC 01917 POD1	3799059	673895
115	CC 01925 POD1	3794807	672560
116	CC 01926 POD1	3795055	675570
117	CC 01928 POD1	3798812	670881
118	CC 01978 POD1	3799277	674903
119	CC 02005	3799784.7	674845.9
120	P 01932 APPRO	3796170	676061
121	P 01932 REPAR	3796477	676155
122	P 01967	3796962	675244
123	P 02211	3794932	674882
124	P 02216	3796489	676959
125	P 02216 S	3796891	677153
126	P 02216 S 2	3796891	676953
127	P 02216 S 3	3796289	677159
128	P 02242	3796048	674553
129	P 02242 A	3796054	675155
130	P 02242 A S	3795955	675056
131	P 02242 S	3795942	674252
132	P 02243	3797218	672317
133	P 02243 A	3796003	671934
134	P 02243 A-S	3795904	671835
135	P 02243 S	3796911	672022
136	P 02339	3796219	672734
137	P 02339 POD3	3797031	672924
138	P 02339 POD4	3797225	672521
139	P 02339 POD5	3796841	673735

	E	F	G
	Theis Area 1 Well List -- ----- -----		
1	Well Number	NORTHING	EASTING
140	P 02339 POD6	3796937	673635
141	P 02339 POD7	3796035	673749
142	P 02339 POD8	3795929	673447
143	P 02339 POD9	3797126	672622
144	P 02339 S	3796419	672534
145	P 02378	3796772	669504
146	P 02378 S-5	3796387	670518
147	P 02393 D-S-4	3794853	675577
148	P 02393 D-S-5	3794853	675577
149	P 02394 C	3795559	675465
150	P 02395	3796187	670518
151	P 02395 A	3796975	669497
152	P 02396 C	3795222	673559
153	P 02396 C-S	3795028	673962
154	P 02397	3795386	671134
155	P 02397 B	3795203	672151
156	P 02397 B S	3795507	672245
157	P 02397 S	3795487	671035
158	P 02407	3795419	672950
159	P 02407 S	3795210	672554
160	P 02410 -S	3797231	672924
161	P 02410 A	3797231	672924
162	P 02501 REPAR	3797145	673830
163	P 02502	3795514	672648
164	P 02921	3797051	674331
165	P 02921 A	3796854	674740
166	P 02921 A S	3797270	675538
167	P 02921 S	3797257	674733
168	P 02989	3795996	671330
169	P 02989 EXPL	3796392	670920
170	P 02989 S	3795890	671028
171	P 02989 S-2	3796392	670920
172	P 03025	3795003	672351
173	P 03068	3796885	676551
174	P 03068 S	3797088	676745
175	P 03263	3796987	670302
176	P 03311	3795472	676168
177	P 03311 S	3795069	676174
178	P 03332 REPAR	3795796	671530
179	P 03341	3796796	671113
180	P 03341 -S	3797199	671106
181	P 03341 A	3797005	671310
182	P 03341 A-S	3796796	671113
183	P 03341 EXPL.	3797199	671106
184	P 03341 S	3797199	671106
185	P 03343 -S	3794886	677387

	E	F	G
	Theis Area 1 Well List -- ----- -----		
1	Well Number	NORTHING	EASTING
186	P 03426	3797094	670605
187	P 04085	3795658	675564
188	P 04137	3797225	672521
189	P 04156	3796622	672528
190	P 04460 POD1	3795767.8	670772.1
191	P 04477 POD1	3795768.1	670887.2

	E	F	G
	Theis Area 2 Well List -----		

1	WellNumber	NORTHING	EASTING
2	CC 00028	3808447	668291
3	CC 00113	3808320	666778
4	CC 00116	3806176	665103
5	CC 00567	3808738	667575
6	CC 00570	3808837	667474
7	CC 00571	3808637	667474
8	CC 00574	3805646	663803
9	CC 00574 S	3806156	663890
10	CC 00574 S-2	3806660	663985
11	CC 00580	3809809	665440
12	CC 00600	3805881	665614
13	CC 00611	3808601	665661
14	CC 00663 EXP	3809837	667251
15	CC 00664 EXP	3809844	667654
16	CC 00666	3805773	665310
17	CC 00679 EXP	3809837	667251
18	CC 01003	3808030	667689
19	CC 01007	3806020	668130
20	CC 01090	3808823	666669
21	CC 01090 S	3808830	667072
22	CC 01090 S2	3809232	667065
23	CC 01091	3805698	667031
24	CC 01237	3809851	667858
25	CC 01265	3808227	667279
26	CC 01509	3808578	664451
27	CC 01861	3806020	667930
28	CC 01873	3809218	666460
29	CC 01904	3809204	665654
30	CC 01924 POD1	3806799	666504
31	CC 01935 POD1	3808837	667674
32	CC 01945 POD1	3808440	667886
33	CC 02054 POD1	3805900.6	664258.2
34	CC 02064 POD1	3809638.2	666141
35	CC 00528	3809411	663807
36	CC 00539	3809787	664618
37	CC 00540	3809668	664208
38	CC 00541	3809217	664829
39	CC 00542	3809197	666643
40	CC 00543	3809259	667286
41	CC 00544	3809435	668167
42	CC 00545	3807425	667547
43	CC 00546	3807574	664695
44	CC 00547	3807015	667535
45	CC 00548	3807042	668270
46	CC 00549	3808210	666574

	E	F	G
	Theis Area 2 Well		
	List -----		

1	WellNumber	NORTHING	EASTING
47	CC 00550	3807865	665307
48	CC 00552	3807873	665437
49	CC 00553	3806809	665342

	H	I	J
	Theis Area 3 Well List----- ----- ----- -----		
1	WellNumber	NORTHING	EASTING
2	CC 00008	3810101	670681
3	CC 00020	3807453	669314
4	CC 00028	3808447	668291
5	CC 00037	3809952	667959
6	CC 00037 POD2	3810065	668867
7	CC 00076	3810606	670975
8	CC 00076 S	3810621	671784
9	CC 00083 A	3810648	667440
10	CC 00231	3809281	669891
11	CC 00567	3808738	667575
12	CC 00570	3808837	667474
13	CC 00571	3808637	667474
14	CC 00584	3810253	668051
15	CC 00613	3810563	668557
16	CC 00648	3810548	667749
17	CC 00655	3810037	667251
18	CC 00663 EXP	3809837	667251
19	CC 00664 EXP	3809844	667654
20	CC 00679 EXP	3809837	667251
21	CC 00695 EXP	3810037	667251
22	CC 00702 EXPL	3807339	668614
23	CC 00705	3810841	667237
24	CC 00706 EXP	3808146	668600
25	CC 00722	3807661	669717
26	CC 00739 EXP	3810073	669071
27	CC 00790	3810080	669474
28	CC 00845	3809513	671497
29	CC 00845 S	3809713	671497
30	CC 00886	3810080	669674
31	CC 00972	3809491	670486
32	CC 01003	3808030	667689
33	CC 01039	3810253	667851
34	CC 01048	3808885	670500
35	CC 01058	3808489	670710
36	CC 01108	3807591	671230
37	CC 01237	3809851	667858
38	CC 01261	3810253	667851
39	CC 01262	3810268	668860
40	CC 01265	3808227	667279
41	CC 01117	3810239	667244
42	CC 01122	3810239	667244
43	CC 01179	3810037	667251

	H	I	J
	Theis Area 3 Well List----- ----- ----- -----		
1	WellNumber	NORTHING	EASTING
44	CC 01193	3810246	667647
45	CC 01201	3810655	668044
46	CC 01208	3810246	667647
47	CC 01275	3810490	670069
48	CC 01276	3810497	670271
49	CC 01295	3810080	669674
50	CC 01311	3810037	667251
51	CC 01318	3810080	669474
52	CC 01319	3808657	668689
53	CC 01368	3808511	671923
54	CC 01374	3808885	670500
55	CC 01382	3810037	667251
56	CC 01409	3810290	669869
57	CC 01410	3810246	667647
58	CC 01412	3810772	668753
59	CC 01428	3810848	667640
60	CC 01468	3810855	667844
61	CC 01468 POD1	3810855	667844
62	CC 01472	3807087	671136
63	CC 01480	3810073	669071
64	CC 01492	3810855	668044
65	CC 01504	3808489	670710
66	CC 01554	3808657	668689
67	CC 01613	3810685	669658
68	CC 01641	3808453	668896
69	CC 01660	3808460	669100
70	CC 01660 EXPL	3808260	669100
71	CC 01660 S	3809266	669086
72	CC 01660 S2	3809074	669488
73	CC 01682	3810037	667251
74	CC 01729	3810655	668044
75	CC 01733	3810246	667647
76	CC 01736	3807683	670725
77	CC 01748	3810087	669876
78	CC 01750	3810073	669071
79	CC 01850	3810065	668867
80	CC 01850 POD1	3810065	668867
81	CC 01854	3809295	670695
82	CC 01922 POD1	3809288	670493
83	CC 01935 POD1	3808837	667674
84	CC 01936 POD1	3810268	668660
85	CC 01943 POD1	3808554	670631

	H	I	J
	Theis Area 3 Well List----- 		
1	WellNumber	NORTHING	EASTING
86	CC 01945 POD1	3808440	667886
87	CC 01955 POD1	3807250	669121
88	CC 01994 POD1	3810546.4	667807.7
89	CC 02041 POD1	3808639.9	670587.9
90	CC 02070 POD1	3808345.3	668621.3
91	CC 00543	3809259	667286
92	CC 00544	3809435	668167
93	CC 00545	3807425	667547
94	CC 00547	3807015	667535
95	CC 00548	3807042	668270

	H	I	J
	Theis Area 4 Well List----- ----- -----		
1	---WellNumber	EASTING	NORTHING
2	CC 00950	661277	3805706
3	CC 00951	660886	3805094
4	CC 00002	663534	3803530
5	CC 00044	661922	3803504
6	CC 00044 S	662129	3803101
7	CC 00044 S-2	662129	3802901
8	CC 00194	662928	3803517
9	CC 00194 A	662928	3803317
10	CC 00194 AS	663131	3803523
11	CC 00194 S2	663138	3802920
12	CC 00194 S3	663131	3803523
13	CC 00194 S4	662928	3803317
14	CC 00574	663803	3805646
15	CC 00591	663741	3802927
16	CC 00591 S	664143	3802933
17	CC 00601	661386	3805606
18	CC 00981	660886	3805094
19	CC 00993	662722	3803719
20	CC 01002	660787	3804995
21	CC 01016	660592	3804787
22	CC 01214	661386	3805606
23	CC 01217	661077	3805706
24	CC 01286	663910	3804948
25	CC 01308	661122	3802888
26	CC 01308 S2	661719	3803497
27	CC 01320	660713	3803284
28	CC 01320 S2	660913	3803484
29	CC 01423	664326	3804350
30	CC 01431	660893	3804492
31	CC 01461	661109	3803693
32	CC 01477 EXPL	660906	3803686
33	CC 01477 S	660605	3803982
34	CC 01482	663305	3804934
35	CC 01644	664137	3803537
36	CC 01746	661103	3804295
37	CC 01788	662702	3804927
38	CC 01875	661109	3803693
39	CC 02054 POD1	664258.2	3805900.6
40	CC 00534	662375	3804301
41	CC 00530	662643	3806943
42	CC 00531	662689	3804363
43	CC 00535	662149	3804405

	H	I	J
	Theis Area 5 Well List -----		

1	WellNumber	EASTING	NORTHING
2	CC 00069	660989	3810936
3	CC 00377	666043	3810017
4	CC 00557	662593	3811365
5	CC 00558	661291	3811238
6	CC 00580	665440	3809809
7	CC 00611	665661	3808601
8	CC 00629	660715	3809421
9	CC 00630	662212	3810351
10	CC 00636	662097	3811251
11	CC 00649	661159	3807013
12	CC 00657	666012	3811626
13	CC 00658 EXP	666208	3811834
14	CC 00662 EXP	665123	3810708
15	CC 00667	660807	3809922
16	CC 00682 EXP	665602	3811819
17	CC 00746 EXP.	666317	3811534
18	CC 00814 S	660773	3811934
19	CC 00874	666309	3811935
20	CC 00991	666223	3811030
21	CC 01089	662601	3810962
22	CC 01259	666238	3810226
23	CC 01178	664805	3811604
24	CC 01205	665332	3810506
25	CC 01269	664211	3810994
26	CC 01317	665820	3811224
27	CC 01342	665805	3811826
28	CC 01376	664820	3810599
29	CC 01377	661816	3809942
30	CC 01452	662191	3811558
31	CC 01459	661258	3806912
32	CC 01467	666416	3811433
33	CC 01509	664451	3808578
34	CC 01513	665410	3811419
35	CC 01517	661413	3809935
36	CC 01563	665812	3811626
37	CC 01662	666238	3810226
38	CC 01664	661051	3807514
39	CC 01684	666408	3811834
40	CC 01870	660989	3810936
41	CC 01871	661816	3809942
42	CC 01873	666460	3809218
43	CC 01904	665654	3809204
44	CC 01990 POD1	665433	3810212
45	CC 02064 POD1	666141	3809638.2
46	CC 00528	3809411	663807

	H	I	J
	Theis Area 5		
	Well List -----		

1	WellNumber	EASTING	NORTHING
47	CC 00536	3809975	664603
48	CC 00526	3810242	663992
49	CC 00527	3809159	660980
50	CC 00529	3808761	662620
51	CC 00530	3806943	662643
52	CC 00537	3810066	664867
53	CC 00538	3810047	664867
54	CC 00539	3809787	664618
55	CC 00540	3809668	664208
56	CC 00541	3809217	664829
57	CC 00546	3807574	664695
58	CC 00549	3808210	666574
59	CC 00550	3807865	665307
60	CC 00552	3807873	665437
61	CC 00553	3806809	665342

	H	I	J
	Theis Area 6 Well List----- -----		
1	WellNumber	EASTING	NORTHIN
2	CC 00918	668448	3799582
3	CC 00918 S	668757	3799281
4	CC 00018	668420	3800993
5	CC 00018 S	667820	3800577
6	CC 00018 S2	667922	3800879
7	CC 00018 S3	668832	3800798
8	CC 00057	666353	3798436
9	CC 00146	665829	3799334
10	CC 00171	670383	3798499
11	CC 00294	669255	3799394
12	CC 00298	667232	3799965
13	CC 00298 POD5	666830	3799758
14	CC 00298 S	666225	3799744
15	CC 00298 S2	667132	3800060
16	CC 00298 S3	666120	3800248
17	CC 00397	666366	3797630
18	CC 00397 EXPL	667171	3797643
19	CC 00397 S	667063	3797744
20	CC 00397 S2	666660	3797737
21	CC 00397 S3	667465	3797750
22	CC 00434	667627	3800175
23	CC 00434 EXPLC	667936	3800074
24	CC 00434 S	667735	3799873
25	CC 00453	667627	3800375
26	CC 00516	669370	3798689
27	CC 00516 S	670182	3798298
28	CC 00516 S2	670189	3797895
29	CC 00520	666045	3798737
30	CC 00551	669490	3797579
31	CC 00555	667742	3799470
32	CC 00578	667655	3798764
33	CC 00578 S	667668	3797957
34	CC 00578 S2	667963	3798462
35	CC 00578 S3	667977	3797655
36	CC 00646	666850	3798750
37	CC 00646 POD3	667459	3798154
38	CC 00646 S	667252	3798557
39	CC 00720	665823	3799737
40	CC 00878	666654	3798340
41	CC 00878 A	666447	3798743
42	CC 00878 EXPL	666353	3798436
43	CC 00878 S	666353	3798436
44	CC 00879	665809	3800542
45	CC 01028	669370	3798689
46	CC 01044	666447	3798743
47	CC 01063	669228	3801008
48	CC 01063 S	670644	3800623

	H	I	J
	Theis Area 6 Well List----- -----		
1	WellNumber	EASTING	NORTHIN
49	CC 01064	668441	3799785
50	CC 01064 S	669045	3799991
51	CC 01073	666666	3797534
52	CC 01123	665829	3799534
53	CC 01127	667418	3800570
54	CC 01139	665823	3799737
55	CC 01210	665802	3801144
56	CC 01270	667950	3799269
57	CC 01270 EXPLC	668251	3798973
58	CC 01270 S	668251	3798973
59	CC 01281	670370	3799305
60	CC 01281 EXPLC	670471	3799009
61	CC 01281 S	670471	3799009
62	CC 01364	667319	3800671
63	CC 01364 S	667418	3800570
64	CC 01422	669442	3800401
65	CC 01422 S	670356	3800112
66	CC 01422 S2	669845	3800407
67	CC 01422 S3	669852	3799804
68	CC 01505	666012	3800549
69	CC 01642	665816	3800339
70	CC 01679	666614	3800556
71	CC 01735	666012	3800549
72	CC 01896	670081	3798197
73	CC 01911 POD1	669236	3800605
74	CC 01923 POD1	667641	3799369
75	CC 01938 POD1	668428	3800591
76	CC 01938 POD2	668428	3800591
77	CC 02008 POD1	665912.3	3801243
78	CC 02008 POD2	665912.3	3801243
79	P 01895	666171	3797026
80	P 02433 A-A-S-2	667479	3797144
81	P 02433 A-B-S-2	666673	3797131
82	P 02433 AB EXPL	666070	3797125
83	P 02433 AB EXPL	666673	3797131
84	P 02771 AA	668085	3797156
85	P 03275	668489	3797163
86	P 03275 EXPL.	668994	3797070
87	P 03275 S-3	669093	3797169
88	P 03426	670605	3797094
89	CC 00517	3798417	668590
90	CC 00518	3798249	668976
91	CC 00519	3797969	668965
92	CC 00521	3798080	665979
93	CC 00525	3797315	665822