GROUND WATER DRAWDOWN TRENDS AND MODEL POST AUDIT FOR THE SUNDRE AND MINOT/LOWER SOURIS AQUIFERS, NORTH DAKOTA

BY

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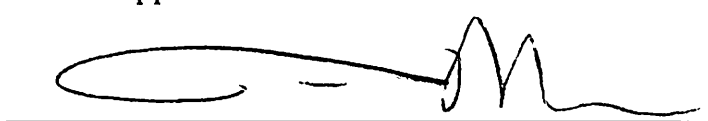

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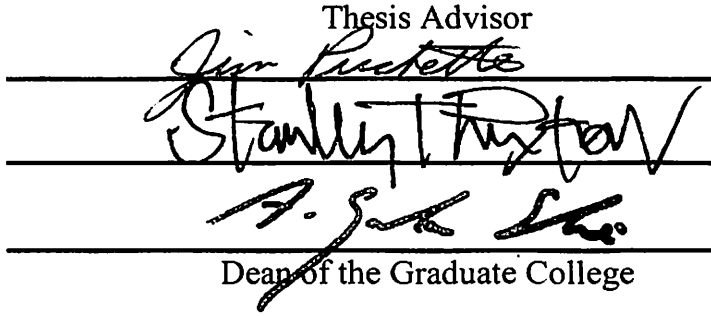

Dean of the Graduate College

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CHAPTER ONE

INTRODUCTION

Ground water models are often constructed in order to make predictions of aquifer behavior. A commonly listed final step in the modeling process is a model post audit (Figure 1; Anderson and Woessner, 1992). Post audits of ground water models are necessary to determine if the conceptual model of the system that is being modeled is appropriate, as well as to evaluate how the model could be improved. Data collected subsequent to model construction can be used to validate the predictions of the model. Additionally, the newer data can be used to recalibrate the model in order to make better predictions.

Despite their importance, the literature shows that ground water model post audits are rarely performed. Anderson and Woessner (1992) reviewed five ground water model post audits in which the models did not accurately predict future behavior of the modeled systems. Two water quantity model post audits were Konikow (1986) and Alley and Emory (1986). The Konikow (1986) study reviewed a two-dimensional electric analog model that had been calibrated against 40 years of record (1923-1964). The model was then used to predict water levels changes for the next ten years (1965-1974). Post audit

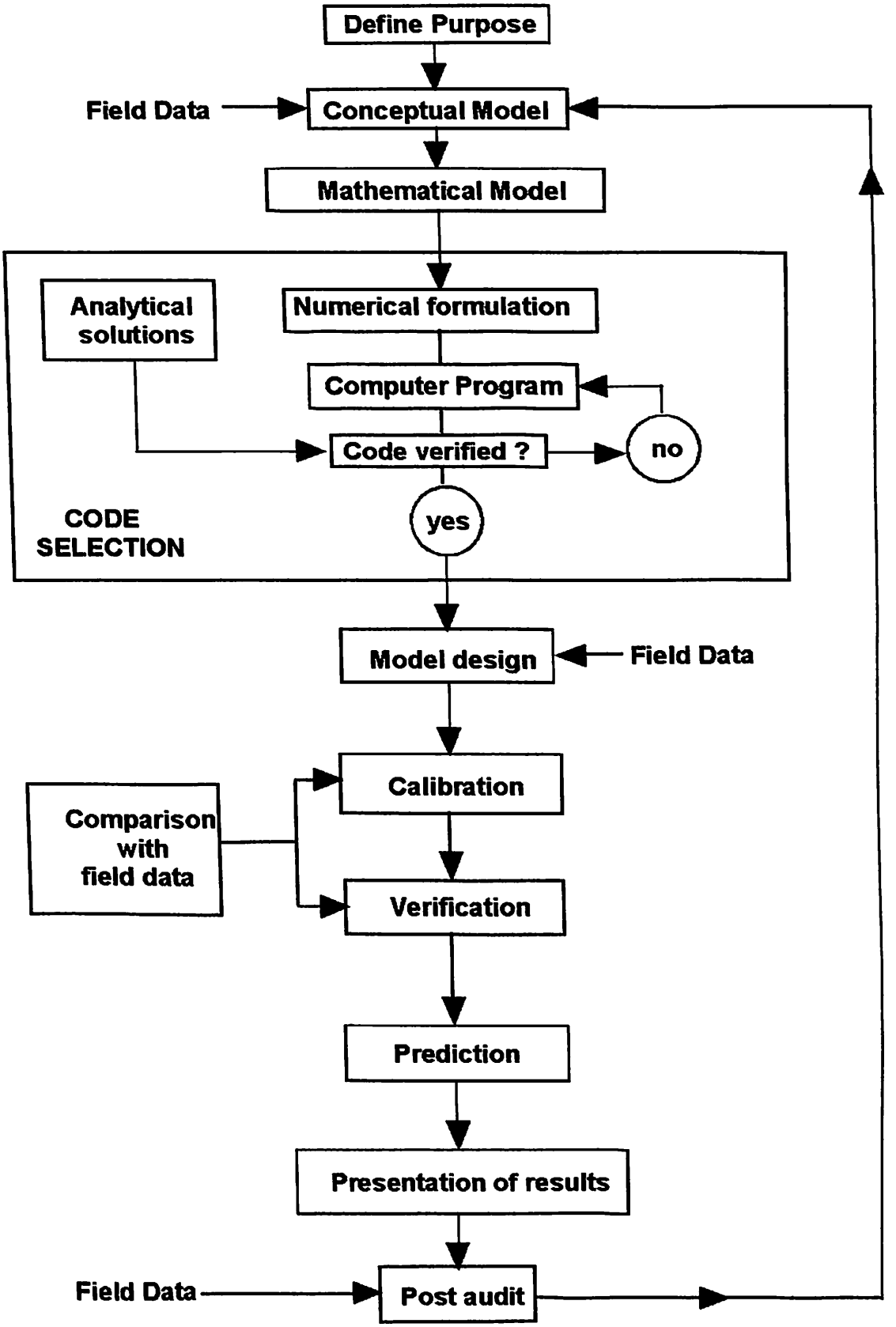

Figure 1. Generalized ground water modeling protocol (from Anderson and Woessner 1992).

analysis showed the model predicted lower water levels than those observed in the field in part due to incorrect estimates of pumpage.

Alley and Emory (1986) reviewed electric analog model predictions made for the year 1982, by a model constructed in 1965. Pumpage for irrigation was increased through time to simulate declines in water levels and streamflow. The model post audit showed that declines in water levels were overestimated and streamflow depletion was underestimated. Alley and Emory (1986) hypothesized the discrepancies could be attributed to induced recharge from streamflow.

Hanson (1996) evaluated potential errors in distribution of aquifer properties and recharge that lead to errors in model predictions. The post audit included a review of model predictions of predevelopment (1940) and developed conditions (1941 to 1985). Hanson (1996) reported that erroneous predictions from the developed conditions model resulted from overestimating transmissivity and storativity and to a lesser extent underestimating subsidence and net withdrawal.

The purpose of this study was to examine ground water drawdown trends in the Minot/Lower Souris and Sundre aquifers, North Dakota. Additionally, a post audit of a ground water model constructed in 1987 for the Sundre aquifer was conducted. The data developed during this investigation will be used to test the hypothesis that the ground water model constructed by Poore (1987) underestimated drawdown and overestimated sustained yield for the Sundre aquifer due to an inadequate conceptual model of the ground water system. Ground water data collected weekly and monthly from piezometers and municipal supply wells will be compared against the predictions of the model. The succeeding chapters in this thesis will provide description of the geology and

hydrogeology of the study area located in and around Minot, North Dakota. A description of the methods used, results, discussion and conclusion will follow.

CHAPTER TWO

STUDY AREA

The geography and geology of the Minot, North Dakota area will be presented in this chapter. The geography of the area will be described first followed by description of regional geology.

Geography

The study area encompasses approximately 30 square miles in the central portion of Ward County, North Dakota (Figure 2). The area includes the city of Minot. The Souris River is the dominant physiographic feature in the area. With its headwaters in Canada, the river flows southeasterly through the Minot area with an average gradient of two feet per mile (Pettyjohn, 1967). Oxbow lakes and broad meanders are evident throughout the study area. The river varies from eight to thirty feet in width and the floodplain ranges from one to three miles wide (Pettyjohn, 1967). Stream flow recorded by the United States Geological Survey (U.S.G.S.) gauging station upstream from Minot indicated an average discharge of 103 million gal/day (390,000 m^3/d) for the period 1904

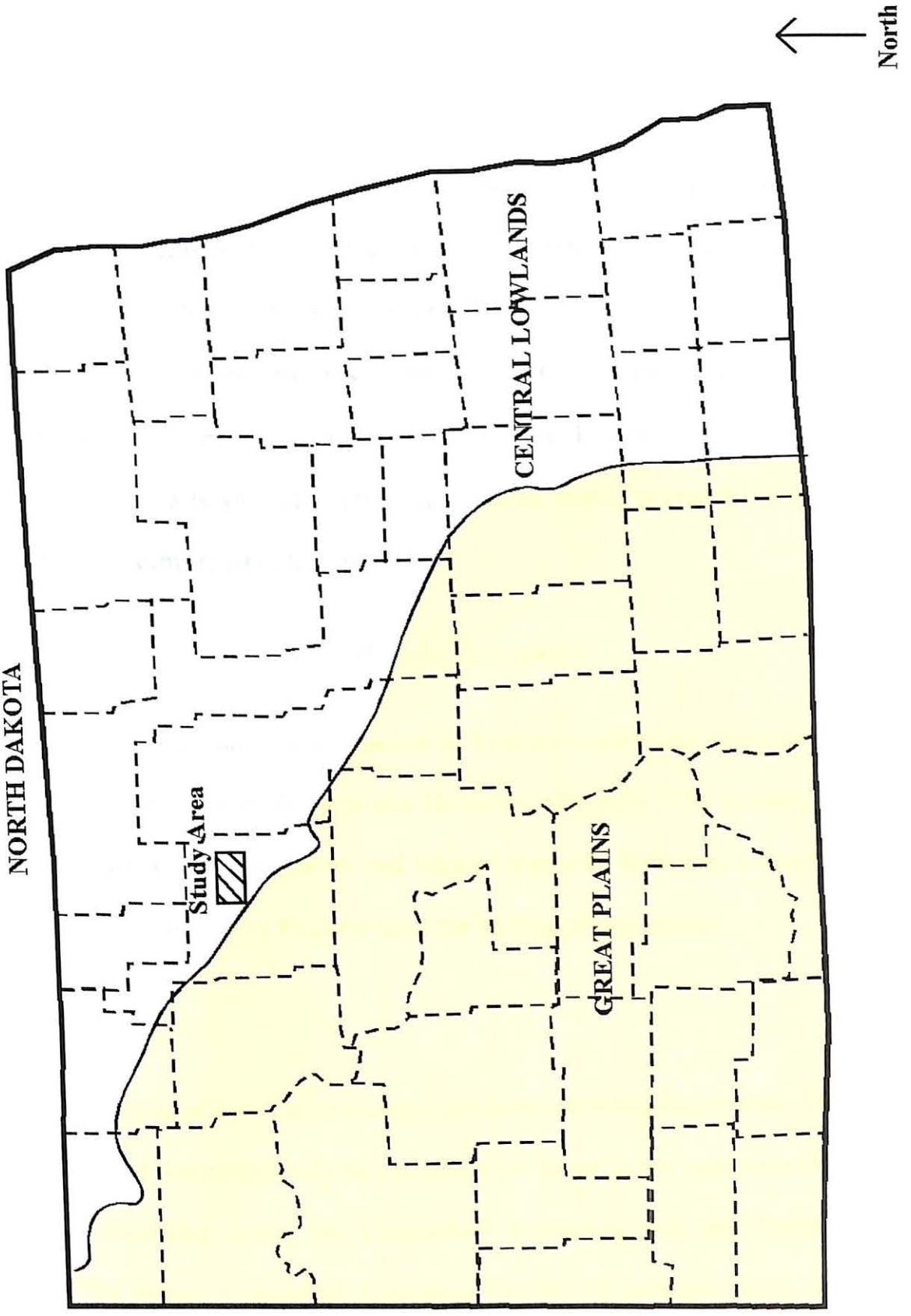

Figure 2. Regional location of study area (after Pettyjohn, 1967).

to 2001 (U.S.G.S., 2004). Flow of the river has been almost completely controlled by several dams upstream since the 1940's (Pettyjohn, 1967).

The surrounding upland areas are gently rolling hills composed of glacial drift. The hills have been deeply eroded near the river's floodplain. The floodplain is located approximately 1540 feet (470 m) above mean sea level (amsl) and locally the adjacent uplands can reach over 1700 feet (518 m) amsl (Pettyjohn, 1967).

The climate in the Minot area is extreme, with summer temperatures up to 100 °F (38 °C), and winter temperatures as low as –20 degrees °F (-29 °C). Average annual precipitation in the area is 16 inches (406 mm), which comes primarily from summer convective thunderstorms (Pettyjohn, 1967).

Geology and Hydrostratigraphy

The geology of the study area consists of Tertiary marine and terrestrial deposits overlain by Pleistocene glacial deposits and Holocene alluvium. The primary focus of this thesis research will be the glacial and alluvial deposits; however, a review of the underlying bedrock is necessary to understand the hydrogeologic system.

Tertiary Deposits

The Tertiary-aged Fort Union Group is the bedrock in the Minot area. The group is comprised of four formations, only two of which are found in the study area (Figure 3). They are, in ascending order, the Cannonball Formation and the Tongue River Formation. The marine Cannonball Formation consists of dark-gray clay, sand, and minor thin nodular, fossiliferous limestone (Pettyjohn and Hutchinson, 1971). The

Figure 3. Generalized bedrock geologic map of the Souris River basin (after Glover, D.H. and others, 1972)

Cannonball Formation commonly contains unusable brackish to saline water. The terrestrial Tongue River Formation is comprised of clay, silt, sandstone and lignite beds (Pettyjohn and Hutchinson, 1971). The Tongue River Formation generally yields extremely soft sodium-bicarbonate type water. Numerous outcrops of the Tongue River Formation are found along the Souris River valley. Fine-grained sandstones and lignite layers in the Tongue River Formation provide water to wells and springs in the Minot area. Flowing wells are common in the Tongue River Formation due to methane gas pressure and artesian pressure, however yields are low (Pettyjohn and Hutchinson, 1971).

Quaternary Deposits

The Fort Union Group is overlain throughout most of north-central North Dakota by Pleistocene glacial deposits and Holocene alluvial deposits (Figure 4). Pleistocene glaciations deposited up to 600 feet (182 m) of drift in at least three events (Pettyjohn and Hutchinson, 1971). These deposits are primarily ground moraine, end moraine, outwash, ice-contact deposits, and glacial lake deposits (Figure 4). The most prevalent deposits in the Minot area are ground moraines. The moraine deposits, comprised of glacial till, consist of heterogeneous, unstratified mixtures of clay, silt, sand, gravel and larger rock fragments.

Outwash deposits carved into the ground moraine by glacial melt waters cover the remainder of the study area (Figure 4). These deposits are primarily comprised of sand and gravel and cover large areas in the major river valleys and localized areas in the uplands. These outwash deposits can reach thicknesses of 150 feet (46 m) in the Souris River Valley (Pettyjohn and Hutchinson, 1971). These deposits are overlain by Holocene

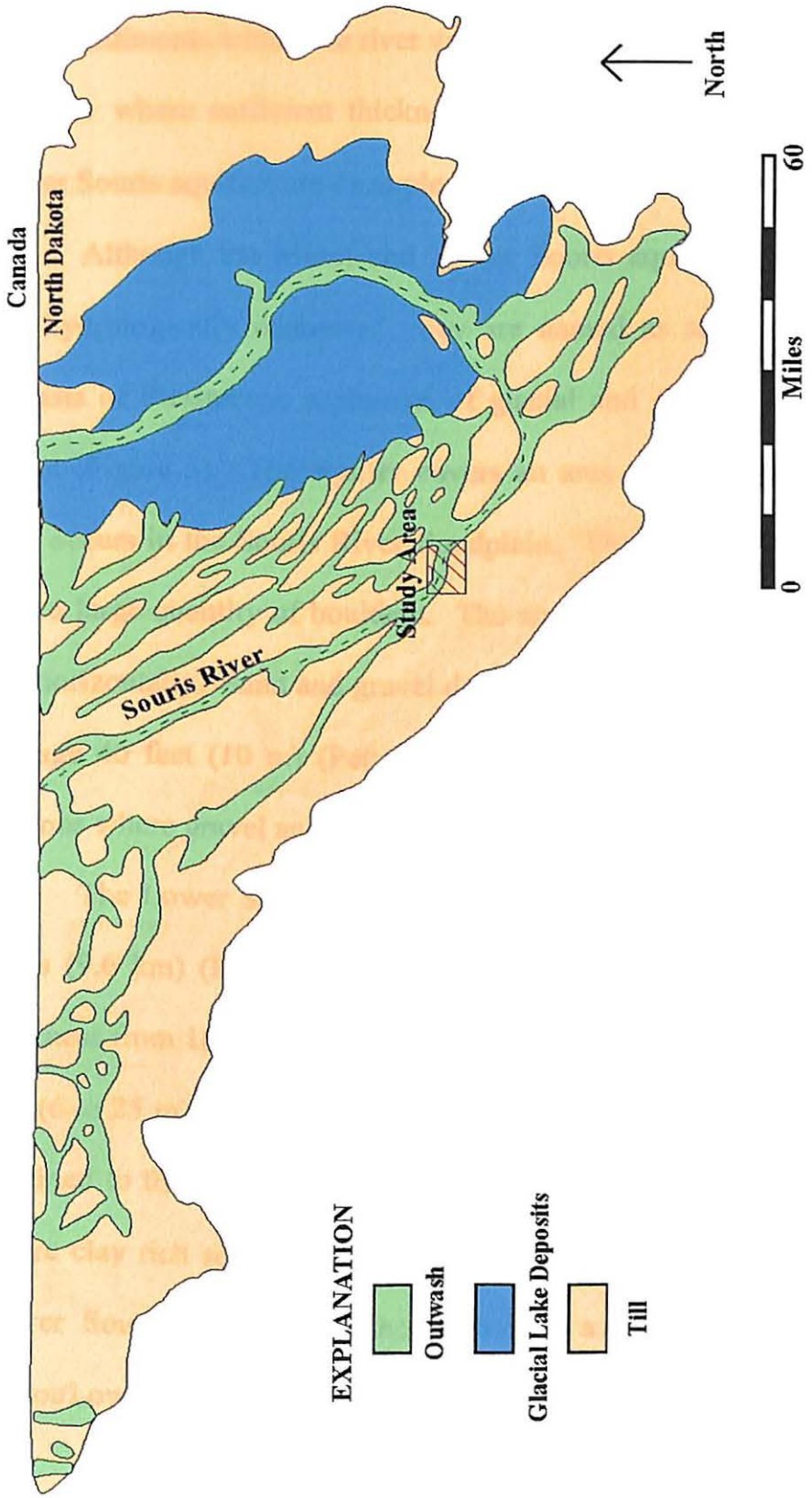

Figure 4. Generalized glacial geology map of the Souris River basin (after Glover, D.H. and others, 1972)

fluvial sediments within the river valley. These outwash deposits can store large volumes of water where sufficient thickness and permeability are encountered; the Minot and Lower Souris aquifers are examples.

Although the Minot and Lower Souris aquifers are stratigraphically equivalent and hydrologically connected, they are named as separate units. The Minot aquifer consists of Pleistocene sediments of glacial and glacio-fluvial origin in the vicinity of Minot (Figure 5). The aquifer covers an area of approximately four square miles and only occurs in the Souris River floodplain. The aquifer consists of coarse sandy gravel with a large quantity of boulders. The aquifer lithology changes very rapidly vertically and horizontally. Sand and gravel deposits may reach thicknesses of 100 feet (30 m), but average 40 feet (10 m) (Pettyjohn, 1967). The aquifer is highly permeable in lower sections where gravel and boulder deposits predominate (Figure 7).

The Lower Souris aquifer extends downstream from Minot for a distance of six miles (9.6 km) (Figure 5). The sands and gravel that compose this aquifer range in thickness from 10 to 79 feet (3 to 24 m) and are encountered at depths from 19 feet to 83 feet (6 to 25 m) below the land surface (Pettyjohn, 1970). These deposits are generally confined to the Souris river floodplain and they may be locally discontinuous in places where clay rich sediments predominate. For the purposes of this study, the Minot and Lower Souris aquifers will be treated as a continuous unit and referred to as the Minot/Lower Souris aquifer.

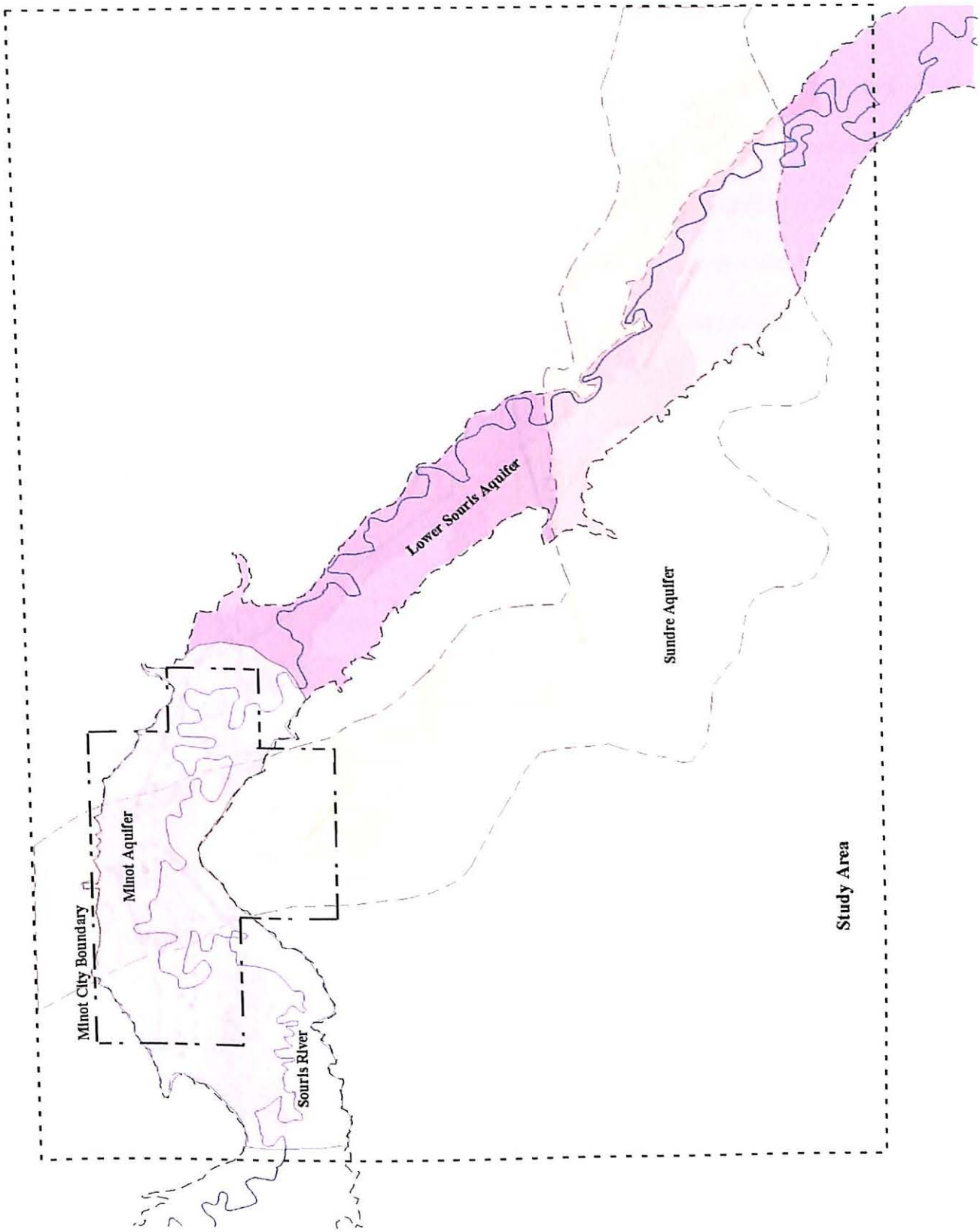

Figure 5. Location of Minot/Lower Souris and Sundre aquifers within study area (after Pettyjohn, 1970).

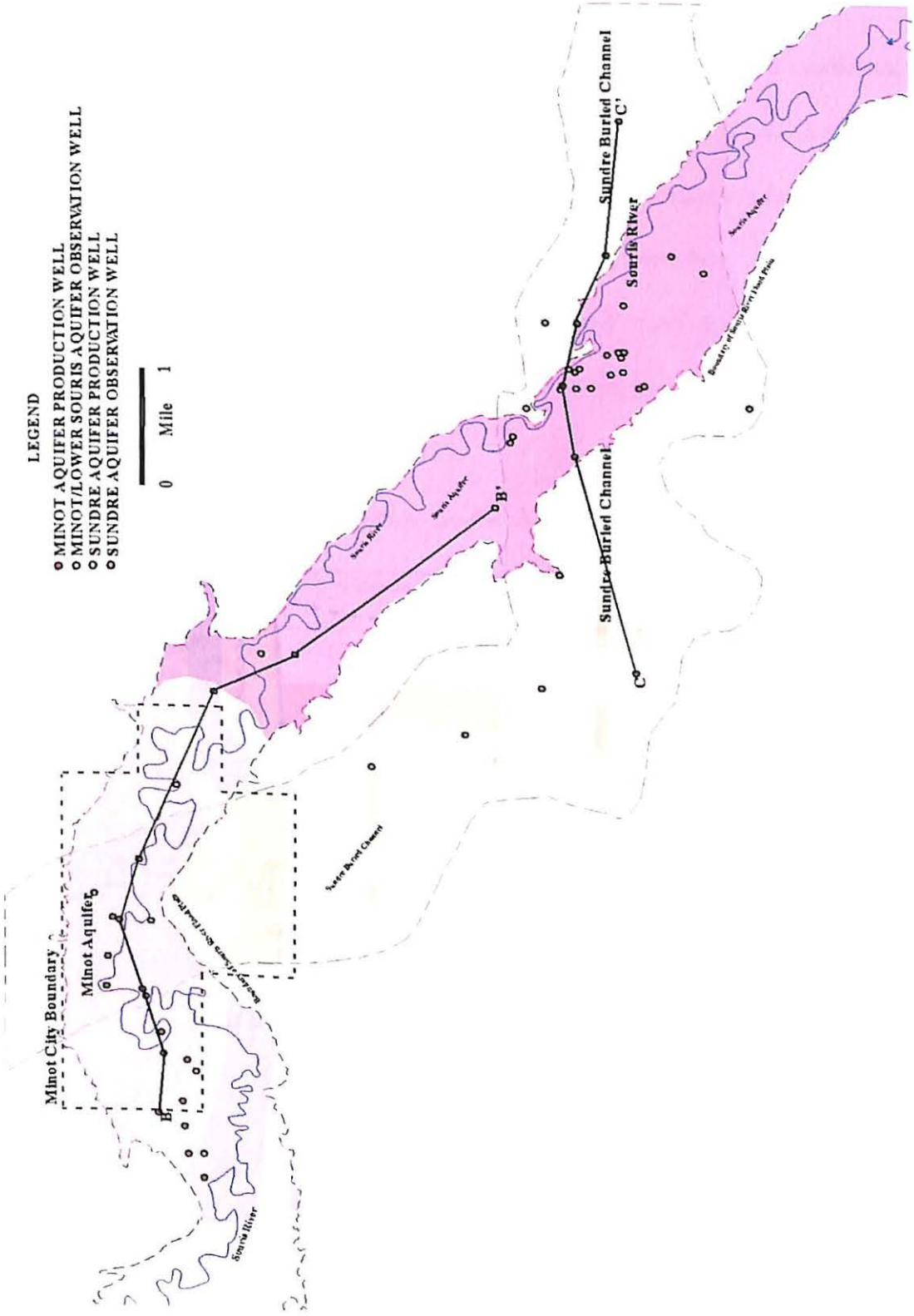

Figure 6. Well and cross section location map for the cross Minot/Lower Souris and Sundre aquifers.

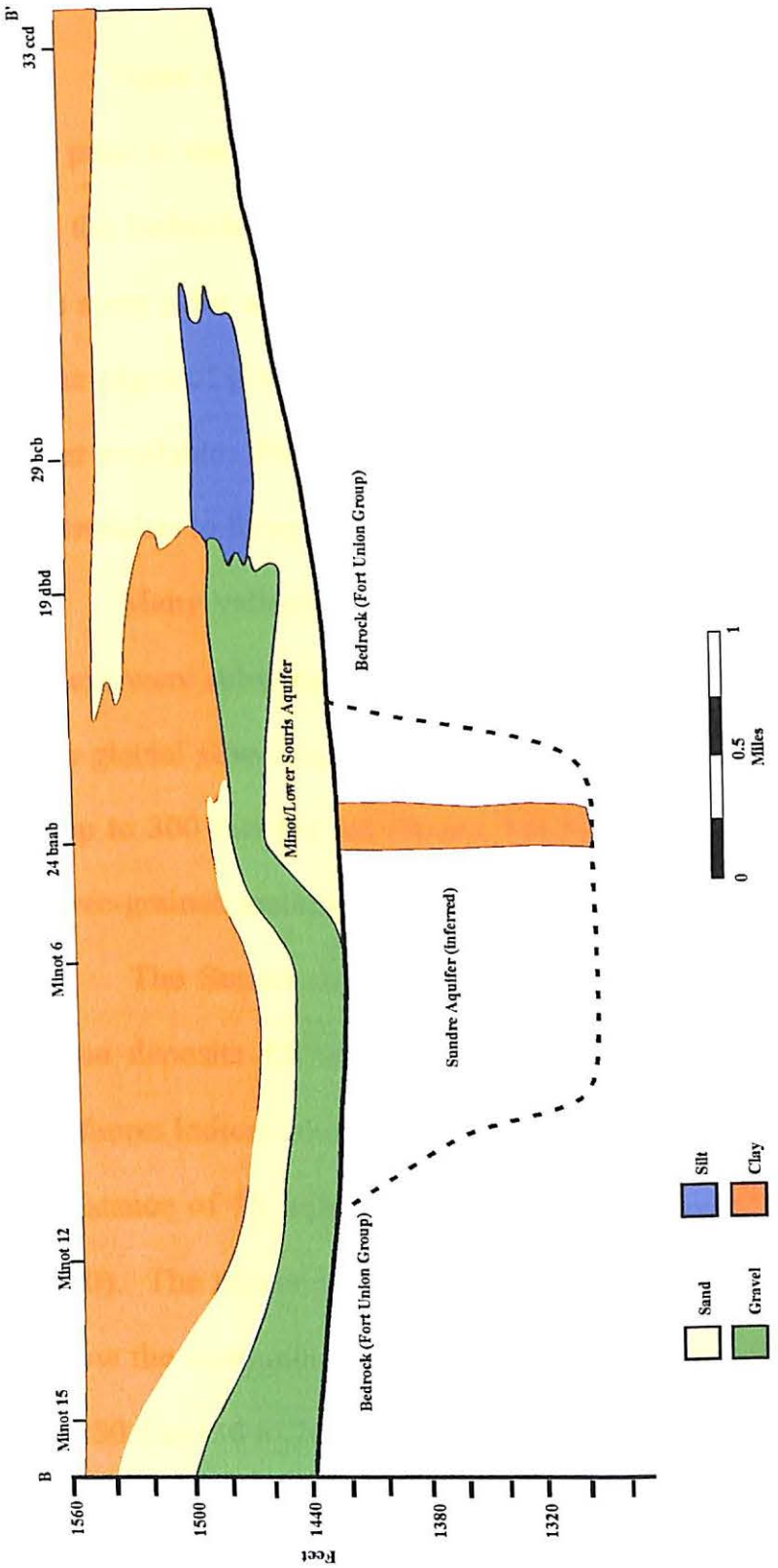

Figure 7. Lithologic cross section of the Minot/Lower Souris and Sundre aquifers along B-B' (See Figure 6).

Buried-Valley Deposits

Major river systems in North Dakota drained north and northeast toward Hudson Bay prior to the Pleistocene. However, many valleys that trend to the southeast were cut into the bedrock. Bluemle (1972) describes these southeast trending valleys as narrow with steep sides and indicative of glacial diversion trenches. These trenches were located at the edges of glaciers and were capable of rapid incision owing to the large volumes of water available. Pleistocene glaciation blocked northeastward drainage patterns allowing the trenches to form (Bluemle, 1972).

Many valleys were carved in the Fort Union Group by outwash streams. These valleys were subsequently buried by drift consisting of sand, clay and gravel layers from later glacial advances. Outwash deposits in the Sundre buried channel reach thicknesses of up to 300 feet (91 m) (Poore, 1987). High-yield aquifers occur in the Sundre where coarse-grained material occurs with sufficient thickness and permeability.

The Sundre aquifer consists of glacial sand and gravel interbedded with clay. These deposits fill a buried channel carved in the bedrock (Figure 5). Data from wellbores indicate the channel ranges from one to two miles in width and is traceable for a distance of 25 miles (40 km) in Ward County, North Dakota by drilling (Pettyjohn, 1970). The maximum depth of the channel ranged from 300 to 350 feet (91 to 106 m) below the surrounding bedrock surface. The top of the aquifer reaches depths from 100 to 250 feet (30 to 76 m) below land surface, the shallowest places being along the Souris River floodplain. Sand and gravel can reach thicknesses of up to 230 feet (70 m) without interruption by clay layers (Figure 8).

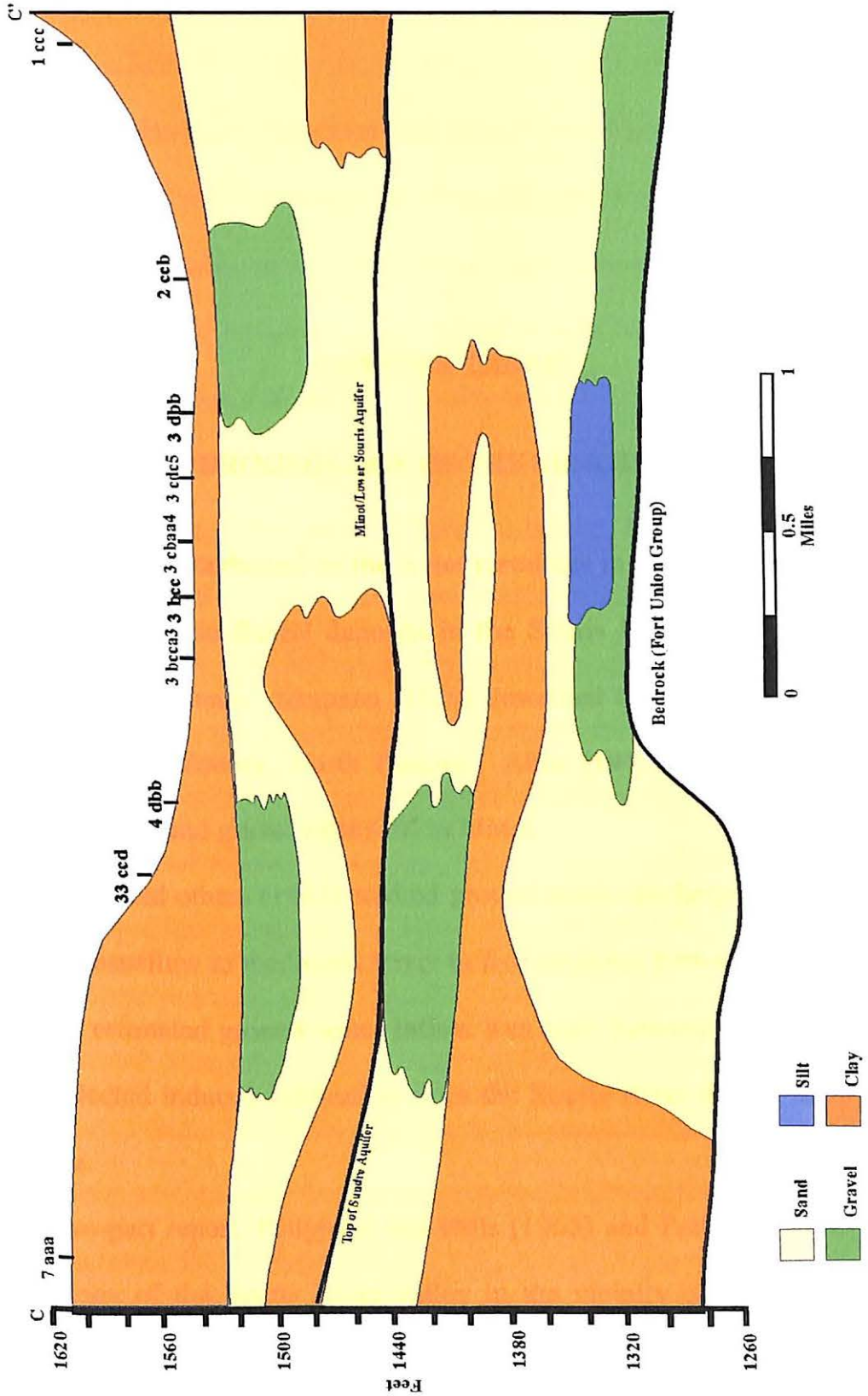

Figure 8. Lithologic cross section of the Minot/Lower Souris and Sundre aquifers along C-C' (See Figure 6)

CHAPTER THREE

HYDROGEOLOGY OF THE MINOT AREA

The early work conducted on the water resources in the Minot area was primarily concerned with the glacio-fluvial deposits in the Souris River valley and glacial drift deposits in the upland areas. Simpson (1929) described the geology and ground water occurrences in Ward County, North Dakota. Akin (1947) discussed the hydrologic properties of the sand and gravel valley fill in Minot.

LaRocque and others (1963) studied ground water discharge to the Souris River. They estimated baseflow to the Souris River in five stretches between successive gauging stations. They estimated ground water inflow was least between Minot and Verendrye. This likely reflected induced infiltration from the Souris River due to well pumpage in the Minot Area.

. In a two-part report, Pettyjohn and Hills (1965) and Pettyjohn (1967) addressed the hydrogeology of the Souris River valley in the vicinity of Minot. The first part presented the basic data collected from 1963 to 1964 including well and test-hole log descriptions and ground water quality data. Pettyjohn (1967) described the hydrology

and water quality of the Minot aquifer, and was also the first to describe the Sundre buried-channel aquifer.

Pettyjohn (1968) and Pettyjohn and Hutchinson (1971) evaluated the regional geology and ground water availability of Renville and Ward counties, North Dakota. Pettyjohn (1968) contained well log data, water level measurements and water analyses for wells located in both counties. The second report was the result of a four-year comprehensive study of the availability, quantity and quality of ground water in the two counties conducted by the U.S.G.S., North Dakota Geological Survey and North Dakota State Water Commission. This study included a history of ground water usage in the Minot area as well as further description of the Sundre aquifer.

Pettyjohn (1970) predicted that additional ground water resources would be needed in order to satisfy growing demand. The report presents the findings of an aquifer test conducted on the Sundre aquifer. Pettyjohn (1970) proposed a water management program for the city of Minot. The plan included the installation of pilot holes and periodic water level measurement as well as a recommendation to utilize the Sundre aquifer for municipal water supply.

Additional description of the Sundre and Minot aquifers was provided in Pusc (1987) and Pusc (1994). These works included information regarding the installation of piezometers in the Minot/Lower Souris, and Sundre aquifers, as well as data tabulation of historical water levels for existing wells.

Poore (1987) reported on the ground water flow system in the Sundre aquifer. The work included construction of a ground water model to evaluate the aquifer system. The model was used to estimate leakage from the overlying Lower Souris aquifer and to

provide an estimated sustained yield for the Sundre aquifer. Leakage was predicted using a transient model calibration without using a field estimate of leakage. The model estimated leakage accounted for 98 to 99 percent of predicted pumpage during an interval from 1978 to 1985. The model predicted sustained yield with negligible drawdown at 5.83 million gal/day (22,000 m^3/d).

Minot Aquifer

Pettyjohn (1967) provided estimates for the hydraulic properties of the Minot aquifer. Transmissivity was determined to average 25,000 ft^2/day (7600 m^2/day). Effective porosity for the Minot aquifer was approximately 0.20, which is consistent with coarse sand and gravel (Fetter, 1980). Storativity ranged from 0.06 to 0.0006 (Pettyjohn, 1967). These values were determined from drawdown and recovery tests of wells that in some cases only partially penetrate the aquifer. Therefore, estimated values for transmissivity and storativity are lower than would be expected for fully penetrating wells in an unconfined aquifer (Pettyjohn, 1967).

Water quality in the Minot aquifer varies considerably due to the changing lithology. In general, water from the aquifer is hard, calcium-magnesium bicarbonate type water. Total dissolved solids in the aquifer range from 603 ppm to 1460 ppm. Minot aquifer water commonly contains high concentrations of iron (Pettyjohn, 1967).

The Minot aquifer is recharged by infiltration from the Souris River, rainfall and inflow from adjacent aquifers. Pettyjohn (1967) estimated as much as three million gal/day (11,350 m^3/d) are recharged to the Minot aquifer from these sources. Approximately two million gallons (7,570 m^3) are derived from the adjacent Lower

Souris aquifer. The balance was believed to come from Souris River infiltration, bedrock sources, adjacent glacial till and rainfall. Recharge may also be derived from the Sundre aquifer as well. In addition to natural recharge, an artificial recharge facility was constructed in May 1965 to help reverse drawdown patterns in the aquifer. The facility was capable of recharging as much as 2 million gallons of water per day. However, the artificial recharge facility was destroyed by flooding.

The Minot aquifer has been used by the city of Minot since 1916 as a source of water. By the mid 1940's 11 industrial and municipal wells tapped the aquifer (Akin, 1947). The withdrawal rate from the aquifer more than tripled from 1944 to the mid 1960's. Additional municipal wells were installed in 1961, extensively lowering aquifer water levels (Pettyjohn, 1970). This water shortage was eased by the construction of the artificial recharge facility in 1965. Water level decline was rapidly halted and reversed.

There are sixteen City of Minot municipal wells located in sections 14, 22, and 23 of T155N, R83W that produce from the Minot aquifer (Figure 6). However, only eight of these wells are used due to well degradation from scale formation. The screened interval for Minot municipal wells 5, 6, 9 and 10 also included the upper part of the Sundre aquifer. These four wells are capable of producing 1,000 gallons per minute (gpm) (63 l/s).

Minot aquifer production totaled 23 billion gallons (870 million m^3) during the study interval. This amounts to 39 percent of the city's water production. Average production from the Minot aquifer was 1,450 gpm (91 l/s) during the period. Municipal wells 5, 6, 12, 13, 14 and 15 commonly yield greater than 700 gpm (43 l/s) per well. These wells accounted for 82 percent of Minot production during the 1968-1997 interval.

Lower Souris Aquifer

Water quality in the Lower Souris aquifer is generally acceptable for most municipal and industrial purposes. The water is generally hard sodium bicarbonate or calcium bicarbonate type that contains high iron concentrations locally. The concentration of total dissolved solids ranges from 530 to 1800 ppm.

The Lower Souris aquifer is highly permeable where coarse-grained sediments are located and is capable of storing large quantities of water (Figure 7). However, the aquifer has not been fully developed for water supply purposes. For the purposes of this study the Minot and Lower Souris aquifers will be treated as a continuous unit called the Minot/Lower Souris aquifer.

Sundre Aquifer

Hydraulic characteristics of the Sundre aquifer were determined by Pettyjohn (1970) using a 1969 aquifer test. The test was conducted using a production well pumping 1950 gpm (123 l/s) for 15 days. Approximately 37 piezometers were used to collect water level data. Drawdown was noted not only in the Sundre aquifer, but also in the overlying sand and gravel of the Minot/Lower Souris aquifer. Pettyjohn (1970) estimated leakage from the overlying units had occurred over an area of more than 28 square miles (72 km^2), however leakage estimates were not calculated.

During the test, the cone of depression encountered many recharge and discharge boundaries (Pettyjohn, 1970). The recharge boundaries represent leakage from the overlying units as well as localized changes in hydraulic conductivity and aquifer thickness. The discharge boundaries were caused by the walls of the buried channel

and/or lower hydraulic conductivity. Pettyjohn (1970) concluded that reasonable values for transmissivity and storativity were 32,000 ft^2/day (9750 m^2/day) and 0.0003 respectively. Effective porosity for the Sundre aquifer was determined to be 0.20.

Water from the Sundre aquifer is generally of sufficient quality for municipal and industrial purposes. Total dissolved solids from the five Sundre municipal wells range from 783 ppm to 1936 ppm. Pettyjohn (1970) indicated that high total dissolved solids often corresponded with excessive chloride or sulfate. He identified areas where sulfate or chloride was excessive, which enabled the city of Minot to construct the Sundre production wells away from these areas.

The Sundre aquifer receives recharge from several sources. The most significant source is the Minot/Lower Souris aquifer. Prior to construction of the Sundre well field, the Sundre aquifer was recharged by leakage from the overlying Minot/Lower Souris aquifer. Pumping from the Sundre has increased the head difference between the two aquifers allowing increased leakage and recharge to the Sundre (Poore, 1987)

Based on declining water levels in the Minot/Lower Souris aquifer, and unreliable flow of the river, the Pettyjohn (1970) report persuaded the city to pursue additional sources of water. Following the 1969 aquifer test, the city of Minot installed five high-volume municipal wells in the Sundre aquifer. These wells are located in the Souris River floodplain in the west and southwest parts of section 3, T.154N., R.82W. (Figure 6). Wells D and E began producing during the summer of 1976 and wells A, B, and C were started in the summer of 1977.

The greatest production in the well field is derived from well D, which discharges two to three times more than the other wells. Sundre aquifer production averages 27

percent greater than production from the Minot/Lower Souris aquifer. The Sundre well field accounted for 36 percent, or 21 billion gallons (794 million m^3), of the city's municipal needs during the study interval. Average production from the Sundre aquifer is 2,150 gpm (135 l/s). Figure 9 compares production from the Minot and Sundre well fields during the study interval.

Souris River

In addition to the Minot/Lower Souris and Sundre aquifers, the Souris River has long been a source of water for the city of Minot. Historical records indicate as much as 40 percent of the city's water supply was produced from the river (Pettyjohn, 1970). Average annual water production from the river for the period of record for this study is 972 gpm (61 l/s). Production from the river can be highly variable due to stream flow conditions and very little water is pumped from the river during dry years. Following completion of the Sundre well field in 1977, a general decline in river water production occurred (Figure 10).

Numerical Model of the Sundre Aquifer

Poore (1987) constructed a confined aquifer flow model for the Sundre aquifer to estimate leakage from the Minot/Lower Souris aquifer and also estimate the maximum pumpage the aquifer can sustain at equilibrium. The model was constructed using an upper layer representing the Minot/Lower Souris aquifer and a lower layer representing the Sundre aquifer. Flow was confined to two dimensions with the exception of leakage from the Minot/Lower Souris aquifer. No-flow boundaries were established at the buried

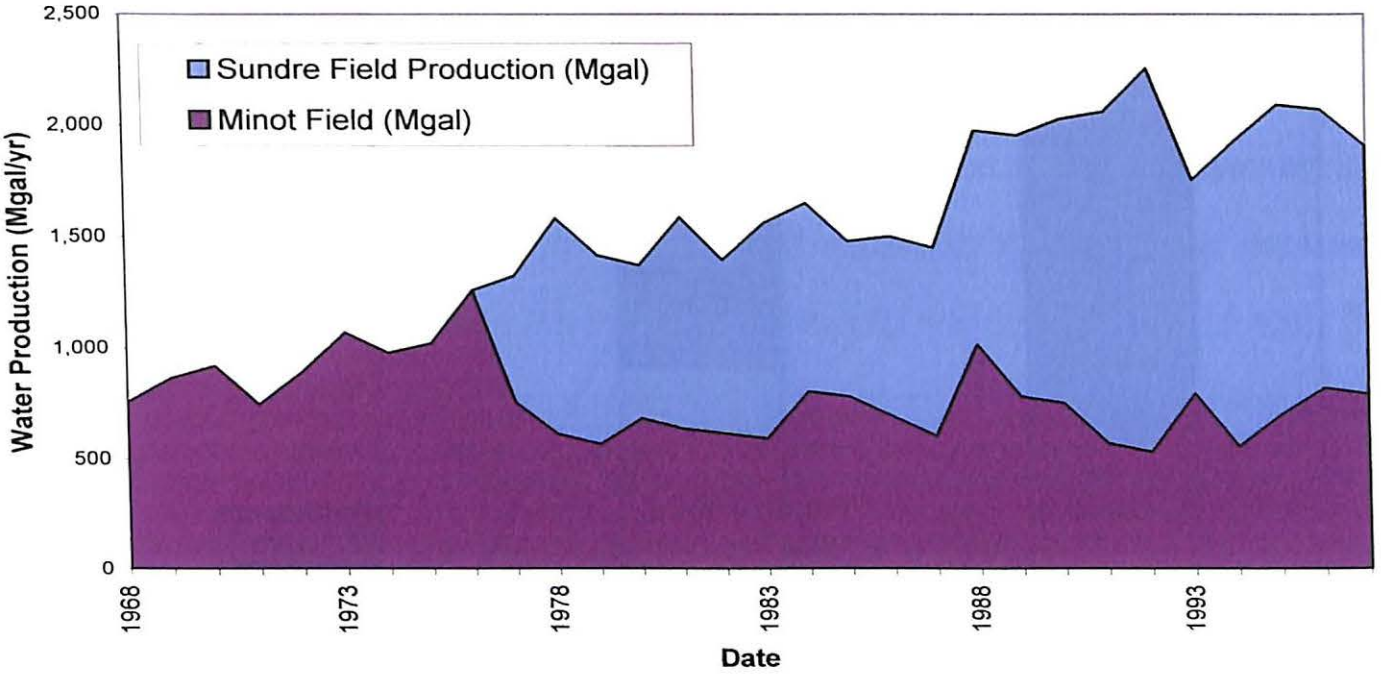

Figure 9. Graph of annual water production from the Minot/Lower Souris and Sundre aquifers.

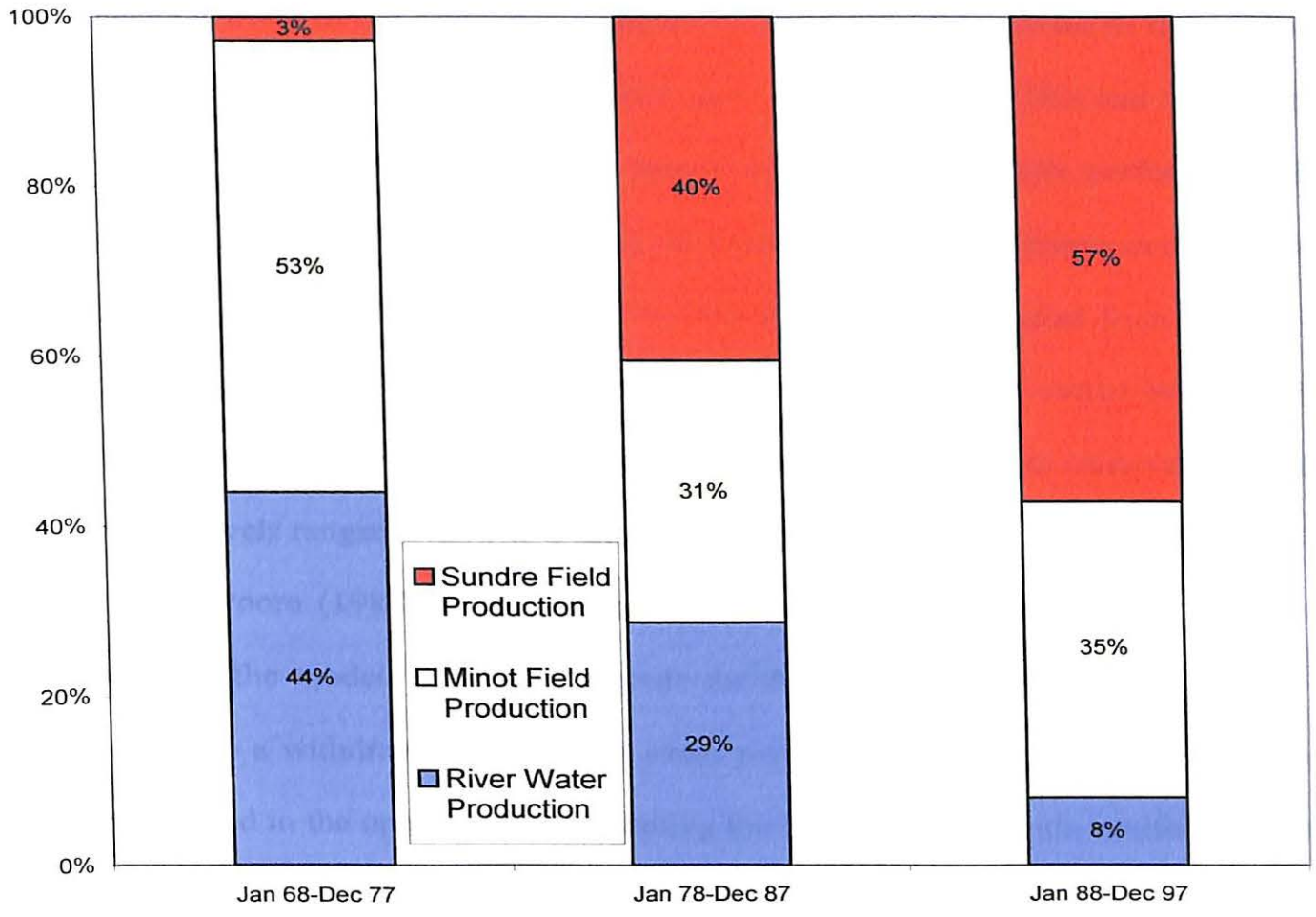

Figure 10. Comparison of water production from ground water and river water sources.

channel walls to the north and south and constant flux boundaries to the north and east were used to model inflow (sections 8 and 17, T.154N., R.81W.) and outflow (sections 30 and 31, T.155N., R.82W.). Steady-state calibration was performed using pre-development (1975) water levels to determine reasonable transmissivity and boundary flux values for the system. Values for transmissivity were varied from 19,500 - 32,000 ft^2/day (1,811 - 2,920m^2/day) while inflow and outflow were varied between 157,000 - 314,000 ft^3/day (595 - 1,190m^3/day). The difference between observed and simulated water levels ranged from 0 to 3 feet and averaged about 2 feet.

Poore (1987) performed transient analysis by adding storativity, pumpage and time to the model. Pumpage records for the years 1976 through 1985 were used to calculate a withdrawal rate for ten stress periods. To simulate leakage, constant heads were used in the upper layer representing the Minot/Lower Souris aquifer. Calibration of the transient model was preformed by varying vertical conductivity and storativity values. This allowed simulated water levels from the model to be matched with observed water levels in piezometers surrounding the Sundre well field. Poore (1987) stated that the model reasonably estimated steady-state water levels in the aquifer, but transient estimates of water levels were much less accurate.

The model estimated leakage from the Minot/Lower Souris aquifer to the Sundre aquifer was 98 to 99% or 8.2 billion gallons (31 million m^3) of pumpage during the ten stress periods. Poore (1987) speculated these high leakage values were estimated because water level declines in the Minot/Lower Souris aquifer were not accounted for in the model. A gradual decrease in head in the Minot/Lower Souris would likely decrease or hold constant the rate of leakage to the Sundre aquifer.

Poore (1987) estimated sustained yield for the Sundre aquifer to be 5.83 million gallons per day (21,900 m^3/d). The value was obtained by increasing the pumpage from the production wells as long as water levels remained above the top of the Sundre aquifer. In addition, steady-state conditions were used so that no water would be lost from storage.

CHAPTER FOUR

METHODS

In order to meet the project objectives, the trends in the ground water system from 1968-1998 were evaluated. These data were also used to construct a water budget of the Minot/Lower Souris and Sundre aquifers. This allows for an examination of the aquifer as it responded to the development of the well field and the performance of the ground water model of the Sundre. The methods used first examine what data was utilized, the well number system used, the trend analysis, and finally the water budget analysis for the aquifers.

Data Sources

Data utilized in this study were obtained from several sources. Water level data and pumpage records for 12 Minot aquifer production wells and for 18 Sundre aquifer piezometers, as well as total city water production figures were obtained (Pettyjohn, personal communication, 2000). The data were collected monthly from September, 1967 to December, 1998. A U.S.G.S. database provided weekly water level records for 11 Minot/Lower Souris aquifer piezometers from November, 1963 to December, 1994, and

Souris River discharge data (USGS, 2004). Weekly water level measurements for 21 Sundre aquifer piezometers representing November, 1968 to December, 1998 and 5 Minot/Lower Souris aquifer piezometers representing January, 1967 to December, 1998 were obtained from the North Dakota State Water Commission (NDSWC) database (NDSWC, 2004).

Well Numbering System

The well numbering system used in this report is illustrated in Figure 11. This system is based on the grid system used by the U.S. Bureau of Land Management (Pettyjohn 1967). The first number in a well location description indicates the township north of a baseline in Arkansas. The second number denotes the range west of the fifth principal meridian. The third number indicates the section in which the well is located. The lowercase letters given after the section number indicate the position of the well within the section. The letter "a" refers to the northeast quarter; "b", the northwest quarter; "c", the southwest quarter; "d", the southeast quarter. Succeeding letters refer to the quarter-quarter section and the quarter-quarter-quarter section. Piezometers and municipal wells used in this study are presented in Figure 6.

Trend Analysis

Data analysis for this project included construction of ground water elevation graphs for key wells located in the Minot/Lower Souris and Sundre aquifers to observe drawdown trends through time. Twenty-seven wells from the Minot/Lower Souris and twenty-five wells from the Sundre aquifer were selected as key wells. Wells were

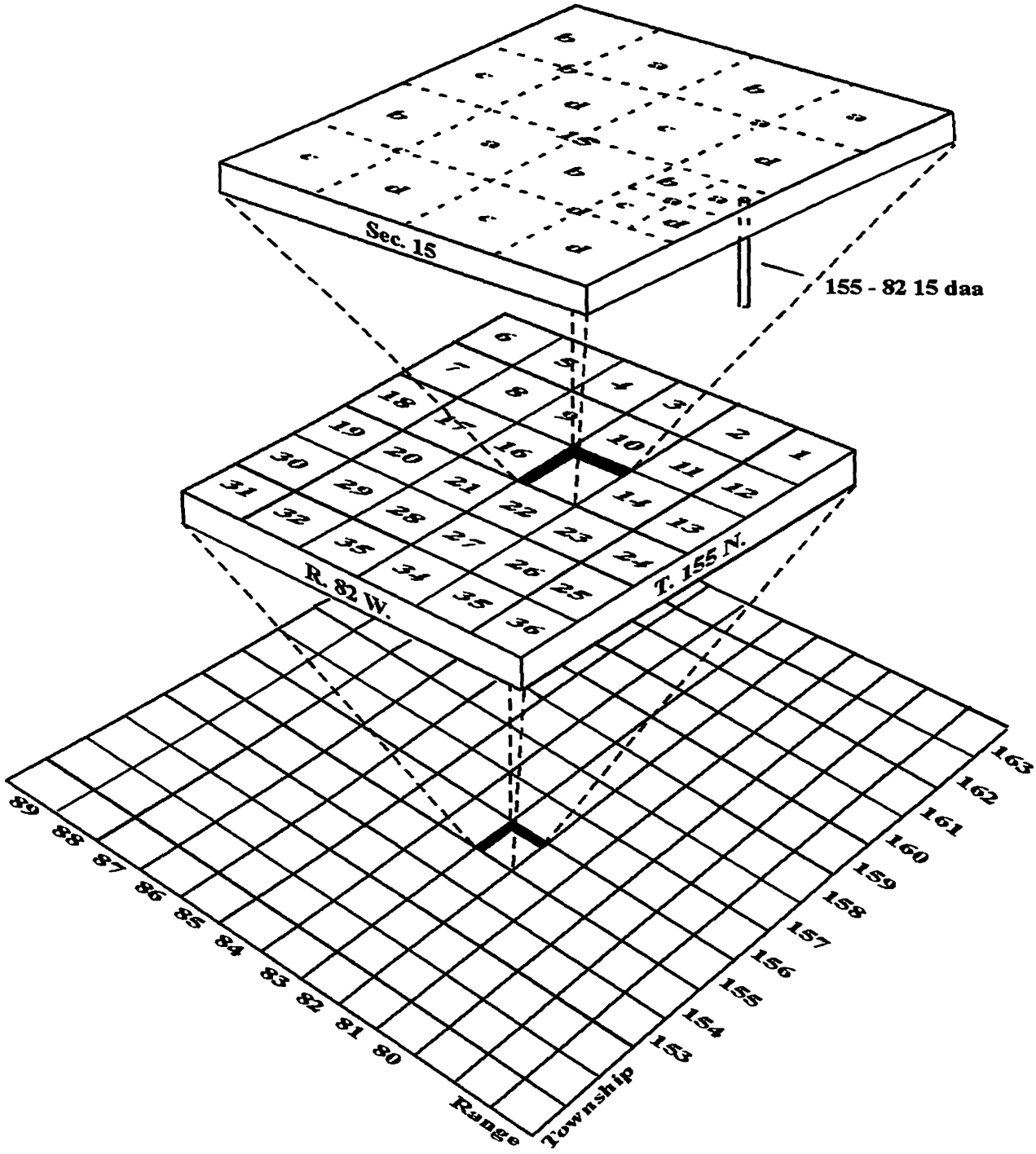

Figure 11. System of numbering wells and test holes (from Pettyjohn, 1967).

selected for their period of record and geographic location in order to provide an adequate representation of drawdown in each aquifer. Ground water elevations were also compared to Souris River flow and aquifer pumpage to evaluate the influence from recharge and discharge. The data set was also used to construct drawdown and potentiometric surface maps for both aquifers. Finally, changes in water elevations were compared to predictions made by Poore's (1987) numerical model of the Sundre aquifer.

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Water Budget for the Hydrogeologic System

In order to post audit the ground water, it is necessary to construct a water budget for the hydrogeologic system of the Sundre and Minot/Lower Souris aquifers (Figure 12). Several factors in the budget are unknown and must be estimated. The unknowns are the quantity of water removed from storage in both aquifers and recharge to both aquifers.

Water pumped from storage in both aquifers can be determined using known aquifer parameters and the following formula:

$$V=\Delta h*A*S$$

where Δh is the change in head that occurred during the study period (length [L]), A is the area over which drawdown occurred (L^2), and S is the storativity (dimensionless) for a given aquifer.

Recharge to the Sundre and Minot/Lower Souris aquifers is more difficult to determine and must be estimated by more indirect means. It is assumed that recharge to the Sundre aquifer comes predominantly from lateral flow and from leakage from the Minot/Lower Souris aquifer. Poore (1987) estimated inflow from the southeast and outflow to the northwest to be between 21,000 and 42,000 cubic feet per day (595 - 1,190

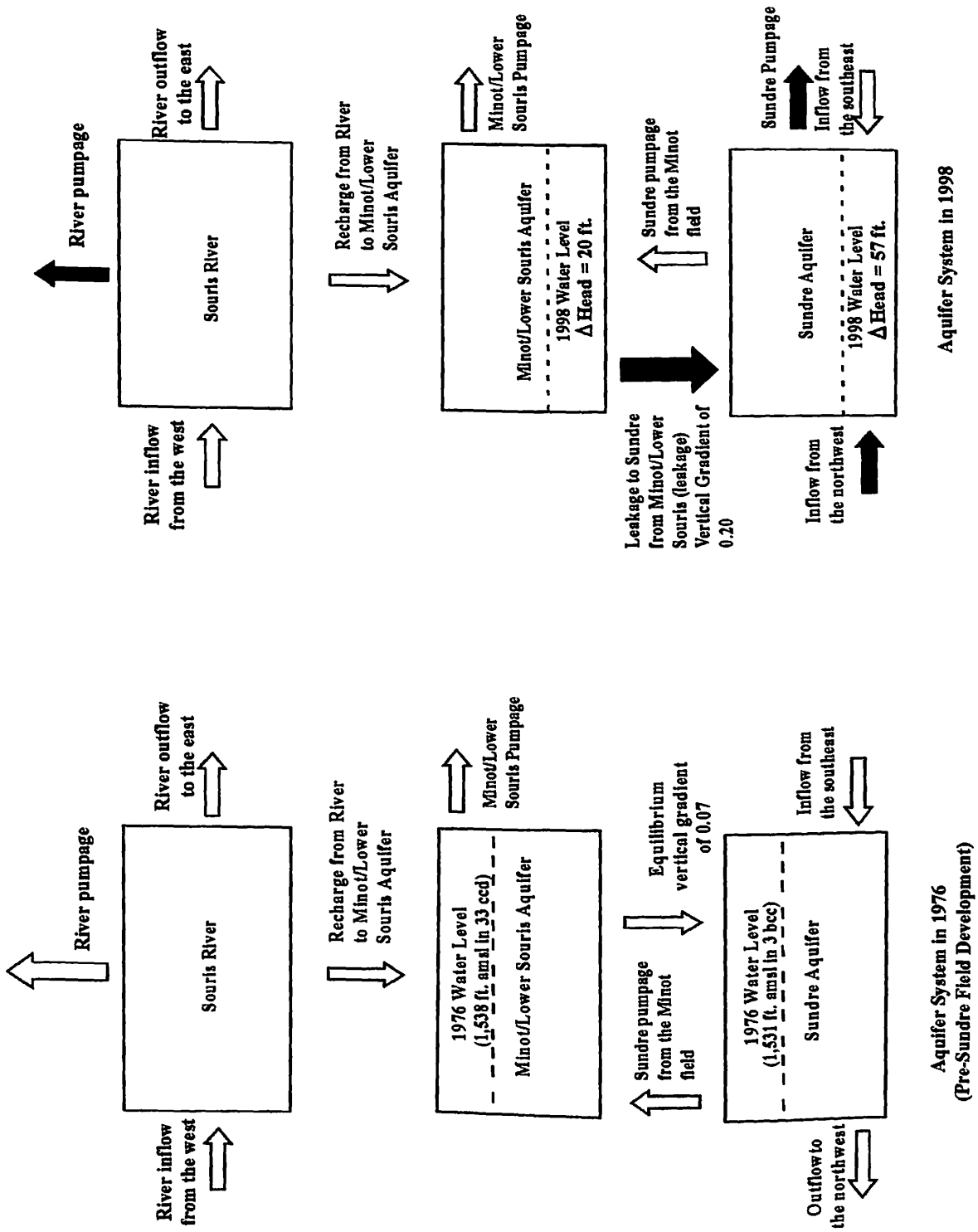

Figure 12: Flow budget for the Minot/Lower Souris/Sundre aquifer system prior to development of the Sundre well field and in 1998. Solid arrows indicate portions of the flow budget that underwent large changes between 1976 and 1998.

m^3/day) under steady-state conditions. This was accomplished using the following formula:

$$Q = KIA$$

Where Q is volumetric flow rate through the aquifer (L^3), K is the hydraulic conductivity of a given aquifer (L/time [T]), I is the ground water gradient (dimensionless) and A is the cross-sectional flow area of a given aquifer (L^2).

Recharge to Minot/Lower Souris aquifer comes primarily from infiltration of Souris River water. Darcy's law can be used to estimate the volume of water that is infiltrated into the aquifer from the river:

$$Q = -KA(dh/dl)$$

where Q is the volumetric flow rate in a given aquifer (L^3), K is the hydraulic conductivity of a given aquifer (L/T), A is the cross-sectional flow area of the aquifer(L^2) and dh/dl is the hydraulic gradient of the aquifer.

In order to determine vertical leakage, an overall vertical hydraulic conductivity must be established. The generalized lithology of the Minot/Lower Souris aquifer where it is in contact with the Sundre aquifer is sandy clay overlying sand (Figure 6). Using the following formula, it is possible to calculate a vertical conductivity for this succession of units:

$$K_v\ avg = b/(b_{cl}/K_{vcl} + b_s/K_{vs})$$

where $K_v\ avg$ is the average vertical hydraulic conductivity of the aquifer (L/T), K_v is the vertical conductivity of the layers (cl = clay, s = sand), b is the total aquifer thickness (L), b_{cl} is the thickness of clay unit (L), and b_s is the thickness of sand unit (L).

CHAPTER FIVE

RESULTS

Ground water trends noted during this study are illustrated in this chapter. These results are presented as changes in the Minot/Lower Souris aquifers and the Sundre aquifer. The resulting water budget calculations are also presented.

Minot/Lower Souris Aquifer Trends

The twenty-seven key wells used to characterize changes in the Minot/Lower Souris aquifer are shown in Figure 6. The wells selected were concentrated around the Minot area and towards the southeast along the Souris River channel. The comparison of ground water elevations for Minot municipal wells 5 (155-83-14 ddd2), river loading events, and pumpage is shown as Figure 13. This is used to show how the Minot/Lower Souris aquifer responds to significant river flow events. Well 5 shows significant increases in water elevation from September 1967 to May 1972. Three significant river discharge events greater than 900 million gal/d (3 million m^3/d) and operation of the Minot aquifer recharge facility occur during this time frame. Elevation declines in mid 1972 through early 1974 represent decreases in artificial recharge and river discharge.

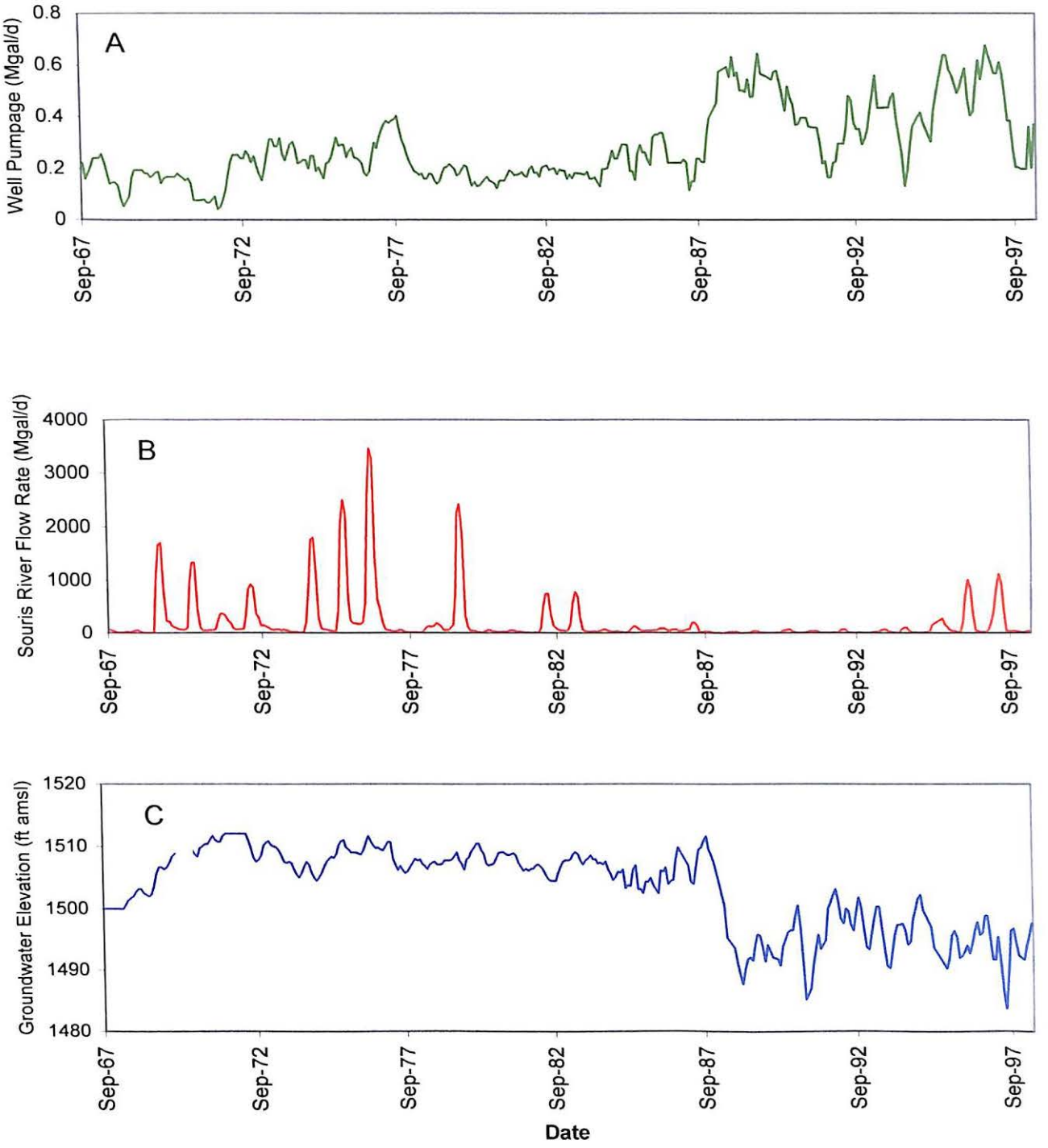

Figure 13. Graphs comparing a) well pumpage for Minot municipal well 5, b) Souris River flow rate and c) ground water elevation at Minot municipal well 5.

Discharge from the Souris River greater than 1,700 million gpd occurs during spring discharge events in 1974, 1975, 1976, and 1979. Following the 1979 spring flood event, there were no discharge events greater than 1,000 million gal/d (3.2 million m^3/d). A plot of river discharge versus vertical gradient between the Minot/Lower Souris and Sundre aquifers indicates that Sundre recharge is also dependent on river flow (Figure 14).

In addition to river discharge, water elevation is significantly affected by pumpage. Pumpage from well 5 rarely exceeded 0.6 million gallons per day (2270 m^3/d) from September 1967 to October 1984 (Figure 13). Water elevations in the well remained consistently above 1505 feet (458 m) amsl until production significantly increased during late 1985. For the interval October 1985 to December 1998 peak discharges ranged between 1 and 1.3 million gpd (3,785 and 4,921 m^3/d). During this interval no river discharge greater than 1600 cfs (1,000 million gpd) was recorded. Significant decreases in aquifer levels were noted in both wells. During peak usage, elevations in well 5 were as low as 1479 feet (450 m). Average water level decline in the well was 10 feet (3 m) from September 1971 to December 1998.

Piezometers 1203 (155-83-22 cbb2) and 5403 (155-83-23 bbb3) showed significant water level decline during the period 1968 to 1993. Wells 1203 and 5403 are located in close proximity of the Minot well field. Piezometer 1203 indicated 15 feet (5m) of drawdown between 1971 and 1993. Test well 5403 showed 10 feet (3 m) of drawdown in the same period. These values are indicative of areas in close proximity to the Minot well field (Figure 15). An established cone of depression was present surrounding the Minot field prior to this study interval, and the significant ground water decline has been eased by production from the Sundre field.

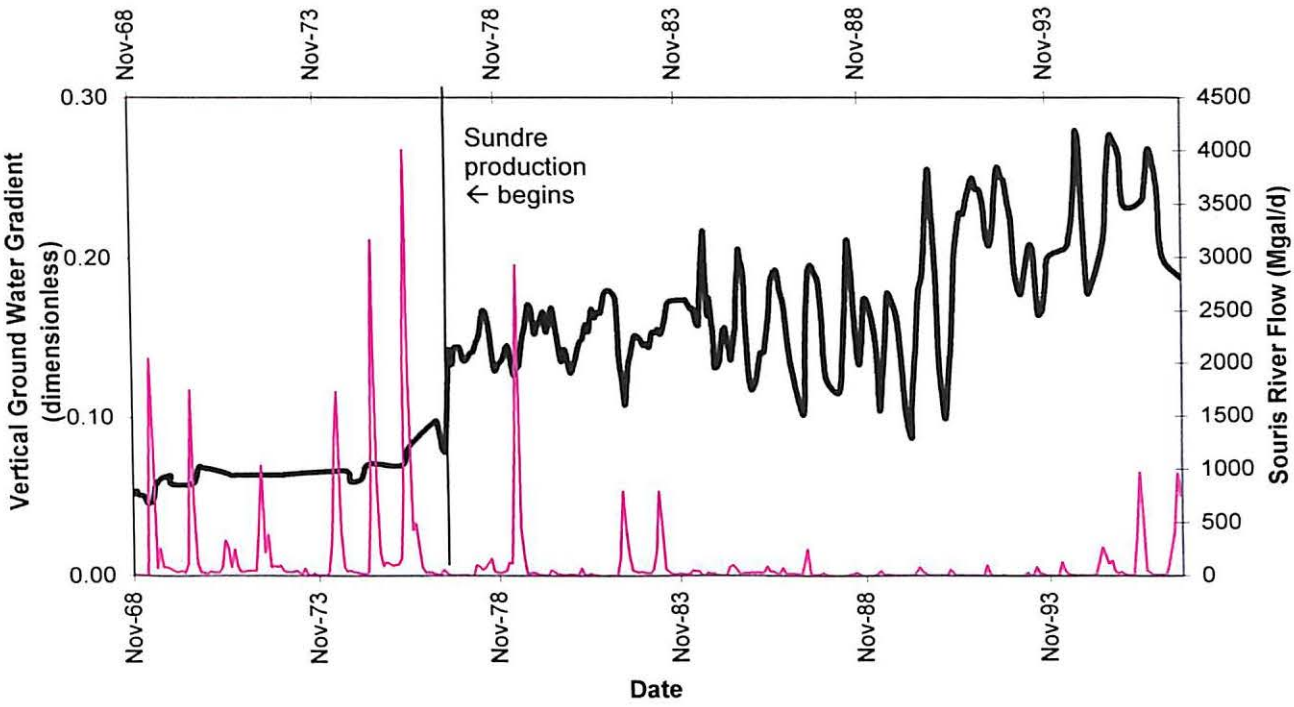

Figure 14: Vertical ground water gradient between Minot/Lower Souris piezometer 33 ccd and Sundre piezometer 3 bcc corrected for horizontal gradient difference in the Minot/Lower Souris to account for the 1.5 mile horizontal distance between wells. Also plotted is Souris River discharge. Note the increase in vertical gradient as river discharge decreases.

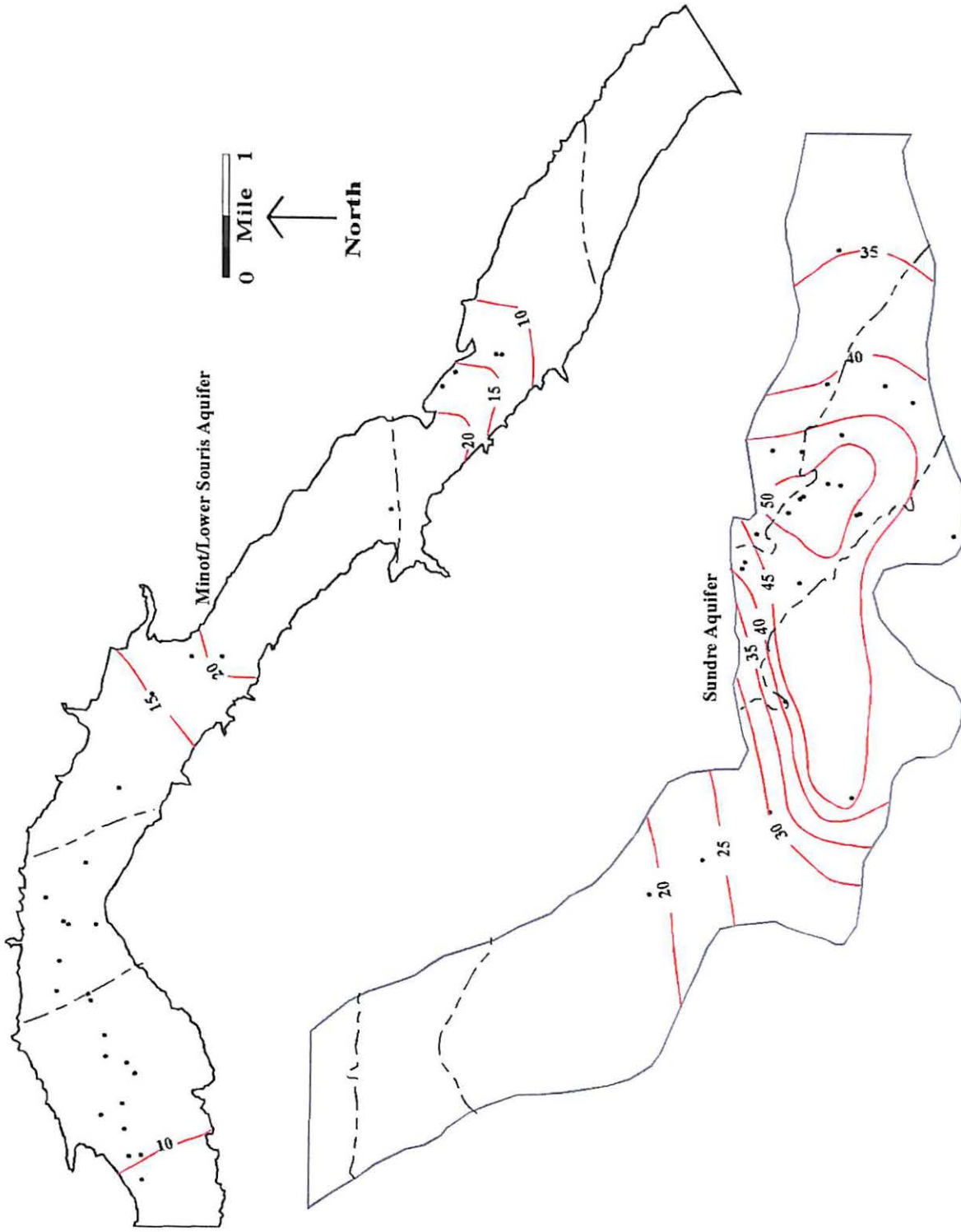

Figure 15: Cumulative drawdown (in feet) in the Minot/Lower Souris and Sundre aquifers from 1968 to 1998. Solid lines indicate drawdown in feet, dotted lines indicate where the Minot/Lower Souris overlies the Sundre, dots indicate wells used to constructed drawdown contours. Note that there is little cumulative effect of the continued pumping of the Minot well field, while the production at the Sundre well field causes pronounced changes in both aquifers.

Piezometers 2601 (155-82-19 dbd), 29 bcb (155-82-29 bcb), 33 ccd (155-82-33 ccd), and 3 cdc 5 (154-82-cdc 5) also showed significant declines in water elevations. These piezometers are located southeast of the Minot production field. Water elevations in well 2601, located approximately 3 miles (4.8 km) east-southeast of the Minot field, decreased greater than 15 feet (5 m) between 1971 and 1993. Well 29 bcb is located approximately equidistant to the Minot and Sundre well fields and is likely influenced by both. Wells 33 ccd and 3 cdc 5 are located within one mile (1.6 km) of the Sundre production wells. Water elevations decreased 25 feet (7.6 m) in well 29 bcb between installation of the first Sundre wells in summer of 1976 and December 1998 (Figure 16). Well 33 ccd exhibited water level decline of 26 feet (7.8 m) for the same interval (Figure 17). Well 3 cdc 5 has a shorter period of record than either of the previously mentioned wells, however drawdown greater than 13 feet (4 m) was recorded between 1981 and 1998. The area represented by these wells illustrates the greatest drawdown in the Minot/Lower Souris aquifer (Figure 15). This region of the aquifer represents an area of previously high static water levels are affected by production from both well fields. Figure 18 further illustrates the more significant area of drawdown between piezometers 33 ccd and 29 bcb relative to the area of the Minot well field.

Potentiometric maps of the aquifer from 1968, 1978, 1988 and 1998 are presented in Figure 19. As a set, these show the changes in ground water elevation that have occurred in the Minot/Lower Souris aquifer since production began from the Sundre field. The 1968 map shows a well-defined cone of depression surrounding the Minot well field with ground water elevations changing more gradually to the southeast. This represents pre-Sundre development ground water flow conditions in the aquifer. The pre-

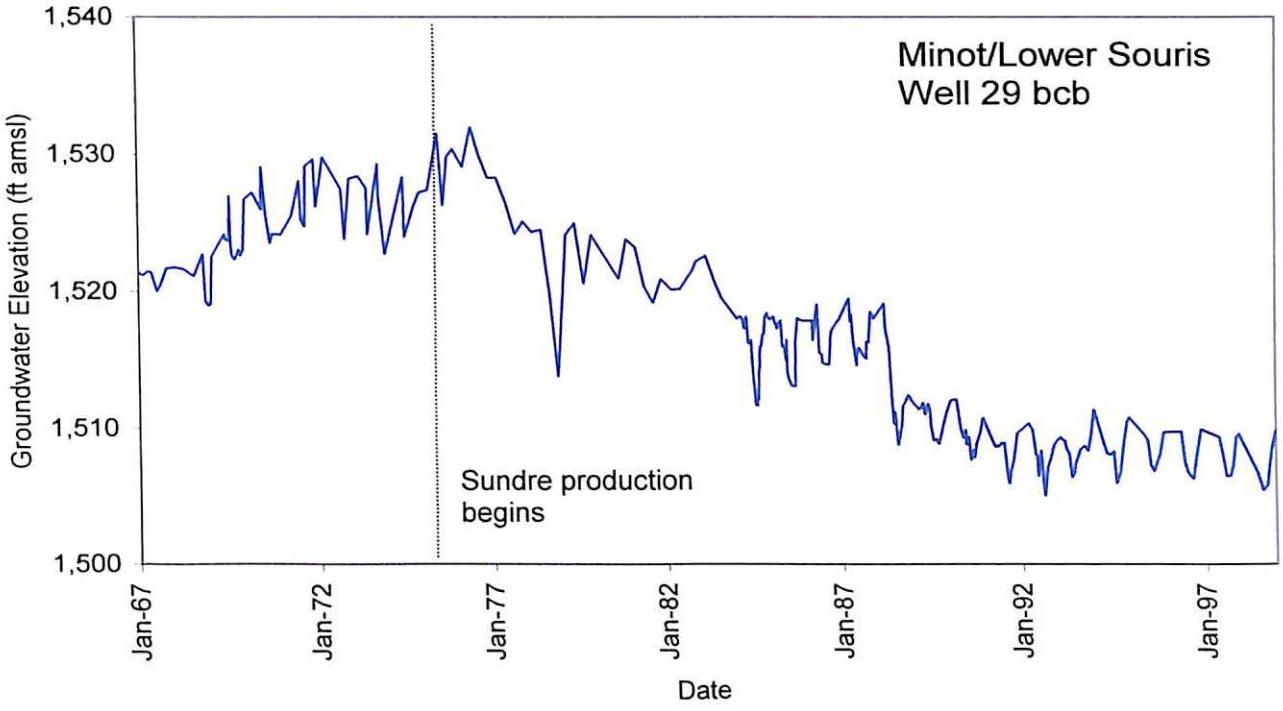

Figure 16. Graph of ground water elevations for Piezometer 29 bcb located between the Minot and Sundre production fields in the Minot/Lower Souris aquifer. Note the significant declines that occurred after the Sundre field came online in 1976.

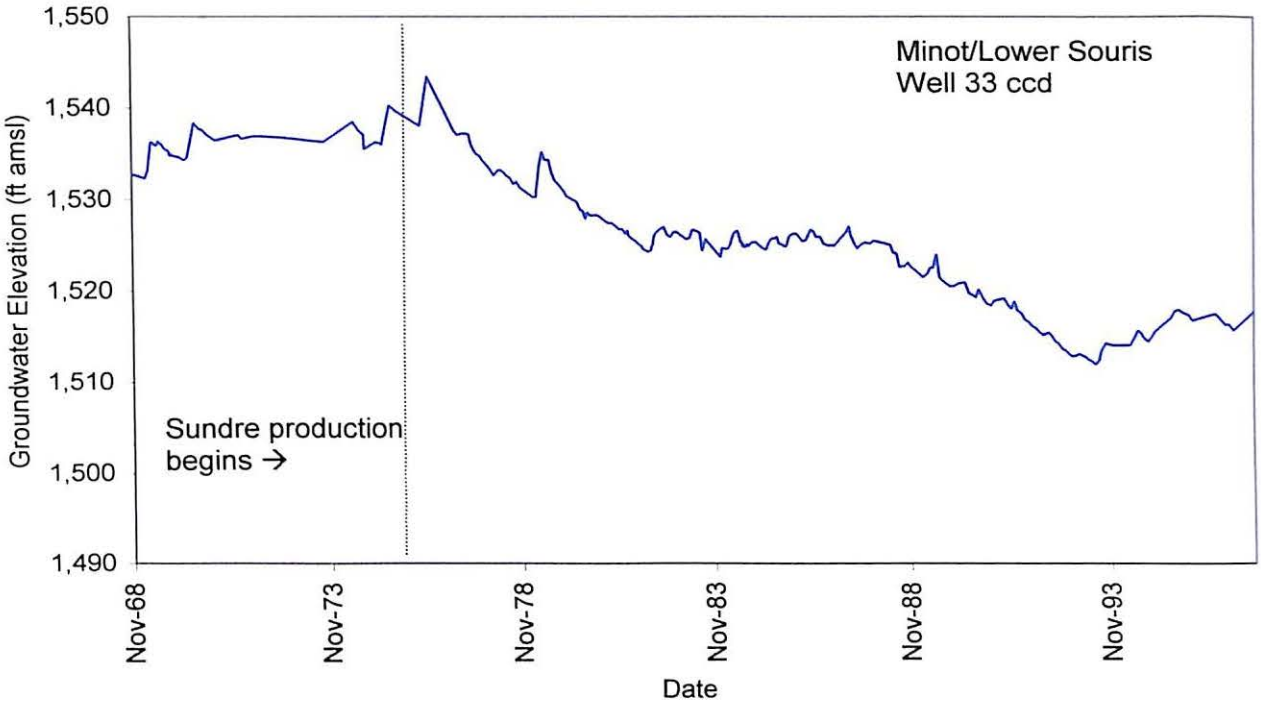

Figure 17. Graph of ground water elevations for Piezometer 33 ccd located near the Sundre production field in the Minot/Lower Souris aquifer. Note the significant declines that occurred after the Sundre field came online in 1976.

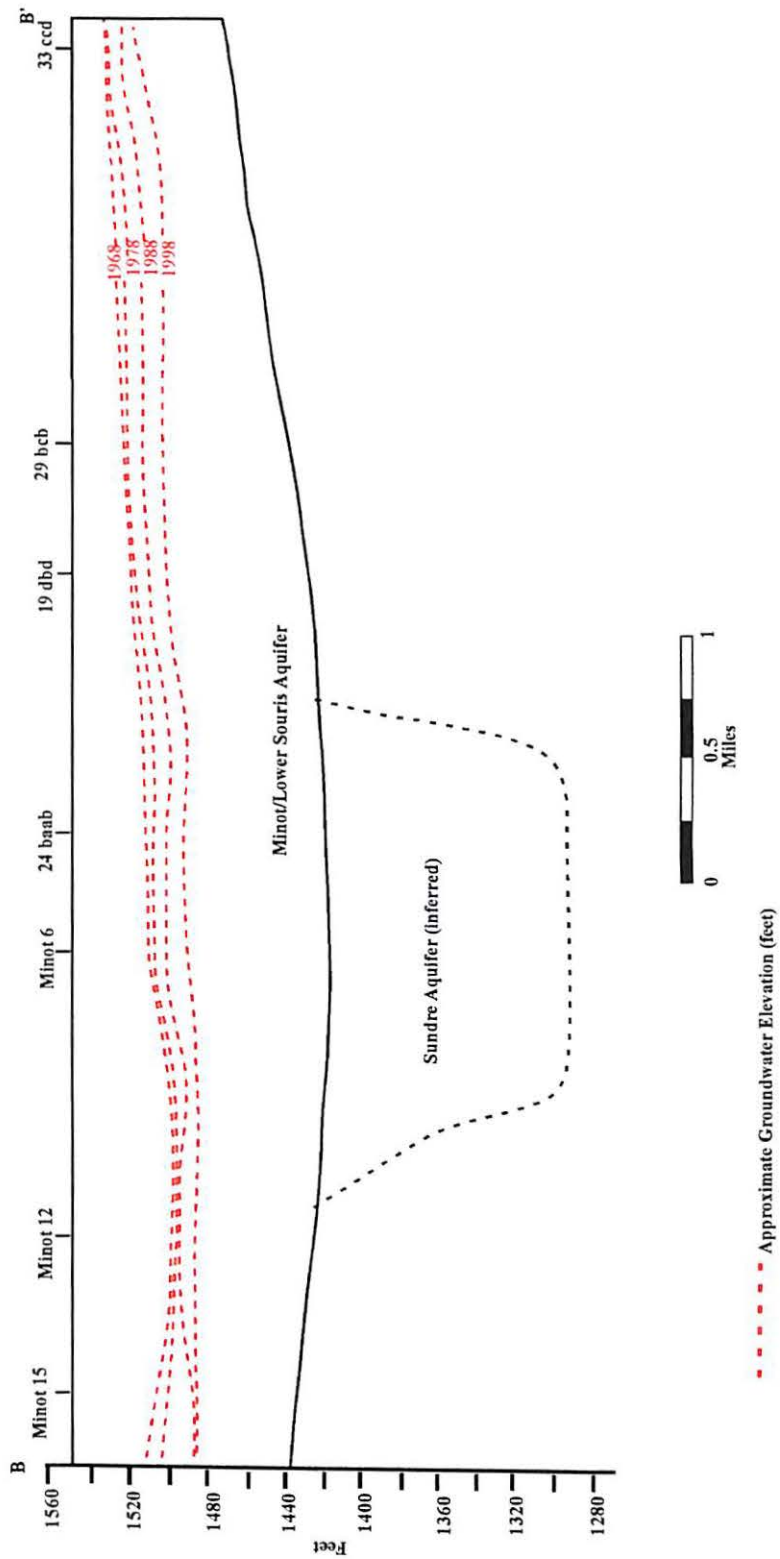

Figure 18. Hydrogeologic cross section of the Minot/Lower Souris aquifer along B-B' showing piezometric surfaces through time in the Minot/Lower Souris aquifer. Location of cross section line illustrated in Figure 6.

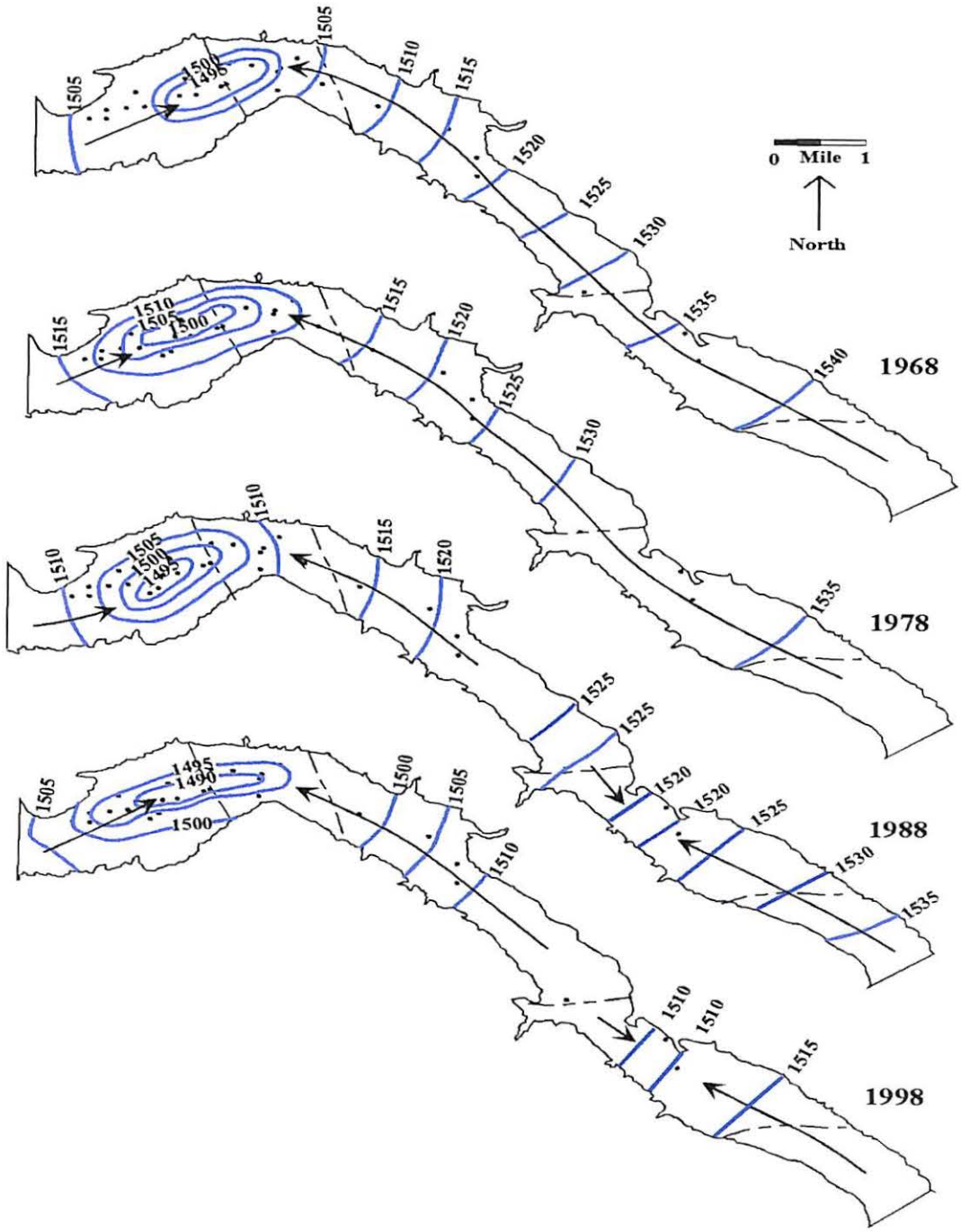

Figure 19: Potentiometric maps (in feet) of the Minot/Lower Souris aquifer during 1968, 1978, 1988, and 1999. Thin dashed lines indicate where the Sundre aquifer crosses beneath the Minot/Lower Souris. Note a complete reversal of flow direction in the central portion of the aquifer during the study interval. Dots indicate wells used for head data. Flow lines are inferred.

Minot field development flow direction in the Minot/Lower Souris aquifer was to the southeast, however the stress placed on the aquifer by the pumpage has reversed the hydraulic gradient. The 1978 map shows additional drawdown in the vicinity of the Minot well field. Production from the Sundre aquifer has slightly altered the ground water gradient in the Minot/Lower Souris aquifer near well 3 cdc 5. More significant change in the Minot/Lower Souris aquifer is apparent in the 1988 and 1998 maps, as increased leakage to the Sundre has lowered water levels. These show further widening and lengthening of the cone of depression surrounding the Minot well field. A ground water divide formed between Minot/Lower Souris piezometers 29 bcb and 33 ccd in the 1988 potentiometric map. Ground water flow has reversed from the northwest to southeast.

Sundre Aquifer Trends

Water level declines in the Sundre buried channel aquifer in general are much more significant than declines in the Minot/Lower Souris aquifers. This is likely a result of higher production and lower recharge. Complete data sets for the Sundre production wells were incomplete for the study period. Numerous piezometers were installed in the Sundre aquifer during early research and development and were available to determine drawdown patterns in the aquifer.

Test wells 2 ccb (154-82-2 ccb), 3 bcc (154-82-3 bcc), 4 aba 1 (154-82-4 aba1), 7 aaa (154-82-7 aaa), (located within a mile of Sundre Well A), 10 bbb 1 (154-82-10 bbb1), and 11 bcb (154-82-11 bcb) were selected as key wells for analysis (Figure 6). Significant drawdown occurred between August, 1976 and December, 1998 at Well 2 ccb

(40 ft/12 m), located approximately 1 mile (1.6 km) east of the production wells, and at well 3 bcc (51 ft/15.5 m), located immediately adjacent to Sundre well A (Figure 20). Well 4 aba 1, located 0.5 mile (0.8 km) northwest of well A, showed 41 feet (12.5 m) of drawdown during the same interval. A comparison of water level declines in the Minot/Lower Souris and Sundre aquifers is presented as Figure 21. This illustrates the more significant declines in the Sundre relative to those in the Minot/Lower Souris aquifer.

Overall, drawdown was more significant in wells 7 aaa, 10 bbb 1, and 11 bcb during the 1976-1998 interval than the more proximal wells with the exception of well 3 bcc. Water elevations in 7 aaa and 10 bbb 1 declined 46 feet (Figure 22), while elevations in 11 bcb declined 43 feet (14.3 m). The considerable drawdown in the more distal wells is likely explained by two factors. Wells 7 aaa, 10 bbb 1, 11 bcb, and 4 aba 1 are all located within 0.4 miles (0.5 km) of the buried valley walls, which are likely low to no-flow boundaries of the aquifer system. Additionally, the Sundre aquifer is not overlain by the Minot/Lower Souris aquifer near well 7 aaa preventing recharge from leakage (Figure 23).

Potentiometric maps (Figure 24) visually represent the considerable drawdown that occurred in the Sundre aquifer. The 1968 map represents pre-Sundre well field static water levels for the Sundre aquifer. General ground water flow direction is southeast northwest along the channel towards the Minot well field. The 1978 map shows development of an oblong cone of depression surrounding the Sundre production wells. A ground water divide is evident north of well 7 aaa representing significant ground water flow reversal in the vicinity of the production wells. The 1988 and 1998 maps

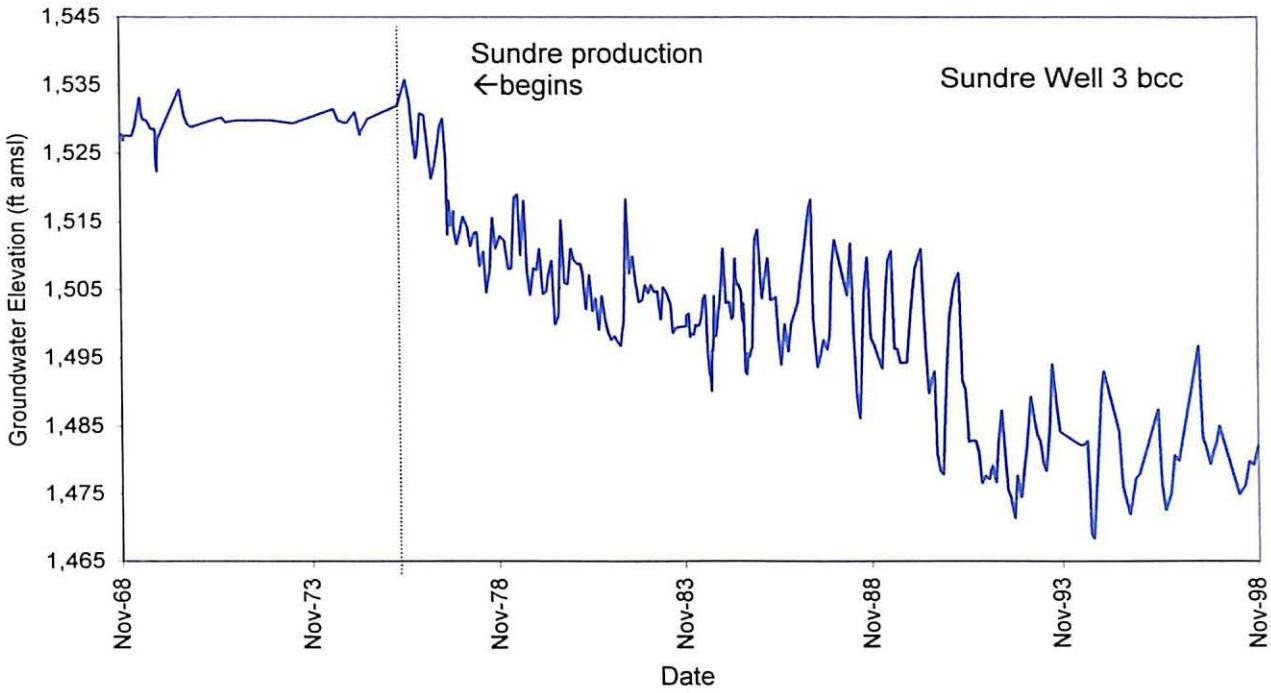

Figure 20. Graph of ground water elevations for Piezometer 3 bcc located in the Sundre aquifer near the Sundre production wells. Note the significant declines after the Sundre field came online in 1976.

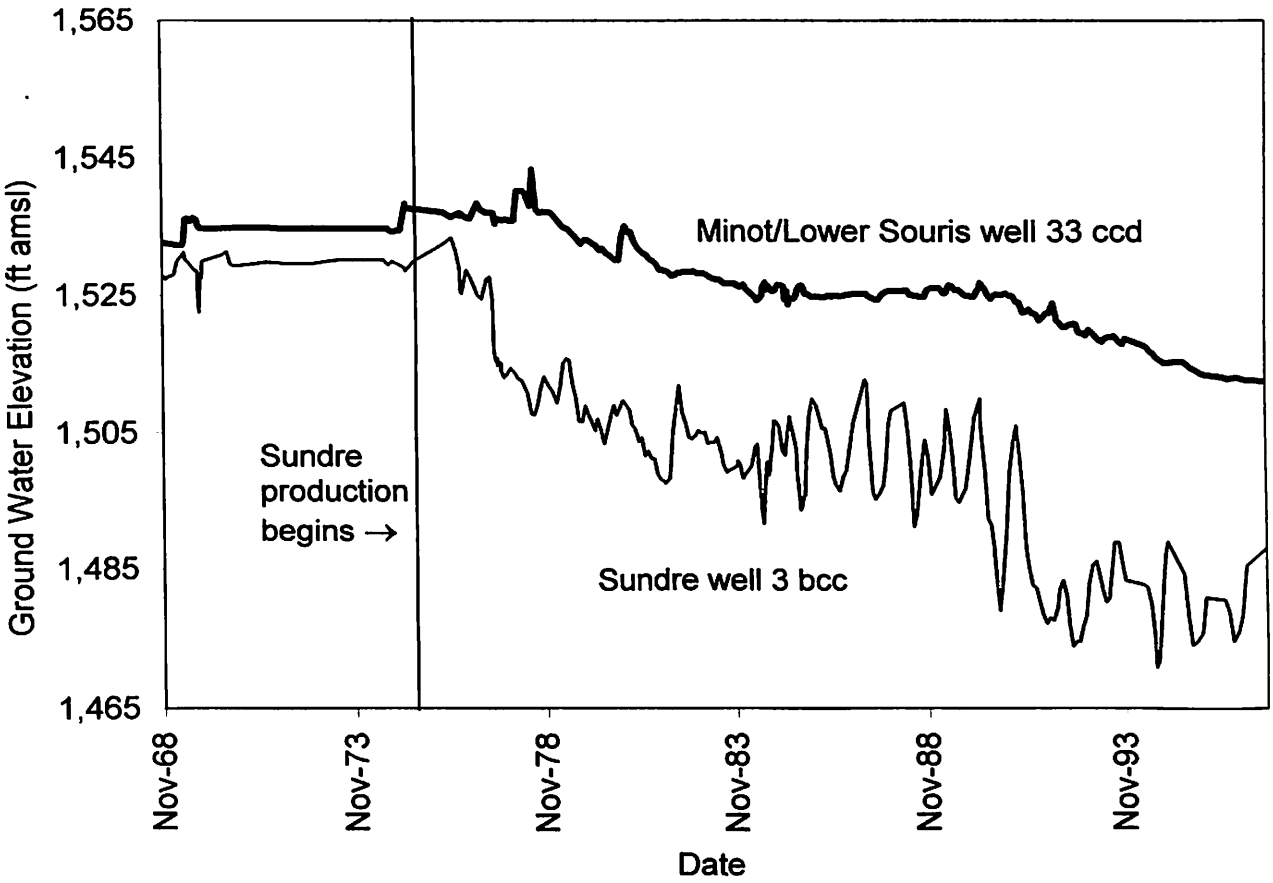

Figure 21. Graph comparing ground water elevations in the area around the Sundre production field. The Minot/Lower Souris is monitored by well 33 ccd and the Sundre is monitored by well 3 bcc. Note the increasing head difference between the two wells after the Sundre field production begins.

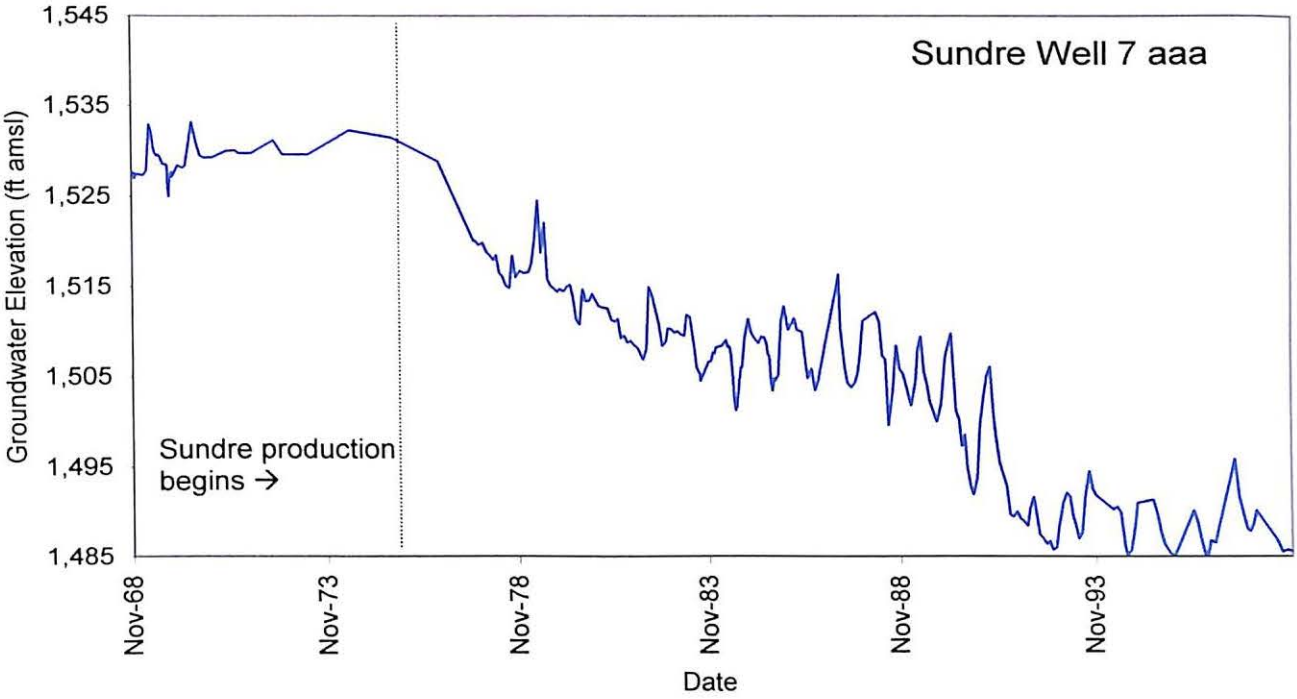

Figure 22. Graph of ground water elevations for piezometer 7 aaa located in the Sundre aquifer near the Sundre production wells. Note the decline in ground water elevation of approximately 40 feet after the Sundre field came online in 1976.

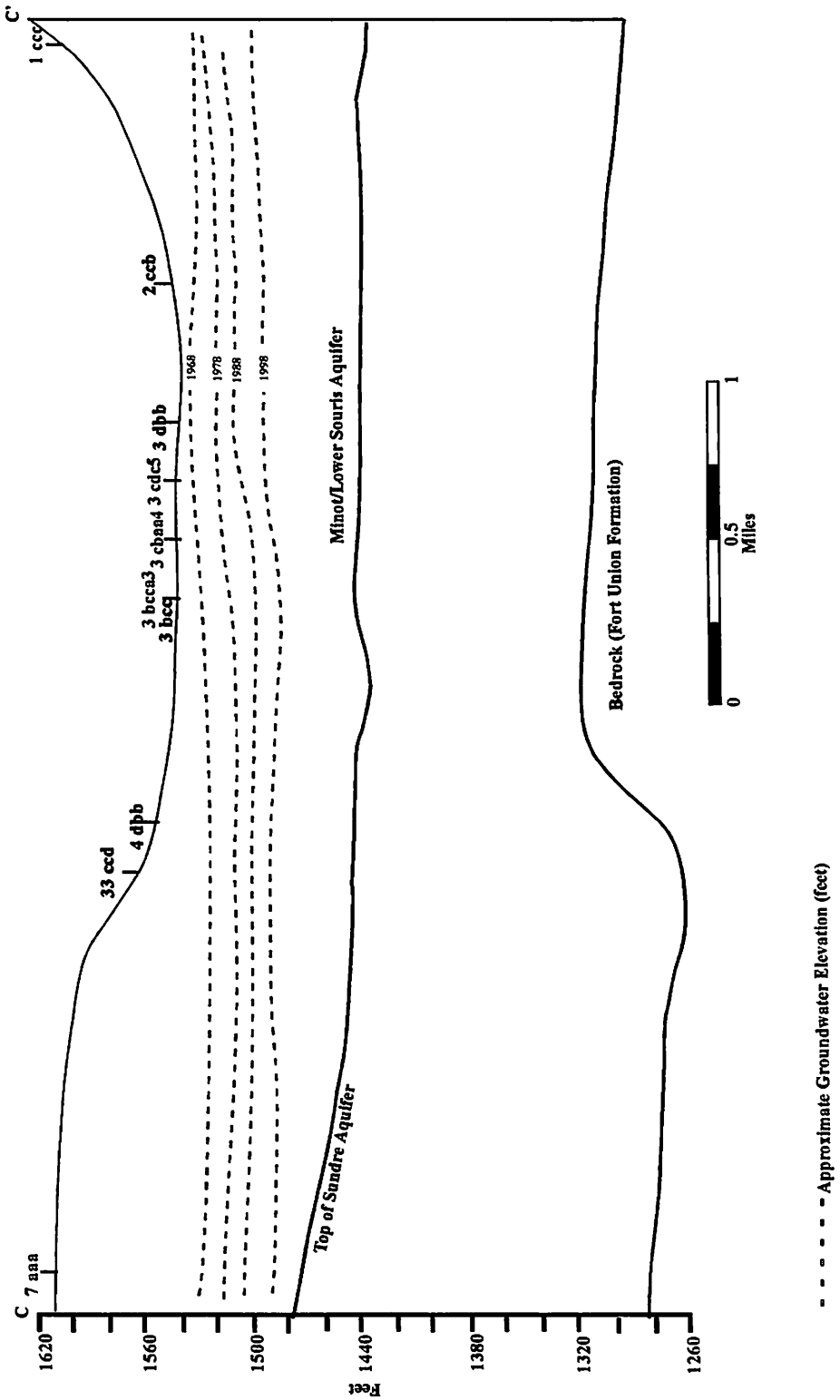

Figure 23. Hydrogeologic cross section of the Sundre aquifer Along C-C' showing piezometric surfaces through time in the Sundre aquifer. Map location of cross section illustrated in Figure 6.

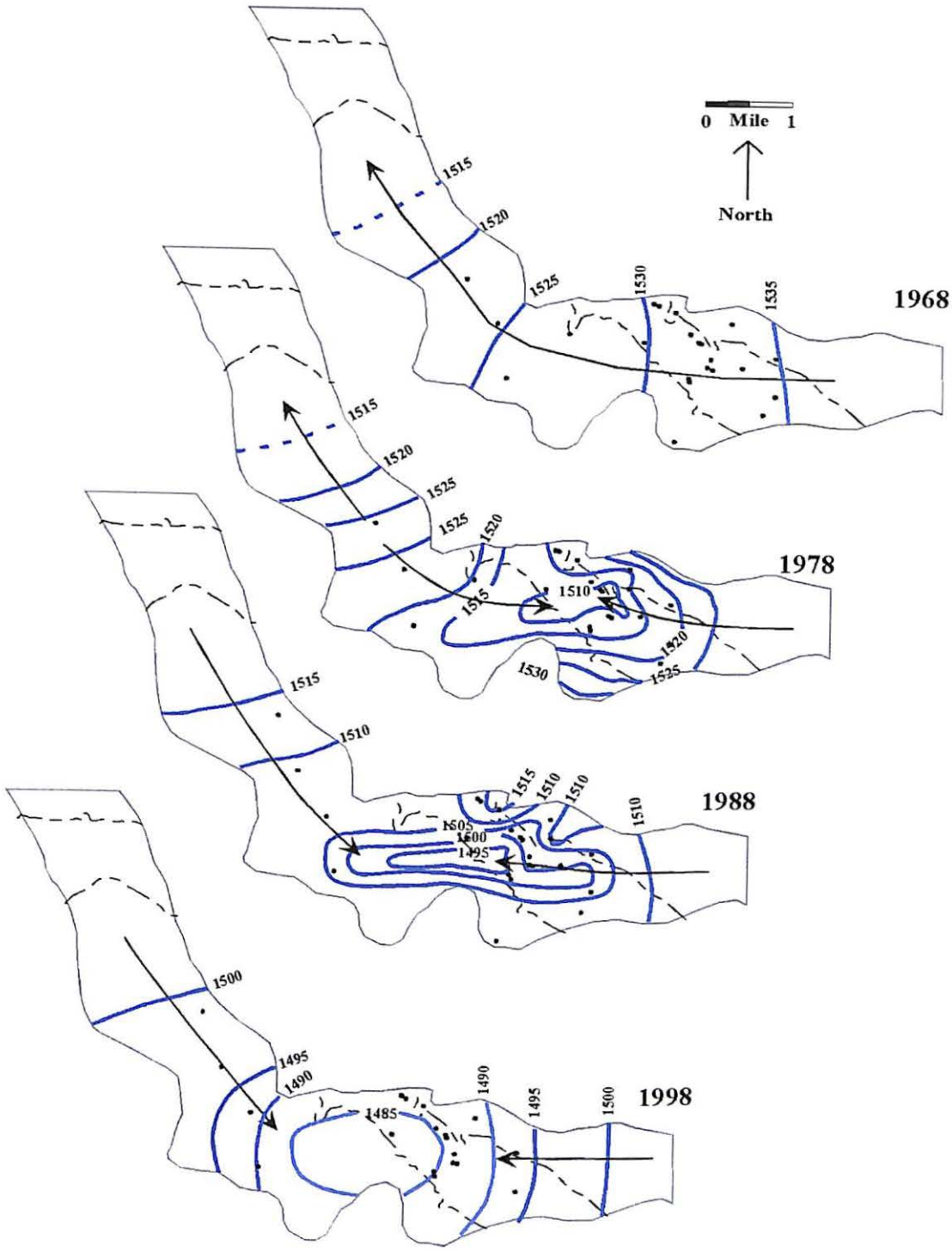

Figure 24: Potentiometric maps (in feet) of the Sundre aquifer during 1968, 1978, 1988, and 1999. Heavy solid lines indicate potentiometric contours. Thin dashed lines indicate where the Minot/Lower Souris aquifer crosses the Sundre. Dots indicate wells used to construct contours. Note a complete reversal of flow direction in the northwestern portion of the aquifer starting between 1968 and 1978 and completing by 1988. Dots indicate wells used for head data. Flow lines are inferred.

showed increased widening and lengthening of the cone of depression surrounding the Sundre wells. The cone of depression has extended significantly to the west into areas where recharge from the Minot/Lower Souris aquifers is nonexistent. These maps represent complete reversal of ground water flow from northwest to the southeast towards the well field in the northwest trending region of the aquifer.

Minot System Water Budget

The Sundre well field had 2800 million ft^3 of water extracted during the study interval. Using Pettyjohn's (1970) estimate of storativity for the Sundre aquifer of 0.0003, a volume of 5 million ft^3 (283,000 m^3) is estimated as the volume removed from storage. This accounts for approximately 0.25% of the 2,800 million cubic feet (79 million m^3) pumped from the Sundre aquifer during the 1976-1998 interval. Calculated loss from storage for the Minot/Lower Souris aquifer was much more significant at 216 million cubic feet (6.1 million m^3) due to unconfined conditions, but is still a small portion (7.7%) of the total volume.

Sundre aquifer inflow was calculated by Poore (1987) using a ground water gradient of 1.5 ft/mile and hydraulic conductivity values between 200 and 400 ft/day (60 to 120 m/d). However, as the cone of depression around the Sundre well field widened, the ground water gradient increased resulting in greater inflow from the eastern extension of the aquifer. Gradients of 10 feet per mile were observed east of the Sundre well field during 1978 (Figure 24), however these have appeared to decrease in 1988 and 1998. Using a ground water gradient of 5 ft/mile, estimates of inflow from the eastern extension

of the channel are between 70,000 and 140,000 cubic feet per day (1,950 and 3,900 m^3/d).

Review of the potentiometric map of the aquifer in 1988 (Figure 24) indicates that there is no longer outflow from the northwest arm of the Sundre aquifer due to ground water flow reversal. Using limited data available in sections 30 and 31, T.155N., R.82W., it is possible to estimate that the Sundre aquifer has received at least 140,000 cubic feet day (1,190 – 2,380 m^3/day) of recharge from lateral flow from the northwest. This value is much greater in this area because the cross sectional area of the channel in this area is approximately twice that in the eastern extension. Total recharge from inflow can be conservatively estimated using the rates from the southeast extension of the channel for the 1977-1988 interval and rates for the southeast and northwest extensions for the 1988-1998 interval. This amounts to between 1,000 and 1,500 million cubic feet (28 – 42 million m^3) for the 1977-1998 interval.

Estimates of infiltration to the Minot/Lower Souris aquifer from the Souris river were estimated using individual layers approximately 15 feet thick and conductivity values used of 2.8 X 10^{-2} ft/day (0.00001 cm/s) for the sandy clay and 28.35 ft/day (0.01 cm/s) for the sand. This yielded an overall vertical conductivity of 0.053 ft/day (0.000019 cm/s). Using this conductivity and Darcy's law, a value of 120,000 ft^3/day (3,400 m^3/day) of infiltration from the river to Minot/Lower Souris aquifer is obtained. This amounts to roughly 882 million cubic feet during the 1977-1998 interval.

In summary, 2,800 million cubic feet of water were produced from the Sundre aquifer between 1977 and 1998. The estimated water budget produced by this study indicates that 5 million cubic feet (283,000 m^3) and 216 million cubic feet (79 million

m^3) came from storage from the Sundre and Minot/Lower Souris aquifers, respectively. Lateral flow in the Sundre contributed an additional 1,000 to 1,500 million cubic feet. Infiltration from the Souris River to the system supplied a further 882 million cubic feet. An additional 197 to 697 million cubic feet is unaccounted for by this water budget. This is likely a result of these factors:

1. The estimate of lateral flow from the northwest extension of the Sundre channel was conservative due to sparse data.
2. Additional water may be entering the system through lateral flow from bedrock sources, however a comprehensive study of bedrock inflow is beyond the scope of this study.
3. The estimated recharge from the river may be higher owing to higher hydraulic conductivity than was used in these estimates.
4. The values of storativity used in this study may be higher and do not accurately reflect the characteristics of the Minot/Lower Souris and Sundre aquifers. This would result in additional water produced from storage.

CHAPTER SIX

DISCUSSION

The discrepancy between the model predictions and observations made by this study are likely attributed to the assumptions that the model was based on. The model predicted that very little water (1 to 2 % of the flow budget) was removed from storage in the Sundre aquifer during the transient simulation. The post audit water budget concurs that change in storage is a minor contributor to pumpage. However, the flow budget indicated that leakage was not as significant as Poore estimated. Leakage was estimated by this study to be approximately 33% of the 2,800 million cubic feet produced during the study interval. This is opposed to 98 to 99% predicted by the Poore (1987) model. Additionally, lateral flow in the aquifer provided an estimated 35 to 53% of pumpage. Poore's model assumed that inflow and outflow in the Sundre were equal and no water was added to the system by lateral flow.

The model prediction for sustained yield of 5.83 million gallons per day (21,900 m^3/d) was likely overestimated, since significant drawdown occurred during the study interval with production of 3 Mgal/d. However, the model assumptions and the estimate remain valid since the potentiometric surface remains above the upper clays. This will

likely change as the aquifer is further dewatered and the Sundre becomes unconfined. At the current rate this should happen in the next twenty years.

In order to make suggestions for a more precise model of the Sundre system, it is necessary to review possible sources of error in this model:

1. The model was constructed using the constant head nodes in the Minot/Lower Souris aquifer. This allowed much more leakage and recharge to occur than what was observed during this study.
2. The use of constant flux boundaries at the east and northwest extensions of the aquifer did not take into account changes in flow as a result of increased hydraulic gradient.
3. The model was too spatially confined to make an accurate representation of the aquifer system.
4. No flow boundary conditions used along the channel walls may have been inappropriate because recharge may occur along this interface.

A more accurate model of the Sundre aquifer would need to be constructed on a basin wide scale. This would allow better modeling of the interaction between the Sundre aquifer, the Minot/Lower Souris aquifer, the Souris river, and possible bedrock sources of recharge. Additional field data would need to be collected to better understand infiltration rates from the river and also lateral flow from the northwest extension of the channel.

The results of the model post audit once again indicate why they are a required portion of any model study. None of the previous studies cited in this work have found

an original ground water model to be representative of they system without a post audit. This study demonstrates that the physical system is unlikely to be well represented by the first model constructed. Thus, it is imperative to include a feedback loop in a modeling protocol to improve the model based on new data. In this case, within only a few years of pumping, significant model improvements could be made if included as part of the original model protocol. Without post audits, ground water models are limited in their usefulness in policy applications, especially after system changes have occurred (such as the installation of well fields).

CHAPTER SEVEN

CONCLUSIONS

The purpose of this study was to examine long-term drawdown patterns in the Minot/Lower Souris and Sundre aquifers in the vicinity of Minot, North Dakota and use the data to perform a post audit of an existing numerical model. These glacio-fluvial sourced aquifers account for more than three-fourths of the water supply for Minot.

Ground water withdrawal has significantly reduced the ground water elevations in both aquifers. Drawdown in wells screened in the Minot/Lower Souris aquifer in and near Minot averaged 13 feet during the period from January 1968 to December 1998. Wells located in southeastern regions of the Minot/Lower Souris aquifer where it overlies the Sundre aquifer exhibited drawdown greater than 25 feet. Observation wells in the Sundre aquifer demonstrated average drawdown greater than 44 feet during the period 1976 to 1998. Ground water flow direction in the Sundre aquifer has reversed from pre-development northwesterly flow to southeasterly flow towards the production wells. Continued drawdown is expected in the Minot/Lower Souris and Sundre aquifers unless additional sources of water become available.

The ground water model of the Sundre aquifer did not accurately represent the Sundre aquifer. This is due to an inadequate conceptual model of the aquifer system. The model predicted that leakage from the Minot/Lower Souris aquifer accounted for 98 to 99% of pumpage from the Sundre aquifer. The findings of this study indicate that leakage accounts for 33% while lateral flow in the aquifer provides 35 to 53% of pumpage. The remaining 14 to 32% came from storage in the Sundre and Minot/Lower Souris aquifers, or from other sources of recharge. Without an adequate conceptual model, and without a model post audit, the Minot/Lower Souris and Sundre aquifers cannot be effectively managed to provide a stable water supply to the area.

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APPENDICES

APPENDIX A

Water Level Elevations

Tables of Groundwater Elevations								
155-82-19 dbd/Well 2216			155-83-22 cbb 3/Well 1203			155-83-23 bbb 3/Well 5403		
Casing Elev. = 1548.00 ft			Casing Elev. = 1554.00 ft			Casing Elev. = 1555.00 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
11/21/63	34.16	1513.84	08/15/65	52.22	1501.78	08/25/65	64.88	1490.12
01/08/64	37.75	1510.25	09/21/65	57.57	1496.43	09/21/65	64.13	1490.87
02/03/64	38.00	1510.00	11/04/65	48.39	1505.61	11/04/65	63.77	1491.23
03/04/64	38.28	1509.72	12/10/65	40.93	1513.07	12/10/65	62.78	1492.22
04/07/64	39.56	1508.44	01/31/66	40.26	1513.74	01/05/66	61.23	1493.77
05/05/64	38.20	1509.80	03/15/66	40.84	1513.16	01/31/66	58.80	1496.20
06/12/64	38.44	1509.56	04/12/66	42.95	1511.05	04/12/66	56.29	1498.71
07/02/64	38.62	1509.38	05/12/66	42.49	1511.51	05/12/66	54.22	1500.78
08/05/64	39.20	1508.80	06/09/66	43.27	1510.73	06/09/66	53.44	1501.56
09/14/64	38.34	1509.66	07/14/66	44.81	1509.19	07/14/66	54.02	1500.98
10/09/64	37.91	1510.09	08/15/66	41.82	1512.18	08/15/66	54.89	1500.11
01/11/65	38.03	1509.97	10/27/66	46.80	1507.20	10/27/66	55.74	1499.26
02/17/65	38.02	1509.98	11/21/66	44.78	1509.22	11/21/66	54.11	1500.89
03/16/65	37.72	1510.28	12/05/66	44.48	1509.52	12/19/66	53.75	1501.25
04/12/65	37.26	1510.74	12/19/66	44.70	1509.30	01/17/67	54.64	1500.36
05/12/65	37.30	1510.70	01/17/67	47.43	1506.57	02/27/67	55.39	1499.61
06/17/65	36.84	1511.16	02/16/67	46.02	1507.98	03/10/67	55.90	1499.10
08/11/65	36.82	1511.18	03/10/67	48.25	1505.75	04/19/67	54.92	1500.08
09/15/65	35.94	1512.06	04/19/67	50.42	1503.58	05/24/67	54.07	1500.93
11/22/65	35.48	1512.52	05/24/67	49.35	1504.65	06/21/67	54.88	1500.12
02/01/66	32.86	1515.14	06/21/67	51.57	1502.43	07/21/67	56.11	1498.89
03/15/66	33.81	1514.19	07/21/67	48.35	1505.65	08/16/67	57.17	1497.83
05/05/66	32.80	1515.20	08/16/67	49.89	1504.11	09/25/67	56.30	1498.70
10/04/66	31.91	1516.09	09/13/67	49.75	1504.25	10/23/67	55.94	1499.06
10/05/66	32.51	1515.49	09/25/67	49.16	1504.84	12/06/67	56.90	1498.10
10/27/66	31.12	1516.88	10/23/67	49.04	1504.96	12/18/67	56.54	1498.46
11/22/66	31.42	1516.58	11/20/67	53.78	1500.22	01/15/68	55.80	1499.20
12/19/66	31.52	1516.48	12/20/67	51.45	1502.55	02/14/68	55.88	1499.12
01/30/67	31.93	1516.07	01/15/68	51.92	1502.08	03/28/68	56.67	1498.33
02/17/67	32.17	1515.83	02/14/68	52.30	1501.70	04/15/68	56.09	1498.91
03/10/67	32.13	1515.87	03/28/68	54.50	1499.50	04/29/68	55.80	1499.20
04/19/67	31.76	1516.24	04/15/68	46.45	1507.55	05/29/68	55.71	1499.29
05/23/67	31.67	1516.33	04/29/68	45.93	1508.07	06/27/68	55.31	1499.69
06/21/67	31.83	1516.17	05/29/68	47.24	1506.76	07/23/68	56.05	1498.95
07/21/67	33.23	1514.77	06/27/68	48.04	1505.96	08/29/68	55.41	1499.59
08/16/67	32.94	1515.06	07/23/68	48.32	1505.68	09/23/68	54.08	1500.92
09/25/67	32.42	1515.58	08/29/68	47.12	1506.88	10/03/68	53.58	1501.42
10/23/67	32.17	1515.83	09/23/68	46.81	1507.19	10/21/68	52.89	1502.11
11/20/67	32.09	1515.91	10/03/68	47.70	1506.30	11/18/68	53.95	1501.05
12/18/67	31.88	1516.12	10/12/68	49.64	1504.36	12/16/68	53.86	1501.14
01/15/68	32.19	1515.81	10/21/68	49.59	1504.41	01/21/69	54.14	1500.86
02/14/68	31.23	1516.77	11/18/68	50.89	1503.11	02/17/69	54.58	1500.42
03/28/68	32.42	1515.58	12/16/68	51.40	1502.60	03/17/69	55.20	1499.80
04/15/68	32.18	1515.82	01/20/69	51.88	1502.12	05/21/69	49.95	1505.05
04/29/68	32.20	1515.80	02/17/69	51.30	1502.70	05/26/69	49.80	1505.20
05/29/68	32.55	1515.45	03/17/69	53.89	1500.11	06/26/69	49.84	1505.16
06/07/68	32.22	1515.78	04/30/69	49.50	1504.50	07/30/69	50.73	1504.27
07/23/68	32.12	1515.88	05/26/69	46.65	1507.35	08/27/69	50.86	1504.14
08/29/68	31.67	1516.33	06/16/69	47.84	1506.16	09/15/69	52.70	1502.30
09/24/68	31.44	1516.56	06/26/69	47.89	1506.11	10/14/69	49.60	1505.40
11/18/68	30.97	1517.03	07/30/69	49.18	1504.82	11/17/69	48.89	1506.11
12/17/68	30.85	1517.15	08/27/69	37.32	1516.68	12/19/69	47.85	1507.15
01/20/69	30.84	1517.16	09/15/69	40.62	1513.38	01/12/70	47.46	1507.54

Tables of Groundwater Elevations								
155-82-19 dbd/Well 2216			155-83-22 cbb 3/Well 1203			155-83-23 bbb 3/Well 5403		
Casing Elev. = 1548.00 ft			Casing Elev. = 1554.00 ft			Casing Elev. = 1555.00 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
02/17/69	31.23	1516.77	10/14/69	41.34	1512.66	02/09/70	46.64	1508.36
03/17/69	31.30	1516.70	11/17/69	43.03	1510.97	03/09/70	46.08	1508.92
07/26/69	26.54	1521.46	12/15/69	42.45	1511.55	04/14/70	45.45	1509.55
08/27/69	27.33	1520.67	12/19/69	42.27	1511.73	05/13/70	44.71	1510.29
09/15/69	28.05	1519.95	01/12/70	41.32	1512.68	06/11/70	44.70	1510.30
10/14/69	27.42	1520.58	02/09/70	41.14	1512.86	07/06/70	44.49	1510.51
11/17/69	26.37	1521.63	03/09/70	42.06	1511.94	08/04/70	45.76	1509.24
12/19/69	26.01	1521.99	04/14/70	42.16	1511.84	08/31/70	49.94	1505.06
01/12/70	25.64	1522.36	05/13/70	42.61	1511.39	09/30/70	49.44	1505.56
02/09/70	25.53	1522.47	06/11/70	39.09	1514.91	11/04/70	49.32	1505.68
03/09/70	25.35	1522.65	07/06/70	38.94	1515.06	12/02/70	48.53	1506.47
04/14/70	24.96	1523.04	08/04/70	41.89	1512.11	01/08/71	48.10	1506.90
06/12/70	24.66	1523.34	08/31/70	45.15	1508.85	02/11/71	46.89	1508.11
07/06/70	23.95	1524.05	09/30/70	47.63	1506.37	03/09/71	46.56	1508.44
08/05/70	24.43	1523.57	11/04/70	46.29	1507.71	04/15/71	46.20	1508.80
08/31/70	26.43	1521.57	11/30/70	45.34	1508.66	05/10/71	45.78	1509.22
09/30/70	25.30	1522.70	01/08/71	42.50	1511.50	06/02/71	45.59	1509.41
11/04/70	24.59	1523.41	02/10/71	40.41	1513.59	07/07/71	45.67	1509.33
12/02/70	23.89	1524.11	03/09/71	40.79	1513.21	08/03/71	45.20	1509.80
01/08/71	23.89	1524.11	04/15/71	41.60	1512.40	09/08/71	45.89	1509.11
02/11/71	23.86	1524.14	05/10/71	42.05	1511.95	10/08/71	46.07	1508.93
03/09/71	23.71	1524.29	06/02/71	41.70	1512.30	11/05/71	45.82	1509.18
04/15/71	23.20	1524.80	07/08/71	41.99	1512.01	12/01/71	45.64	1509.36
05/10/71	23.44	1524.56	08/03/71	43.25	1510.75	01/06/72	44.74	1510.26
06/02/71	24.58	1523.42	09/08/71	45.67	1508.33	02/08/72	44.40	1510.60
07/08/71	23.40	1524.60	10/08/71	43.52	1510.48	03/08/72	44.31	1510.69
08/03/71	23.29	1524.71	11/04/71	42.75	1511.25	04/06/72	45.88	1509.12
09/08/71	22.93	1525.07	12/01/71	43.17	1510.83	05/02/72	45.41	1509.59
10/08/71	22.71	1525.29	01/06/72	42.82	1511.18	07/10/72	48.60	1506.40
11/05/71	22.64	1525.36	02/08/72	41.99	1512.01	08/10/72	48.02	1506.98
12/01/71	22.51	1525.49	03/08/72	43.09	1510.91	09/08/72	48.98	1506.02
01/06/72	22.19	1525.81	04/04/72	43.70	1510.30	10/06/72	49.75	1505.25
02/10/72	22.13	1525.87	05/02/72	43.88	1510.12	11/09/72	48.28	1506.72
03/08/72	22.65	1525.35	06/06/72	45.31	1508.69	12/05/72	47.93	1507.07
04/05/72	22.42	1525.58	07/10/72	45.78	1508.22	03/13/73	45.39	1509.61
05/02/72	21.86	1526.14	08/10/72	46.36	1507.64	04/03/73	45.84	1509.16
06/06/72	22.56	1525.44	09/08/72	47.15	1506.85	05/11/73	46.48	1508.52
07/10/72	25.19	1522.81	10/06/72	38.68	1515.32	06/08/73	47.64	1507.36
08/10/72	25.26	1522.74	11/09/72	44.23	1509.77	07/03/73	48.32	1506.68
09/08/72	25.75	1522.25	12/05/72	43.15	1510.85	08/03/73	48.89	1506.11
10/06/72	26.07	1521.93	03/13/73	41.23	1512.77	08/31/73	49.30	1505.70
11/09/72	24.76	1523.24	04/03/73	41.74	1512.26	09/23/73	49.29	1505.71
12/06/72	24.42	1523.58	05/11/73	40.23	1513.77	11/08/73	49.27	1505.73
01/09/73	26.99	1521.01	06/08/73	40.32	1513.68	12/06/73	50.10	1504.90
03/08/73	27.04	1520.96	06/29/73	40.15	1513.85	01/09/74	51.37	1503.63
03/12/73	23.98	1524.02	08/03/73	41.50	1512.50	03/08/74	51.10	1503.90
04/11/73	25.84	1522.16	08/31/73	42.85	1511.15	04/11/74	50.69	1504.31
05/03/73	24.59	1523.41	10/03/73	43.59	1510.41	06/20/74	51.16	1503.84
05/31/73	24.87	1523.13	11/08/73	46.52	1507.48	07/12/74	52.30	1502.70
06/20/73	25.20	1522.80	12/06/73	46.40	1507.60	08/09/74	52.80	1502.20
06/29/73	25.55	1522.45	01/09/74	46.14	1507.86	09/06/74	51.37	1503.63
07/12/73	26.45	1521.55	03/08/74	47.78	1506.22	11/01/74	50.55	1504.45
08/08/73	26.91	1521.09	04/11/74	48.50	1505.50	12/04/74	50.51	1504.49

Tables of Groundwater Elevations								
155-82-19 dbd/Well 2216			155-83-22 cbb 3/Well 1203			155-83-23 bbb 3/Well 5403		
Casing Elev. = 1548.00 ft			Casing Elev. = 1554.00 ft			Casing Elev. = 1555.00 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
08/21/73	27.44	1520.56	06/20/74	43.64	1510.36	01/16/75	50.15	1504.85
08/30/73	26.31	1521.69	07/12/74	43.89	1510.11	04/10/75	49.66	1505.34
10/03/73	25.67	1522.33	08/09/74	45.84	1508.16	05/02/75	49.50	1505.50
11/01/73	26.77	1521.23	09/06/74	47.44	1506.56	09/05/75	47.56	1507.44
11/08/73	26.01	1521.99	10/16/74	47.90	1506.10	09/30/75	47.78	1507.22
12/04/73	25.87	1522.13	12/04/74	47.10	1506.90	11/06/75	48.22	1506.78
12/06/73	26.34	1521.66	01/16/75	46.15	1507.85	12/03/75	50.00	1505.00
01/16/75	25.34	1522.66	04/10/75	47.59	1506.41	01/06/76	49.72	1505.28
03/06/75	25.02	1522.98	05/02/75	47.21	1506.79	02/06/76	49.07	1505.93
05/02/75	22.70	1525.30	06/20/75	24.47	1529.53	03/04/76	49.74	1505.26
05/14/75	23.25	1524.75	08/14/75	40.35	1513.65	04/01/76	49.85	1505.15
06/26/75	20.89	1527.11	09/05/75	43.48	1510.52	04/07/76	50.13	1504.87
07/25/75	22.29	1525.71	09/30/75	46.15	1507.85	06/11/76	48.51	1506.49
09/04/75	22.82	1525.18	11/06/75	46.50	1507.50	07/08/76	48.46	1506.54
09/30/75	22.99	1525.01	12/03/75	46.85	1507.15	08/05/76	50.72	1504.28
11/06/75	23.37	1524.63	01/06/76	47.52	1506.48	09/02/76	50.61	1504.39
12/03/75	23.47	1524.53	02/06/76	47.77	1506.23	10/08/76	49.40	1505.60
01/06/76	23.53	1524.47	03/04/76	47.90	1506.10	11/02/76	51.47	1503.53
02/05/76	23.88	1524.12	04/01/76	47.59	1506.41	12/01/76	50.92	1504.08
03/10/76	23.82	1524.18	06/11/76	26.45	1527.55	01/06/77	49.91	1505.09
04/08/76	22.81	1525.19	06/24/76	31.02	1522.98	02/02/77	48.74	1506.26
06/11/76	20.75	1527.25	07/08/76	35.13	1518.87	03/03/77	47.98	1507.02
07/08/76	21.29	1526.71	08/05/76	40.53	1513.47	04/04/77	48.16	1506.84
08/06/76	23.06	1524.94	09/02/76	44.07	1509.93	05/02/77	49.72	1505.28
09/02/76	22.58	1525.42	10/08/76	47.01	1506.99	06/08/77	50.72	1504.28
10/08/76	23.10	1524.90	11/04/76	48.17	1505.83	07/08/77	51.12	1503.88
11/05/76	23.68	1524.32	12/01/76	49.08	1504.92	08/04/77	51.40	1503.60
12/01/76	23.85	1524.15	01/06/77	49.86	1504.14	09/13/77	51.17	1503.83
01/06/77	23.54	1524.46	02/01/77	49.97	1504.03	10/03/77	50.79	1504.21
02/02/77	23.37	1524.63	03/03/77	48.83	1505.17	11/03/77	50.77	1504.23
03/03/77	23.46	1524.54	04/04/77	48.20	1505.80	12/02/77	49.86	1505.14
04/08/77	24.05	1523.95	05/02/77	48.58	1505.42	01/12/78	49.24	1505.76
05/05/77	25.00	1523.00	06/08/77	48.99	1505.01	02/07/78	48.88	1506.12
06/08/77	26.46	1521.54	07/08/77	49.47	1504.53	03/08/78	49.14	1505.86
07/07/77	26.49	1521.51	08/04/77	49.73	1504.27	04/06/78	48.96	1506.04
08/04/77	27.90	1520.10	09/09/77	49.93	1504.07	05/04/78	49.99	1505.01
09/13/77	27.95	1520.05	10/03/77	49.45	1504.55	06/06/78	50.64	1504.36
10/07/77	27.75	1520.25	11/03/77	48.58	1505.42	06/27/78	49.80	1505.20
11/02/77	27.15	1520.85	12/02/77	48.41	1505.59	08/04/78	49.93	1505.07
12/06/77	26.65	1521.35	01/12/78	48.61	1505.39	09/08/78	51.53	1503.47
01/12/78	26.35	1521.65	02/07/78	48.89	1505.11	10/03/78	50.97	1504.03
02/07/78	26.73	1521.27	03/08/78	49.10	1504.90	11/01/78	50.93	1504.07
03/08/78	27.45	1520.55	04/06/78	48.88	1505.12	11/30/78	50.37	1504.63
04/06/78	26.73	1521.27	05/04/78	48.17	1505.83	01/05/79	49.58	1505.42
05/04/78	27.78	1520.22	06/06/78	47.45	1506.55	02/01/79	49.98	1505.02
06/06/78	26.92	1521.08	06/27/78	47.60	1506.40	02/28/79	49.35	1505.65
06/27/78	27.60	1520.40	08/03/78	48.07	1505.93	03/28/79	49.82	1505.18
07/31/78	27.84	1520.16	09/08/78	49.35	1504.65	05/11/79	48.47	1506.53
09/08/78	30.05	1517.95	10/03/78	48.83	1505.17	06/05/79	48.76	1506.24
10/06/78	28.07	1519.93	11/01/78	49.81	1504.19	07/06/79	47.90	1507.10
11/01/78	28.08	1519.92	11/30/78	49.36	1504.64	08/01/79	50.22	1504.78
11/30/78	27.57	1520.43	01/01/79	48.92	1505.08	09/05/79	50.09	1504.91
01/01/79	27.45	1520.55	02/28/79	49.21	1504.79	10/04/79	49.32	1505.68

Tables of Groundwater Elevations								
155-82-19 dbd/Well 2216			155-83-22 cbb 3/Well 1203			155-83-23 bbb 3/Well 5403		
Casing Elev. = 1548.00 ft			Casing Elev. = 1554.00 ft			Casing Elev. = 1555.00 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
01/05/79	27.21	1520.79	03/28/79	49.96	1504.04	10/08/79	49.86	1505.14
02/01/79	27.45	1520.55	05/11/79	45.52	1508.48	11/30/79	47.62	1507.38
03/02/79	27.51	1520.49	06/05/79	42.39	1511.61	03/06/80	46.49	1508.51
03/28/79	27.29	1520.71	07/06/79	42.49	1511.51	04/01/80	47.26	1507.74
05/17/79	24.88	1523.12	08/02/79	43.15	1510.85	04/29/80	47.06	1507.94
06/05/79	26.06	1521.94	09/05/79	45.65	1508.35	06/04/80	48.85	1506.15
07/06/79	26.44	1521.56	10/04/79	46.60	1507.40	07/03/80	48.97	1506.03
09/05/79	29.18	1518.82	11/08/79	46.81	1507.19	08/07/80	53.04	1501.96
10/04/79	28.48	1519.52	11/30/79	46.37	1507.63	09/09/80	50.92	1504.08
11/08/79	26.87	1521.13	03/07/80	45.75	1508.25	09/30/80	50.25	1504.75
11/30/79	27.20	1520.80	04/01/80	45.77	1508.23	11/05/80	49.81	1505.19
03/03/80	26.07	1521.93	04/29/80	45.65	1508.35	12/04/80	48.46	1506.54
04/28/80	28.71	1519.29	06/04/80	46.70	1507.30	03/06/81	48.50	1506.50
06/03/80	29.41	1518.59	07/03/80	47.73	1506.27	05/08/81	49.70	1505.30
07/03/80	30.86	1517.14	08/07/80	48.64	1505.36	06/10/81	49.58	1505.42
08/06/80	31.04	1516.96	09/04/80	48.75	1505.25	07/10/81	53.17	1501.83
09/09/80	29.03	1518.97	09/09/80	49.90	1504.10	08/05/81	50.90	1504.10
09/30/80	28.15	1519.85	09/30/80	49.62	1504.38	09/04/81	51.49	1503.51
11/05/80	27.79	1520.21	11/05/80	49.14	1504.86	10/08/81	51.75	1503.25
12/04/80	27.03	1520.97	03/06/81	47.90	1506.10	11/30/81	51.84	1503.16
03/06/81	27.61	1520.39	05/08/81	48.64	1505.36	03/22/82	50.46	1504.54
04/03/81	27.15	1520.85	06/10/81	48.72	1505.28	04/29/82	52.83	1502.17
05/08/81	29.17	1518.83	07/10/81	49.28	1504.72	06/17/82	52.40	1502.60
06/04/81	29.17	1518.83	08/05/81	49.51	1504.49	07/29/82	54.28	1500.72
07/09/81	30.78	1517.22	09/04/81	50.39	1503.61	09/23/82	52.98	1502.02
08/06/81	30.58	1517.42	10/08/81	51.42	1502.58	12/08/82	51.05	1503.95
09/04/81	30.46	1517.54	11/30/81	51.63	1502.37	03/14/83	50.20	1504.80
10/08/81	30.81	1517.19	03/22/82	51.28	1502.72	04/26/83	49.42	1505.58
11/30/81	29.95	1518.05	04/29/82	51.09	1502.91	06/14/83	49.29	1505.71
03/24/82	30.11	1517.89	06/17/82	51.19	1502.81	07/22/83	50.70	1504.30
04/29/82	30.63	1517.37	07/29/82	49.87	1504.13	08/29/83	51.89	1503.11
06/18/82	29.99	1518.01	09/23/82	50.34	1503.66	10/15/83	50.60	1504.40
07/29/82	31.75	1516.25	12/08/82	49.30	1504.70	11/29/83	50.56	1504.44
10/24/82	29.49	1518.51	03/14/83	49.42	1504.58	03/24/84	51.04	1503.96
12/08/82	28.24	1519.76	04/26/83	48.32	1505.68	04/22/84	52.29	1502.71
03/17/83	28.09	1519.91	06/14/83	48.71	1505.29	05/27/84	52.64	1502.36
04/26/83	28.00	1520.00	07/22/83	49.03	1504.97	06/16/84	51.90	1503.10
07/01/83	28.53	1519.47	08/29/83	48.94	1505.06	07/28/84	52.59	1502.41
08/29/83	30.83	1517.17	10/15/83	49.58	1504.42	08/26/84	54.30	1500.70
10/15/83	29.27	1518.73	11/29/83	50.03	1503.97	09/22/84	54.23	1500.77
11/29/83	28.24	1519.76	03/24/84	51.32	1502.68	10/21/84	52.43	1502.57
03/24/84	28.71	1519.29	04/22/84	51.61	1502.39	11/30/84	52.90	1502.10
04/22/84	29.53	1518.47	05/27/84	50.20	1503.80	12/09/84	51.56	1503.44
05/27/84	28.58	1519.42	06/16/84	49.22	1504.78	03/23/85	53.20	1501.80
06/16/84	29.51	1518.49	07/28/84	49.44	1504.56	04/27/85	52.80	1502.20
07/28/84	32.01	1515.99	08/26/84	51.28	1502.72	05/27/85	54.47	1500.53
08/26/84	32.15	1515.85	09/22/84	51.53	1502.47	06/06/85	53.56	1501.44
09/22/84	30.59	1517.41	10/21/84	50.68	1503.32	07/28/85	54.66	1500.34
10/21/84	30.06	1517.94	12/03/84	51.20	1502.80	08/31/85	53.79	1501.21
12/03/84	28.67	1519.33	12/09/84	51.50	1502.50	09/29/85	53.54	1501.46
12/09/84	30.15	1517.85	03/23/85	53.75	1500.25	12/03/85	51.99	1503.01
03/23/85	30.02	1517.98	04/27/85	53.35	1500.65	12/08/85	52.06	1502.94
04/27/85	29.99	1518.01	05/27/85	52.37	1501.63	03/29/86	51.58	1503.42

Tables of Groundwater Elevations								
155-82-19 dbd/Well 2216			155-83-22 cbb 3/Well 1203			155-83-23 bbb 3/Well 5403		
Casing Elev. = 1548.00 ft			Casing Elev. = 1554.00 ft			Casing Elev. = 1555.00 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
05/27/85	30.44	1517.56	06/06/85	52.24	1501.76	04/27/86	51.48	1503.52
06/06/85	29.47	1518.53	07/28/85	53.84	1500.16	05/31/86	52.23	1502.77
07/28/85	31.82	1516.18	08/31/85	52.18	1501.82	06/28/86	51.60	1503.40
08/31/85	30.62	1517.38	09/29/85	51.17	1502.83	07/27/86	50.33	1504.67
09/29/85	29.52	1518.48	12/03/85	50.59	1503.41	08/30/86	53.03	1501.97
12/03/85	29.33	1518.67	12/08/85	50.74	1503.26	09/29/86	51.26	1503.74
12/08/85	29.12	1518.88	03/29/86	50.73	1503.27	10/25/86	50.34	1504.66
03/29/86	29.67	1518.33	04/27/86	51.24	1502.76	12/02/86	50.18	1504.82
04/27/86	28.13	1519.87	05/31/86	52.07	1501.93	12/20/86	50.09	1504.91
05/31/86	29.26	1518.74	06/28/86	52.33	1501.67	04/19/87	50.61	1504.39
06/28/86	30.21	1517.79	07/27/86	51.59	1502.41	05/30/87	50.13	1504.87
07/27/86	28.96	1519.04	08/30/86	54.65	1499.35	06/20/87	51.99	1503.01
08/30/86	30.98	1517.02	09/29/86	51.70	1502.30	07/26/87	50.99	1504.01
09/29/86	29.05	1518.95	10/25/86	51.52	1502.48	08/30/87	50.37	1504.63
10/25/86	28.45	1519.55	12/02/86	51.42	1502.58	09/22/87	49.19	1505.81
12/02/86	28.77	1519.23	12/20/86	50.53	1503.47	09/27/87	50.24	1504.76
12/20/86	29.35	1518.65	04/19/87	50.54	1503.46	10/31/87	48.00	1507.00
04/19/87	28.99	1519.01	05/30/87	50.78	1503.22	12/09/87	48.16	1506.84
05/30/87	28.26	1519.74	06/20/87	50.92	1503.08	03/27/88	54.28	1500.72
06/20/87	29.82	1518.18	07/26/87	51.83	1502.17	04/23/88	55.00	1500.00
07/26/87	28.86	1519.14	08/30/87	49.12	1504.88	05/28/88	56.11	1498.89
08/30/87	28.71	1519.29	09/22/87	48.23	1505.77	06/25/88	59.15	1495.85
09/21/87	28.69	1519.31	09/27/87	47.07	1506.93	07/30/88	59.65	1495.35
09/27/87	28.40	1519.60	10/31/87	47.22	1506.78	08/27/88	59.92	1495.08
10/31/87	27.39	1520.61	12/09/87	46.28	1507.72	09/24/88	62.14	1492.86
12/09/87	29.55	1518.45	12/13/87	46.29	1507.71	10/30/88	65.66	1489.34
12/13/87	35.77	1512.23	03/27/88	54.31	1499.69	11/18/88	63.94	1491.06
03/27/88	28.13	1519.87	04/23/88	55.35	1498.65	12/10/88	63.59	1491.41
04/23/88	29.70	1518.30	05/28/88	56.71	1497.29	03/25/89	59.72	1495.28
05/28/88	32.22	1515.78	06/25/88	59.23	1494.77	05/28/89	57.60	1497.40
06/25/88	35.02	1512.98	07/30/88	60.21	1493.79	06/24/89	60.55	1494.45
08/27/88	35.06	1512.94	08/27/88	60.49	1493.51	07/31/89	60.64	1494.36
09/24/88	35.71	1512.29	09/24/88	52.40	1501.60	08/27/89	65.08	1489.92
10/30/88	35.98	1512.02	10/30/88	64.29	1489.71	09/24/89	64.15	1490.85
11/18/88	36.07	1511.93	11/18/88	64.07	1489.93	10/29/89	62.36	1492.64
12/10/88	36.40	1511.60	12/10/88	63.47	1490.53	11/30/89	60.72	1494.28
03/25/89	36.75	1511.25	03/25/89	58.54	1495.46	12/09/89	61.79	1493.21
04/30/89	36.03	1511.97	04/30/89	58.75	1495.25	03/04/90	66.54	1488.46
05/28/89	35.55	1512.45	05/28/89	59.66	1494.34	04/28/90	65.16	1489.84
06/24/89	35.44	1512.56	06/24/89	60.49	1493.51	05/27/90	63.64	1491.36
07/31/89	36.81	1511.19	07/31/89	60.13	1493.87	06/26/90	62.34	1492.66
08/27/89	38.28	1509.72	08/27/89	60.96	1493.04	07/29/90	61.10	1493.90
09/24/89	38.23	1509.77	10/29/89	61.45	1492.55	08/25/90	60.79	1494.21
10/29/89	37.55	1510.45	11/30/89	61.24	1492.76	09/18/90	59.90	1495.10
11/30/89	36.30	1511.70	12/09/89	61.12	1492.88	10/28/90	57.85	1497.15
12/09/89	36.36	1511.64	03/04/90	67.47	1486.53	11/16/90	57.60	1497.40
03/04/90	36.95	1511.05	04/28/90	66.86	1487.14	12/08/90	59.96	1495.04
04/28/90	37.51	1510.49	06/26/90	62.80	1491.20	04/14/91	64.40	1490.60
05/27/90	37.28	1510.72	07/29/90	60.24	1493.76	05/05/91	63.68	1491.32
06/26/90	36.92	1511.08	08/25/90	59.50	1494.50	06/08/91	61.89	1493.11
07/29/90	36.68	1511.32	09/18/90	59.10	1494.90	07/07/91	60.89	1494.11
08/25/90	38.20	1509.80	10/28/90	57.29	1496.71	08/14/91	60.72	1494.28
09/18/90	37.48	1510.52	11/16/90	56.96	1497.04	08/30/91	60.90	1494.10

Tables of Groundwater Elevations								
155-82-19 dbd/Well 2216			155-83-22 cbb 3/Well 1203			155-83-23 bbb 3/Well 5403		
Casing Elev. = 1548.00 ft			Casing Elev. = 1554.00 ft			Casing Elev. = 1555.00 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
10/28/90	35.68	1512.32	12/08/90	56.89	1497.11	10/12/91	59.39	1495.61
11/19/90	36.29	1511.71	04/14/91	62.39	1491.61	11/19/91	57.95	1497.05
12/08/90	37.09	1510.91	05/05/91	62.10	1491.90	12/19/91	56.73	1498.27
04/14/91	39.52	1508.48	06/08/91	60.68	1493.32	03/09/92	54.45	1500.55
05/05/91	39.08	1508.92	07/07/91	59.53	1494.47	04/10/92	54.52	1500.48
06/11/91	38.06	1509.94	08/14/91	59.38	1494.62	05/07/92	54.62	1500.38
07/07/91	38.02	1509.98	08/30/91	59.16	1494.84	06/05/92	55.19	1499.81
08/30/91	39.46	1508.54	10/12/91	58.00	1496.00	07/01/92	55.42	1499.58
10/12/91	37.51	1510.49	11/19/91	56.90	1497.10	08/01/92	55.49	1499.51
11/14/91	36.25	1511.75	12/19/91	56.04	1497.96	08/12/92	55.50	1499.50
11/19/91	36.23	1511.77	03/09/92	54.11	1499.89	09/02/92	55.65	1499.35
12/19/91	35.60	1512.40	04/09/92	53.48	1500.52	10/05/92	55.76	1499.24
03/09/92	35.67	1512.33	05/07/92	53.50	1500.50	11/02/92	55.74	1499.26
04/09/92	35.92	1512.08	06/04/92	54.29	1499.71	11/30/92	54.80	1500.20
05/07/92	36.27	1511.73	07/01/92	54.82	1499.18	12/10/92	55.39	1499.61
06/05/92	35.75	1512.25	08/01/92	54.34	1499.66	02/04/93	53.90	1501.10
07/01/92	37.04	1510.96	08/12/92	54.63	1499.37	03/07/93	56.09	1498.91
08/01/92	37.81	1510.19	09/02/92	55.42	1498.58	04/01/93	55.21	1499.79
08/12/92	39.00	1509.00	10/05/92	56.09	1497.91	05/01/93	55.38	1499.62
09/02/92	38.05	1509.95	11/02/92	55.43	1498.57	06/10/93	56.09	1498.91
10/05/92	37.73	1510.27	11/30/92	44.45	1509.55	07/07/93	56.01	1498.99
11/02/92	36.39	1511.61	12/10/92	54.37	1499.63	08/12/93	57.46	1497.54
11/30/92	36.40	1511.60	02/04/93	56.90	1497.10	09/18/93	58.26	1496.74
12/10/92	36.86	1511.14	03/07/93	57.47	1496.53	10/01/93	58.46	1496.54
02/04/93	39.81	1508.19	04/01/93	57.86	1496.14	11/18/93	59.03	1495.97
03/07/93	37.92	1510.08	05/01/93	58.09	1495.91	12/16/93	59.01	1495.99
04/01/93	37.99	1510.01	06/10/93	57.21	1496.79			
05/01/93	37.33	1510.67	07/07/93	56.92	1497.08			
06/10/93	38.28	1509.72	08/12/93	55.89	1498.11			
07/07/93	38.17	1509.83	09/18/93	59.39	1494.61			
08/12/93	38.00	1510.00	10/01/93	59.19	1494.81			
09/18/93	37.34	1510.66	11/18/93	58.51	1495.49			
10/01/93	37.37	1510.63	12/16/93	58.22	1495.78			
11/18/93	37.45	1510.55						
12/16/93	37.42	1510.58						
03/13/94	37.29	1510.71						
04/03/94	37.42	1510.58						
05/01/94	37.97	1510.03						
06/04/94	37.27	1510.73						
07/04/94	37.26	1510.74						
08/06/94	37.74	1510.26						
09/10/94	37.91	1510.09						
10/10/94	36.40	1511.60						
12/04/94	36.21	1511.79						

Tables of Groundwater Elevations								
154-082-03 cdc 5			155-082-33 ccd			154-082-03 cbaa 4		
Casing Elev. = 1544.00 ft			Casing Elev. = 1552.90 ft			Casing Elev. = 1545.08 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
5/18/1981	19.77	1,524.23	11/14/1968	20.69	1,532.71	9/28/1984	29.3	1,515.78
5/28/1981	19.77	1,524.23	11/22/1968	20.72	1,532.68	10/3/1984	29.13	1,515.95
6/29/1981	19.94	1,524.06	11/27/1968	20.7	1,532.70	10/10/1984	28.91	1,516.17
7/28/1981	20.75	1,523.25	12/7/1968	20.79	1,532.61	10/23/1984	27.87	1,517.21
8/28/1981	21.13	1,522.87	12/11/1968	20.69	1,532.71	11/8/1984	27.19	1,517.89
9/29/1981	21.6	1,522.40	12/16/1968	20.74	1,532.66	11/20/1984	26.72	1,518.36
10/28/1981	21.74	1,522.26	12/17/1968	20.78	1,532.62	12/13/1984	26.05	1,519.03
11/27/1981	21.88	1,522.12	12/19/1968	20.78	1,532.62	1/9/1985	26.74	1,518.34
12/30/1981	22.03	1,521.97	12/20/1968	20.8	1,532.60	2/12/1985	27.41	1,517.67
1/28/1982	22.25	1,521.75	12/21/1968	20.81	1,532.59	3/6/1985	27.38	1,517.70
2/26/1982	22.5	1,521.50	12/27/1968	20.81	1,532.59	3/19/1985	27.1	1,517.98
3/29/1982	22.25	1,521.75	1/4/1969	20.8	1,532.60	4/17/1985	26.8	1,518.28
4/30/1982	18.8	1,525.20	2/6/1969	20.97	1,532.43	5/2/1985	26.65	1,518.43
5/27/1982	18.58	1,525.42	3/5/1969	21.05	1,532.35	5/14/1985	26.77	1,518.31
6/29/1982	19.05	1,524.95	3/12/1969	21.09	1,532.31	6/6/1985	27.35	1,517.73
7/28/1982	19.97	1,524.03	4/8/1969	20.3	1,533.10	6/20/1985	28.1	1,516.98
8/31/1982	21.53	1,522.47	5/7/1969	17.29	1,536.11	7/1/1985	28.18	1,516.90
9/30/1982	21.63	1,522.37	5/15/1969	17.15	1,536.25	7/17/1985	29.83	1,515.25
10/29/1982	21.19	1,522.81	5/27/1969	17.2	1,536.20	7/29/1985	30.37	1,514.71
11/29/1982	21.22	1,522.78	6/11/1969	17.45	1,535.95	8/14/1985	29.85	1,515.23
12/27/1982	21.35	1,522.65	6/25/1969	17.52	1,535.88	8/27/1985	29.77	1,515.31
1/28/1983	21.47	1,522.53	7/16/1969	17.07	1,536.33	9/11/1985	29.52	1,515.56
2/28/1983	21.47	1,522.53	7/29/1969	17.24	1,536.16	9/24/1985	29.35	1,515.73
3/31/1983	20.86	1,523.14	8/12/1969	17.34	1,536.06	10/23/1985	26.52	1,518.56
4/29/1983	19.47	1,524.53	9/9/1969	17.84	1,535.56	11/21/1985	25.3	1,519.78
5/26/1983	19.25	1,524.75	9/26/1969	17.95	1,535.45	12/30/1985	26.77	1,518.31
7/8/1983	20.6	1,523.40	10/8/1969	18.03	1,535.37	2/25/1986	26.2	1,518.88
7/28/1983	21.64	1,522.36	10/16/1969	18.11	1,535.29	3/26/1986	26.44	1,518.64
8/30/1983	22.14	1,521.86	10/19/1969	18.13	1,535.27	7/1/1986	29.77	1,515.31
11/17/1983	22.53	1,521.47	10/20/1969	18.15	1,535.25	8/6/1986	29.49	1,515.59
12/8/1983	22.61	1,521.39	10/21/1969	18.19	1,535.21	9/9/1986	30.8	1,514.28
12/14/1983	22.6	1,521.40	10/22/1969	18.3	1,535.10	10/9/1986	29.94	1,515.14
1/3/1984	21.99	1,522.01	10/23/1969	18.28	1,535.12	12/16/1986	27.82	1,517.26
1/16/1984	22.42	1,521.58	10/24/1969	18.34	1,535.06	4/8/1987	23.36	1,521.72
2/1/1984	22.35	1,521.65	10/25/1969	18.42	1,534.98	4/28/1987	22.76	1,522.32
2/21/1984	22.36	1,521.64	10/26/1969	18.46	1,534.94	5/13/1987	26.26	1,518.82
3/12/1984	22.25	1,521.75	10/27/1969	18.46	1,534.94	6/18/1987	28.69	1,516.39
4/3/1984	21.74	1,522.26	10/28/1969	18.44	1,534.96	7/14/1987	30.48	1,514.60
4/18/1984	21.41	1,522.59	10/29/1969	18.47	1,534.93	8/18/1987	30.45	1,514.63
5/8/1984	20.97	1,523.03	10/30/1969	18.53	1,534.87	9/24/1987	30.17	1,514.91
5/29/1984	21.03	1,522.97	10/31/1969	18.52	1,534.88	10/20/1987	29.37	1,515.71
6/15/1984	21.07	1,522.93	11/1/1969	18.57	1,534.83	11/12/1987	28.64	1,516.44
6/26/1984	21.41	1,522.59	11/2/1969	18.61	1,534.79	12/9/1987	26.54	1,518.54
7/10/1984	22.19	1,521.81	11/3/1969	18.57	1,534.83	4/8/1988	25.98	1,519.10
7/27/1984	23.38	1,520.62	11/4/1969	18.59	1,534.81	5/13/1988	26.94	1,518.14
8/9/1984	23.77	1,520.23	11/5/1969	18.54	1,534.86	6/7/1988	28.73	1,516.35
8/16/1984	24.02	1,519.98	11/6/1969	18.58	1,534.82	7/8/1988	31.57	1,513.51
8/21/1984	24.16	1,519.84	11/7/1969	18.54	1,534.86	8/4/1988	33.31	1,511.77
8/27/1984	24.14	1,519.86	11/8/1969	18.57	1,534.83	9/16/1988	31.48	1,513.60
9/7/1984	23.94	1,520.06	11/9/1969	18.53	1,534.87	10/19/1988	28.48	1,516.60
9/12/1984	23.8	1,520.20	11/10/1969	18.49	1,534.91	11/18/1988	29.67	1,515.41
9/20/1984	24.74	1,519.26	11/11/1969	18.51	1,534.89	12/19/1988	30.33	1,514.75
9/27/1984	23.5	1,520.50	11/12/1969	18.5	1,534.90	3/8/1989	32.11	1,512.97

Tables of Groundwater Elevations								
154-082-03 cdc 5			155-082-33 ccd			154-082-03 cbaa 4		
Casing Elev. = 1544.00 ft			Casing Elev. = 1552.90 ft			Casing Elev. = 1545.08 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
10/3/1984	23.46	1,520.54	11/13/1969	18.51	1,534.89	4/18/1989	30.33	1,514.75
10/10/1984	23.42	1,520.58	11/17/1969	18.58	1,534.82	5/9/1989	28.43	1,516.65
10/23/1984	22.96	1,521.04	11/24/1969	18.55	1,534.85	6/8/1989	27.6	1,517.48
11/8/1984	22.66	1,521.34	12/2/1969	18.6	1,534.80	7/6/1989	29.44	1,515.64
11/20/1984	22.47	1,521.53	12/3/1969	18.63	1,534.77	8/2/1989	30.66	1,514.42
12/13/1984	22.14	1,521.86	12/4/1969	18.6	1,534.80	8/30/1989	31.94	1,513.14
1/9/1985	22.41	1,521.59	12/5/1969	18.6	1,534.80	11/2/1989	33.29	1,511.79
2/12/1985	22.77	1,521.23	1/27/1970	18.81	1,534.59	12/13/1989	32.7	1,512.38
3/6/1985	22.74	1,521.26	3/10/1970	19.1	1,534.30	1/22/1990	29.83	1,515.25
3/19/1985	22.72	1,521.28	4/6/1970	18.82	1,534.58	3/19/1990	28.36	1,516.72
4/18/1985	22.17	1,521.83	6/9/1970	15.06	1,538.34	3/20/1990	28.36	1,516.72
5/2/1985	22.05	1,521.95	7/24/1970	15.69	1,537.71	5/1/1990	33.14	1,511.94
5/14/1985	22.07	1,521.93	8/27/1970	15.81	1,537.59	5/31/1990	33.12	1,511.96
6/6/1985	22.28	1,521.72	10/1/1970	16.25	1,537.15	6/28/1990	34.41	1,510.67
6/20/1985	22.72	1,521.28	12/22/1970	16.46	1,536.44	7/23/1990	33.89	1,511.19
7/1/1985	22.88	1,521.12	4/16/1971	16.13	1,536.77	8/13/1990	35.84	1,509.24
7/17/1985	23.77	1,520.23	7/22/1971	15.87	1,537.03	9/12/1990	37.57	1,507.51
7/29/1985	24.1	1,519.90	8/26/1971	16.27	1,536.63	10/9/1990	38.31	1,506.77
8/14/1985	24.05	1,519.95	12/21/1971	15.99	1,536.91	11/14/1990	37.93	1,507.15
8/27/1985	24.03	1,519.97	10/12/1972	16.21	1,536.69	12/12/1990	34.02	1,511.06
9/11/1985	24.02	1,519.98	6/7/1973	16.52	1,536.38	1/17/1991	32.02	1,513.06
9/24/1985	23.96	1,520.04	9/28/1973	16.65	1,536.25	2/13/1991	31.22	1,513.86
10/23/1985	22.85	1,521.15	7/1/1974	14.45	1,538.45	3/13/1991	30.54	1,514.54
11/21/1985	22.25	1,521.75	8/23/1974	15.38	1,537.52	4/15/1991	34.13	1,510.95
12/30/1985	22.83	1,521.17	10/5/1974	15.82	1,537.08	5/14/1991	34.44	1,510.64
2/25/1986	22.64	1,521.36	10/5/1974	15.8	1,537.10	6/12/1991	35.91	1,509.17
3/26/1986	22.49	1,521.51	10/5/1974	15.78	1,537.12	7/11/1991	36.52	1,508.56
5/14/1986	22.27	1,521.73	10/6/1974	15.93	1,536.97	8/16/1991	37.65	1,507.43
6/4/1986	22.87	1,521.13	10/6/1974	15.89	1,537.01	9/16/1991	39.53	1,505.55
7/1/1986	23.97	1,520.03	10/13/1974	17.4	1,535.50	10/15/1991	39.44	1,505.64
8/6/1986	24.22	1,519.78	2/1/1975	16.63	1,536.27	11/18/1991	39.3	1,505.78
9/9/1986	24.93	1,519.07	2/2/1975	16.68	1,536.22	12/19/1991	39.39	1,505.69
10/9/1986	24.64	1,519.36	3/22/1975	16.82	1,536.08	1/22/1992	39.73	1,505.35
12/16/1986	23.78	1,520.22	3/22/1975	16.81	1,536.09	2/26/1992	40.12	1,504.96
4/8/1987	21.65	1,522.35	3/23/1975	16.85	1,536.05	3/19/1992	39.07	1,506.01
4/28/1987	21.19	1,522.81	3/23/1975	16.89	1,536.01	4/21/1992	38.13	1,506.95
5/13/1987	22.47	1,521.53	3/23/1975	16.81	1,536.09	5/22/1992	39.22	1,505.86
6/18/1987	23.76	1,520.24	3/24/1975	16.93	1,535.97	6/16/1992	40.47	1,504.61
7/14/1987	24.88	1,519.12	3/24/1975	16.9	1,536.00	7/14/1992	40.67	1,504.41
8/18/1987	25.08	1,518.92	6/8/1975	12.69	1,540.21	8/20/1992	42.35	1,502.73
9/24/1987	25.12	1,518.88	6/8/1975	12.67	1,540.23	9/15/1992	41.13	1,503.95
10/20/1987	24.74	1,519.26	6/9/1975	12.67	1,540.23	10/20/1992	41.77	1,503.31
11/12/1987	24.46	1,519.54	8/13/1975	13.3	1,539.60	11/18/1992	41.63	1,503.45
12/9/1987	23.52	1,520.48	3/19/1976	14.86	1,538.04	12/16/1992	40.48	1,504.60
4/7/1988	22.98	1,521.02	6/4/1976	9.52	1,543.38	1/20/1993	38.95	1,506.13
5/12/1988	23.54	1,520.46	2/8/1977	15.4	1,537.50	2/22/1993	38.75	1,506.33
6/6/1988	24.38	1,519.62	3/15/1977	15.83	1,537.07	3/23/1993	39.23	1,505.85
7/7/1988	25.86	1,518.14	5/6/1977	15.68	1,537.22	4/19/1993	40.13	1,504.95
8/4/1988	26.79	1,517.21	6/3/1977	15.72	1,537.18	5/19/1993	40.71	1,504.37
9/15/1988	26.42	1,517.58	6/30/1977	15.8	1,537.10	6/16/1993	41.08	1,504.00
10/18/1988	25.18	1,518.82	7/14/1977	16.52	1,536.38	7/15/1993	40.26	1,504.82
11/17/1988	25.59	1,518.41	7/28/1977	17.02	1,535.88	8/9/1993	37.5	1,507.58
12/19/1988	25.94	1,518.06	8/26/1977	17.72	1,535.18	9/16/1993	35.91	1,509.17

Tables of Groundwater Elevations								
154-082-03 cdc 5			155-082-33 ccd			154-082-03 cbaa 4		
Casing Elev. = 1544.00 ft			Casing Elev. = 1552.90 ft			Casing Elev. = 1545.08 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
3/8/1989	26.81	1,517.19	9/14/1977	17.98	1,534.92	10/21/1993	37.14	1,507.94
4/18/1989	26.07	1,517.93	10/11/1977	18.15	1,534.75	11/17/1993	37.71	1,507.37
5/9/1989	25.26	1,518.74	11/10/1977	18.66	1,534.24	4/29/1994	38.15	1,506.93
6/8/1989	24.89	1,519.11	12/15/1977	19.12	1,533.78	6/2/1994	38.11	1,506.97
7/6/1989	25.75	1,518.25	1/24/1978	19.71	1,533.19	7/6/1994	38.4	1,506.68
8/2/1989	26.4	1,517.60	2/22/1978	20.26	1,532.64	8/2/1994	40.08	1,505.00
8/30/1989	27.1	1,516.90	3/28/1978	19.79	1,533.11	8/17/1994	40.97	1,504.11
11/2/1989	27.88	1,516.12	4/26/1978	19.68	1,533.22	9/9/1994	41.53	1,503.55
12/13/1989	27.85	1,516.15	5/28/1978	19.99	1,532.91	10/10/1994	41.08	1,504.00
1/22/1990	26.55	1,517.45	6/27/1978	20.35	1,532.55	11/15/1994	39.49	1,505.59
3/19/1990	25.88	1,518.12	7/26/1978	20.54	1,532.36	12/7/1994	38.02	1,507.06
3/20/1990	25.88	1,518.12	8/29/1978	21.21	1,531.69	5/2/1995	35.52	1,509.56
5/1/1990	28.11	1,515.89	9/26/1978	20.96	1,531.94	6/8/1995	36.36	1,508.72
5/31/1990	28.1	1,515.90	10/27/1978	21.6	1,531.30	7/12/1995	37.72	1,507.36
6/28/1990	28.73	1,515.27	12/4/1978	21.93	1,530.97	8/15/1995	38.89	1,506.19
7/23/1990	28.62	1,515.38	1/19/1979	22.3	1,530.60	10/10/1995	39.7	1,505.38
8/13/1990	29.41	1,514.59	2/28/1979	22.66	1,530.24	11/15/1995	39.94	1,505.14
9/12/1990	30.15	1,513.85	3/28/1979	22.66	1,530.24	5/7/1996	33.5	1,511.58
10/9/1990	30.53	1,513.47	4/30/1979	19.3	1,533.60	6/12/1996	34.66	1,510.42
11/14/1990	30.63	1,513.37	5/30/1979	17.78	1,535.12	7/17/1996	36.76	1,508.32
12/12/1990	29.25	1,514.75	6/27/1979	18.63	1,534.27	9/5/1996	38.95	1,506.13
1/17/1991	28.24	1,515.76	7/31/1979	18.57	1,534.33	10/10/1996	37.87	1,507.21
2/13/1991	27.86	1,516.14	8/28/1979	19.91	1,532.99	11/20/1996	38.23	1,506.85
3/13/1991	27.55	1,516.45	9/27/1979	20.82	1,532.08	5/21/1997	28.76	1,516.32
4/15/1991	28.64	1,515.36	10/31/1979	21.27	1,531.63	6/30/1997	33.04	1,512.04
5/14/1991	29.32	1,514.68	11/29/1979	21.71	1,531.19	8/4/1997	35.11	1,509.97
6/12/1991	30.05	1,513.95	12/18/1979	21.93	1,530.97	9/9/1997	37.12	1,507.96
7/11/1991	30.4	1,513.60	1/20/1980	22.57	1,530.33	10/8/1997	37.07	1,508.01
8/16/1991	30.98	1,513.02	2/27/1980	22.85	1,530.05	11/5/1997	36.68	1,508.40
9/16/1991	31.69	1,512.31	4/25/1980	23.19	1,529.71	12/3/1997	35.81	1,509.27
10/15/1991	31.81	1,512.19	5/27/1980	24.1	1,528.80	6/3/1998	38.45	1,506.63
11/18/1991	31.99	1,512.01	6/12/1980	24.15	1,528.75	7/28/1998	39.14	1,505.94
12/19/1991	32.11	1,511.89	6/19/1980	24.19	1,528.71	9/8/1998	39.12	1,505.96
1/22/1992	32.36	1,511.64	6/27/1980	24.5	1,528.40	10/20/1998	39.15	1,505.93
2/26/1992	32.66	1,511.34	7/16/1980	25.03	1,527.87	12/1/1998	38.93	1,506.15
3/19/1992	32.57	1,511.43	7/18/1980	24.87	1,528.03	6/2/1999	28.39	1,516.69
4/21/1992	32.34	1,511.66	7/21/1980	24.6	1,528.30	6/30/1999	30.96	1,514.12
5/22/1992	32.68	1,511.32	7/25/1980	24.49	1,528.41	8/5/1999	32.6	1,512.48
6/16/1992	33.12	1,510.88	7/27/1980	24.46	1,528.44	9/15/1999	34.04	1,511.04
7/14/1992	33.49	1,510.51	7/29/1980	24.47	1,528.43	9/16/1999	34.09	1,510.99
8/20/1992	33.95	1,510.05	8/1/1980	24.47	1,528.43	10/14/1999	34.48	1,510.60
9/15/1992	34.11	1,509.89	8/5/1980	24.36	1,528.54	11/8/1999	33.11	1,511.97
10/20/1992	34.42	1,509.58	8/28/1980	24.69	1,528.21	12/17/1999	32.9	1,512.18
11/18/1992	34.65	1,509.35	9/26/1980	24.68	1,528.22	5/10/2000	32.8	1,512.28
12/16/1992	34.56	1,509.44	10/29/1980	24.63	1,528.27	6/6/2000	34.74	1,510.34
1/20/1993	34.2	1,509.80	11/25/1980	24.82	1,528.08	7/13/2000	35.39	1,509.69
2/22/1993	33.93	1,510.07	12/29/1980	25.16	1,527.74	8/8/2000	36.28	1,508.80
3/23/1993	34	1,510.00	1/29/1981	25.4	1,527.50	9/21/2000	36.66	1,508.42
4/19/1993	34.43	1,509.57	2/24/1981	25.55	1,527.35	10/18/2000	36.94	1,508.14
5/19/1993	34.76	1,509.24	3/26/1981	25.54	1,527.36	11/14/2000	37.05	1,508.03
6/16/1993	34.18	1,509.82	4/30/1981	25.91	1,526.99	5/2/2001	30.69	1,514.39
7/15/1993	35.11	1,508.89	5/28/1981	26.18	1,526.72	6/20/2001	33.84	1,511.24
8/9/1993	34.59	1,509.41	6/29/1981	26.21	1,526.69	7/17/2001	35.21	1,509.87

Tables of Groundwater Elevations								
154-082-03 cdc 5			155-082-33 ccd			154-082-03 cbaa 4		
Casing Elev. = 1544.00 ft			Casing Elev. = 1552.90 ft			Casing Elev. = 1545.08 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
9/16/1993	33.73	1,510.27	7/14/1981	26.46	1,526.44	8/14/2001	36.25	1,508.83
10/21/1993	33.76	1,510.24	7/22/1981	26.57	1,526.33	9/11/2001	37.13	1,507.95
11/17/1993	33.81	1,510.19	7/28/1981	26.68	1,526.22	10/16/2001	36.65	1,508.43
4/29/1994	34.64	1,509.36	8/11/1981	26.43	1,526.47	11/19/2001	34.63	1,510.45
6/2/1994	34.61	1,509.39	8/18/1981	26.35	1,526.55	12/10/2001	35.3	1,509.78
7/6/1994	34.63	1,509.37	8/28/1981	26.91	1,525.99	5/21/2002	38.8	1,506.28
8/2/1994	35.02	1,508.98	9/29/1981	27.24	1,525.66	7/9/2002	39.45	1,505.63
8/17/1994	35.36	1,508.64	10/28/1981	27.47	1,525.43	8/13/2002	40.02	1,505.06
9/9/1994	35.73	1,508.27	11/27/1981	27.77	1,525.13	9/24/2002	40.1	1,504.98
10/10/1994	35.93	1,508.07	12/30/1981	28.05	1,524.85	11/14/2002	39.18	1,505.90
11/15/1994	35.87	1,508.13	1/8/1982	28.32	1,524.58	12/10/2002	38.81	1,506.27
12/7/1994	35.41	1,508.59	2/26/1982	28.68	1,524.22	5/15/2003	39.56	1,505.52
5/2/1995	34.11	1,509.89	3/29/1982	28.49	1,524.41	6/11/2003	39.96	1,505.12
6/8/1995	33.63	1,510.37	4/5/1982	28.13	1,524.77	7/15/2003	40.76	1,504.32
7/12/1995	33.76	1,510.24	4/13/1982	27.93	1,524.97	8/12/2003	41.14	1,503.94
8/15/1995	34.08	1,509.92	4/20/1982	27.33	1,525.57	9/9/2003	41.46	1,503.62
10/10/1995	34.64	1,509.36	4/30/1982	26.85	1,526.05	10/14/2003	41.55	1,503.53
11/15/1995	34.88	1,509.12	5/27/1982	26.46	1,526.44	11/11/2003	41.47	1,503.61
5/7/1996	32.9	1,511.10	6/29/1982	26.18	1,526.72	12/3/2003	40.72	1,504.36
6/12/1996	32.11	1,511.89	7/28/1982	25.99	1,526.91			
7/17/1996	32.17	1,511.83	8/31/1982	26.82	1,526.08			
9/5/1996	33.02	1,510.98	9/30/1982	27.05	1,525.85			
10/10/1996	32.95	1,511.05	10/29/1982	26.57	1,526.33			
11/20/1996	32.87	1,511.13	11/29/1982	26.52	1,526.38			
5/21/1997	28.28	1,515.72	12/27/1982	26.79	1,526.11			
6/30/1997	29.11	1,514.89	1/28/1983	27.04	1,525.86			
8/4/1997	30.15	1,513.85	2/28/1983	27.32	1,525.58			
9/9/1997	30.99	1,513.01	3/31/1983	27.18	1,525.72			
10/8/1997	31.12	1,512.88	4/29/1983	26.33	1,526.57			
11/5/1997	31.32	1,512.68	5/27/1983	26.4	1,526.50			
12/3/1997	30.71	1,513.29	7/8/1983	26.6	1,526.30			
6/3/1998	31.72	1,512.28	7/28/1983	28.52	1,524.38			
7/28/1998	32.44	1,511.56	8/30/1983	27.33	1,525.57			
9/8/1998	32.61	1,511.39	1/16/1984	29.25	1,523.65			
10/20/1998	32.93	1,511.07	2/1/1984	28.3	1,524.60			
12/1/1998	33.03	1,510.97	2/21/1984	28.35	1,524.55			
6/2/1999	27.43	1,516.57	3/12/1984	28.41	1,524.49			
6/30/1999	27.64	1,516.36	4/3/1984	28.27	1,524.63			
8/5/1999	28.07	1,515.93	4/18/1984	27.93	1,524.97			
9/16/1999	28.76	1,515.24	5/8/1984	27.16	1,525.74			
10/14/1999	28.71	1,515.29	5/29/1984	26.63	1,526.27			
11/8/1999	28.13	1,515.87	6/15/1984	26.49	1,526.41			
12/17/1999	28.08	1,515.92	6/26/1984	26.43	1,526.47			
5/10/2000	27.47	1,516.53	7/10/1984	26.88	1,526.02			
6/6/2000	28.39	1,515.61	7/27/1984	27.65	1,525.25			
7/13/2000	29.04	1,514.96	8/9/1984	27.68	1,525.22			
8/8/2000	29.48	1,514.52	8/16/1984	28.07	1,524.83			
9/21/2000	29.96	1,514.04	8/22/1984	28.02	1,524.88			
10/18/2000	30.05	1,513.95	8/27/1984	28.16	1,524.74			
11/14/2000	30.14	1,513.86	9/7/1984	28.18	1,524.72			
5/2/2001	28.58	1,515.42	9/12/1984	27.96	1,524.94			
6/20/2001	28.8	1,515.20	9/20/1984	28.07	1,524.83			
7/17/2001	29.18	1,514.82	9/27/1984	27.91	1,524.99			

Tables of Groundwater Elevations								
154-082-03 cdc 5			155-082-33 ccd			154-082-03 cbaa 4		
Casing Elev. = 1544.00 ft			Casing Elev. = 1552.90 ft			Casing Elev. = 1545.08 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/14/2001	29.5	1,514.50	10/3/1984	28.01	1,524.89			
9/11/2001	30.29	1,513.71	10/10/1984	28.05	1,524.85			
10/16/2001	30.16	1,513.84	10/23/1984	27.85	1,525.05			
11/19/2001	29.37	1,514.63	11/7/1984	27.68	1,525.22			
12/10/2001	29.55	1,514.45	11/20/1984	27.68	1,525.22			
5/21/2002	31.24	1,512.76	12/13/1984	27.63	1,525.27			
7/9/2002	32.01	1,511.99	1/9/1985	27.94	1,524.96			
8/13/2002	32.47	1,511.53	2/12/1985	28.24	1,524.66			
9/24/2002	32.89	1,511.11	3/6/1985	28.4	1,524.50			
11/14/2002	32.9	1,511.10	3/19/1985	28.46	1,524.44			
12/10/2002	32.67	1,511.33	4/16/1985	27.72	1,525.18			
5/15/2003	33.49	1,510.51	5/2/1985	27.43	1,525.47			
6/11/2003	33.75	1,510.25	5/14/1985	27.27	1,525.63			
7/15/2003	34.17	1,509.83	6/6/1985	27.24	1,525.66			
8/12/2003	34.53	1,509.47	6/20/1985	27.18	1,525.72			
9/9/2003	34.89	1,509.11	7/1/1985	27.1	1,525.80			
10/14/2003	35.22	1,508.78	7/17/1985	27.76	1,525.14			
11/11/2003	35.4	1,508.60	7/29/1985	27.82	1,525.08			
12/3/2003	35.42	1,508.58	8/14/1985	27.88	1,525.02			
			9/11/1985	28.1	1,524.80			
			9/24/1985	28.08	1,524.82			
			10/23/1985	27.05	1,525.85			
			11/21/1985	26.77	1,526.13			
			12/30/1985	26.77	1,526.13			
			2/25/1986	27.57	1,525.33			
			3/26/1986	27.43	1,525.47			
			5/13/1986	26.33	1,526.57			
			6/4/1986	26.48	1,526.42			
			7/1/1986	27.09	1,525.81			
			8/6/1986	27.04	1,525.86			
			9/9/1986	27.84	1,525.06			
			10/9/1986	27.96	1,524.94			
			12/16/1986	28.02	1,524.88			
			4/8/1987	26.51	1,526.39			
			4/28/1987	25.96	1,526.94			
			5/13/1987	26.85	1,526.05			
			6/18/1987	27.79	1,525.11			
			7/14/1987	28.31	1,524.59			
			8/18/1987	27.89	1,525.01			
			9/24/1987	27.67	1,525.23			
			10/20/1987	27.79	1,525.11			
			11/12/1987	27.76	1,525.14			
			12/9/1987	27.51	1,525.39			
			4/8/1988	27.84	1,525.06			
			5/13/1988	27.92	1,524.98			
			6/7/1988	28.76	1,524.14			
			7/8/1988	28.85	1,524.05			
			8/4/1988	30.31	1,522.59			
			9/16/1988	30.24	1,522.66			
			10/19/1988	29.88	1,523.02			
			11/18/1988	30.36	1,522.54			
			12/19/1988	30.62	1,522.28			
			3/8/1989	31.47	1,521.43			

Tables of Groundwater Elevations								
154-082-03 cdc 5			155-082-33 ccd			154-082-03 cbaa 4		
Casing Elev. = 1544.00 ft			Casing Elev. = 1552.90 ft			Casing Elev. = 1545.08 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
			4/18/1989	31.02	1,521.88			
			5/9/1989	30.47	1,522.43			
			6/8/1989	30.38	1,522.52			
			7/6/1989	28.98	1,523.92			
			8/2/1989	31.47	1,521.43			
			8/30/1989	31.79	1,521.11			
			11/2/1989	32.39	1,520.51			
			12/13/1989	32.45	1,520.45			
			1/22/1990	32.15	1,520.75			
			3/19/1990	31.99	1,520.91			
			3/20/1990	31.99	1,520.91			
			5/1/1990	33.21	1,519.69			
			6/1/1990	33.38	1,519.52			
			6/28/1990	33.66	1,519.24			
			7/24/1990	32.82	1,520.08			
			8/13/1990	33.28	1,519.62			
			9/12/1990	33.89	1,519.01			
			10/9/1990	34.33	1,518.57			
			11/14/1990	34.57	1,518.33			
			12/11/1990	34.04	1,518.86			
			1/17/1991	33.9	1,519.00			
			2/13/1991	33.84	1,519.06			
			3/13/1991	33.75	1,519.15			
			4/16/1991	34.51	1,518.39			
			5/13/1991	34.9	1,518.00			
			6/12/1991	34.14	1,518.76			
			7/10/1991	35.09	1,517.81			
			8/15/1991	35.39	1,517.51			
			9/16/1991	36.1	1,516.80			
			10/15/1991	36.32	1,516.58			
			11/18/1991	36.76	1,516.14			
			12/19/1991	37.04	1,515.86			
			1/22/1992	37.41	1,515.49			
			2/26/1992	37.8	1,515.10			
			3/19/1992	37.67	1,515.23			
			4/21/1992	37.52	1,515.38			
			5/21/1992	37.97	1,514.93			
			6/16/1992	38.47	1,514.43			
			7/14/1992	38.71	1,514.19			
			8/20/1992	39.29	1,513.61			
			9/15/1992	39.46	1,513.44			
			10/20/1992	39.88	1,513.02			
			11/18/1992	40.11	1,512.79			
			12/16/1992	40.03	1,512.87			
			1/20/1993	39.84	1,513.06			
			2/23/1993	40.08	1,512.82			
			3/23/1993	40.23	1,512.67			
			4/19/1993	40.5	1,512.40			
			5/18/1993	40.69	1,512.21			
			6/16/1993	40.98	1,511.92			
			7/14/1993	40.61	1,512.29			
			8/9/1993	39.52	1,513.38			
			9/16/1993	38.71	1,514.19			

Tables of Groundwater Elevations								
154-082-03 cdc 5			155-082-33 ccd			154-082-03 cbaa 4		
Casing Elev. = 1544.00 ft			Casing Elev. = 1552.90 ft			Casing Elev. = 1545.08 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
			10/20/1993	38.83	1,514.07			
			11/17/1993	38.94	1,513.96			
			4/29/1994	38.89	1,514.01			
			6/2/1994	38.15	1,514.75			
			7/6/1994	37.35	1,515.55			
			8/2/1994	37.59	1,515.31			
			8/16/1994	37.85	1,515.05			
			9/9/1994	38.28	1,514.62			
			10/10/1994	38.54	1,514.36			
			11/15/1994	37.95	1,514.95			
			12/7/1994	37.46	1,515.44			
			5/2/1995	36.01	1,516.89			
			6/8/1995	35.24	1,517.66			
			7/12/1995	35.09	1,517.81			
			8/15/1995	35.37	1,517.53			
			10/10/1995	35.66	1,517.24			
			11/15/1995	36.28	1,516.62			
			5/7/1996	35.68	1,517.22			
			6/12/1996	35.59	1,517.31			
			7/17/1996	36.04	1,516.86			
			9/5/1996	36.77	1,516.13			
			10/10/1996	36.76	1,516.14			
			11/20/1996	37.38	1,515.52			
			5/21/1997	35.38	1,517.52			

Tables of Groundwater Elevations								
155-082-29 bcb			155-83-14 ddd 2/Minot Well 5			155-83-14 ddd 3/Minot Well 6		
Casing Elev. = 1547.30 ft			Casing Elev. = 1554 ft			Casing Elev. = 1554 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
11/19/1963	29.05	1,518.25	Sep-67	54.0	1500.0	Sep-67	54.0	1500.0
1/9/1964	29.32	1,517.98	Oct-67	54.0	1500.0	Oct-67	55.0	1499.0
2/3/1964	29.62	1,517.68	Nov-67	No Data	No Data	Nov-67	No Data	No Data
3/4/1964	30	1,517.30	Dec-67	54.0	1500.0	Dec-67	54.0	1500.0
4/7/1964	30.19	1,517.11	Jan-68	54.0	1500.0	Jan-68	54.0	1500.0
5/5/1964	29.9	1,517.40	Feb-68	54.0	1500.0	Feb-68	55.0	1499.0
6/12/1964	29.52	1,517.78	Mar-68	54.0	1500.0	Mar-68	55.0	1499.0
7/2/1964	29.64	1,517.66	Apr-68	54.0	1500.0	Apr-68	54.0	1500.0
7/22/1964	30.15	1,517.15	May-68	54.0	1500.0	May-68	54.0	1500.0
8/5/1964	30.69	1,516.61	Jun-68	52.0	1502.0	Jun-68	53.0	1501.0
9/14/1964	30.4	1,516.90	Jul-68	52.0	1502.0	Jul-68	53.0	1501.0
10/9/1964	30.15	1,517.15	Aug-68	53.0	1501.0	Aug-68	54.0	1500.0
11/6/1964	30.02	1,517.28	Sep-68	51.0	1503.0	Sep-68	52.0	1502.0
12/10/1964	29.87	1,517.43	Oct-68	50.0	1504.0	Oct-68	51.0	1503.0
1/11/1965	29.99	1,517.31	Nov-68	51.5	1502.5	Nov-68	53.0	1501.0
2/17/1965	30.19	1,517.11	Dec-68	51.0	1503.0	Dec-68	52.0	1502.0
3/16/1965	29.98	1,517.32	Jan-69	No Data	No Data	Jan-69	No Data	No Data
4/12/1965	29.65	1,517.65	Feb-69	52.0	1502.0	Feb-69	53.0	1501.0
5/12/1965	29.61	1,517.69	Mar-69	53.0	1501.0	Mar-69	54.0	1500.0
6/17/1965	29.18	1,518.12	Apr-69	50.0	1504.0	Apr-69	50.0	1504.0
8/11/1965	29.22	1,518.08	May-69	48.0	1506.0	May-69	48.0	1506.0
9/15/1965	28.48	1,518.82	Jun-69	47.0	1507.0	Jun-69	49.0	1505.0
11/22/1965	27.96	1,519.34	Jul-69	47.0	1507.0	Jul-69	48.0	1506.0
1/31/1966	26.9	1,520.40	Aug-69	48.0	1506.0	Aug-69	49.0	1505.0
3/15/1966	26.35	1,520.95	Sep-69	48.0	1506.0	Sep-69	49.0	1505.0
5/5/1966	26.12	1,521.18	Oct-69	46.0	1508.0	Oct-69	47.0	1507.0
10/4/1966	26.32	1,520.98	Nov-69	46.0	1508.0	Nov-69	47.0	1507.0
10/27/1966	25.2	1,522.10	Dec-69	45.0	1509.0	Dec-69	47.0	1507.0
11/22/1966	25.64	1,521.66	Jan-70	45.0	1509.0	Jan-70	46.0	1508.0
12/20/1966	25.67	1,521.63	Feb-70	44.0	1510.0	Feb-70	46.0	1508.0
1/17/1967	25.9	1,521.40	Mar-70	44.0	1510.0	Mar-70	45.0	1509.0
2/17/1967	26.08	1,521.22	Apr-70	43.0	1511.0	Apr-70	44.0	1510.0
3/10/1967	26.12	1,521.18	May-70	43.0	1511.0	May-70	44.0	1510.0
4/19/1967	25.85	1,521.45	Jun-70	43.0	1511.0	Jun-70	44.0	1510.0
5/23/1967	25.88	1,521.42	Jul-70	44.0	1510.0	Jul-70	47.0	1507.0
7/21/1967	27.28	1,520.02	Aug-70	47.0	1507.0	Aug-70	46.0	1508.0
8/16/1967	26.92	1,520.38	Sep-70	45.0	1509.0	Sep-70	47.0	1507.0
8/17/1967	26.98	1,520.32	Oct-70	45.0	1509.0	Oct-70	44.0	1510.0
10/23/1967	25.62	1,521.68	Nov-70	43.0	1511.0	Nov-70	44.0	1510.0
1/15/1968	25.52	1,521.78	Dec-70	44.0	1510.0	Dec-70	45.0	1509.0
4/15/1968	25.68	1,521.62	Jan-71	44.0	1510.0	Jan-71	44.0	1510.0
7/23/1968	26.19	1,521.11	Feb-71	43.0	1511.0	Feb-71	44.0	1510.0
10/21/1968	24.57	1,522.73	Mar-71	42.0	1512.0	Mar-71	43.0	1511.0
11/14/1968	28.01	1,519.29	Apr-71	42.0	1512.0	Apr-71	43.0	1511.0
11/27/1968	28.17	1,519.13	May-71	45.0	1509.0	May-71	45.0	1509.0
12/7/1968	28.25	1,519.05	Jun-71	43.0	1511.0	Jun-71	44.0	1510.0
12/11/1968	28.15	1,519.15	Jul-71	42.0	1512.0	Jul-71	42.0	1512.0
12/16/1968	28.34	1,518.96	Aug-71	42.0	1512.0	Aug-71	42.0	1512.0
12/19/1968	28.29	1,519.01	Sep-71	42.0	1512.0	Sep-71	42.5	1511.5
12/20/1968	28.34	1,518.96	Oct-71	42.0	1512.0	Oct-71	42.5	1511.5
12/27/1968	28.23	1,519.07	Nov-71	42.0	1512.0	Nov-71	42.0	1512.0
1/4/1969	28.25	1,519.05	Dec-71	42.0	1512.0	Dec-71	42.0	1512.0
1/21/1969	24.74	1,522.56	Jan-72	42.0	1512.0	Jan-72	42.0	1512.0
5/27/1969	23.12	1,524.18	Feb-72	42.0	1512.0	Feb-72	42.0	1512.0

Tables of Groundwater Elevations								
155-082-29 bcb			155-83-14 ddd 2/Minot Well 5			155-83-14 ddd 3/Minot Well 6		
Casing Elev. = 1547.30 ft			Casing Elev. = 1554 ft			Casing Elev. = 1554 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
6/11/1969	23.48	1,523.82	Mar-72	42.0	1512.0	Mar-72	43.0	1511.0
6/27/1969	23.53	1,523.77	Apr-72	42.0	1512.0	Apr-72	42.0	1512.0
7/16/1969	23.59	1,523.71	May-72	42.0	1512.0	May-72	42.0	1512.0
7/22/1969	20.37	1,526.93	Jun-72	45.0	1509.0	Jun-72	46.0	1508.0
7/30/1969	23.79	1,523.51	Jul-72	46.0	1508.0	Jul-72	47.0	1507.0
8/12/1969	24.65	1,522.65	Aug-72	46.5	1507.5	Aug-72	47.0	1507.0
9/11/1969	24.98	1,522.32	Sep-72	47.0	1507.0	Sep-72	48.0	1506.0
10/20/1969	24.25	1,523.05	Oct-72	45.0	1509.0	Oct-72	46.0	1508.0
10/21/1969	24.25	1,523.05	Nov-72	44.5	1509.5	Nov-72	45.0	1509.0
10/22/1969	24.28	1,523.02	Dec-72	42.0	1512.0	Dec-72	44.0	1510.0
10/24/1969	24.31	1,522.99	Jan-73	44.0	1510.0	Jan-73	44.0	1510.0
10/25/1969	24.37	1,522.93	Feb-73	43.5	1510.5	Feb-73	44.0	1510.0
10/26/1969	24.4	1,522.90	Mar-73	44.0	1510.0	Mar-73	44.0	1510.0
10/30/1969	24.48	1,522.82	Apr-73	44.5	1509.5	Apr-73	45.0	1509.0
11/1/1969	24.56	1,522.74	May-73	44.0	1510.0	May-73	45.0	1509.0
11/2/1969	24.59	1,522.71	Jun-73	45.5	1508.5	Jun-73	46.0	1508.0
11/3/1969	24.59	1,522.71	Jul-73	47.0	1507.0	Jul-73	47.5	1506.5
11/4/1969	24.64	1,522.66	Aug-73	47.0	1507.0	Aug-73	48.0	1506.0
11/5/1969	24.64	1,522.66	Sep-73	46.0	1508.0	Sep-73	47.0	1507.0
11/6/1969	24.65	1,522.65	Oct-73	46.5	1507.5	Oct-73	47.5	1506.5
11/7/1969	24.65	1,522.65	Nov-73	47.5	1506.5	Nov-73	48.0	1506.0
11/8/1969	24.67	1,522.63	Dec-73	49.0	1505.0	Dec-73	49.0	1505.0
11/9/1969	24.67	1,522.63	Jan-74	49.0	1505.0	Jan-74	49.5	1504.5
11/10/1969	24.61	1,522.69	Feb-74	49.0	1505.0	Feb-74	49.5	1504.5
11/11/1969	24.59	1,522.71	Mar-74	47.0	1507.0	Mar-74	48.0	1506.0
11/12/1969	24.51	1,522.79	Apr-74	46.0	1508.0	Apr-74	47.0	1507.0
11/13/1969	24.51	1,522.79	May-74	46.5	1507.5	May-74	47.0	1507.0
11/17/1969	24.42	1,522.88	Jun-74	48.5	1505.5	Jun-74	50.0	1504.0
11/25/1969	24.37	1,522.93	Jul-74	49.5	1504.5	Jul-74	50.5	1503.5
12/4/1969	24.26	1,523.04	Aug-74	49.0	1505.0	Aug-74	50.0	1504.0
12/19/1969	20.59	1,526.71	Sep-74	50.0	1504.0	Sep-74	51.0	1503.0
3/9/1970	20.1	1,527.20	Oct-74	48.0	1506.0	Oct-74	48.5	1505.5
6/9/1970	21.34	1,525.96	Nov-74	47.0	1507.0	Nov-74	47.5	1506.5
6/12/1970	18.23	1,529.07	Dec-74	47.0	1507.0	Dec-74	47.5	1506.5
7/24/1970	21.65	1,525.65	Jan-75	45.5	1508.5	Jan-75	46.0	1508.0
9/3/1970	23.75	1,523.55	Feb-75	45.5	1508.5	Feb-75	46.0	1508.0
10/1/1970	23.12	1,524.18	Mar-75	46.0	1508.0	Mar-75	47.0	1507.0
12/23/1970	23.17	1,524.13	Apr-75	46.0	1508.0	Apr-75	47.0	1507.0
4/15/1971	21.81	1,525.49	May-75	44.0	1510.0	May-75	43.5	1510.5
7/2/1971	19.27	1,528.03	Jun-75	41.5	1512.5	Jun-75	42.0	1512.0
7/22/1971	22.07	1,525.23	Jul-75	44.0	1510.0	Jul-75	44.0	1510.0
8/27/1971	22.59	1,524.71	Aug-75	43.5	1510.5	Aug-75	44.0	1510.0
9/8/1971	18.18	1,529.12	Sep-75	45.0	1509.0	Sep-75	46.0	1508.0
12/1/1971	17.7	1,529.60	Oct-75	45.0	1509.0	Oct-75	45.5	1508.5
12/21/1971	21.12	1,526.18	Nov-75	45.0	1509.0	Nov-75	45.5	1508.5
3/8/1972	17.55	1,529.75	Dec-75	45.0	1509.0	Dec-75	45.5	1508.5
9/8/1972	19.85	1,527.45	Jan-76	45.0	1509.0	Jan-76	46.0	1508.0
10/12/1972	23.51	1,523.79	Feb-76	45.5	1508.5	Feb-76	46.5	1507.5
12/6/1972	19.09	1,528.21	Mar-76	45.5	1508.5	Mar-76	46.5	1507.5
3/10/1973	18.92	1,528.38	Apr-76	43.0	1511.0	Apr-76	44.0	1510.0
5/31/1973	19.8	1,527.50	May-76	42.0	1512.0	May-76	43.0	1511.0
6/7/1973	23.14	1,524.16	Jun-76	42.0	1512.0	Jun-76	42.0	1512.0
9/28/1973	18.03	1,529.27	Jul-76	45.5	1508.5	Jul-76	46.0	1508.0
10/1/1973	20.33	1,526.97	Aug-76	44.0	1510.0	Aug-76	44.5	1509.5

Tables of Groundwater Elevations								
155-082-29 bcb			155-83-14 ddd 2/Minot Well 5			155-83-14 ddd 3/Minot Well 6		
Casing Elev. = 1547.30 ft			Casing Elev. = 1554 ft			Casing Elev. = 1554 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
12/6/1973	24.6	1,522.70	Sep-76	43.5	1510.5	Sep-76	44.0	1510.0
6/19/1974	18.99	1,528.31	Oct-76	45.0	1509.0	Oct-76	46.0	1508.0
7/2/1974	23.34	1,523.96	Nov-76	45.0	1509.0	Nov-76	46.0	1508.0
10/7/1974	21.13	1,526.17	Dec-76	44.0	1510.0	Dec-76	45.0	1509.0
12/4/1974	20.12	1,527.18	Jan-77	43.0	1511.0	Jan-77	44.0	1510.0
3/6/1975	19.93	1,527.37	Feb-77	43.0	1511.0	Feb-77	44.0	1510.0
6/20/1975	15.8	1,531.50	Mar-77	44.0	1510.0	Mar-77	45.0	1509.0
8/14/1975	21.03	1,526.27	Apr-77	51.0	1503.0	Apr-77	47.0	1507.0
9/30/1975	17.51	1,529.79	May-77	46.0	1508.0	May-77	47.0	1507.0
12/2/1975	16.96	1,530.34	Jun-77	46.5	1507.5	Jun-77	48.5	1505.5
3/10/1976	18.23	1,529.07	Jul-77	49.0	1505.0	Jul-77	50.0	1504.0
6/11/1976	15.36	1,531.94	Aug-77	48.0	1506.0	Aug-77	49.0	1505.0
9/2/1976	17.39	1,529.91	Sep-77	48.0	1506.0	Sep-77	48.0	1506.0
12/1/1976	19.03	1,528.27	Oct-77	48.0	1506.0	Oct-77	48.0	1506.0
3/3/1977	19.05	1,528.25	Nov-77	46.0	1508.0	Nov-77	47.0	1507.0
6/8/1977	20.87	1,526.43	Dec-77	46.0	1508.0	Dec-77	46.0	1508.0
9/13/1977	23.13	1,524.17	Jan-78	46.0	1508.0	Jan-78	47.0	1507.0
12/6/1977	22.27	1,525.03	Feb-78	47.0	1507.0	Feb-78	47.5	1506.5
3/8/1978	23	1,524.30	Mar-78	45.5	1508.5	Mar-78	47.0	1507.0
6/13/1978	22.86	1,524.44	Apr-78	48.0	1506.0	Apr-78	49.0	1505.0
9/8/1978	27.69	1,519.61	May-78	48.0	1506.0	May-78	47.0	1507.0
11/30/1978	33.55	1,513.75	Jun-78	47.0	1507.0	Jun-78	48.0	1506.0
3/2/1979	23.22	1,524.08	Jul-78	46.0	1508.0	Jul-78	47.0	1507.0
6/5/1979	22.38	1,524.92	Aug-78	47.0	1507.0	Aug-78	49.0	1505.0
9/5/1979	26.74	1,520.56	Sep-78	46.5	1507.5	Sep-78	47.0	1507.0
11/30/1979	23.25	1,524.05	Oct-78	47.5	1506.5	Oct-78	48.0	1506.0
9/9/1980	26.41	1,520.89	Nov-78	47.0	1507.0	Nov-78	47.0	1507.0
12/4/1980	23.56	1,523.74	Dec-78	46.0	1508.0	Dec-78	47.0	1507.0
3/6/1981	24.13	1,523.17	Jan-79	46.0	1508.0	Jan-79	47.0	1507.0
6/4/1981	27.01	1,520.29	Feb-79	47.0	1507.0	Feb-79	47.0	1507.0
9/4/1981	28.18	1,519.12	Mar-79	46.0	1508.0	Mar-79	47.0	1507.0
11/30/1981	26.46	1,520.84	Apr-79	45.5	1508.5	Apr-79	46.0	1508.0
3/24/1982	27.24	1,520.06	May-79	45.5	1508.5	May-79	46.0	1508.0
6/18/1982	27.16	1,520.14	Jun-79	44.0	1510.0	Jun-79	45.0	1509.0
10/23/1982	25.87	1,521.43	Jul-79	49.5	1504.5	Jul-79	50.5	1503.5
12/8/1982	25.18	1,522.12	Aug-79	47.0	1507.0	Aug-79	48.0	1506.0
3/17/1983	24.75	1,522.55	Sep-79	47.0	1507.0	Sep-79	47.5	1506.5
7/1/1983	26.88	1,520.42	Oct-79	44.5	1509.5	Oct-79	46.0	1508.0
8/29/1983	27.85	1,519.45	Nov-79	46.0	1508.0	Nov-79	47.0	1507.0
1/16/1984	29.17	1,518.13	Dec-79	44.0	1510.0	Dec-79	45.0	1509.0
2/1/1984	29.37	1,517.93	Jan-80	43.0	1511.0	Jan-80	44.0	1510.0
2/21/1984	29.26	1,518.04	Feb-80	44.0	1510.0	Feb-80	45.0	1509.0
3/12/1984	29.23	1,518.07	Mar-80	44.0	1510.0	Mar-80	45.0	1509.0
4/3/1984	29.48	1,517.82	Apr-80	46.0	1508.0	Apr-80	48.0	1506.0
4/18/1984	30.09	1,517.21	May-80	46.0	1508.0	May-80	46.0	1508.0
5/8/1984	29.25	1,518.05	Jun-80	48.5	1505.5	Jun-80	49.5	1504.5
5/29/1984	31.15	1,516.15	Jul-80	No Data	No Data	Jul-80	No Data	No Data
6/15/1984	31.17	1,516.13	Aug-80	47.0	1507.0	Aug-80	47.5	1506.5
6/16/1984	31.18	1,516.12	Sep-80	45.0	1509.0	Sep-80	46.0	1508.0
6/26/1984	30.97	1,516.33	Oct-80	46.0	1508.0	Oct-80	46.0	1508.0
7/10/1984	33.15	1,514.15	Nov-80	44.5	1509.5	Nov-80	45.5	1508.5
7/27/1984	34.67	1,512.63	Dec-80	44.5	1509.5	Dec-80	45.5	1508.5
8/9/1984	35.68	1,511.62	Jan-81	46.0	1508.0	Jan-81	46.0	1508.0
8/16/1984	35.7	1,511.60	Feb-81	45.5	1508.5	Feb-81	47.0	1507.0

Tables of Groundwater Elevations								
155-082-29 bcb			155-83-14 ddd 2/Minot Well 5			155-83-14 ddd 3/Minot Well 6		
Casing Elev. = 1547.30 ft			Casing Elev. = 1554 ft			Casing Elev. = 1554 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/22/1984	35.73	1,511.57	Mar-81	45.0	1509.0	Mar-81	46.0	1508.0
8/27/1984	35.17	1,512.13	Apr-81	45.5	1508.5	Apr-81	47.0	1507.0
9/7/1984	35.26	1,512.04	May-81	45.0	1509.0	May-81	46.0	1508.0
9/11/1984	33.34	1,513.96	Jun-81	46.0	1508.0	Jun-81	47.0	1507.0
9/20/1984	32.82	1,514.48	Jul-81	49.0	1505.0	Jul-81	49.0	1505.0
9/22/1984	31.94	1,515.36	Aug-81	47.0	1507.0	Aug-81	48.0	1506.0
9/27/1984	31.42	1,515.88	Sep-81	48.0	1506.0	Sep-81	49.5	1504.5
10/3/1984	31.36	1,515.94	Oct-81	48.0	1506.0	Oct-81	49.0	1505.0
10/10/1984	31.39	1,515.91	Nov-81	48.0	1506.0	Nov-81	49.0	1505.0
10/23/1984	30.53	1,516.77	Dec-81	47.0	1507.0	Dec-81	47.5	1506.5
11/8/1984	30.48	1,516.82	Jan-82	48.0	1506.0	Jan-82	48.0	1506.0
11/20/1984	29.28	1,518.02	Feb-82	46.5	1507.5	Feb-82	47.5	1506.5
12/9/1984	28.97	1,518.33	Mar-82	46.5	1507.5	Mar-82	47.0	1507.0
12/13/1984	29.15	1,518.15	Apr-82	49.0	1505.0	Apr-82	49.0	1505.0
1/9/1985	29.45	1,517.85	May-82	48.0	1506.0	May-82	48.0	1506.0
2/12/1985	29.22	1,518.08	Jun-82	49.0	1505.0	Jun-82	49.5	1504.5
3/6/1985	29.76	1,517.54	Jul-82	51.0	1503.0	Jul-82	51.0	1503.0
3/19/1985	29.78	1,517.52	Aug-82	No Data	No Data	Aug-82	No Data	No Data
3/23/1985	30.11	1,517.19	Sep-82	49.0	1505.0	Sep-82	49.0	1505.0
4/16/1985	29.65	1,517.65	Oct-82	49.0	1505.0	Oct-82	49.0	1505.0
5/2/1985	29.53	1,517.77	Nov-82	47.0	1507.0	Nov-82	47.5	1506.5
5/14/1985	31.37	1,515.93	Dec-82	46.0	1508.0	Dec-82	46.0	1508.0
6/6/1985	31.4	1,515.90	Jan-83	46.5	1507.5	Jan-83	47.0	1507.0
6/20/1985	32.42	1,514.88	Feb-83	46.5	1507.5	Feb-83	47.0	1507.0
6/30/1985	30.93	1,516.37	Mar-83	46.0	1508.0	Mar-83	46.0	1508.0
7/1/1985	33.23	1,514.07	Apr-83	46.0	1508.0	Apr-83	46.0	1508.0
7/17/1985	33.73	1,513.57	May-83	44.0	1510.0	May-83	45.0	1509.0
7/29/1985	33.9	1,513.40	Jun-83	45.0	1509.0	Jun-83	45.0	1509.0
8/14/1985	34.23	1,513.07	Jul-83	47.0	1507.0	Jul-83	48.0	1506.0
8/27/1985	34.25	1,513.05	Aug-83	47.0	1507.0	Aug-83	48.0	1506.0
9/12/1985	34.31	1,512.99	Sep-83	47.0	1507.0	Sep-83	47.0	1507.0
9/23/1985	34.28	1,513.02	Oct-83	45.0	1509.0	Oct-83	45.5	1508.5
9/29/1985	31.05	1,516.25	Nov-83	46.0	1508.0	Nov-83	47.0	1507.0
10/22/1985	29.34	1,517.96	Dec-83	45.5	1508.5	Dec-83	46.0	1508.0
11/21/1985	29.48	1,517.82	Jan-84	47.0	1507.0	Jan-84	47.5	1506.5
12/8/1985	29.51	1,517.79	Feb-84	46.0	1508.0	Feb-84	47.0	1507.0
2/25/1986	29.54	1,517.76	Mar-84	47.5	1506.5	Mar-84	48.0	1506.0
3/26/1986	29.52	1,517.78	Apr-84	46.5	1507.5	Apr-84	47.0	1507.0
3/29/1986	30.95	1,516.35	May-84	47.0	1507.0	May-84	46.5	1507.5
5/13/1986	28.34	1,518.96	Jun-84	46.0	1508.0	Jun-84	46.5	1507.5
6/3/1986	31.85	1,515.45	Jul-84	50.0	1504.0	Jul-84	51.0	1503.0
6/28/1986	31.99	1,515.31	Aug-84	49.5	1504.5	Aug-84	50.0	1504.0
7/1/1986	32.56	1,514.74	Sep-84	49.0	1505.0	Sep-84	50.0	1504.0
8/6/1986	32.71	1,514.59	Oct-84	48.5	1505.5	Oct-84	49.0	1505.0
9/9/1986	32.69	1,514.61	Nov-84	47.0	1507.0	Nov-84	48.0	1506.0
9/29/1986	30.48	1,516.82	Dec-84	49.5	1504.5	Dec-84	49.5	1504.5
10/8/1986	30.25	1,517.05	Jan-85	47.0	1507.0	Jan-85	47.0	1507.0
12/16/1986	29.5	1,517.80	Feb-85	56.0	1498.0	Feb-85	52.0	1502.0
12/20/1986	29.54	1,517.76	Mar-85	48.0	1506.0	Mar-85	48.5	1505.5
4/8/1987	27.89	1,519.41	Apr-85	47.5	1506.5	Apr-85	49.5	1504.5
4/19/1987	29.6	1,517.70	May-85	48.0	1506.0	May-85	48.0	1506.0
4/28/1987	29.1	1,518.20	Jun-85	46.0	1508.0	Jun-85	47.0	1507.0
5/13/1987	30.71	1,516.59	Jul-85	59.0	1495.0	Jul-85	55.0	1499.0
6/18/1987	32.77	1,514.53	Aug-85	48.0	1506.0	Aug-85	53.0	1501.0

Tables of Groundwater Elevations								
155-082-29 bcb			155-83-14 ddd 2/Minot Well 5			155-83-14 ddd 3/Minot Well 6		
Casing Elev. = 1547.30 ft			Casing Elev. = 1554 ft			Casing Elev. = 1554 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
6/20/1987	32.08	1,515.22	Sep-85	48.0	1506.0	Sep-85	48.0	1506.0
7/14/1987	31.51	1,515.79	Oct-85	53.5	1500.5	Oct-85	55.0	1499.0
8/18/1987	31.99	1,515.31	Nov-85	48.0	1506.0	Nov-85	48.5	1505.5
9/24/1987	32.3	1,515.00	Dec-85	46.0	1508.0	Dec-85	47.0	1507.0
9/27/1987	31.08	1,516.22	Jan-86	57.0	1497.0	Jan-86	53.0	1501.0
10/20/1987	31.12	1,516.18	Feb-86	50.0	1504.0	Feb-86	50.0	1504.0
11/12/1987	28.87	1,518.43	Mar-86	48.0	1506.0	Mar-86	48.0	1506.0
12/9/1987	29.24	1,518.06	Apr-86	46.0	1508.0	Apr-86	46.5	1507.5
12/13/1987	29.38	1,517.92	May-86	50.5	1503.5	May-86	52.0	1502.0
3/27/1988	28.26	1,519.04	Jun-86	46.0	1508.0	Jun-86	46.5	1507.5
4/8/1988	30.08	1,517.22	Jul-86	54.0	1500.0	Jul-86	50.0	1504.0
5/13/1988	31.54	1,515.76	Aug-86	49.0	1505.0	Aug-86	50.0	1504.0
6/7/1988	35.43	1,511.87	Sep-86	45.5	1508.5	Sep-86	46.0	1508.0
6/25/1988	37.02	1,510.28	Oct-86	44.0	1510.0	Oct-86	45.0	1509.0
7/8/1988	36.21	1,511.09	Nov-86	No Data	No Data	Nov-86	No Data	No Data
8/4/1988	38.56	1,508.74	Dec-86	No Data	No Data	Dec-86	No Data	No Data
9/16/1988	37.09	1,510.21	Jan-87	No Data	No Data	Jan-87	No Data	No Data
9/25/1988	35.74	1,511.56	Feb-87	43.5	1510.5	Feb-87	44.0	1510.0
10/19/1988	35.5	1,511.80	Mar-87	54.0	1500.0	Mar-87	51.0	1503.0
11/18/1988	34.97	1,512.33	Apr-87	52.0	1502.0	Apr-87	53.5	1500.5
12/10/1988	35.16	1,512.14	May-87	44.5	1509.5	May-87	45.0	1509.0
12/19/1988	35.33	1,511.97	Jun-87	45.5	1508.5	Jun-87	45.5	1508.5
3/8/1989	36	1,511.30	Jul-87	44.0	1510.0	Jul-87	45.5	1508.5
3/25/1989	35.86	1,511.44	Aug-87	43.5	1510.5	Aug-87	45.0	1509.0
4/18/1989	35.54	1,511.76	Sep-87	42.5	1511.5	Sep-87	44.0	1510.0
5/9/1989	36.35	1,510.95	Oct-87	41.5	1512.5	Oct-87	43.0	1511.0
6/8/1989	35.6	1,511.70	Nov-87	50.0	1504.0	Nov-87	53.0	1501.0
6/24/1989	36.06	1,511.24	Dec-87	45.0	1509.0	Dec-87	46.0	1508.0
7/6/1989	37.2	1,510.10	Jan-88	45.0	1509.0	Jan-88	46.0	1508.0
8/2/1989	38.26	1,509.04	Feb-88	No Data	No Data	Feb-88	No Data	No Data
8/30/1989	38.17	1,509.13	Mar-88	No Data	No Data	Mar-88	No Data	No Data
9/24/1989	38.53	1,508.77	Apr-88	55.0	1499.0	Apr-88	52.0	1502.0
11/2/1989	37.28	1,510.02	May-88	61.0	1493.0	May-88	54.5	1499.5
12/9/1989	36.26	1,511.04	Jun-88	No Data	No Data	Jun-88	No Data	No Data
12/12/1989	36.16	1,511.14	Jul-88	No Data	No Data	Jul-88	No Data	No Data
1/22/1990	35.36	1,511.94	Aug-88	60.5	1493.5	Aug-88	57.5	1496.5
3/4/1990	35.28	1,512.02	Sep-88	60.0	1494.0	Sep-88	62.0	1492.0
3/19/1990	35.29	1,512.01	Oct-88	68.0	1486.0	Oct-88	67.0	1487.0
3/20/1990	35.29	1,512.01	Nov-88	66.0	1488.0	Nov-88	62.0	1492.0
5/2/1990	37.33	1,509.97	Dec-88	65.0	1489.0	Dec-88	62.0	1492.0
5/31/1990	38.05	1,509.25	Jan-89	61.0	1493.0	Jan-89	63.0	1491.0
6/20/1990	37.49	1,509.81	Feb-89	61.0	1493.0	Feb-89	63.0	1491.0
6/26/1990	38.1	1,509.20	Mar-89	64.0	1490.0	Mar-89	61.0	1493.0
6/27/1990	38.54	1,508.76	Apr-89	62.5	1491.5	Apr-89	60.0	1494.0
7/23/1990	38.03	1,509.27	May-89	53.5	1500.5	May-89	54.0	1500.0
8/14/1990	39.68	1,507.62	Jun-89	59.0	1495.0	Jun-89	61.0	1493.0
9/12/1990	38.96	1,508.34	Jul-89	63.0	1491.0	Jul-89	60.0	1494.0
9/18/1990	39.5	1,507.80	Aug-89	59.0	1495.0	Aug-89	60.5	1493.5
10/9/1990	38.51	1,508.79	Sep-89	66.0	1488.0	Sep-89	62.0	1492.0
11/15/1990	37.58	1,509.72	Oct-89	No Data	No Data	Oct-89	No Data	No Data
12/8/1990	36.69	1,510.61	Nov-89	55.0	1499.0	Nov-89	55.0	1499.0
12/11/1990	36.62	1,510.68	Dec-89	No Data	No Data	Dec-89	No Data	No Data
4/14/1991	38.74	1,508.56	Jan-90	65.0	1489.0	Jan-90	62.5	1491.5
4/15/1991	38.59	1,508.71	Feb-90	67.0	1487.0	Feb-90	63.0	1491.0

Tables of Groundwater Elevations								
155-082-29 bcb			155-83-14 ddd 2/Minot Well 5			155-83-14 ddd 3/Minot Well 6		
Casing Elev. = 1547.30 ft			Casing Elev. = 1554 ft			Casing Elev. = 1554 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
5/14/1991	38.71	1,508.59	Mar-90	58.0	1496.0	Mar-90	58.5	1495.5
6/11/1991	38.45	1,508.85	Apr-90	No Data	No Data	Apr-90	No Data	No Data
6/12/1991	38.55	1,508.75	May-90	56.0	1498.0	May-90	56.0	1498.0
7/10/1991	38.43	1,508.87	Jun-90	60.0	1494.0	Jun-90	62.0	1492.0
8/16/1991	40.84	1,506.46	Jul-90	57.0	1497.0	Jul-90	60.0	1494.0
8/30/1991	41.38	1,505.92	Aug-90	56.0	1498.0	Aug-90	56.0	1498.0
9/16/1991	40.49	1,506.81	Sep-90	53.0	1501.0	Sep-90	54.0	1500.0
10/15/1991	39.69	1,507.61	Oct-90	52.0	1502.0	Oct-90	53.0	1501.0
11/19/1991	37.72	1,509.58	Nov-90	66.5	1487.5	Nov-90	65.0	1489.0
3/9/1992	37.01	1,510.29	Dec-90	68.5	1485.5	Dec-90	67.0	1487.0
4/21/1992	37.48	1,509.82	Jan-91	No Data	No Data	Jan-91	No Data	No Data
5/21/1992	39.28	1,508.02	Feb-91	71.5	1482.5	Feb-91	70.0	1484.0
6/5/1992	39.41	1,507.89	Mar-91	61.0	1493.0	Mar-91	61.0	1493.0
6/16/1992	40.82	1,506.48	Apr-91	No Data	No Data	Apr-91	No Data	No Data
7/13/1992	39	1,508.30	May-91	57.5	1496.5	May-91	58.0	1496.0
8/12/1992	41.9	1,505.40	Jun-91	56.5	1497.5	Jun-91	56.5	1497.5
8/20/1992	42.28	1,505.02	Jul-91	68.0	1486.0	Jul-91	67.0	1487.0
9/4/1992	41.11	1,506.19	Aug-91	55.0	1499.0	Aug-91	55.0	1499.0
9/15/1992	40.21	1,507.09	Sep-91	55.0	1499.0	Sep-91	55.0	1499.0
10/20/1992	39.52	1,507.78	Oct-91	52.5	1501.5	Oct-91	53.5	1500.5
11/18/1992	38.59	1,508.71	Nov-91	52.0	1502.0	Nov-91	53.0	1501.0
12/10/1992	38.3	1,509.00	Dec-91	51.5	1502.5	Dec-91	52.0	1502.0
12/16/1992	38.27	1,509.03	Jan-92	49.5	1504.5	Jan-92	50.5	1503.5
1/20/1993	38	1,509.30	Feb-92	58.0	1496.0	Feb-92	55.0	1499.0
2/22/1993	38.25	1,509.05	Mar-92	60.0	1494.0	Mar-92	57.0	1497.0
3/7/1993	38.26	1,509.04	Apr-92	51.5	1502.5	Apr-92	52.0	1502.0
3/24/1993	38.88	1,508.42	May-92	51.0	1503.0	May-92	51.5	1502.5
4/19/1993	39.24	1,508.06	Jun-92	61.0	1493.0	Jun-92	59.0	1495.0
5/18/1993	40.93	1,506.37	Jul-92	58.0	1496.0	Jul-92	59.0	1495.0
6/10/1993	40.54	1,506.76	Aug-92	54.0	1500.0	Aug-92	54.0	1500.0
6/15/1993	40.05	1,507.25	Sep-92	52.0	1502.0	Sep-92	53.0	1501.0
7/14/1993	39.43	1,507.87	Oct-92	51.0	1503.0	Oct-92	51.5	1502.5
8/9/1993	38.9	1,508.40	Nov-92	59.0	1495.0	Nov-92	56.0	1498.0
9/15/1993	38.65	1,508.65	Dec-92	62.0	1492.0	Dec-92	58.5	1495.5
9/18/1993	38.64	1,508.66	Jan-93	60.0	1494.0	Jan-93	61.5	1492.5
10/20/1993	39	1,508.30	Feb-93	60.0	1494.0	Feb-93	62.0	1492.0
11/17/1993	37.9	1,509.40	Mar-93	54.5	1499.5	Mar-93	55.0	1499.0
12/16/1993	36	1,511.30	Apr-93	53.0	1501.0	Apr-93	53.5	1500.5
4/29/1994	39.18	1,508.12	May-93	54.0	1500.0	May-93	55.0	1499.0
6/2/1994	39.29	1,508.01	Jun-93	54.5	1499.5	Jun-93	55.0	1499.0
7/6/1994	39.06	1,508.24	Jul-93	63.5	1490.5	Jul-93	60.0	1494.0
8/2/1994	41.36	1,505.94	Aug-93	63.5	1490.5	Aug-93	60.5	1493.5
9/8/1994	40.57	1,506.73	Sep-93	63.0	1491.0	Sep-93	60.5	1493.5
10/10/1994	38.72	1,508.58	Oct-93	64.5	1489.5	Oct-93	61.0	1493.0
11/15/1994	36.91	1,510.39	Nov-93	55.0	1499.0	Nov-93	55.0	1499.0
12/7/1994	36.59	1,510.71	Dec-93	55.0	1499.0	Dec-93	55.0	1499.0
5/2/1995	37.82	1,509.48	Jan-94	60.0	1494.0	Jan-94	62.0	1492.0
6/8/1995	38.2	1,509.10	Feb-94	55.0	1499.0	Feb-94	55.0	1499.0
7/12/1995	40.05	1,507.25	Mar-94	54.5	1499.5	Mar-94	55.0	1499.0
8/15/1995	40.5	1,506.80	Apr-94	63.0	1491.0	Apr-94	60.0	1494.0
10/10/1995	39.25	1,508.05	May-94	62.0	1492.0	May-94	59.0	1495.0
11/15/1995	37.67	1,509.63	Jun-94	53.0	1501.0	Jun-94	54.0	1500.0
5/7/1996	37.61	1,509.69	Jul-94	No Data	No Data	Jul-94	No Data	No Data
6/12/1996	39.84	1,507.46	Aug-94	52.5	1501.5	Aug-94	53.5	1500.5

Tables of Groundwater Elevations								
155-082-29 bcb			155-83-14 ddd 2/Minot Well 5			155-83-14 ddd 3/Minot Well 6		
Casing Elev. = 1547.30 ft			Casing Elev. = 1554 ft			Casing Elev. = 1554 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
7/17/1996	40.61	1,506.69	Sep-94	52.0	1502.0	Sep-94	52.5	1501.5
9/5/1996	41.08	1,506.22	Oct-94	51.0	1503.0	Oct-94	51.0	1503.0
10/10/1996	39.2	1,508.10	Nov-94	No Data	No Data	Nov-94	No Data	No Data
11/20/1996	37.46	1,509.84	Dec-94	No Data	No Data	Dec-94	No Data	No Data
5/21/1997	38.02	1,509.28	Jan-95	60.0	1494.0	Jan-95	63.0	1491.0
6/30/1997	39.5	1,507.80	Feb-95	60.0	1494.0	Feb-95	63.0	1491.0
8/4/1997	40.87	1,506.43	Mar-95	No Data	No Data	Mar-95	No Data	No Data
9/9/1997	40.84	1,506.46	Apr-95	61.0	1493.0	Apr-95	63.0	1491.0
10/7/1997	40.1	1,507.20	May-95	No Data	No Data	May-95	No Data	No Data
11/5/1997	38.04	1,509.26	Jun-95	64.0	1490.0	Jun-95	61.0	1493.0
12/2/1997	37.81	1,509.49	Jul-95	64.0	1490.0	Jul-95	61.0	1493.0
6/3/1998	40.63	1,506.67	Aug-95	63.0	1491.0	Aug-95	61.0	1493.0
7/28/1998	41.94	1,505.36	Sep-95	59.0	1495.0	Sep-95	61.0	1493.0
9/8/1998	41.58	1,505.72	Oct-95	53.0	1501.0	Oct-95	54.0	1500.0
10/21/1998	39.02	1,508.28	Nov-95	61.0	1493.0	Nov-95	58.0	1496.0
12/2/1998	37.59	1,509.71	Dec-95	62.0	1492.0	Dec-95	60.0	1494.0
6/2/1999	35.52	1,511.78	Jan-96	63.0	1491.0	Jan-96	60.0	1494.0
6/30/1999	36.68	1,510.62	Feb-96	60.0	1494.0	Feb-96	62.0	1492.0
8/5/1999	36.59	1,510.71	Mar-96	60.0	1494.0	Mar-96	63.0	1491.0
9/15/1999	35.1	1,512.20	Apr-96	60.0	1494.0	Apr-96	63.0	1491.0
10/14/1999	35.35	1,511.95	May-96	64.0	1490.0	May-96	61.0	1493.0
11/8/1999	34.18	1,513.12	Jun-96	55.0	1499.0	Jun-96	55.0	1499.0
12/16/1999	34.34	1,512.96	Jul-96	54.0	1500.0	Jul-96	54.0	1500.0
5/10/2000	36.76	1,510.54	Aug-96	60.0	1494.0	Aug-96	60.0	1494.0
6/6/2000	37.64	1,509.66	Sep-96	61.0	1493.0	Sep-96	59.0	1495.0
7/13/2000	37.9	1,509.40	Oct-96	53.0	1501.0	Oct-96	53.0	1501.0
8/8/2000	39.06	1,508.24	Nov-96	52.0	1502.0	Nov-96	53.0	1501.0
9/21/2000	39.33	1,507.97	Dec-96	61.0	1493.0	Dec-96	59.0	1495.0
10/18/2000	38.6	1,508.70	Jan-97	63.0	1491.0	Jan-97	60.0	1494.0
11/14/2000	37.84	1,509.46	Feb-97	63.0	1491.0	Feb-97	60.0	1494.0
5/2/2001	37.71	1,509.59	Mar-97	61.0	1493.0	Mar-97	63.0	1491.0
6/20/2001	38.03	1,509.27	Apr-97	52.0	1502.0	Apr-97	56.0	1498.0
7/17/2001	39.48	1,507.82	May-97	75.0	1479.0	May-97	62.0	1492.0
8/14/2001	40.6	1,506.70	Jun-97	75.0	1479.0	Jun-97	55.0	1499.0
9/11/2001	41.13	1,506.17	Jul-97	61.0	1493.0	Jul-97	63.0	1491.0
10/16/2001	39.36	1,507.94	Aug-97	57.0	1497.0	Aug-97	56.0	1498.0
11/19/2001	38.11	1,509.19	Sep-97	55.0	1499.0	Sep-97	55.0	1499.0
12/10/2001	38.1	1,509.20	Oct-97	60.0	1494.0	Oct-97	62.0	1492.0
5/21/2002	40.96	1,506.34	Nov-97	64.0	1490.0	Nov-97	61.0	1493.0
6/26/2002	40.92	1,506.38	Dec-97	No Data	No Data	Dec-97	No Data	No Data
7/9/2002	42.3	1,505.00	Jan-98	61.0	1493.0	Jan-98	64.0	1490.0
8/13/2002	42.74	1,504.56	Feb-98	62.0	1492.0	Feb-98	64.0	1490.0
9/24/2002	42.13	1,505.17	Mar-98	57.0	1497.0	Mar-98	56.0	1498.0
11/14/2002	40.03	1,507.27	Apr-98	56.0	1498.0	Apr-98	56.0	1498.0
12/10/2002	39.9	1,507.40	May-98	60.0	1494.0	May-98	62.0	1492.0
5/15/2003	39.89	1,507.41						
6/10/2003	40.5	1,506.80						
7/15/2003	43	1,504.30						
8/12/2003	43.34	1,503.96						
9/9/2003	44.7	1,502.60						
10/14/2003	43.84	1,503.46						
11/11/2003	41.85	1,505.45						
12/3/2003	41.34	1,505.96						

Tables of Groundwater Elevations								
155-83-23 bab 1/Minot Well 8			155-83-22 ada 2/Minot Well 12			155-83-22 adc/Minot Well 13		
Casing Elev. = 1555 ft			Casing Elev. = 1555 ft			Casing Elev. = 1557 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Sep-67	61.0	1494.0	Sep-67	61.0	1494.0	Sep-67	56.0	1501.0
Oct-67	60.0	1495.0	Oct-67	60.0	1495.0	Oct-67	55.0	1502.0
Nov-67	No Data	No Data	Nov-67	No Data	No Data	Nov-67	No Data	No Data
Dec-67	61.0	1494.0	Dec-67	61.0	1494.0	Dec-67	55.0	1502.0
Jan-68	62.0	1493.0	Jan-68	61.0	1494.0	Jan-68	54.0	1503.0
Feb-68	61.0	1494.0	Feb-68	62.0	1493.0	Feb-68	55.0	1502.0
Mar-68	62.0	1493.0	Mar-68	62.0	1493.0	Mar-68	56.0	1501.0
Apr-68	60.0	1495.0	Apr-68	60.0	1495.0	Apr-68	55.0	1502.0
May-68	60.0	1495.0	May-68	59.0	1496.0	May-68	53.0	1504.0
Jun-68	60.0	1495.0	Jun-68	59.5	1495.5	Jun-68	53.5	1503.5
Jul-68	60.0	1495.0	Jul-68	60.0	1495.0	Jul-68	54.0	1503.0
Aug-68	59.0	1496.0	Aug-68	59.0	1496.0	Aug-68	53.0	1504.0
Sep-68	58.0	1497.0	Sep-68	57.0	1498.0	Sep-68	52.0	1505.0
Oct-68	58.0	1497.0	Oct-68	58.0	1497.0	Oct-68	52.0	1505.0
Nov-68	59.0	1496.0	Nov-68	58.0	1497.0	Nov-68	53.0	1504.0
Dec-68	58.0	1497.0	Dec-68	58.0	1497.0	Dec-68	53.0	1504.0
Jan-69	No Data	No Data	Jan-69	No Data	No Data	Jan-69	No Data	No Data
Feb-69	59.0	1496.0	Feb-69	60.0	1495.0	Feb-69	54.0	1503.0
Mar-69	60.0	1495.0	Mar-69	61.0	1494.0	Mar-69	55.0	1502.0
Apr-69	No Data	No Data	Apr-69	60.5	1494.5	Apr-69	55.0	1502.0
May-69	No Data	No Data	May-69	57.0	1498.0	May-69	53.0	1504.0
Jun-69	No Data	No Data	Jun-69	56.0	1499.0	Jun-69	52.0	1505.0
Jul-69	No Data	No Data	Jul-69	56.0	1499.0	Jul-69	51.0	1506.0
Aug-69	No Data	No Data	Aug-69	57.0	1498.0	Aug-69	51.0	1506.0
Sep-69	55.0	1500.0	Sep-69	56.0	1499.0	Sep-69	49.0	1508.0
Oct-69	53.0	1502.0	Oct-69	53.0	1502.0	Oct-69	48.0	1509.0
Nov-69	54.0	1501.0	Nov-69	52.0	1503.0	Nov-69	48.0	1509.0
Dec-69	52.0	1503.0	Dec-69	52.0	1503.0	Dec-69	46.0	1511.0
Jan-70	51.0	1504.0	Jan-70	51.0	1504.0	Jan-70	45.0	1512.0
Feb-70	51.0	1504.0	Feb-70	50.0	1505.0	Feb-70	45.0	1512.0
Mar-70	50.0	1505.0	Mar-70	49.0	1506.0	Mar-70	44.0	1513.0
Apr-70	50.0	1505.0	Apr-70	50.0	1505.0	Apr-70	45.0	1512.0
May-70	49.0	1506.0	May-70	49.0	1506.0	May-70	45.0	1512.0
Jun-70	49.0	1506.0	Jun-70	51.0	1504.0	Jun-70	45.0	1512.0
Jul-70	50.0	1505.0	Jul-70	52.0	1503.0	Jul-70	47.0	1510.0
Aug-70	54.0	1501.0	Aug-70	55.0	1500.0	Aug-70	49.0	1508.0
Sep-70	53.0	1502.0	Sep-70	54.0	1501.0	Sep-70	50.0	1507.0
Oct-70	52.0	1503.0	Oct-70	55.0	1500.0	Oct-70	50.0	1507.0
Nov-70	52.0	1503.0	Nov-70	53.0	1502.0	Nov-70	48.0	1509.0
Dec-70	52.0	1503.0	Dec-70	53.0	1502.0	Dec-70	47.0	1510.0
Jan-71	51.0	1504.0	Jan-71	52.0	1503.0	Jan-71	47.0	1510.0
Feb-71	51.0	1504.0	Feb-71	52.0	1503.0	Feb-71	45.0	1512.0
Mar-71	50.0	1505.0	Mar-71	50.0	1505.0	Mar-71	45.0	1512.0
Apr-71	51.0	1504.0	Apr-71	51.0	1504.0	Apr-71	45.0	1512.0
May-71	50.0	1505.0	May-71	50.0	1505.0	May-71	45.0	1512.0
Jun-71	49.0	1506.0	Jun-71	51.0	1504.0	Jun-71	46.0	1511.0
Jul-71	49.0	1506.0	Jul-71	51.0	1504.0	Jul-71	46.0	1511.0
Aug-71	50.0	1505.0	Aug-71	53.0	1502.0	Aug-71	48.0	1509.0
Sep-71	50.0	1505.0	Sep-71	53.0	1502.0	Sep-71	48.0	1509.0
Oct-71	50.0	1505.0	Oct-71	53.0	1502.0	Oct-71	48.0	1509.0
Nov-71	50.0	1505.0	Nov-71	52.0	1503.0	Nov-71	46.0	1511.0
Dec-71	50.0	1505.0	Dec-71	52.0	1503.0	Dec-71	46.0	1511.0
Jan-72	49.0	1506.0	Jan-72	50.0	1505.0	Jan-72	45.0	1512.0
Feb-72	49.0	1506.0	Feb-72	50.0	1505.0	Feb-72	45.0	1512.0
Mar-72	50.0	1505.0	Mar-72	51.0	1504.0	Mar-72	45.0	1512.0
Apr-72	50.0	1505.0	Apr-72	52.0	1503.0	Apr-72	46.0	1511.0

Tables of Groundwater Elevations								
155-83-23 bab 1/Minot Well 8			155-83-22 ada 2/Minot Well 12			155-83-22 adc/Minot Well 13		
Casing Elev. = 1555 ft			Casing Elev. = 1555 ft			Casing Elev. = 1557 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
May-72	49.0	1506.0	May-72	51.0	1504.0	May-72	46.0	1511.0
Jun-72	53.0	1502.0	Jun-72	54.0	1501.0	Jun-72	48.0	1509.0
Jul-72	53.0	1502.0	Jul-72	54.0	1501.0	Jul-72	48.0	1509.0
Aug-72	54.0	1501.0	Aug-72	54.0	1501.0	Aug-72	48.5	1508.5
Sep-72	54.0	1501.0	Sep-72	56.0	1499.0	Sep-72	50.0	1507.0
Oct-72	52.0	1503.0	Oct-72	53.0	1502.0	Oct-72	47.5	1509.5
Nov-72	52.0	1503.0	Nov-72	53.0	1502.0	Nov-72	47.5	1509.5
Dec-72	51.0	1504.0	Dec-72	52.0	1503.0	Dec-72	46.0	1511.0
Jan-73	51.0	1504.0	Jan-73	52.0	1503.0	Jan-73	45.5	1511.5
Feb-73	50.5	1504.5	Feb-73	51.0	1504.0	Feb-73	45.0	1512.0
Mar-73	51.0	1504.0	Mar-73	51.0	1504.0	Mar-73	45.0	1512.0
Apr-73	51.0	1504.0	Apr-73	52.0	1503.0	Apr-73	45.5	1511.5
May-73	52.5	1502.5	May-73	53.5	1501.5	May-73	47.0	1510.0
Jun-73	53.0	1502.0	Jun-73	54.0	1501.0	Jun-73	48.0	1509.0
Jul-73	54.0	1501.0	Jul-73	54.5	1500.5	Jul-73	49.0	1508.0
Aug-73	54.5	1500.5	Aug-73	55.5	1499.5	Aug-73	49.0	1508.0
Sep-73	54.0	1501.0	Sep-73	55.0	1500.0	Sep-73	49.0	1508.0
Oct-73	54.0	1501.0	Oct-73	54.0	1501.0	Oct-73	48.5	1508.5
Nov-73	55.0	1500.0	Nov-73	55.0	1500.0	Nov-73	50.0	1507.0
Dec-73	56.0	1499.0	Dec-73	56.0	1499.0	Dec-73	50.0	1507.0
Jan-74	56.0	1499.0	Jan-74	57.0	1498.0	Jan-74	50.0	1507.0
Feb-74	56.0	1499.0	Feb-74	57.0	1498.0	Feb-74	51.0	1506.0
Mar-74	55.0	1500.0	Mar-74	57.0	1498.0	Mar-74	52.0	1505.0
Apr-74	54.0	1501.0	Apr-74	57.0	1498.0	Apr-74	52.0	1505.0
May-74	54.0	1501.0	May-74	56.0	1499.0	May-74	51.0	1506.0
Jun-74	56.0	1499.0	Jun-74	57.0	1498.0	Jun-74	52.0	1505.0
Jul-74	57.0	1498.0	Jul-74	59.0	1496.0	Jul-74	52.0	1505.0
Aug-74	56.0	1499.0	Aug-74	57.5	1497.5	Aug-74	51.5	1505.5
Sep-74	57.0	1498.0	Sep-74	57.5	1497.5	Sep-74	51.5	1505.5
Oct-74	55.0	1500.0	Oct-74	56.5	1498.5	Oct-74	51.0	1506.0
Nov-74	55.0	1500.0	Nov-74	56.5	1498.5	Nov-74	51.0	1506.0
Dec-74	54.5	1500.5	Dec-74	55.5	1499.5	Dec-74	49.5	1507.5
Jan-75	54.0	1501.0	Jan-75	56.0	1499.0	Jan-75	50.0	1507.0
Feb-75	54.0	1501.0	Feb-75	55.0	1500.0	Feb-75	50.0	1507.0
Mar-75	54.0	1501.0	Mar-75	56.0	1499.0	Mar-75	50.0	1507.0
Apr-75	No Data	No Data	Apr-75	56.0	1499.0	Apr-75	50.0	1507.0
May-75	No Data	No Data	May-75	55.0	1500.0	May-75	47.0	1510.0
Jun-75	No Data	No Data	Jun-75	51.5	1503.5	Jun-75	44.0	1513.0
Jul-75	No Data	No Data	Jul-75	54.0	1501.0	Jul-75	47.0	1510.0
Aug-75	No Data	No Data	Aug-75	54.0	1501.0	Aug-75	48.5	1508.5
Sep-75	No Data	No Data	Sep-75	54.0	1501.0	Sep-75	48.5	1508.5
Oct-75	No Data	No Data	Oct-75	56.0	1499.0	Oct-75	49.5	1507.5
Nov-75	No Data	No Data	Nov-75	56.0	1499.0	Nov-75	49.5	1507.5
Dec-75	No Data	No Data	Dec-75	56.0	1499.0	Dec-75	50.0	1507.0
Jan-76	No Data	No Data	Jan-76	55.0	1500.0	Jan-76	50.0	1507.0
Feb-76	No Data	No Data	Feb-76	56.0	1499.0	Feb-76	51.0	1506.0
Mar-76	No Data	No Data	Mar-76	57.0	1498.0	Mar-76	51.0	1506.0
Apr-76	No Data	No Data	Apr-76	57.0	1498.0	Apr-76	50.5	1506.5
May-76	No Data	No Data	May-76	55.5	1499.5	May-76	48.0	1509.0
Jun-76	No Data	No Data	Jun-76	55.0	1500.0	Jun-76	49.5	1507.5
Jul-76	No Data	No Data	Jul-76	58.0	1497.0	Jul-76	52.5	1504.5
Aug-76	No Data	No Data	Aug-76	58.0	1497.0	Aug-76	53.0	1504.0
Sep-76	No Data	No Data	Sep-76	56.5	1498.5	Sep-76	52.0	1505.0
Oct-76	No Data	No Data	Oct-76	58.5	1496.5	Oct-76	53.0	1504.0
Nov-76	No Data	No Data	Nov-76	58.0	1497.0	Nov-76	52.5	1504.5
Dec-76	No Data	No Data	Dec-76	57.0	1498.0	Dec-76	51.5	1505.5

Tables of Groundwater Elevations								
155-83-23 bab 1/Minot Well 8			155-83-22 ada 2/Minot Well 12			155-83-22 adc/Minot Well 13		
Casing Elev. = 1555 ft			Casing Elev. = 1555 ft			Casing Elev. = 1557 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Jan-77	No Data	No Data	Jan-77	55.0	1500.0	Jan-77	49.5	1507.5
Feb-77	No Data	No Data	Feb-77	54.5	1500.5	Feb-77	49.0	1508.0
Mar-77	No Data	No Data	Mar-77	55.0	1500.0	Mar-77	50.0	1507.0
Apr-77	55.0	1500.0	Apr-77	57.0	1498.0	Apr-77	51.5	1505.5
May-77	55.0	1500.0	May-77	58.0	1497.0	May-77	52.0	1505.0
Jun-77	56.0	1499.0	Jun-77	58.5	1496.5	Jun-77	52.0	1505.0
Jul-77	58.0	1497.0	Jul-77	59.0	1496.0	Jul-77	53.0	1504.0
Aug-77	56.0	1499.0	Aug-77	56.0	1499.0	Aug-77	50.5	1506.5
Sep-77	55.0	1500.0	Sep-77	57.0	1498.0	Sep-77	51.5	1505.5
Oct-77	55.0	1500.0	Oct-77	55.0	1500.0	Oct-77	51.0	1506.0
Nov-77	55.0	1500.0	Nov-77	56.0	1499.0	Nov-77	50.0	1507.0
Dec-77	54.0	1501.0	Dec-77	55.0	1500.0	Dec-77	51.0	1506.0
Jan-78	53.5	1501.5	Jan-78	55.0	1500.0	Jan-78	49.0	1508.0
Feb-78	54.0	1501.0	Feb-78	55.0	1500.0	Feb-78	49.0	1508.0
Mar-78	53.0	1502.0	Mar-78	54.5	1500.5	Mar-78	50.0	1507.0
Apr-78	55.0	1500.0	Apr-78	55.0	1500.0	Apr-78	49.0	1508.0
May-78	55.0	1500.0	May-78	57.0	1498.0	May-78	51.0	1506.0
Jun-78	55.0	1500.0	Jun-78	54.5	1500.5	Jun-78	51.0	1506.0
Jul-78	54.0	1501.0	Jul-78	57.0	1498.0	Jul-78	52.0	1505.0
Aug-78	56.0	1499.0	Aug-78	57.0	1498.0	Aug-78	53.0	1504.0
Sep-78	56.0	1499.0	Sep-78	57.0	1498.0	Sep-78	53.0	1504.0
Oct-78	56.0	1499.0	Oct-78	57.0	1498.0	Oct-78	51.0	1506.0
Nov-78	55.0	1500.0	Nov-78	57.0	1498.0	Nov-78	52.0	1505.0
Dec-78	55.0	1500.0	Dec-78	56.0	1499.0	Dec-78	51.0	1506.0
Jan-79	56.0	1499.0	Jan-79	56.0	1499.0	Jan-79	51.0	1506.0
Feb-79	54.0	1501.0	Feb-79	55.0	1500.0	Feb-79	49.0	1508.0
Mar-79	54.0	1501.0	Mar-79	55.0	1500.0	Mar-79	50.0	1507.0
Apr-79	54.0	1501.0	Apr-79	55.0	1500.0	Apr-79	49.0	1508.0
May-79	54.0	1501.0	May-79	54.0	1501.0	May-79	47.5	1509.5
Jun-79	52.5	1502.5	Jun-79	54.0	1501.0	Jun-79	48.0	1509.0
Jul-79	58.0	1497.0	Jul-79	55.5	1499.5	Jul-79	50.5	1506.5
Aug-79	56.0	1499.0	Aug-79	65.0	1490.0	Aug-79	50.0	1507.0
Sep-79	56.0	1499.0	Sep-79	55.0	1500.0	Sep-79	50.0	1507.0
Oct-79	53.5	1501.5	Oct-79	54.0	1501.0	Oct-79	49.0	1508.0
Nov-79	53.5	1501.5	Nov-79	53.0	1502.0	Nov-79	47.5	1509.5
Dec-79	52.5	1502.5	Dec-79	52.0	1503.0	Dec-79	46.5	1510.5
Jan-80	51.5	1503.5	Jan-80	51.5	1503.5	Jan-80	46.0	1511.0
Feb-80	53.0	1502.0	Feb-80	52.0	1503.0	Feb-80	46.0	1511.0
Mar-80	53.5	1501.5	Mar-80	52.5	1502.5	Mar-80	48.0	1509.0
Apr-80	55.0	1500.0	Apr-80	52.0	1503.0	Apr-80	46.5	1510.5
May-80	53.0	1502.0	May-80	54.0	1501.0	May-80	49.0	1508.0
Jun-80	58.0	1497.0	Jun-80	58.0	1497.0	Jun-80	52.0	1505.0
Jul-80	No Data	No Data	Jul-80	No Data	No Data	Jul-80	No Data	No Data
Aug-80	56.0	1499.0	Aug-80	56.5	1498.5	Aug-80	51.0	1506.0
Sep-80	55.0	1500.0	Sep-80	55.5	1499.5	Sep-80	50.0	1507.0
Oct-80	55.5	1499.5	Oct-80	55.5	1499.5	Oct-80	50.5	1506.5
Nov-80	54.0	1501.0	Nov-80	55.0	1500.0	Nov-80	49.0	1508.0
Dec-80	53.5	1501.5	Dec-80	54.5	1500.5	Dec-80	51.0	1506.0
Jan-81	54.0	1501.0	Jan-81	54.0	1501.0	Jan-81	48.0	1509.0
Feb-81	54.0	1501.0	Feb-81	55.0	1500.0	Feb-81	48.0	1509.0
Mar-81	53.5	1501.5	Mar-81	54.0	1501.0	Mar-81	49.5	1507.5
Apr-81	55.0	1500.0	Apr-81	56.0	1499.0	Apr-81	49.0	1508.0
May-81	55.0	1500.0	May-81	56.5	1498.5	May-81	51.0	1506.0
Jun-81	55.5	1499.5	Jun-81	56.5	1498.5	Jun-81	51.0	1506.0
Jul-81	56.5	1498.5	Jul-81	56.0	1499.0	Jul-81	52.0	1505.0
Aug-81	56.5	1498.5	Aug-81	58.0	1497.0	Aug-81	52.5	1504.5

Tables of Groundwater Elevations								
155-83-23 bab 1/Minot Well 8			155-83-22 ada 2/Minot Well 12			155-83-22 adc/Minot Well 13		
Casing Elev. = 1555 ft			Casing Elev. = 1555 ft			Casing Elev. = 1557 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Sep-81	58.0	1497.0	Sep-81	58.0	1497.0	Sep-81	53.5	1503.5
Oct-81	58.0	1497.0	Oct-81	58.0	1497.0	Oct-81	53.5	1503.5
Nov-81	56.5	1498.5	Nov-81	58.0	1497.0	Nov-81	52.0	1505.0
Dec-81	56.0	1499.0	Dec-81	57.0	1498.0	Dec-81	52.0	1505.0
Jan-82	55.0	1500.0	Jan-82	57.5	1497.5	Jan-82	51.0	1506.0
Feb-82	56.0	1499.0	Feb-82	57.0	1498.0	Feb-82	51.0	1506.0
Mar-82	55.5	1499.5	Mar-82	57.0	1498.0	Mar-82	51.0	1506.0
Apr-82	56.5	1498.5	Apr-82	59.0	1496.0	Apr-82	52.5	1504.5
May-82	57.5	1497.5	May-82	59.0	1496.0	May-82	52.5	1504.5
Jun-82	58.5	1496.5	Jun-82	58.0	1497.0	Jun-82	53.0	1504.0
Jul-82	60.0	1495.0	Jul-82	60.0	1495.0	Jul-82	53.0	1504.0
Aug-82	90.0	1465.0	Aug-82	No Data	No Data	Aug-82	No Data	No Data
Sep-82	58.0	1497.0	Sep-82	58.5	1496.5	Sep-82	52.5	1504.5
Oct-82	58.0	1497.0	Oct-82	58.0	1497.0	Oct-82	51.5	1505.5
Nov-82	56.0	1499.0	Nov-82	57.0	1498.0	Nov-82	52.0	1505.0
Dec-82	56.0	1499.0	Dec-82	57.0	1498.0	Dec-82	52.0	1505.0
Jan-83	55.5	1499.5	Jan-83	57.0	1498.0	Jan-83	50.0	1507.0
Feb-83	55.5	1499.5	Feb-83	56.0	1499.0	Feb-83	50.0	1507.0
Mar-83	55.0	1500.0	Mar-83	57.0	1498.0	Mar-83	51.0	1506.0
Apr-83	55.0	1500.0	Apr-83	55.0	1500.0	Apr-83	50.0	1507.0
May-83	53.0	1502.0	May-83	54.0	1501.0	May-83	49.0	1508.0
Jun-83	54.5	1500.5	Jun-83	55.0	1500.0	Jun-83	50.0	1507.0
Jul-83	56.0	1499.0	Jul-83	58.0	1497.0	Jul-83	52.0	1505.0
Aug-83	55.0	1500.0	Aug-83	57.0	1498.0	Aug-83	52.0	1505.0
Sep-83	55.0	1500.0	Sep-83	57.0	1498.0	Sep-83	51.0	1506.0
Oct-83	54.0	1501.0	Oct-83	56.0	1499.0	Oct-83	51.5	1505.5
Nov-83	53.0	1502.0	Nov-83	57.0	1498.0	Nov-83	50.0	1507.0
Dec-83	55.0	1500.0	Dec-83	56.0	1499.0	Dec-83	50.0	1507.0
Jan-84	56.5	1498.5	Jan-84	58.0	1497.0	Jan-84	52.0	1505.0
Feb-84	56.0	1499.0	Feb-84	58.0	1497.0	Feb-84	53.0	1504.0
Mar-84	57.0	1498.0	Mar-84	58.5	1496.5	Mar-84	53.0	1504.0
Apr-84	56.0	1499.0	Apr-84	57.5	1497.5	Apr-84	52.0	1505.0
May-84	58.0	1497.0	May-84	57.5	1497.5	May-84	52.0	1505.0
Jun-84	56.0	1499.0	Jun-84	57.0	1498.0	Jun-84	No Data	No Data
Jul-84	59.0	1496.0	Jul-84	60.0	1495.0	Jul-84	53.0	1504.0
Aug-84	60.0	1495.0	Aug-84	60.0	1495.0	Aug-84	56.0	1501.0
Sep-84	57.0	1498.0	Sep-84	58.0	1497.0	Sep-84	53.0	1504.0
Oct-84	58.0	1497.0	Oct-84	59.0	1496.0	Oct-84	53.0	1504.0
Nov-84	58.0	1497.0	Nov-84	59.5	1495.5	Nov-84	53.0	1504.0
Dec-84	59.5	1495.5	Dec-84	59.0	1496.0	Dec-84	No Data	No Data
Jan-85	60.0	1495.0	Jan-85	59.5	1495.5	Jan-85	53.5	1503.5
Feb-85	57.0	1498.0	Feb-85	59.0	1496.0	Feb-85	53.5	1503.5
Mar-85	58.0	1497.0	Mar-85	60.0	1495.0	Mar-85	60.0	1497.0
Apr-85	58.0	1497.0	Apr-85	59.0	1496.0	Apr-85	55.0	1502.0
May-85	58.0	1497.0	May-85	60.0	1495.0	May-85	56.0	1501.0
Jun-85	57.0	1498.0	Jun-85	59.0	1496.0	Jun-85	54.0	1503.0
Jul-85	79.0	1476.0	Jul-85	60.0	1495.0	Jul-85	54.0	1503.0
Aug-85	58.0	1497.0	Aug-85	59.0	1496.0	Aug-85	54.0	1503.0
Sep-85	75.5	1479.5	Sep-85	58.0	1497.0	Sep-85	52.0	1505.0
Oct-85	60.0	1495.0	Oct-85	59.0	1496.0	Oct-85	52.5	1504.5
Nov-85	57.0	1498.0	Nov-85	58.0	1497.0	Nov-85	52.0	1505.0
Dec-85	58.0	1497.0	Dec-85	58.0	1497.0	Dec-85	52.0	1505.0
Jan-86	57.0	1498.0	Jan-86	57.0	1498.0	Jan-86	51.0	1506.0
Feb-86	57.5	1497.5	Feb-86	56.0	1499.0	Feb-86	50.0	1507.0
Mar-86	57.0	1498.0	Mar-86	59.0	1496.0	Mar-86	51.5	1505.5
Apr-86	56.0	1499.0	Apr-86	58.0	1497.0	Apr-86	52.0	1505.0

Tables of Groundwater Elevations								
155-83-23 bab 1/Minot Well 8			155-83-22 ada 2/Minot Well 12			155-83-22 adc/Minot Well 13		
Casing Elev. = 1555 ft			Casing Elev. = 1555 ft			Casing Elev. = 1557 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
May-86	58.0	1497.0	May-86	57.5	1497.5	May-86	76.0	1481.0
Jun-86	56.0	1499.0	Jun-86	57.5	1497.5	Jun-86	53.0	1504.0
Jul-86	56.0	1499.0	Jul-86	57.0	1498.0	Jul-86	76.0	1481.0
Aug-86	58.0	1497.0	Aug-86	59.0	1496.0	Aug-86	54.0	1503.0
Sep-86	55.5	1499.5	Sep-86	57.5	1497.5	Sep-86	77.0	1480.0
Oct-86	54.5	1500.5	Oct-86	56.0	1499.0	Oct-86	51.0	1506.0
Nov-86	No Data	No Data	Nov-86	No Data	No Data	Nov-86	No Data	No Data
Dec-86	No Data	No Data	Dec-86	No Data	No Data	Dec-86	No Data	No Data
Jan-87	No Data	No Data	Jan-87	No Data	No Data	Jan-87	No Data	No Data
Feb-87	53.5	1501.5	Feb-87	54.0	1501.0	Feb-87	48.0	1509.0
Mar-87	55.5	1499.5	Mar-87	69.0	1486.0	Mar-87	50.0	1507.0
Apr-87	58.5	1496.5	Apr-87	57.5	1497.5	Apr-87	77.0	1480.0
May-87	54.5	1500.5	May-87	56.0	1499.0	May-87	76.0	1481.0
Jun-87	56.0	1499.0	Jun-87	58.0	1497.0	Jun-87	78.0	1479.0
Jul-87	55.0	1500.0	Jul-87	57.5	1497.5	Jul-87	79.0	1478.0
Aug-87	54.0	1501.0	Aug-87	56.5	1498.5	Aug-87	77.5	1479.5
Sep-87	53.0	1502.0	Sep-87	54.5	1500.5	Sep-87	49.0	1508.0
Oct-87	52.0	1503.0	Oct-87	53.0	1502.0	Oct-87	47.0	1510.0
Nov-87	55.0	1500.0	Nov-87	52.5	1502.5	Nov-87	46.0	1511.0
Dec-87	54.0	1501.0	Dec-87	53.5	1501.5	Dec-87	47.0	1510.0
Jan-88	54.0	1501.0	Jan-88	56.0	1499.0	Jan-88	78.0	1479.0
Feb-88	No Data	No Data	Feb-88	No Data	No Data	Feb-88	No Data	No Data
Mar-88	No Data	No Data	Mar-88	No Data	No Data	Mar-88	No Data	No Data
Apr-88	60.0	1495.0	Apr-88	75.0	1480.0	Apr-88	82.5	1474.5
May-88	63.0	1492.0	May-88	76.5	1478.5	May-88	84.0	1473.0
Jun-88	No Data	No Data	Jun-88	No Data	No Data	Jun-88	No Data	No Data
Jul-88	No Data	No Data	Jul-88	No Data	No Data	Jul-88	No Data	No Data
Aug-88	65.0	1490.0	Aug-88	82.5	1472.5	Aug-88	62.5	1494.5
Sep-88	68.5	1486.5	Sep-88	86.0	1469.0	Sep-88	90.0	1467.0
Oct-88	71.0	1484.0	Oct-88	88.5	1466.5	Oct-88	90.0	1467.0
Nov-88	No Data	No Data	Nov-88	66.5	1488.5	Nov-88	66.5	1490.5
Dec-88	68.0	1487.0	Dec-88	68.0	1487.0	Dec-88	63.0	1494.0
Jan-89	67.0	1488.0	Jan-89	68.0	1487.0	Jan-89	90.0	1467.0
Feb-89	67.0	1488.0	Feb-89	66.5	1488.5	Feb-89	61.0	1496.0
Mar-89	66.0	1489.0	Mar-89	65.0	1490.0	Mar-89	59.0	1498.0
Apr-89	66.0	1489.0	Apr-89	65.5	1489.5	Apr-89	59.5	1497.5
May-89	64.0	1491.0	May-89	66.0	1489.0	May-89	No Data	No Data
Jun-89	67.0	1488.0	Jun-89	67.0	1488.0	Jun-89	87.5	1469.5
Jul-89	67.0	1488.0	Jul-89	68.0	1487.0	Jul-89	83.0	1474.0
Aug-89	70.0	1485.0	Aug-89	78.0	1477.0	Aug-89	68.0	1489.0
Sep-89	70.0	1485.0	Sep-89	70.0	1485.0	Sep-89	89.0	1468.0
Oct-89	No Data	No Data	Oct-89	No Data	No Data	Oct-89	No Data	No Data
Nov-89	65.0	1490.0	Nov-89	66.5	1488.5	Nov-89	62.0	1495.0
Dec-89	No Data	No Data	Dec-89	No Data	No Data	Dec-89	No Data	No Data
Jan-90	70.0	1485.0	Jan-90	72.0	1483.0	Jan-90	67.0	1490.0
Feb-90	71.0	1484.0	Feb-90	90.0	1465.0	Feb-90	70.0	1487.0
Mar-90	69.0	1486.0	Mar-90	73.5	1481.5	Mar-90	69.0	1488.0
Apr-90	No Data	No Data	Apr-90	No Data	No Data	Apr-90	No Data	No Data
May-90	67.0	1488.0	May-90	69.5	1485.5	May-90	64.5	1492.5
Jun-90	66.5	1488.5	Jun-90	67.5	1487.5	Jun-90	63.0	1494.0
Jul-90	65.0	1490.0	Jul-90	66.0	1489.0	Jul-90	61.0	1496.0
Aug-90	65.5	1489.5	Aug-90	66.0	1489.0	Aug-90	60.0	1497.0
Sep-90	63.0	1492.0	Sep-90	64.0	1491.0	Sep-90	58.0	1499.0
Oct-90	62.0	1493.0	Oct-90	63.0	1492.0	Oct-90	57.5	1499.5
Nov-90	68.0	1487.0	Nov-90	65.5	1489.5	Nov-90	59.0	1498.0
Dec-90	70.0	1485.0	Dec-90	67.0	1488.0	Dec-90	61.0	1496.0

Tables of Groundwater Elevations								
155-83-23 bab 1/Minot Well 8			155-83-22 ada 2/Minot Well 12			155-83-22 adc/Minot Well 13		
Casing Elev. = 1555 ft			Casing Elev. = 1555 ft			Casing Elev. = 1557 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Jan-91	No Data	No Data	Jan-91	No Data	No Data	Jan-91	No Data	No Data
Feb-91	72.0	1483.0	Feb-91	71.0	1484.0	Feb-91	64.5	1492.5
Mar-91	71.0	1484.0	Mar-91	72.0	1483.0	Mar-91	66.0	1491.0
Apr-91	No Data	No Data	Apr-91	No Data	No Data	Apr-91	No Data	No Data
May-91	67.0	1488.0	May-91	67.0	1488.0	May-91	61.5	1495.5
Jun-91	66.0	1489.0	Jun-91	65.0	1490.0	Jun-91	60.0	1497.0
Jul-91	67.5	1487.5	Jul-91	67.5	1487.5	Jul-91	61.0	1496.0
Aug-91	65.0	1490.0	Aug-91	64.0	1491.0	Aug-91	59.0	1498.0
Sep-91	65.0	1490.0	Sep-91	64.0	1491.0	Sep-91	59.0	1498.0
Oct-91	62.5	1492.5	Oct-91	63.0	1492.0	Oct-91	57.0	1500.0
Nov-91	62.0	1493.0	Nov-91	62.5	1492.5	Nov-91	56.5	1500.5
Dec-91	60.5	1494.5	Dec-91	61.5	1493.5	Dec-91	56.0	1501.0
Jan-92	59.0	1496.0	Jan-92	60.0	1495.0	Jan-92	54.0	1503.0
Feb-92	59.0	1496.0	Feb-92	59.0	1496.0	Feb-92	53.0	1504.0
Mar-92	61.0	1494.0	Mar-92	59.0	1496.0	Mar-92	53.0	1504.0
Apr-92	61.5	1493.5	Apr-92	61.0	1494.0	Apr-92	80.5	1476.5
May-92	61.5	1493.5	May-92	62.0	1493.0	May-92	81.0	1476.0
Jun-92	64.0	1491.0	Jun-92	62.0	1493.0	Jun-92	80.5	1476.5
Jul-92	63.0	1492.0	Jul-92	60.5	1494.5	Jul-92	55.0	1502.0
Aug-92	62.0	1493.0	Aug-92	61.5	1493.5	Aug-92	79.0	1478.0
Sep-92	61.0	1494.0	Sep-92	63.0	1492.0	Sep-92	57.0	1500.0
Oct-92	60.0	1495.0	Oct-92	61.0	1494.0	Oct-92	55.0	1502.0
Nov-92	60.5	1494.5	Nov-92	79.0	1476.0	Nov-92	53.5	1503.5
Dec-92	64.5	1490.5	Dec-92	83.0	1472.0	Dec-92	56.5	1500.5
Jan-93	65.0	1490.0	Jan-93	85.0	1470.0	Jan-93	59.0	1498.0
Feb-93	65.0	1490.0	Feb-93	64.0	1491.0	Feb-93	59.0	1498.0
Mar-93	64.0	1491.0	Mar-93	64.5	1490.5	Mar-93	83.0	1474.0
Apr-93	63.0	1492.0	Apr-93	64.0	1491.0	Apr-93	82.5	1474.5
May-93	63.5	1491.5	May-93	64.0	1491.0	May-93	60.0	1497.0
Jun-93	63.5	1491.5	Jun-93	63.0	1492.0	Jun-93	58.0	1499.0
Jul-93	66.0	1489.0	Jul-93	85.0	1470.0	Jul-93	59.0	1498.0
Aug-93	66.5	1488.5	Aug-93	87.0	1468.0	Aug-93	62.5	1494.5
Sep-93	65.5	1489.5	Sep-93	67.0	1488.0	Sep-93	61.5	1495.5
Oct-93	67.0	1488.0	Oct-93	88.0	1467.0	Oct-93	61.0	1496.0
Nov-93	65.0	1490.0	Nov-93	65.0	1490.0	Nov-93	59.0	1498.0
Dec-93	65.0	1490.0	Dec-93	64.0	1491.0	Dec-93	58.0	1499.0
Jan-94	66.0	1489.0	Jan-94	64.0	1491.0	Jan-94	58.0	1499.0
Feb-94	64.0	1491.0	Feb-94	63.5	1491.5	Feb-94	57.0	1500.0
Mar-94	63.0	1492.0	Mar-94	63.0	1492.0	Mar-94	57.0	1500.0
Apr-94	64.5	1490.5	Apr-94	63.0	1492.0	Apr-94	56.5	1500.5
May-94	64.0	1491.0	May-94	63.0	1492.0	May-94	57.0	1500.0
Jun-94	62.0	1493.0	Jun-94	62.0	1493.0	Jun-94	78.5	1478.5
Jul-94	No Data	No Data	Jul-94	No Data	No Data	Jul-94	No Data	No Data
Aug-94	61.0	1494.0	Aug-94	61.0	1494.0	Aug-94	55.0	1502.0
Sep-94	61.0	1494.0	Sep-94	61.0	1494.0	Sep-94	56.0	1501.0
Oct-94	60.0	1495.0	Oct-94	61.0	1494.0	Oct-94	56.0	1501.0
Nov-94	No Data	No Data	Nov-94	No Data	No Data	Nov-94	No Data	No Data
Dec-94	No Data	No Data	Dec-94	No Data	No Data	Dec-94	No Data	No Data
Jan-95	No Data	No Data	Jan-95	No Data	No Data	Jan-95	No Data	No Data
Feb-95	65.0	1490.0	Feb-95	64.0	1491.0	Feb-95	No Data	No Data
Mar-95	No Data	No Data	Mar-95	No Data	No Data	Mar-95	No Data	No Data
Apr-95	65.5	1489.5	Apr-95	64.0	1491.0	Apr-95	58.0	1499.0
May-95	No Data	No Data	May-95	No Data	No Data	May-95	No Data	No Data
Jun-95	65.0	1490.0	Jun-95	No Data	No Data	Jun-95	58.0	1499.0
Jul-95	66.0	1489.0	Jul-95	64.0	1491.0	Jul-95	83.0	1474.0
Aug-95	65.0	1490.0	Aug-95	64.0	1491.0	Aug-95	58.0	1499.0

Tables of Groundwater Elevations								
155-83-23 bab 1/Minot Well 8			155-83-22 ada 2/Minot Well 12			155-83-22 adc/Minot Well 13		
Casing Elev. = 1555 ft			Casing Elev. = 1555 ft			Casing Elev. = 1557 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Sep-95	64.0	1491.0	Sep-95	63.0	1492.0	Sep-95	57.0	1500.0
Oct-95	62.0	1493.0	Oct-95	62.0	1493.0	Oct-95	56.0	1501.0
Nov-95	62.0	1493.0	Nov-95	61.0	1494.0	Nov-95	55.0	1502.0
Dec-95	65.5	1489.5	Dec-95	61.0	1494.0	Dec-95	56.0	1501.0
Jan-96	64.0	1491.0	Jan-96	61.0	1494.0	Jan-96	56.0	1501.0
Feb-96	64.0	1491.0	Feb-96	63.0	1492.0	Feb-96	56.0	1501.0
Mar-96	64.0	1491.0	Mar-96	63.0	1492.0	Mar-96	56.0	1501.0
Apr-96	63.0	1492.0	Apr-96	62.0	1493.0	Apr-96	56.0	1501.0
May-96	64.0	1491.0	May-96	62.0	1493.0	May-96	56.0	1501.0
Jun-96	65.0	1490.0	Jun-96	88.0	1467.0	Jun-96	78.0	1479.0
Jul-96	64.0	1491.0	Jul-96	64.0	1491.0	Jul-96	58.0	1499.0
Aug-96	66.0	1489.0	Aug-96	64.0	1491.0	Aug-96	84.0	1473.0
Sep-96	65.0	1490.0	Sep-96	87.0	1468.0	Sep-96	85.0	1472.0
Oct-96	63.0	1492.0	Oct-96	64.0	1491.0	Oct-96	58.0	1499.0
Nov-96	62.0	1493.0	Nov-96	64.0	1491.0	Nov-96	58.0	1499.0
Dec-96	64.0	1491.0	Dec-96	87.0	1468.0	Dec-96	58.0	1499.0
Jan-97	64.0	1491.0	Jan-97	64.0	1491.0	Jan-97	58.0	1499.0
Feb-97	64.0	1491.0	Feb-97	64.0	1491.0	Feb-97	58.0	1499.0
Mar-97	64.0	1491.0	Mar-97	64.0	1491.0	Mar-97	83.5	1473.5
Apr-97	63.0	1492.0	Apr-97	63.0	1492.0	Apr-97	57.0	1500.0
May-97	66.0	1489.0	May-97	63.0	1492.0	May-97	84.0	1473.0
Jun-97	63.0	1492.0	Jun-97	63.0	1492.0	Jun-97	57.0	1500.0
Jul-97	66.0	1489.0	Jul-97	84.0	1471.0	Jul-97	57.0	1500.0
Aug-97	64.0	1491.0	Aug-97	64.0	1491.0	Aug-97	58.0	1499.0
Sep-97	64.0	1491.0	Sep-97	87.0	1468.0	Sep-97	59.0	1498.0
Oct-97	65.0	1490.0	Oct-97	65.0	1490.0	Oct-97	59.0	1498.0
Nov-97	65.0	1490.0	Nov-97	65.0	1490.0	Nov-97	59.0	1498.0
Dec-97	No Data	No Data	Dec-97	No Data	No Data	Dec-97	No Data	No Data
Jan-98	67.0	1488.0	Jan-98	66.0	1489.0	Jan-98	60.0	1497.0
Feb-98	69.0	1486.0	Feb-98	88.0	1467.0	Feb-98	89.0	1468.0
Mar-98	68.0	1487.0	Mar-98	68.0	1487.0	Mar-98	63.0	1494.0
Apr-98	70.0	1485.0	Apr-98	67.0	1488.0	Apr-98	66.0	1491.0
May-98	66.0	1489.0	May-98	65.0	1490.0	May-98	59.0	1498.0

Tables of Groundwater Elevations								
155-83-22 acc 1/Minot Well 14			155-83-22 abc/Minot Well 15			155-83-22 bdc/Minot Well 16		
Casing Elev. = 1556 ft			Casing Elev. = 1557 ft			Casing Elev. = 1556 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Sep-67	52.0	1504.0	Sep-67	55.0	1502.0	Sep-67	53.0	1503.0
Oct-67	52.0	1504.0	Oct-67	55.0	1502.0	Oct-67	53.0	1503.0
Nov-67	No Data	No Data	Nov-67	No Data	No Data	Nov-67	No Data	No Data
Dec-67	53.0	1503.0	Dec-67	55.0	1502.0	Dec-67	53.0	1503.0
Jan-68	52.0	1504.0	Jan-68	55.0	1502.0	Jan-68	53.0	1503.0
Feb-68	53.0	1503.0	Feb-68	57.0	1500.0	Feb-68	55.0	1501.0
Mar-68	57.0	1499.0	Mar-68	56.0	1501.0	Mar-68	54.0	1502.0
Apr-68	52.0	1504.0	Apr-68	55.0	1502.0	Apr-68	54.0	1502.0
May-68	51.0	1505.0	May-68	53.0	1504.0	May-68	52.0	1504.0
Jun-68	50.5	1505.5	Jun-68	53.5	1503.5	Jun-68	51.0	1505.0
Jul-68	51.0	1505.0	Jul-68	54.0	1503.0	Jul-68	52.0	1504.0
Aug-68	50.0	1506.0	Aug-68	54.0	1503.0	Aug-68	51.0	1505.0
Sep-68	51.0	1505.0	Sep-68	53.0	1504.0	Sep-68	52.0	1504.0
Oct-68	52.0	1504.0	Oct-68	54.0	1503.0	Oct-68	54.0	1502.0
Nov-68	51.0	1505.0	Nov-68	54.0	1503.0	Nov-68	53.0	1503.0
Dec-68	50.0	1506.0	Dec-68	53.0	1504.0	Dec-68	52.0	1504.0
Jan-69	No Data	No Data	Jan-69	No Data	No Data	Jan-69	No Data	No Data
Feb-69	53.0	1503.0	Feb-69	55.0	1502.0	Feb-69	55.0	1501.0
Mar-69	56.0	1500.0	Mar-69	57.0	1500.0	Mar-69	59.0	1497.0
Apr-69	54.5	1501.5	Apr-69	56.5	1500.5	Apr-69	55.5	1500.5
May-69	51.0	1505.0	May-69	54.0	1503.0	May-69	53.0	1503.0
Jun-69	50.0	1506.0	Jun-69	53.0	1504.0	Jun-69	50.0	1506.0
Jul-69	50.0	1506.0	Jul-69	53.0	1504.0	Jul-69	51.0	1505.0
Aug-69	48.0	1508.0	Aug-69	52.0	1505.0	Aug-69	48.0	1508.0
Sep-69	47.0	1509.0	Sep-69	49.5	1507.5	Sep-69	47.0	1509.0
Oct-69	46.0	1510.0	Oct-69	50.0	1507.0	Oct-69	48.0	1508.0
Nov-69	45.0	1511.0	Nov-69	48.0	1509.0	Nov-69	47.0	1509.0
Dec-69	44.0	1512.0	Dec-69	47.0	1510.0	Dec-69	45.0	1511.0
Jan-70	43.0	1513.0	Jan-70	46.0	1511.0	Jan-70	45.0	1511.0
Feb-70	43.0	1513.0	Feb-70	46.0	1511.0	Feb-70	45.0	1511.0
Mar-70	42.0	1514.0	Mar-70	45.0	1512.0	Mar-70	45.0	1511.0
Apr-70	44.0	1512.0	Apr-70	46.0	1511.0	Apr-70	46.0	1510.0
May-70	43.0	1513.0	May-70	46.0	1511.0	May-70	45.0	1511.0
Jun-70	43.0	1513.0	Jun-70	46.0	1511.0	Jun-70	44.0	1512.0
Jul-70	45.0	1511.0	Jul-70	47.0	1510.0	Jul-70	47.0	1509.0
Aug-70	48.0	1508.0	Aug-70	50.0	1507.0	Aug-70	50.0	1506.0
Sep-70	49.0	1507.0	Sep-70	52.0	1505.0	Sep-70	52.0	1504.0
Oct-70	48.0	1508.0	Oct-70	52.0	1505.0	Oct-70	51.0	1505.0
Nov-70	50.0	1506.0	Nov-70	50.0	1507.0	Nov-70	49.0	1507.0
Dec-70	45.0	1511.0	Dec-70	49.0	1508.0	Dec-70	47.0	1509.0
Jan-71	43.0	1513.0	Jan-71	47.0	1510.0	Jan-71	45.0	1511.0
Feb-71	42.0	1514.0	Feb-71	46.0	1511.0	Feb-71	45.0	1511.0
Mar-71	42.0	1514.0	Mar-71	46.0	1511.0	Mar-71	45.0	1511.0
Apr-71	44.0	1512.0	Apr-71	47.0	1510.0	Apr-71	47.0	1509.0
May-71	42.0	1514.0	May-71	46.0	1511.0	May-71	45.0	1511.0
Jun-71	43.0	1513.0	Jun-71	46.0	1511.0	Jun-71	59.0	1497.0
Jul-71	45.0	1511.0	Jul-71	47.0	1510.0	Jul-71	47.0	1509.0
Aug-71	47.0	1509.0	Aug-71	50.0	1507.0	Aug-71	50.0	1506.0
Sep-71	46.0	1510.0	Sep-71	49.0	1508.0	Sep-71	48.5	1507.5
Oct-71	46.0	1510.0	Oct-71	49.0	1508.0	Oct-71	48.0	1508.0
Nov-71	45.0	1511.0	Nov-71	47.0	1510.0	Nov-71	46.5	1509.5
Dec-71	45.0	1511.0	Dec-71	47.0	1510.0	Dec-71	46.5	1509.5
Jan-72	44.0	1512.0	Jan-72	47.0	1510.0	Jan-72	59.0	1497.0
Feb-72	44.0	1512.0	Feb-72	46.0	1511.0	Feb-72	46.0	1510.0
Mar-72	45.0	1511.0	Mar-72	46.0	1511.0	Mar-72	46.0	1510.0
Apr-72	47.0	1509.0	Apr-72	47.0	1510.0	Apr-72	47.0	1509.0
May-72	47.0	1509.0	May-72	48.0	1509.0	May-72	48.0	1508.0
Jun-72	47.0	1509.0	Jun-72	49.0	1508.0	Jun-72	49.0	1507.0

Tables of Groundwater Elevations								
155-83-22 acc 1/Minot Well 14			155-83-22 abc/Minot Well 15			155-83-22 bdc/Minot Well 16		
Casing Elev. = 1556 ft			Casing Elev. = 1557 ft			Casing Elev. = 1556 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Jul-72	47.0	1509.0	Jul-72	49.0	1508.0	Jul-72	49.0	1507.0
Aug-72	49.0	1507.0	Aug-72	50.0	1507.0	Aug-72	51.0	1505.0
Sep-72	48.5	1507.5	Sep-72	50.0	1507.0	Sep-72	48.5	1507.5
Oct-72	46.0	1510.0	Oct-72	49.0	1508.0	Oct-72	47.5	1508.5
Nov-72	46.0	1510.0	Nov-72	49.0	1508.0	Nov-72	48.0	1508.0
Dec-72	45.0	1511.0	Dec-72	48.5	1508.5	Dec-72	47.0	1509.0
Jan-73	44.0	1512.0	Jan-73	47.0	1510.0	Jan-73	45.0	1511.0
Feb-73	44.0	1512.0	Feb-73	46.0	1511.0	Feb-73	46.0	1510.0
Mar-73	44.0	1512.0	Mar-73	47.0	1510.0	Mar-73	46.0	1510.0
Apr-73	44.0	1512.0	Apr-73	46.5	1510.5	Apr-73	46.0	1510.0
May-73	44.0	1512.0	May-73	46.0	1511.0	May-73	46.0	1510.0
Jun-73	45.0	1511.0	Jun-73	47.5	1509.5	Jun-73	46.0	1510.0
Jul-73	46.0	1510.0	Jul-73	49.5	1507.5	Jul-73	46.5	1509.5
Aug-73	46.0	1510.0	Aug-73	53.0	1504.0	Aug-73	46.5	1509.5
Sep-73	47.0	1509.0	Sep-73	50.0	1507.0	Sep-73	47.5	1508.5
Oct-73	48.0	1508.0	Oct-73	50.0	1507.0	Oct-73	49.5	1506.5
Nov-73	49.0	1507.0	Nov-73	51.0	1506.0	Nov-73	50.5	1505.5
Dec-73	49.0	1507.0	Dec-73	51.0	1506.0	Dec-73	50.5	1505.5
Jan-74	49.0	1507.0	Jan-74	51.5	1505.5	Jan-74	50.0	1506.0
Feb-74	50.0	1506.0	Feb-74	52.5	1504.5	Feb-74	51.0	1505.0
Mar-74	51.0	1505.0	Mar-74	53.0	1504.0	Mar-74	52.0	1504.0
Apr-74	51.0	1505.0	Apr-74	53.0	1504.0	Apr-74	52.0	1504.0
May-74	49.0	1507.0	May-74	51.5	1505.5	May-74	49.5	1506.5
Jun-74	49.0	1507.0	Jun-74	50.5	1506.5	Jun-74	48.5	1507.5
Jul-74	49.0	1507.0	Jul-74	49.0	1508.0	Jul-74	49.5	1506.5
Aug-74	50.0	1506.0	Aug-74	52.0	1505.0	Aug-74	50.5	1505.5
Sep-74	50.0	1506.0	Sep-74	52.0	1505.0	Sep-74	52.0	1504.0
Oct-74	50.0	1506.0	Oct-74	52.0	1505.0	Oct-74	52.0	1504.0
Nov-74	49.5	1506.5	Nov-74	52.0	1505.0	Nov-74	50.5	1505.5
Dec-74	48.5	1507.5	Dec-74	50.5	1506.5	Dec-74	50.0	1506.0
Jan-75	48.0	1508.0	Jan-75	50.0	1507.0	Jan-75	49.0	1507.0
Feb-75	49.0	1507.0	Feb-75	51.0	1506.0	Feb-75	50.0	1506.0
Mar-75	49.5	1506.5	Mar-75	52.0	1505.0	Mar-75	51.5	1504.5
Apr-75	50.0	1506.0	Apr-75	52.0	1505.0	Apr-75	51.5	1504.5
May-75	44.0	1512.0	May-75	47.0	1510.0	May-75	41.0	1515.0
Jun-75	42.5	1513.5	Jun-75	45.0	1512.0	Jun-75	43.0	1513.0
Jul-75	46.0	1510.0	Jul-75	49.0	1508.0	Jul-75	47.0	1509.0
Aug-75	48.0	1508.0	Aug-75	50.0	1507.0	Aug-75	49.5	1506.5
Sep-75	48.0	1508.0	Sep-75	50.0	1507.0	Sep-75	49.5	1506.5
Oct-75	48.0	1508.0	Oct-75	50.0	1507.0	Oct-75	50.0	1506.0
Nov-75	48.0	1508.0	Nov-75	50.0	1507.0	Nov-75	50.0	1506.0
Dec-75	48.0	1508.0	Dec-75	50.0	1507.0	Dec-75	50.5	1505.5
Jan-76	48.5	1507.5	Jan-76	50.0	1507.0	Jan-76	50.0	1506.0
Feb-76	49.0	1507.0	Feb-76	50.0	1507.0	Feb-76	50.0	1506.0
Mar-76	49.0	1507.0	Mar-76	51.0	1506.0	Mar-76	50.0	1506.0
Apr-76	46.5	1509.5	Apr-76	51.0	1506.0	Apr-76	43.5	1512.5
May-76	44.0	1512.0	May-76	47.5	1509.5	May-76	43.5	1512.5
Jun-76	46.0	1510.0	Jun-76	49.0	1508.0	Jun-76	47.0	1509.0
Jul-76	49.0	1507.0	Jul-76	51.5	1505.5	Jul-76	51.0	1505.0
Aug-76	51.5	1504.5	Aug-76	53.5	1503.5	Aug-76	53.5	1502.5
Sep-76	51.0	1505.0	Sep-76	53.5	1503.5	Sep-76	52.5	1503.5
Oct-76	52.0	1504.0	Oct-76	54.5	1502.5	Oct-76	53.5	1502.5
Nov-76	52.0	1504.0	Nov-76	54.5	1502.5	Nov-76	53.5	1502.5
Dec-76	51.5	1504.5	Dec-76	53.0	1504.0	Dec-76	53.0	1503.0
Jan-77	49.5	1506.5	Jan-77	52.0	1505.0	Jan-77	51.5	1504.5
Feb-77	48.5	1507.5	Feb-77	50.5	1506.5	Feb-77	50.0	1506.0
Mar-77	54.5	1501.5	Mar-77	50.5	1506.5	Mar-77	50.0	1506.0
Apr-77	50.0	1506.0	Apr-77	52.0	1505.0	Apr-77	51.0	1505.0

Tables of Groundwater Elevations								
155-83-22 acc 1/Minot Well 14			155-83-22 abc/Minot Well 15			155-83-22 bdc/Minot Well 16		
Casing Elev. = 1556 ft			Casing Elev. = 1557 ft			Casing Elev. = 1556 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
May-77	51.0	1505.0	May-77	52.0	1505.0	May-77	52.0	1504.0
Jun-77	51.0	1505.0	Jun-77	52.5	1504.5	Jun-77	No Data	No Data
Jul-77	52.0	1504.0	Jul-77	53.0	1504.0	Jul-77	49.0	1507.0
Aug-77	50.5	1505.5	Aug-77	52.0	1505.0	Aug-77	49.0	1507.0
Sep-77	50.5	1505.5	Sep-77	52.0	1505.0	Sep-77	No Data	No Data
Oct-77	50.0	1506.0	Oct-77	51.0	1506.0	Oct-77	50.0	1506.0
Nov-77	49.0	1507.0	Nov-77	50.0	1507.0	Nov-77	No Data	No Data
Dec-77	49.0	1507.0	Dec-77	50.0	1507.0	Dec-77	50.0	1506.0
Jan-78	49.0	1507.0	Jan-78	50.0	1507.0	Jan-78	No Data	No Data
Feb-78	49.5	1506.5	Feb-78	51.0	1506.0	Feb-78	49.0	1507.0
Mar-78	50.0	1506.0	Mar-78	52.0	1505.0	Mar-78	No Data	No Data
Apr-78	48.0	1508.0	Apr-78	53.0	1504.0	Apr-78	48.0	1508.0
May-78	49.0	1507.0	May-78	No Data	No Data	May-78	48.0	1508.0
Jun-78	50.0	1506.0	Jun-78	51.0	1506.0	Jun-78	49.0	1507.0
Jul-78	50.0	1506.0	Jul-78	51.0	1506.0	Jul-78	50.0	1506.0
Aug-78	52.0	1504.0	Aug-78	53.0	1504.0	Aug-78	51.0	1505.0
Sep-78	52.0	1504.0	Sep-78	53.0	1504.0	Sep-78	52.0	1504.0
Oct-78	50.5	1505.5	Oct-78	53.0	1504.0	Oct-78	52.0	1504.0
Nov-78	51.0	1505.0	Nov-78	51.0	1506.0	Nov-78	47.0	1509.0
Dec-78	47.0	1509.0	Dec-78	51.0	1506.0	Dec-78	52.0	1504.0
Jan-79	50.0	1506.0	Jan-79	50.0	1507.0	Jan-79	41.0	1515.0
Feb-79	50.0	1506.0	Feb-79	50.0	1507.0	Feb-79	51.0	1505.0
Mar-79	49.0	1507.0	Mar-79	50.0	1507.0	Mar-79	50.0	1506.0
Apr-79	49.0	1507.0	Apr-79	50.0	1507.0	Apr-79	50.0	1506.0
May-79	47.0	1509.0	May-79	48.5	1508.5	May-79	47.0	1509.0
Jun-79	45.0	1511.0	Jun-79	48.0	1509.0	Jun-79	47.0	1509.0
Jul-79	48.0	1508.0	Jul-79	50.0	1507.0	Jul-79	48.5	1507.5
Aug-79	49.0	1507.0	Aug-79	50.0	1507.0	Aug-79	49.5	1506.5
Sep-79	48.5	1507.5	Sep-79	50.0	1507.0	Sep-79	49.5	1506.5
Oct-79	48.0	1508.0	Oct-79	49.5	1507.5	Oct-79	49.0	1507.0
Nov-79	46.5	1509.5	Nov-79	48.5	1508.5	Nov-79	48.5	1507.5
Dec-79	46.0	1510.0	Dec-79	48.0	1509.0	Dec-79	49.0	1507.0
Jan-80	46.0	1510.0	Jan-80	48.0	1509.0	Jan-80	48.0	1508.0
Feb-80	46.0	1510.0	Feb-80	48.0	1509.0	Feb-80	48.0	1508.0
Mar-80	46.0	1510.0	Mar-80	48.0	1509.0	Mar-80	48.0	1508.0
Apr-80	47.5	1508.5	Apr-80	48.0	1509.0	Apr-80	48.5	1507.5
May-80	49.0	1507.0	May-80	48.5	1508.5	May-80	48.0	1508.0
Jun-80	51.0	1505.0	Jun-80	51.5	1505.5	Jun-80	50.5	1505.5
Jul-80	No Data	No Data	Jul-80	No Data	No Data	Jul-80	No Data	No Data
Aug-80	50.5	1505.5	Aug-80	52.0	1505.0	Aug-80	52.5	1503.5
Sep-80	50.0	1506.0	Sep-80	51.0	1506.0	Sep-80	52.0	1504.0
Oct-80	50.0	1506.0	Oct-80	51.0	1506.0	Oct-80	51.0	1505.0
Nov-80	49.5	1506.5	Nov-80	51.0	1506.0	Nov-80	51.0	1505.0
Dec-80	48.5	1507.5	Dec-80	50.5	1506.5	Dec-80	50.0	1506.0
Jan-81	48.5	1507.5	Jan-81	50.5	1506.5	Jan-81	50.0	1506.0
Feb-81	48.0	1508.0	Feb-81	49.5	1507.5	Feb-81	49.5	1506.5
Mar-81	49.0	1507.0	Mar-81	50.0	1507.0	Mar-81	50.5	1505.5
Apr-81	48.5	1507.5	Apr-81	50.0	1507.0	Apr-81	50.0	1506.0
May-81	49.5	1506.5	May-81	50.5	1506.5	May-81	51.0	1505.0
Jun-81	50.0	1506.0	Jun-81	51.0	1506.0	Jun-81	51.0	1505.0
Jul-81	51.5	1504.5	Jul-81	52.5	1504.5	Jul-81	52.5	1503.5
Aug-81	52.5	1503.5	Aug-81	54.0	1503.0	Aug-81	54.5	1501.5
Sep-81	52.5	1503.5	Sep-81	54.0	1503.0	Sep-81	54.0	1502.0
Oct-81	52.5	1503.5	Oct-81	54.0	1503.0	Oct-81	54.0	1502.0
Nov-81	51.5	1504.5	Nov-81	53.0	1504.0	Nov-81	53.5	1502.5
Dec-81	51.5	1504.5	Dec-81	53.0	1504.0	Dec-81	54.0	1502.0
Jan-82	51.0	1505.0	Jan-82	53.0	1504.0	Jan-82	51.5	1504.5
Feb-82	49.5	1506.5	Feb-82	52.0	1505.0	Feb-82	53.0	1503.0

Tables of Groundwater Elevations								
155-83-22 acc 1/Minot Well 14			155-83-22 abc/Minot Well 15			155-83-22 bdc/Minot Well 16		
Casing Elev. = 1556 ft			Casing Elev. = 1557 ft			Casing Elev. = 1556 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Mar-82	51.0	1505.0	Mar-82	52.0	1505.0	Mar-82	53.0	1503.0
Apr-82	53.0	1503.0	Apr-82	54.0	1503.0	Apr-82	53.0	1503.0
May-82	52.5	1503.5	May-82	53.5	1503.5	May-82	53.5	1502.5
Jun-82	52.0	1504.0	Jun-82	53.5	1503.5	Jun-82	54.0	1502.0
Jul-82	52.0	1504.0	Jul-82	54.0	1503.0	Jul-82	53.0	1503.0
Aug-82	No Data	No Data	Aug-82	No Data	No Data	Aug-82	No Data	No Data
Sep-82	52.0	1504.0	Sep-82	53.5	1503.5	Sep-82	53.0	1503.0
Oct-82	51.5	1504.5	Oct-82	53.5	1503.5	Oct-82	53.0	1503.0
Nov-82	51.0	1505.0	Nov-82	52.5	1504.5	Nov-82	51.0	1505.0
Dec-82	52.0	1504.0	Dec-82	52.5	1504.5	Dec-82	51.0	1505.0
Jan-83	50.0	1506.0	Jan-83	51.5	1505.5	Jan-83	51.0	1505.0
Feb-83	50.0	1506.0	Feb-83	51.5	1505.5	Feb-83	52.0	1504.0
Mar-83	50.0	1506.0	Mar-83	51.0	1506.0	Mar-83	51.5	1504.5
Apr-83	50.0	1506.0	Apr-83	51.5	1505.5	Apr-83	50.5	1505.5
May-83	50.0	1506.0	May-83	50.5	1506.5	May-83	52.0	1504.0
Jun-83	50.5	1505.5	Jun-83	52.0	1505.0	Jun-83	51.5	1504.5
Jul-83	50.0	1506.0	Jul-83	51.0	1506.0	Jul-83	50.0	1506.0
Aug-83	51.0	1505.0	Aug-83	52.0	1505.0	Aug-83	50.0	1506.0
Sep-83	51.0	1505.0	Sep-83	52.0	1505.0	Sep-83	52.5	1503.5
Oct-83	50.5	1505.5	Oct-83	51.5	1505.5	Oct-83	52.5	1503.5
Nov-83	51.0	1505.0	Nov-83	50.5	1506.5	Nov-83	51.0	1505.0
Dec-83	51.0	1505.0	Dec-83	52.0	1505.0	Dec-83	53.0	1503.0
Jan-84	51.0	1505.0	Jan-84	51.5	1505.5	Jan-84	52.0	1504.0
Feb-84	52.0	1504.0	Feb-84	53.5	1503.5	Feb-84	54.0	1502.0
Mar-84	53.0	1503.0	Mar-84	54.5	1502.5	Mar-84	55.0	1501.0
Apr-84	52.0	1504.0	Apr-84	53.5	1503.5	Apr-84	54.0	1502.0
May-84	51.0	1505.0	May-84	53.0	1504.0	May-84	53.0	1503.0
Jun-84	No Data	No Data	Jun-84	52.0	1505.0	Jun-84	52.0	1504.0
Jul-84	54.0	1502.0	Jul-84	56.0	1501.0	Jul-84	53.0	1503.0
Aug-84	52.0	1504.0	Aug-84	54.0	1503.0	Aug-84	54.0	1502.0
Sep-84	52.0	1504.0	Sep-84	54.0	1503.0	Sep-84	54.0	1502.0
Oct-84	51.5	1504.5	Oct-84	53.0	1504.0	Oct-84	53.0	1503.0
Nov-84	52.5	1503.5	Nov-84	54.0	1503.0	Nov-84	54.0	1502.0
Dec-84	52.5	1503.5	Dec-84	No Data	No Data	Dec-84	54.0	1502.0
Jan-85	54.0	1502.0	Jan-85	55.5	1501.5	Jan-85	69.0	1487.0
Feb-85	55.0	1501.0	Feb-85	56.0	1501.0	Feb-85	56.0	1500.0
Mar-85	54.0	1502.0	Mar-85	55.5	1501.5	Mar-85	55.5	1500.5
Apr-85	54.0	1502.0	Apr-85	55.0	1502.0	Apr-85	56.0	1500.0
May-85	54.0	1502.0	May-85	56.0	1501.0	May-85	55.0	1501.0
Jun-85	55.5	1500.5	Jun-85	57.0	1500.0	Jun-85	56.0	1500.0
Jul-85	55.0	1501.0	Jul-85	56.5	1500.5	Jul-85	56.0	1500.0
Aug-85	53.0	1503.0	Aug-85	56.0	1501.0	Aug-85	55.0	1501.0
Sep-85	52.0	1504.0	Sep-85	53.0	1504.0	Sep-85	53.0	1503.0
Oct-85	52.0	1504.0	Oct-85	75.0	1482.0	Oct-85	52.5	1503.5
Nov-85	51.5	1504.5	Nov-85	53.0	1504.0	Nov-85	53.0	1503.0
Dec-85	52.0	1504.0	Dec-85	54.0	1503.0	Dec-85	70.0	1486.0
Jan-86	51.0	1505.0	Jan-86	51.5	1505.5	Jan-86	52.0	1504.0
Feb-86	50.0	1506.0	Feb-86	52.0	1505.0	Feb-86	52.0	1504.0
Mar-86	52.5	1503.5	Mar-86	53.0	1504.0	Mar-86	53.5	1502.5
Apr-86	53.0	1503.0	Apr-86	54.0	1503.0	Apr-86	54.5	1501.5
May-86	58.0	1498.0	May-86	53.5	1503.5	May-86	54.0	1502.0
Jun-86	54.0	1502.0	Jun-86	55.0	1502.0	Jun-86	55.0	1501.0
Jul-86	57.0	1499.0	Jul-86	54.0	1503.0	Jul-86	54.0	1502.0
Aug-86	54.0	1502.0	Aug-86	55.0	1502.0	Aug-86	54.0	1502.0
Sep-86	52.0	1504.0	Sep-86	53.5	1503.5	Sep-86	53.5	1502.5
Oct-86	52.0	1504.0	Oct-86	53.0	1504.0	Oct-86	68.0	1488.0
Nov-86	No Data	No Data	Nov-86	No Data	No Data	Nov-86	No Data	No Data
Dec-86	No Data	No Data	Dec-86	No Data	No Data	Dec-86	No Data	No Data

Tables of Groundwater Elevations								
155-83-22 acc 1/Minot Well 14			155-83-22 abc/Minot Well 15			155-83-22 bdc/Minot Well 16		
Casing Elev. = 1556 ft			Casing Elev. = 1557 ft			Casing Elev. = 1556 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Jan-87	No Data	No Data	Jan-87	No Data	No Data	Jan-87	No Data	No Data
Feb-87	49.0	1507.0	Feb-87	50.0	1507.0	Feb-87	65.0	1491.0
Mar-87	50.0	1506.0	Mar-87	51.0	1506.0	Mar-87	68.5	1487.5
Apr-87	51.0	1505.0	Apr-87	53.0	1504.0	Apr-87	52.0	1504.0
May-87	51.0	1505.0	May-87	52.5	1504.5	May-87	53.0	1503.0
Jun-87	53.0	1503.0	Jun-87	55.0	1502.0	Jun-87	54.5	1501.5
Jul-87	52.0	1504.0	Jul-87	53.5	1503.5	Jul-87	54.0	1502.0
Aug-87	51.0	1505.0	Aug-87	52.5	1504.5	Aug-87	52.0	1504.0
Sep-87	49.0	1507.0	Sep-87	50.0	1507.0	Sep-87	50.0	1506.0
Oct-87	47.0	1509.0	Oct-87	49.0	1508.0	Oct-87	49.0	1507.0
Nov-87	46.0	1510.0	Nov-87	48.0	1509.0	Nov-87	48.0	1508.0
Dec-87	51.5	1504.5	Dec-87	71.5	1485.5	Dec-87	49.0	1507.0
Jan-88	55.5	1500.5	Jan-88	52.5	1504.5	Jan-88	53.5	1502.5
Feb-88	No Data	No Data	Feb-88	No Data	No Data	Feb-88	No Data	No Data
Mar-88	No Data	No Data	Mar-88	No Data	No Data	Mar-88	No Data	No Data
Apr-88	60.5	1495.5	Apr-88	57.0	1500.0	Apr-88	74.0	1482.0
May-88	63.0	1493.0	May-88	58.0	1499.0	May-88	75.0	1481.0
Jun-88	No Data	No Data	Jun-88	No Data	No Data	Jun-88	No Data	No Data
Jul-88	No Data	No Data	Jul-88	No Data	No Data	Jul-88	No Data	No Data
Aug-88	66.5	1489.5	Aug-88	64.5	1492.5	Aug-88	62.5	1493.5
Sep-88	70.5	1485.5	Sep-88	68.0	1489.0	Sep-88	66.0	1490.0
Oct-88	65.0	1491.0	Oct-88	68.5	1488.5	Oct-88	66.5	1489.5
Nov-88	64.5	1491.5	Nov-88	67.0	1490.0	Nov-88	65.5	1490.5
Dec-88	63.0	1493.0	Dec-88	65.0	1492.0	Dec-88	63.0	1493.0
Jan-89	62.0	1494.0	Jan-89	63.0	1494.0	Jan-89	62.0	1494.0
Feb-89	60.5	1495.5	Feb-89	63.5	1493.5	Feb-89	62.0	1494.0
Mar-89	59.0	1497.0	Mar-89	62.0	1495.0	Mar-89	61.0	1495.0
Apr-89	64.5	1491.5	Apr-89	63.0	1494.0	Apr-89	61.5	1494.5
May-89	66.0	1490.0	May-89	No Data	No Data	May-89	63.0	1493.0
Jun-89	66.0	1490.0	Jun-89	No Data	No Data	Jun-89	63.5	1492.5
Jul-89	66.0	1490.0	Jul-89	No Data	No Data	Jul-89	62.5	1493.5
Aug-89	64.0	1492.0	Aug-89	67.0	1490.0	Aug-89	63.0	1493.0
Sep-89	63.0	1493.0	Sep-89	65.0	1492.0	Sep-89	64.0	1492.0
Oct-89	No Data	No Data	Oct-89	No Data	No Data	Oct-89	No Data	No Data
Nov-89	61.5	1494.5	Nov-89	63.0	1494.0	Nov-89	75.0	1481.0
Dec-89	No Data	No Data	Dec-89	No Data	No Data	Dec-89	No Data	No Data
Jan-90	72.0	1484.0	Jan-90	74.5	1482.5	Jan-90	67.0	1489.0
Feb-90	75.0	1481.0	Feb-90	75.0	1482.0	Feb-90	67.0	1489.0
Mar-90	69.0	1487.0	Mar-90	71.5	1485.5	Mar-90	70.0	1486.0
Apr-90	No Data	No Data	Apr-90	No Data	No Data	Apr-90	No Data	No Data
May-90	65.0	1491.0	May-90	66.5	1490.5	May-90	66.5	1489.5
Jun-90	63.0	1493.0	Jun-90	65.5	1491.5	Jun-90	65.0	1491.0
Jul-90	60.5	1495.5	Jul-90	63.0	1494.0	Jul-90	62.0	1494.0
Aug-90	60.0	1496.0	Aug-90	62.5	1494.5	Aug-90	61.5	1494.5
Sep-90	58.0	1498.0	Sep-90	61.0	1496.0	Sep-90	60.0	1496.0
Oct-90	57.0	1499.0	Oct-90	59.0	1498.0	Oct-90	59.0	1497.0
Nov-90	58.0	1498.0	Nov-90	68.0	1489.0	Nov-90	59.0	1497.0
Dec-90	59.5	1496.5	Dec-90	70.0	1487.0	Dec-90	61.0	1495.0
Jan-91	No Data	No Data	Jan-91	No Data	No Data	Jan-91	No Data	No Data
Feb-91	62.5	1493.5	Feb-91	72.0	1485.0	Feb-91	63.0	1493.0
Mar-91	64.5	1491.5	Mar-91	67.5	1489.5	Mar-91	65.5	1490.5
Apr-91	No Data	No Data	Apr-91	No Data	No Data	Apr-91	No Data	No Data
May-91	61.0	1495.0	May-91	63.5	1493.5	May-91	63.0	1493.0
Jun-91	60.0	1496.0	Jun-91	62.5	1494.5	Jun-91	62.0	1494.0
Jul-91	64.0	1492.0	Jul-91	63.0	1494.0	Jul-91	62.0	1494.0
Aug-91	58.0	1498.0	Aug-91	61.0	1496.0	Aug-91	59.0	1497.0
Sep-91	58.0	1498.0	Sep-91	61.0	1496.0	Sep-91	60.5	1495.5
Oct-91	57.0	1499.0	Oct-91	60.0	1497.0	Oct-91	59.0	1497.0

Tables of Groundwater Elevations								
155-83-22 acc 1/Minot Well 14			155-83-22 abc/Minot Well 15			155-83-22 bdc/Minot Well 16		
Casing Elev. = 1556 ft			Casing Elev. = 1557 ft			Casing Elev. = 1556 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Nov-91	56.0	1500.0	Nov-91	59.0	1498.0	Nov-91	58.5	1497.5
Dec-91	55.5	1500.5	Dec-91	57.5	1499.5	Dec-91	57.5	1498.5
Jan-92	53.5	1502.5	Jan-92	56.5	1500.5	Jan-92	56.5	1499.5
Feb-92	53.0	1503.0	Feb-92	56.0	1501.0	Feb-92	55.5	1500.5
Mar-92	53.0	1503.0	Mar-92	56.0	1501.0	Mar-92	55.0	1501.0
Apr-92	53.5	1502.5	Apr-92	56.0	1501.0	Apr-92	56.0	1500.0
May-92	54.5	1501.5	May-92	56.5	1500.5	May-92	75.0	1481.0
Jun-92	55.0	1501.0	Jun-92	57.0	1500.0	Jun-92	57.0	1499.0
Jul-92	53.5	1502.5	Jul-92	56.0	1501.0	Jul-92	56.0	1500.0
Aug-92	55.0	1501.0	Aug-92	57.0	1500.0	Aug-92	75.0	1481.0
Sep-92	55.0	1501.0	Sep-92	55.0	1502.0	Sep-92	58.0	1498.0
Oct-92	54.5	1501.5	Oct-92	56.5	1500.5	Oct-92	57.0	1499.0
Nov-92	53.5	1502.5	Nov-92	56.5	1500.5	Nov-92	56.0	1500.0
Dec-92	54.5	1501.5	Dec-92	66.0	1491.0	Dec-92	56.5	1499.5
Jan-93	57.5	1498.5	Jan-93	68.0	1489.0	Jan-93	59.0	1497.0
Feb-93	58.0	1498.0	Feb-93	69.0	1488.0	Feb-93	60.0	1496.0
Mar-93	58.5	1497.5	Mar-93	62.5	1494.5	Mar-93	61.0	1495.0
Apr-93	58.0	1498.0	Apr-93	62.0	1495.0	Apr-93	60.0	1496.0
May-93	58.0	1498.0	May-93	61.5	1495.5	May-93	60.0	1496.0
Jun-93	57.0	1499.0	Jun-93	60.5	1496.5	Jun-93	59.0	1497.0
Jul-93	58.0	1498.0	Jul-93	70.0	1487.0	Jul-93	59.5	1496.5
Aug-93	64.0	1492.0	Aug-93	72.0	1485.0	Aug-93	62.0	1494.0
Sep-93	61.0	1495.0	Sep-93	64.0	1493.0	Sep-93	62.0	1494.0
Oct-93	59.5	1496.5	Oct-93	63.5	1493.5	Oct-93	61.5	1494.5
Nov-93	58.0	1498.0	Nov-93	63.0	1494.0	Nov-93	61.0	1495.0
Dec-93	58.0	1498.0	Dec-93	62.0	1495.0	Dec-93	60.0	1496.0
Jan-94	57.0	1499.0	Jan-94	61.0	1496.0	Jan-94	59.5	1496.5
Feb-94	56.5	1499.5	Feb-94	61.0	1496.0	Feb-94	59.0	1497.0
Mar-94	56.0	1500.0	Mar-94	60.0	1497.0	Mar-94	58.5	1497.5
Apr-94	56.0	1500.0	Apr-94	59.5	1497.5	Apr-94	75.0	1481.0
May-94	56.0	1500.0	May-94	60.0	1497.0	May-94	58.5	1497.5
Jun-94	55.0	1501.0	Jun-94	59.0	1498.0	Jun-94	57.0	1499.0
Jul-94	No Data	No Data	Jul-94	No Data	No Data	Jul-94	No Data	No Data
Aug-94	54.0	1502.0	Aug-94	59.0	1498.0	Aug-94	56.0	1500.0
Sep-94	56.5	1499.5	Sep-94	69.0	1488.0	Sep-94	58.0	1498.0
Oct-94	55.0	1501.0	Oct-94	No Data	No Data	Oct-94	57.0	1499.0
Nov-94	No Data	No Data	Nov-94	No Data	No Data	Nov-94	No Data	No Data
Dec-94	No Data	No Data	Dec-94	No Data	No Data	Dec-94	No Data	No Data
Jan-95	No Data	No Data	Jan-95	No Data	No Data	Jan-95	No Data	No Data
Feb-95	57.0	1499.0	Feb-95	61.0	1496.0	Feb-95	59.0	1497.0
Mar-95	No Data	No Data	Mar-95	No Data	No Data	Mar-95	No Data	No Data
Apr-95	56.0	1500.0	Apr-95	60.0	1497.0	Apr-95	58.0	1498.0
May-95	No Data	No Data	May-95	No Data	No Data	May-95	No Data	No Data
Jun-95	57.0	1499.0	Jun-95	60.0	1497.0	Jun-95	59.0	1497.0
Jul-95	56.0	1500.0	Jul-95	59.0	1498.0	Jul-95	58.0	1498.0
Aug-95	57.0	1499.0	Aug-95	61.0	1496.0	Aug-95	59.0	1497.0
Sep-95	56.0	1500.0	Sep-95	No Data	No Data	Sep-95	75.0	1481.0
Oct-95	55.0	1501.0	Oct-95	58.0	1499.0	Oct-95	58.0	1498.0
Nov-95	54.0	1502.0	Nov-95	57.0	1500.0	Nov-95	75.0	1481.0
Dec-95	54.0	1502.0	Dec-95	57.0	1500.0	Dec-95	57.0	1499.0
Jan-96	55.0	1501.0	Jan-96	57.0	1500.0	Jan-96	75.0	1481.0
Feb-96	55.0	1501.0	Feb-96	58.0	1499.0	Feb-96	58.0	1498.0
Mar-96	55.0	1501.0	Mar-96	58.0	1499.0	Mar-96	58.0	1498.0
Apr-96	55.0	1501.0	Apr-96	58.0	1499.0	Apr-96	57.0	1499.0
May-96	55.0	1501.0	May-96	58.0	1499.0	May-96	57.0	1499.0
Jun-96	56.0	1500.0	Jun-96	59.0	1498.0	Jun-96	57.0	1499.0
Jul-96	56.0	1500.0	Jul-96	60.0	1497.0	Jul-96	58.0	1498.0
Aug-96	56.0	1500.0	Aug-96	No Data	No Data	Aug-96	58.0	1498.0

Tables of Groundwater Elevations								
155-83-22 acc 1/Minot Well 14			155-83-22 abc/Minot Well 15			*155-83-22 bdc/Minot Well 16*		
Casing Elev. = 1556 ft			Casing Elev. = 1557 ft			Casing Elev. = 1556 ft		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
Sep-96	57.0	1499.0	Sep-96	61.0	1496.0	Sep-96	75.0	1481.0
Oct-96	No Data	No Data	Oct-96	No Data	No Data	Oct-96	61.0	1495.0
Nov-96	No Data	No Data	Nov-96	No Data	No Data	Nov-96	60.0	1496.0
Dec-96	No Data	No Data	Dec-96	No Data	No Data	Dec-96	75.0	1481.0
Jan-97	No Data	No Data	Jan-97	No Data	No Data	Jan-97	60.0	1496.0
Feb-97	No Data	No Data	Feb-97	59.0	1498.0	Feb-97	59.0	1497.0
Mar-97	No Data	No Data	Mar-97	58.0	1499.0	Mar-97	59.0	1497.0
Apr-97	No Data	No Data	Apr-97	57.0	1500.0	Apr-97	58.0	1498.0
May-97	No Data	No Data	May-97	57.0	1500.0	May-97	57.0	1499.0
Jun-97	No Data	No Data	Jun-97	56.0	1501.0	Jun-97	57.0	1499.0
Jul-97	58.0	1498.0	Jul-97	57.0	1500.0	Jul-97	75.0	1481.0
Aug-97	60.0	1496.0	Aug-97	59.0	1498.0	Aug-97	60.0	1496.0
Sep-97	58.0	1498.0	Sep-97	59.0	1498.0	Sep-97	60.0	1496.0
Oct-97	58.0	1498.0	Oct-97	71.0	1486.0	Oct-97	60.0	1496.0
Nov-97	59.0	1497.0	Nov-97	71.0	1486.0	Nov-97	61.0	1495.0
Dec-97	No Data	No Data	Dec-97	No Data	No Data	Dec-97	No Data	No Data
Jan-98	62.0	1494.0	Jan-98	61.0	1496.0	Jan-98	53.0	1503.0
Feb-98	62.0	1494.0	Feb-98	61.0	1496.0	Feb-98	57.0	1499.0
Mar-98	63.0	1493.0	Mar-98	62.0	1495.0	Mar-98	57.0	1499.0
Apr-98	60.0	1496.0	Apr-98	61.0	1496.0	Apr-98	53.0	1503.0
May-98	62.0	1494.0	May-98	61.0	1496.0	May-98	62.0	1494.0

154-082-02 CCB			154-082-03 BCC			154-082-04 ABA1		
Casing Elevation = 1541.3			Casing Elevation = 1545.1			Casing Elevation = 1542.65		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
11/14/1968	13.31	1527.99	11/20/1968	17.33	1,527.77	11/15/1963	14.92	1,527.73
11/22/1968	13.09	1528.21	11/27/1968	17.33	1,527.77	1/9/1964	15.32	1,527.33
11/27/1968	13.12	1528.18	12/3/1968	17.36	1,527.74	2/4/1964	15.32	1,527.33
12/7/1968	13.27	1528.03	12/5/1968	17.39	1,527.71	3/4/1964	17.3	1,525.35
12/11/1968	13.16	1528.14	12/7/1968	17.53	1,527.57	4/7/1964	16.58	1,526.07
12/16/1968	13.22	1528.08	12/11/1968	17.39	1,527.71	5/5/1964	15.63	1,527.02
12/19/1968	13.29	1528.01	12/13/1968	17.53	1,527.57	6/12/1964	15.01	1,527.64
12/20/1968	13.70	1527.60	12/16/1968	17.44	1,527.66	7/2/1964	14.85	1,527.80
12/21/1968	13.60	1527.70	12/19/1968	17.54	1,527.56	7/22/1964	15.05	1,527.60
12/27/1968	13.31	1527.99	12/20/1968	18.24	1,526.86	8/5/1964	15.23	1,527.42
1/4/1969	13.30	1528.00	12/27/1968	17.53	1,527.57	9/14/1964	15.79	1,526.86
2/6/1969	13.26	1528.04	1/4/1969	17.54	1,527.56	10/9/1964	15.72	1,527.28
5/27/1969	6.89	1534.41	3/12/1969	17.51	1,527.59	11/6/1964	15.62	1,527.38
6/11/1969	10.09	1531.21	4/8/1969	16.26	1,528.84	12/10/1964	15.45	1,527.55
6/27/1969	10.93	1530.37	5/28/1969	11.94	1,533.16	1/11/1965	15.79	1,527.21
7/16/1969	10.87	1530.43	6/11/1969	14.35	1,530.75	2/17/1965	15.64	1,527.36
7/29/1969	10.68	1530.62	6/27/1969	15.15	1,529.95	3/16/1965	15.49	1,527.51
8/12/1969	11.42	1529.88	7/16/1969	15.18	1,529.92	4/12/1965	15.19	1,527.81
9/9/1969	12.17	1529.13	7/17/1969	15.18	1,529.92	5/12/1965	15.06	1,527.94
9/25/1969	12.30	1529.00	7/30/1969	15.2	1,529.90	6/17/1965	14.2	1,528.80
10/8/1969	12.21	1529.09	8/13/1969	15.7	1,529.40	8/11/1965	14.74	1,528.26
10/16/1969	12.27	1529.03	9/9/1969	16.47	1,528.63	9/15/1965	14.57	1,528.43
10/19/1969	12.63	1528.67	9/26/1969	16.53	1,528.57	11/22/1965	14.63	1,528.37
10/20/1969	12.59	1528.71	10/8/1969	16.44	1,528.66	1/31/1966	14.74	1,528.26
10/21/1969	13.77	1527.53	10/16/1969	15.93	1,528.52	3/15/1966	14.48	1,528.52
10/22/1969	14.30	1527.00	10/20/1969	16.33	1,528.12	5/5/1966	14.05	1,528.95
10/23/1969	14.72	1526.58	10/21/1969	18.68	1,525.77	10/4/1966	14.76	1,528.24
10/24/1969	15.02	1526.28	10/22/1969	19.11	1,525.34	10/27/1966	14.85	1,528.15
10/25/1969	15.34	1525.96	10/23/1969	20.07	1,524.38	11/21/1966	14.84	1,528.16
10/26/1969	15.62	1525.68	10/24/1969	20.47	1,523.98	12/19/1966	14.9	1,528.10
10/27/1969	15.80	1525.50	10/25/1969	20.88	1,523.57	1/17/1967	15.1	1,527.90
10/28/1969	16.00	1525.30	10/26/1969	21.05	1,523.40	3/10/1967	14.88	1,528.12
10/29/1969	16.13	1525.17	10/28/1969	21.38	1,523.07	4/18/1967	14.64	1,528.36
10/30/1969	16.34	1524.96	10/30/1969	21.66	1,522.79	5/23/1967	14.29	1,528.71
10/31/1969	16.50	1524.80	11/1/1969	21.99	1,522.46	6/20/1967	14.44	1,528.56
11/1/1969	16.63	1524.67	11/3/1969	22.13	1,522.32	7/21/1967	14.55	1,528.45
11/2/1969	16.75	1524.55	11/4/1969	20.32	1,524.13	8/16/1967	14.78	1,528.22
11/3/1969	16.84	1524.46	11/5/1969	19.35	1,525.10	8/17/1967	14.4	1,528.50
11/4/1969	16.88	1524.42	11/6/1969	18.82	1,525.63	10/23/1967	14.71	1,528.19
11/5/1969	15.76	1525.54	11/7/1969	18.38	1,526.07	1/15/1968	14.9	1,528.00
11/6/1969	15.20	1526.10	11/8/1969	18.19	1,526.26	4/15/1968	14.72	1,528.18
11/7/1969	14.73	1526.57	11/10/1969	17.71	1,526.74	7/23/1968	14.8	1,528.10
11/8/1969	14.56	1526.74	11/12/1969	17.46	1,526.99	10/21/1968	14.8	1,528.10
11/9/1969	14.33	1526.97	11/13/1969	17.34	1,527.11	11/14/1968	14.78	1,528.42
11/10/1969	14.12	1527.18	11/14/1969	17.22	1,527.23	11/22/1968	14.77	1,528.43
11/11/1969	14.00	1527.30	11/25/1969	16.83	1,527.62	11/27/1968	14.8	1,528.40
11/12/1969	13.84	1527.46	12/2/1969	16.67	1,527.78	12/7/1968	14.98	1,528.22
11/13/1969	13.72	1527.58	6/9/1970	10.05	1,534.40	12/11/1968	14.83	1,528.37
11/14/1969	13.66	1527.64	7/24/1970	13.88	1,530.57	12/16/1968	14.91	1,528.29
11/17/1969	13.43	1527.87	8/27/1970	15.21	1,529.24	12/19/1968	15	1,528.20
11/25/1969	13.18	1528.12	10/1/1970	15.59	1,528.86	12/20/1968	15.51	1,527.69
12/2/1969	13.05	1528.25	4/15/1971	15.61	1,529.79	12/21/1968	15.68	1,527.52
12/3/1969	13.92	1527.38	7/22/1971	15.18	1,530.22	12/27/1968	14.98	1,528.22
12/4/1969	14.23	1527.07	8/27/1971	15.86	1,529.54	1/4/1969	15	1,528.20
12/5/1969	14.43	1526.87	12/21/1971	15.6	1,529.80	1/21/1969	14.97	1,528.23
1/27/1970	12.59	1528.71	10/12/1972	15.56	1,529.84	2/6/1969	14.95	1,528.25
3/10/1970	12.68	1528.62	6/8/1973	16.02	1,529.38	3/5/1969	15	1,528.20
4/6/1970	12.37	1528.93	7/8/1974	13.96	1,531.44	3/12/1969	14.98	1,528.22
6/9/1970	5.59	1535.71	8/23/1974	15.64	1,529.76	4/8/1969	13.79	1,529.41
7/24/1970	10.30	1531.00	10/5/1974	15.81	1,529.59	5/27/1969	8.95	1,534.25

154-082-02 CCB			154-082-03 BCC			154-082-04 ABA1		
Casing Elevation = 1541.3			Casing Elevation = 1545.1			Casing Elevation = 1542.65		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/27/1970	11.79	1529.51	10/13/1974	15.94	1,529.46	6/11/1969	11.37	1,531.83
10/1/1970	12.23	1529.07	11/16/1974	15.9	1,529.50	6/25/1969	12.42	1,530.78
12/22/1970	12.78	1529.32	2/1/1975	14.39	1,531.01	7/16/1969	12.23	1,530.97
4/15/1971	11.98	1530.12	3/22/1975	17.68	1,527.72	7/28/1969	12.38	1,530.82
7/22/1971	11.30	1530.80	3/23/1975	17.34	1,528.06	7/30/1969	12.35	1,530.85
8/27/1971	12.21	1529.89	6/9/1975	15.36	1,530.04	8/12/1969	12.85	1,530.35
12/21/1971	11.98	1530.12	3/19/1976	13.45	1,531.95	9/9/1969	13.56	1,529.64
7/13/1972	11.06	1531.04	6/4/1976	9.69	1,535.71	9/25/1969	13.67	1,529.53
10/12/1972	11.85	1530.25	7/16/1976	12.8	1,532.60	10/8/1969	13.6	1,529.60
6/7/1973	12.34	1529.76	8/24/1976	19.19	1,526.21	10/16/1969	13.68	1,529.52
7/1/1974	9.13	1532.97	8/27/1976	18.45	1,526.95	10/19/1969	14.15	1,529.05
8/23/1974	12.08	1530.02	9/9/1976	21.1	1,524.30	10/20/1969	12.05	1,531.15
3/22/1975	13.38	1528.72	9/23/1976	20.72	1,524.68	10/21/1969	15.62	1,527.58
3/22/1975	13.48	1528.62	10/25/1976	14.55	1,530.85	10/22/1969	16.51	1,526.69
3/23/1975	13.68	1528.42	12/3/1976	14.8	1,530.60	10/23/1969	16.97	1,526.23
3/23/1975	13.43	1528.67	2/8/1977	24.1	1,521.30	10/24/1969	17.3	1,525.90
3/23/1975	13.26	1528.84	3/15/1977	22.07	1,523.33	10/25/1969	17.63	1,525.57
3/23/1975	14.22	1527.88	5/6/1977	16.4	1,529.00	10/26/1969	17.9	1,525.30
3/24/1975	14.37	1527.73	6/3/1977	15.34	1,530.06	10/27/1969	18.07	1,525.13
3/24/1975	14.31	1527.79	6/30/1977	21.35	1,524.05	10/28/1969	18.22	1,524.98
3/24/1975	14.00	1528.10	7/7/1977	26.55	1,518.85	10/29/1969	18.33	1,524.87
8/13/1975	10.59	1531.51	7/14/1977	32.27	1,513.13	10/30/1969	18.51	1,524.69
6/4/1976	8.06	1534.04	7/28/1977	27.32	1,518.08	10/31/1969	18.64	1,524.56
7/16/1976	9.09	1533.01	8/10/1977	30.3	1,515.10	11/1/1969	18.76	1,524.44
8/27/1976	12.06	1530.04	8/10/1977	30.94	1,514.46	11/2/1969	18.88	1,524.32
9/9/1976	13.42	1528.68	8/26/1977	30.48	1,514.92	11/3/1969	18.95	1,524.25
9/23/1976	15.04	1527.06	9/14/1977	28.85	1,516.55	11/4/1969	19.03	1,524.17
10/26/1976	13.45	1528.65	9/14/1977	31.24	1,514.16	11/5/1969	17.39	1,525.81
12/3/1976	13.45	1528.65	10/11/1977	33.69	1,511.71	11/6/1969	16.6	1,526.60
1/5/1977	15.26	1526.84	11/10/1977	31.94	1,513.46	11/7/1969	16.16	1,527.04
2/8/1977	16.22	1525.88	12/15/1977	29.68	1,515.72	11/8/1969	15.97	1,527.23
3/15/1977	16.47	1525.63	1/24/1978	31.21	1,514.19	11/9/1969	15.76	1,527.44
5/6/1977	13.48	1528.62	2/22/1978	33.97	1,511.43	11/10/1969	15.51	1,527.69
6/3/1977	14.09	1528.01	3/28/1978	32.05	1,513.35	11/11/1969	15.38	1,527.82
6/30/1977	15.09	1527.01	4/26/1978	31.94	1,513.46	11/12/1969	15.25	1,527.95
7/14/1977	18.23	1523.87	5/24/1978	36.9	1,508.50	11/13/1969	15.05	1,528.15
7/28/1977	19.84	1522.26	6/27/1978	34.8	1,510.60	11/17/1969	14.9	1,528.30
8/16/1977	21.20	1520.90	7/26/1978	40.8	1,504.60	11/24/1969	14.66	1,528.54
8/26/1977	22.73	1519.37	8/29/1978	37.54	1,507.86	12/4/1969	15.12	1,528.08
9/14/1977	21.39	1520.71	9/26/1978	29.8	1,515.60	12/19/1969	14.42	1,528.78
10/11/1977	20.92	1521.18	10/27/1978	34.3	1,511.10	1/27/1970	13.93	1,529.27
11/10/1977	21.58	1520.52	12/4/1978	32.46	1,512.94	3/10/1970	14.04	1,529.16
12/15/1977	21.53	1520.57	1/19/1979	33.15	1,512.25	3/11/1970	14.02	1,529.18
1/24/1978	22.64	1519.46	2/27/1979	37.35	1,508.05	4/6/1970	13.85	1,529.35
2/22/1978	22.95	1519.15	3/28/1979	37.27	1,508.13	6/8/1970	7.92	1,535.28
3/28/1978	22.14	1519.96	4/30/1979	26.82	1,518.58	6/12/1970	8.38	1,534.82
4/26/1978	22.17	1519.93	5/30/1979	26.43	1,518.97	7/24/1970	11.52	1,531.68
5/24/1978	23.89	1518.21	6/27/1979	35.27	1,510.13	8/27/1970	12.79	1,530.41
6/27/1978	23.92	1518.18	7/31/1979	27.37	1,518.03	9/16/1970	12.97	1,530.23
7/26/1978	24.59	1517.51	8/28/1979	37.27	1,508.13	10/1/1970	13.16	1,530.04
8/29/1978	25.02	1517.08	9/27/1979	41.1	1,504.30	11/30/1970	12.94	1,530.26
9/26/1978	21.97	1520.13	10/31/1979	37.27	1,508.13	3/13/1971	12.86	1,530.34
10/27/1978	24.36	1517.74	11/29/1979	37.47	1,507.93	4/15/1971	12.32	1,530.88
11/4/1978	24.33	1517.77	12/27/1979	34.38	1,511.02	7/9/1971	12.08	1,531.12
1/19/1979	24.45	1517.65	1/29/1980	40.99	1,504.41	7/22/1971	11.95	1,531.25
2/28/1979	23.42	1518.68	2/28/1980	40.69	1,504.71	8/27/1971	12.32	1,530.88
3/29/1979	22.42	1519.68	3/25/1980	38.22	1,507.18	9/8/1971	11.97	1,531.23
5/29/1979	10.13	1531.97	4/25/1980	36.12	1,509.28	12/1/1971	12.1	1,531.10
6/27/1979	20.08	1522.02	5/25/1980	45.46	1,499.94	12/21/1971	12.08	1,531.12
7/31/1979	17.56	1524.54	6/27/1980	44.22	1,501.18	3/8/1972	11.96	1,531.24

154-082-02 CCB			154-082-03 BCC			154-082-04 ABA1		
Casing Elevation = 1541.3			Casing Elevation = 1545.1			Casing Elevation = 1542.65		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/28/1979	24.55	1517.55	7/29/1980	30.15	1,515.25	6/9/1972	10.26	1,532.94
9/27/1979	26.09	1516.01	8/28/1980	39.35	1,506.05	9/8/1972	12.09	1,531.11
10/29/1979	25.89	1516.21	9/26/1980	39.55	1,505.85	10/12/1972	12.04	1,531.16
11/29/1979	26.14	1515.96	10/29/1980	34.33	1,511.07	12/6/1972	12.25	1,530.95
12/18/1979	26.14	1515.96	11/25/1980	35.94	1,509.46	3/10/1973	11.95	1,531.25
1/29/1980	26.19	1515.91	12/30/1980	36.52	1,508.88	5/31/1973	12.6	1,530.60
2/28/1980	25.75	1516.35	1/29/1981	36.55	1,508.85	6/7/1973	12.51	1,530.69
3/25/1980	25.45	1516.65	2/24/1981	38.02	1,507.38	9/28/1973	13.26	1,529.94
4/28/1980	27.08	1515.02	3/26/1981	43.22	1,502.18	10/1/1973	12.7	1,530.50
5/28/1980	28.86	1513.24	4/30/1981	38.24	1,507.16	12/6/1973	12.8	1,530.40
6/27/1980	29.53	1512.57	5/28/1981	43.43	1,501.97	3/7/1974	12.48	1,530.72
7/29/1980	26.27	1515.83	6/29/1981	41.63	1,503.77	6/19/1974	8.91	1,534.29
8/28/1980	26.92	1515.18	7/28/1981	46.26	1,499.14	7/1/1974	10.05	1,533.15
9/26/1980	27.22	1514.88	8/28/1981	41.3	1,504.10	10/7/1974	13.25	1,529.95
10/29/1980	26.37	1515.73	9/29/1981	44.69	1,500.71	12/4/1974	12.41	1,530.79
11/25/1980	27.06	1515.04	10/28/1981	46.68	1,498.72	3/17/1975	12.97	1,530.23
12/29/1980	27.70	1514.40	11/27/1981	47.71	1,497.69	6/20/1975	6.19	1,537.01
1/29/1981	28.25	1513.85	12/30/1981	47.19	1,498.21	8/13/1975	11.02	1,532.18
3/2/1981	28.20	1513.90	1/9/1982	47.49	1,497.91	9/30/1975	11.03	1,532.17
3/26/1981	28.30	1513.80	2/26/1982	48.6	1,496.80	12/2/1975	10.95	1,532.25
4/30/1981	29.47	1512.63	3/29/1982	44.93	1,500.47	3/10/1976	11.09	1,532.11
5/28/1981	29.36	1512.74	4/30/1982	27.15	1,518.25	6/11/1976	8.78	1,534.42
6/29/1981	29.17	1512.93	5/27/1982	37.99	1,507.41	9/2/1976	11.42	1,531.78
7/28/1981	31.23	1510.87	6/29/1982	35.43	1,509.97	12/1/1976	14.07	1,529.13
8/28/1981	31.25	1510.85	7/28/1982	39.16	1,506.24	3/3/1977	18.68	1,524.52
9/29/1981	31.89	1510.21	8/31/1982	42.19	1,503.21	6/8/1977	14.37	1,528.83
10/28/1981	31.98	1510.12	9/30/1982	41.9	1,503.50	9/13/1977	23.04	1,520.16
11/27/1981	32.22	1509.88	10/29/1982	39.72	1,505.68	11/30/1977	22.95	1,520.25
12/30/1981	32.67	1509.43	11/29/1982	40.88	1,504.52	3/8/1978	26.54	1,516.66
1/28/1982	33.09	1509.01	12/27/1982	39.69	1,505.71	9/8/1978	28.08	1,515.12
2/26/1982	33.84	1508.26	1/28/1983	40.74	1,504.66	11/30/1978	26	1,517.20
3/29/1982	33.00	1509.10	2/28/1983	40.63	1,504.77	3/2/1979	25.51	1,517.69
4/30/1982	22.34	1519.76	3/31/1983	44.69	1,500.71	6/5/1979	18.76	1,524.44
5/27/1982	24.36	1517.74	4/29/1983	40.02	1,505.38	9/5/1979	29.2	1,514.00
6/29/1982	26.64	1515.46	5/27/1983	40.83	1,504.57	11/30/1979	26.99	1,516.21
7/28/1982	28.98	1513.12	7/8/1983	42.49	1,502.91	3/6/1980	29.19	1,514.01
8/31/1982	32.25	1509.85	7/28/1983	46.71	1,498.69	6/4/1980	31.87	1,511.33
9/30/1982	31.42	1510.68	8/30/1983	45.94	1,499.46	9/9/1980	31.1	1,512.10
10/29/1982	30.20	1511.90	12/8/1983	45.68	1,499.72	12/4/1980	30.43	1,512.77
11/29/1982	30.47	1511.63	12/14/1983	44.05	1,501.35	3/6/1981	30.1	1,513.10
12/27/1982	30.64	1511.46	1/3/1984	43.88	1,501.52	6/4/1981	33.34	1,509.86
1/28/1983	30.83	1511.27	1/16/1984	47.33	1,498.07	9/4/1981	35.1	1,508.10
3/31/1983	30.92	1511.18	2/1/1984	46.82	1,498.58	11/30/1981	36.71	1,506.49
4/29/1983	26.00	1516.10	2/21/1984	46.99	1,498.41	3/24/1982	35.13	1,508.07
5/27/1983	26.42	1515.68	3/12/1984	45.58	1,499.82	6/18/1982	28.04	1,515.16
7/8/1983	31.42	1510.68	4/3/1984	45.71	1,499.69	10/23/1982	33.44	1,509.76
7/28/1983	33.83	1508.27	4/18/1984	45.57	1,499.83	12/8/1982	33.1	1,510.10
8/30/1983	34.94	1507.16	5/8/1984	44.49	1,500.91	4/24/1983	28.94	1,514.26
11/22/1983	33.77	1508.33	5/29/1984	41.68	1,503.72	7/1/1983	33.85	1,509.35
12/8/1983	33.99	1508.11	6/15/1984	41.21	1,504.19	11/22/1983	36.41	1,506.79
3/12/1984	31.78	1510.32	6/26/1984	43.44	1,501.96	12/8/1983	37.3	1,505.90
4/3/1984	31.42	1510.68	7/10/1984	49.04	1,496.36	12/14/1983	36.08	1,507.12
4/18/1984	30.86	1511.24	7/27/1984	52.38	1,493.02	1/3/1984	35.75	1,507.45
5/8/1984	30.27	1511.83	8/9/1984	53.33	1,492.07	1/16/1984	36.45	1,506.75
5/29/1984	31.39	1510.71	8/16/1984	55.21	1,490.19	2/1/1984	35.6	1,507.60
6/15/1984	31.27	1510.83	8/21/1984	49.26	1,496.14	2/21/1984	35.65	1,507.55
6/26/1984	32.41	1509.69	8/27/1984	49.44	1,495.96	3/12/1984	34.48	1,508.72
7/10/1984	34.36	1507.74	9/7/1984	47.33	1,498.07	3/24/1984	35.05	1,508.15
7/27/1984	37.44	1504.66	9/12/1984	41.33	1,504.07	4/3/1984	34.53	1,508.67
8/9/1984	36.85	1505.25	9/20/1984	46.3	1,499.10	4/18/1984	34.59	1,508.61

154-082-02 CCB			154-082-03 BCC			154-082-04 ABA1		
Casing Elevation = 1541.3			Casing Elevation = 1545.1			Casing Elevation = 1542.65		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/16/1984	38.91	1503.19	9/27/1984	46.38	1,499.02	5/8/1984	33.44	1,509.76
8/22/1984	36.88	1505.22	10/3/1984	47.21	1,498.19	5/29/1984	35.51	1,507.69
8/27/1984	38.47	1503.63	10/10/1984	45.99	1,499.41	6/15/1984	35.45	1,507.75
9/7/1984	37.38	1504.72	10/23/1984	44.08	1,501.32	6/16/1984	34.9	1,508.30
9/12/1984	36.44	1505.66	11/8/1984	41.93	1,503.47	6/26/1984	36.71	1,506.49
9/20/1984	35.75	1506.35	11/20/1984	39.8	1,505.60	7/10/1984	40.74	1,502.46
9/27/1984	34.69	1507.41	12/13/1984	34.3	1,511.10	7/27/1984	44.32	1,498.88
10/3/1984	34.35	1507.75	1/9/1985	42.38	1,503.02	8/27/1984	42.18	1,501.02
10/10/1984	33.94	1508.16	2/12/1985	42.21	1,503.19	9/7/1984	38.9	1,504.30
10/23/1984	32.08	1510.02	3/6/1985	44.66	1,500.74	9/12/1984	36.54	1,506.66
11/7/1984	30.75	1511.35	3/19/1985	44.27	1,501.13	9/20/1984	37.75	1,505.45
11/20/1984	29.78	1512.32	4/9/1985	35.85	1,509.55	9/27/1984	36.48	1,506.72
12/13/1984	28.49	1513.61	4/17/1985	38.57	1,506.83	10/4/1984	35.4	1,507.58
1/9/1985	29.57	1512.53	5/2/1985	39.74	1,505.66	10/10/1984	36.13	1,506.97
2/12/1985	30.86	1511.24	5/14/1985	39.57	1,505.83	10/23/1984	33.98	1,509.12
3/6/1985	30.91	1511.19	6/6/1985	40.63	1,504.77	11/7/1984	32.67	1,510.43
3/19/1985	30.80	1511.30	6/20/1985	44.91	1,500.49	11/20/1984	31.32	1,511.78
4/16/1985	30.38	1511.72	7/1/1985	42.46	1,502.94	12/1/1984	30.11	1,512.99
5/2/1985	30.08	1512.02	7/17/1985	52.41	1,492.99	12/3/1984	30.37	1,512.73
5/14/1985	30.11	1511.99	7/29/1985	52.83	1,492.57	12/13/1984	29.4	1,513.70
6/6/1985	31.19	1510.91	8/14/1985	49.76	1,495.64	1/9/1985	33.26	1,509.84
6/20/1985	32.38	1509.72	8/27/1985	50.32	1,495.08	2/12/1985	33.45	1,509.65
7/1/1985	32.61	1509.49	9/11/1985	49.16	1,496.24	3/6/1985	34.52	1,508.58
7/17/1985	41.22	1500.88	9/24/1985	48.88	1,496.52	3/19/1985	34.6	1,508.50
7/29/1985	36.21	1505.89	10/23/1985	33.05	1,512.35	3/23/1985	34.42	1,508.68
8/14/1985	35.49	1506.61	11/21/1985	31.6	1,513.80	4/16/1985	33.45	1,509.65
8/27/1985	35.28	1506.82	12/30/1985	41.71	1,503.69	5/2/1985	33.18	1,509.92
9/11/1985	34.69	1507.41	2/25/1986	35.77	1,509.63	5/14/1985	33.09	1,510.01
9/24/1985	34.27	1507.83	3/26/1986	41.98	1,503.42	6/6/1985	35.07	1,508.03
10/23/1985	29.17	1512.93	5/14/1986	41.54	1,503.86	6/20/1985	35.62	1,507.48
11/21/1985	26.83	1515.27	6/4/1986	46.84	1,498.56	7/1/1985	36.23	1,506.87
12/30/1985	29.22	1512.88	7/1/1986	51.48	1,493.92	7/29/1985	42.45	1,500.65
2/25/1986	28.37	1513.73	8/6/1986	45.09	1,499.87	8/14/1985	39.29	1,503.81
3/26/1986	29.35	1512.75	9/9/1986	49.05	1,495.91	9/11/1985	39.15	1,503.95
5/13/1986	29.36	1512.74	10/9/1986	45.15	1,499.81	9/29/1985	32.18	1,510.92
6/4/1986	31.99	1510.11	12/16/1986	41.99	1,502.97	10/23/1985	29.15	1,513.95
7/1/1986	35.24	1506.86	4/8/1987	27.93	1,517.03	11/21/1985	27.32	1,515.78
8/6/1986	34.71	1507.39	4/28/1987	26.79	1,518.17	12/4/1985	32.53	1,510.57
9/9/1986	36.71	1505.39	5/13/1987	44.31	1,500.65	12/8/1985	32.9	1,510.20
10/9/1986	35.28	1506.82	6/18/1987	51.36	1,493.60	12/30/1985	33.08	1,510.02
12/16/1986	31.18	1510.92	7/14/1987	50.11	1,494.85	2/20/1986	32.38	1,510.72
4/8/1987	23.81	1518.29	8/18/1987	47.42	1,497.54	2/25/1986	30.59	1,512.51
4/28/1987	22.25	1519.85	9/24/1987	48.79	1,496.17	3/26/1986	32.51	1,510.59
5/13/1987	28.41	1513.69	10/20/1987	46.59	1,498.37	3/29/1986	31.61	1,511.49
6/18/1987	32.55	1509.55	11/12/1987	36.57	1,508.39	5/13/1986	33	1,510.10
7/14/1987	36.04	1506.06	12/9/1987	32.64	1,512.32	6/4/1986	37.2	1,505.90
8/18/1987	36.43	1505.67	4/8/1988	40.84	1,504.12	7/1/1986	40.28	1,502.82
9/24/1987	36.07	1506.03	5/13/1988	33.18	1,511.78	8/6/1986	36.59	1,506.51
10/20/1987	34.48	1507.62	6/7/1988	45.94	1,499.02	9/9/1986	41.49	1,501.61
11/12/1987	33.17	1508.93	7/8/1988	55.93	1,489.03	10/9/1986	38.4	1,504.70
12/9/1987	29.10	1513.00	8/4/1988	58.83	1,486.13	12/16/1986	33.52	1,509.58
4/8/1988	27.56	1514.54	9/16/1988	40.74	1,504.22	4/8/1987	24.49	1,518.61
5/13/1988	29.39	1512.71	10/19/1988	35.22	1,509.74	4/19/1987	23.28	1,519.82
6/7/1988	32.45	1509.65	11/18/1988	47.05	1,497.91	4/28/1987	23.21	1,519.89
7/8/1988	41.62	1500.48	12/19/1988	48.05	1,496.91	5/13/1987	34.98	1,508.12
8/4/1988	40.49	1501.61	3/8/1989	51.58	1,493.38	6/18/1987	40.45	1,502.65
9/16/1988	37.74	1504.36	4/18/1989	39.51	1,505.45	7/14/1987	40.49	1,502.61
10/19/1988	31.57	1510.53	5/9/1989	35.65	1,509.31	9/24/1987	38.84	1,504.26
11/18/1988	33.55	1508.55	6/8/1989	34.25	1,510.71	12/9/1987	29.2	1,513.90
12/19/1988	34.87	1507.23	7/6/1989	48.61	1,496.35	12/13/1987	30.46	1,512.64

154-082-02 CCB			154-082-03 BCC			154-082-04 ABA1		
Casing Elevation = 1541.3			Casing Elevation = 1545.1			Casing Elevation = 1542.65		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
3/8/1989	38.41	1503.69	8/2/1989	48.73	1,496.23	3/27/1988	29	1,514.10
4/18/1989	35.63	1506.47	8/30/1989	50.79	1,494.17	4/8/1988	31.78	1,511.32
5/9/1989	31.96	1510.14	11/2/1989	50.67	1,494.29	5/13/1988	29.49	1,513.61
6/8/1989	29.99	1512.11	12/13/1989	42.53	1,502.43	6/7/1988	38.38	1,504.72
7/6/1989	33.09	1509.01	1/22/1990	36.84	1,508.12	9/25/1988	34.05	1,509.05
8/2/1989	35.26	1506.84	3/19/1990	33.99	1,510.97	10/19/1988	31.36	1,511.74
8/30/1989	37.67	1504.43	3/20/1990	33.99	1,510.97	4/18/1989	35.44	1,507.66
11/2/1989	40.28	1501.82	5/2/1990	49.03	1,495.93	5/9/1989	31.87	1,511.23
12/13/1989	39.40	1502.70	5/31/1990	55.18	1,489.78	6/8/1989	30.7	1,512.40
1/22/1990	33.20	1508.90	6/28/1990	53.03	1,491.93	6/24/1989	33.79	1,509.31
3/19/1990	30.06	1512.04	7/23/1990	52.05	1,492.91	9/24/1989	33.79	1,509.31
3/20/1990	30.06	1512.04	8/13/1990	64.02	1,480.94	3/19/1990	30.25	1,512.85
5/3/1990	39.09	1503.01	9/12/1990	66.59	1,478.37	11/14/1990	47.95	1,495.55
6/1/1990	39.62	1502.48	10/9/1990	67.08	1,477.88	12/11/1990	40.24	1,503.26
6/28/1990	42.16	1499.94	11/14/1990	52.33	1,492.63	1/17/1991	36.82	1,506.68
7/24/1990	41.86	1500.24	12/12/1990	44.13	1,500.83	2/13/1991	35.14	1,508.36
8/13/1990	44.88	1497.22	1/17/1991	40.44	1,504.52	3/13/1991	34.09	1,509.41
9/12/1990	47.77	1494.33	2/13/1991	38.65	1,506.31	4/16/1991	44.44	1,499.06
10/9/1990	48.86	1493.24	3/13/1991	37.55	1,507.41	5/13/1991	47.62	1,495.88
11/14/1990	48.09	1494.01	4/15/1991	53.33	1,491.63	6/12/1991	51.38	1,492.12
12/12/1990	40.98	1501.12	5/14/1991	54.73	1,490.23	7/10/1991	51.58	1,491.92
1/17/1991	36.98	1505.12	6/12/1991	62.33	1,482.63	8/15/1991	52.7	1,490.80
2/13/1991	35.22	1506.88	7/11/1991	62.15	1,482.81	8/30/1991	58.3	1,485.20
3/13/1991	33.86	1508.24	8/16/1991	62.16	1,482.80	9/16/1991	56.3	1,487.20
4/16/1991	38.33	1503.77	9/16/1991	63.87	1,481.09	10/15/1991	57.99	1,485.51
5/13/1991	40.98	1501.12	10/15/1991	68.37	1,476.59	11/18/1991	57.28	1,486.22
6/12/1991	44.20	1497.90	11/18/1991	67.3	1,477.66	11/19/1991	57.6	1,485.90
7/11/1991	45.51	1496.59	12/19/1991	67.77	1,477.19	12/19/1991	57.32	1,486.18
8/15/1991	47.86	1494.24	1/22/1992	65.84	1,479.12	1/22/1992	57.25	1,486.25
9/16/1991	50.97	1491.13	2/26/1992	68.25	1,476.71	2/26/1992	58.62	1,484.88
10/14/1991	50.39	1491.71	3/19/1992	62.81	1,482.15	3/9/1992	53.76	1,489.74
11/18/1991	50.36	1491.74	4/21/1992	57.74	1,487.22	3/19/1992	53.05	1,490.45
12/19/1991	50.45	1491.65	5/22/1992	64.09	1,480.87	4/21/1992	51.65	1,491.85
1/22/1992	51.11	1490.99	6/16/1992	69.35	1,475.61	5/21/1992	59.03	1,484.47
2/26/1992	51.86	1490.24	7/14/1992	70.42	1,474.54	6/16/1992	60.59	1,482.91
3/19/1992	50.08	1492.02	8/20/1992	73.5	1,471.46	7/14/1992	58.86	1,484.64
4/21/1992	47.91	1494.19	9/15/1992	67.29	1,477.67	8/12/1992	59.93	1,483.57
5/21/1992	49.55	1492.55	10/20/1992	70.45	1,474.51	8/20/1992	61.7	1,481.80
6/16/1992	52.28	1489.82	11/18/1992	66.58	1,478.38	9/15/1992	59.28	1,484.22
7/14/1992	52.59	1489.51	12/16/1992	62.82	1,482.14	10/20/1992	61.17	1,482.33
8/20/1992	53.89	1488.21	1/20/1993	55.68	1,489.28	11/2/1992	55.14	1,488.36
9/15/1992	53.07	1489.03	2/22/1993	59.07	1,485.89	11/18/1992	59.2	1,484.30
10/20/1992	54.02	1488.08	3/23/1993	61.22	1,483.74	12/16/1992	53.87	1,489.63
11/18/1992	53.26	1488.84	4/19/1993	62.16	1,482.80	1/20/1993	48.89	1,494.61
12/16/1992	50.87	1491.23	5/19/1993	65.35	1,479.61	2/23/1993	50.42	1,493.08
1/20/1993	47.81	1494.29	6/16/1993	66.5	1,478.46	3/23/1993	52.8	1,490.70
2/23/1993	47.10	1495.00	7/15/1993	60.7	1,484.26	4/19/1993	55.33	1,488.17
3/23/1993	47.83	1494.27	8/9/1993	50.89	1,494.07	5/18/1993	57.36	1,486.14
4/20/1993	50.26	1491.84	9/16/1993	56.32	1,488.64	6/16/1993	58.79	1,484.71
5/19/1993	51.75	1490.35	10/21/1993	60.73	1,484.23	7/14/1993	54.31	1,489.19
6/16/1993	52.39	1489.71	11/17/1993	61.09	1,483.87	8/9/1993	47.1	1,496.40
7/15/1993	51.29	1490.81	4/29/1994	62.75	1,482.21	9/16/1993	49.86	1,493.64
8/9/1993	46.16	1495.94	6/2/1994	62.7	1,482.26	10/20/1993	50.73	1,492.77
9/16/1993	43.19	1498.91	7/6/1994	62.19	1,482.77	11/17/1993	51.9	1,491.60
10/20/1993	45.90	1496.20	8/2/1994	69.99	1,474.97	4/29/1994	52.77	1,490.73
11/17/1993	47.04	1495.06	8/17/1994	75.75	1,469.21	6/2/1994	52.59	1,490.91
4/29/1994	48.29	1493.81	9/9/1994	76.55	1,468.41	7/6/1994	55.23	1,488.27
6/2/1994	48.10	1494.00	10/10/1994	67.13	1,477.83	8/2/1994	58.38	1,485.12
7/6/1994	48.32	1493.78	11/15/1994	54.86	1,490.10	9/9/1994	63.39	1,480.11
8/2/1994	51.58	1490.52	12/7/1994	51.9	1,493.06	10/10/1994	59.57	1,483.93

154-082-02 CCB			154-082-03 BCC			154-082-04 ABA1		
Casing Elevation = 1541.3			Casing Elevation = 1545.1			Casing Elevation = 1542.65		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/17/1994	53.43	1488.67	5/2/1995	60.82	1,484.14	11/15/1994	50.46	1,493.04
9/9/1994	54.69	1487.41	6/8/1995	68.87	1,476.09	12/7/1994	47.73	1,495.77
10/10/1994	53.55	1488.55	7/12/1995	70.87	1,474.09	5/2/1995	50.98	1,492.52
11/15/1994	50.60	1491.50	8/15/1995	72.98	1,471.98	6/8/1995	56.74	1,486.76
12/7/1994	47.71	1494.39	10/10/1995	67.68	1,477.28	7/12/1995	58.78	1,484.72
5/2/1995	46.50	1495.60	11/15/1995	66.98	1,477.98	8/15/1995	60.67	1,482.83
6/8/1995	47.36	1494.74	5/7/1996	57.56	1,487.40	10/10/1995	60.03	1,483.47
7/13/1995	49.90	1492.20	6/12/1996	68.67	1,476.29	11/15/1995	59.35	1,484.15
8/15/1995	51.70	1490.40	7/17/1996	72.37	1,472.59	5/7/1996	51.06	1,492.44
10/10/1995	53.45	1488.65	9/5/1996	69.95	1,475.01	6/12/1996	56.79	1,486.71
11/15/1995	53.62	1488.48	10/10/1996	64.33	1,480.63	7/17/1996	60.25	1,483.25
5/7/1996	45.62	1496.48	11/20/1996	65.15	1,479.81	9/5/1996	62.47	1,481.03
6/12/1996	46.85	1495.25	5/21/1997	48.3	1,496.66	10/10/1996	54.74	1,488.76
7/17/1996	50.78	1491.32	6/30/1997	61.64	1,483.32	11/20/1996	57.8	1,485.70
9/5/1996	54.12	1487.98	8/4/1997	63.36	1,481.60	5/21/1997	42.9	1,500.60
10/10/1996	51.53	1490.57	9/9/1997	65.64	1,479.32	6/30/1997	52.79	1,490.71
11/20/1996	51.87	1490.23	10/8/1997	63.82	1,481.14	8/4/1997	54.35	1,489.15
5/21/1997	38.60	1503.50	11/5/1997	62.4	1,482.56	9/10/1997	56.31	1,487.19
6/30/1997	44.76	1497.34	12/3/1997	60.07	1,484.89	10/8/1997	56.61	1,486.89
8/4/1997	48.42	1493.68	6/3/1998	70.08	1,474.88	11/5/1997	53.09	1,490.41
9/10/1997	51.36	1490.74	7/28/1998	68.77	1,476.19	12/3/1997	50.97	1,492.53
10/8/1997	49.45	1492.65	9/8/1998	65.24	1,479.72	6/3/1998	59.48	1,484.02
11/5/1997	49.85	1492.25	10/20/1998	65.75	1,479.21	7/28/1998	60.25	1,483.25
12/3/1997	47.87	1494.23	12/1/1998	62.91	1,482.05	9/8/1998	58.18	1,485.32
6/2/1998	51.70	1490.40				10/20/1998	58.17	1,485.33
7/28/1998	53.00	1489.10				12/1/1998	56.34	1,487.16
9/8/1998	52.72	1489.38						
10/20/1998	52.56	1489.54						
12/1/1998	51.90	1490.20						

154-82-7AAA			154-082-10 BBB1			154-082-11 BCB		
Casing Elevation = 1618.2			Casing Elevation = 1541.1			Casing Elevation = 1541.7		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
11/23/1968	90.72	1,527.48	7/29/1969	10.23	1,530.87	11/27/1968	13.49	1,528.21
11/27/1968	90.64	1,527.56	8/12/1969	10.8	1,530.30	12/7/1968	13.64	1,528.06
12/11/1968	90.63	1,527.57	9/9/1969	10.56	1,530.54	12/11/1968	13.53	1,528.17
12/16/1968	90.8	1,527.40	9/26/1969	11.64	1,529.46	12/16/1968	13.6	1,528.10
12/19/1968	90.92	1,527.28	10/8/1969	11.57	1,529.53	12/19/1968	13.92	1,527.78
12/20/1968	91.11	1,527.09	10/16/1969	11.65	1,529.45	12/20/1968	14.19	1,527.51
12/21/1968	91.24	1,526.96	10/19/1969	12.08	1,529.02	12/21/1968	13.98	1,527.72
12/27/1968	90.89	1,527.31	10/20/1969	12.01	1,529.09	12/27/1968	13.68	1,528.02
1/4/1969	90.83	1,527.37	10/21/1969	15.1	1,526.00	1/4/1969	13.68	1,528.02
1/6/1969	90.77	1,527.43	10/22/1969	15.89	1,525.21	3/6/1969	13.67	1,528.03
3/12/1969	90.88	1,527.32	10/23/1969	16.32	1,524.78	4/9/1969	11.53	1,530.17
4/9/1969	90.35	1,527.85	10/24/1969	16.68	1,524.42	5/28/1969	7.69	1,534.01
5/7/1969	85.27	1,532.93	10/25/1969	16.88	1,524.22	6/11/1969	10.59	1,531.11
5/15/1969	85.55	1,532.65	10/26/1969	17.24	1,523.86	7/16/1969	11.3	1,530.40
5/28/1969	86.16	1,532.04	10/28/1969	17.57	1,523.53	7/30/1969	11	1,530.70
6/11/1969	87.69	1,530.51	10/30/1969	17.85	1,523.25	8/12/1969	11.78	1,529.92
6/27/1969	88.36	1,529.84	11/1/1969	18.19	1,522.91	9/11/1969	12.56	1,529.14
7/16/1969	88.75	1,529.45	11/3/1969	18.38	1,522.72	9/26/1969	12.6	1,529.10
7/29/1969	88.63	1,529.57	11/4/1969	15.94	1,525.16	10/8/1969	12.56	1,529.14
8/12/1969	88.78	1,529.42	11/5/1969	15.02	1,526.08	10/16/1969	12.6	1,529.10
9/11/1969	89.61	1,528.59	11/6/1969	14.68	1,526.42	10/19/1969	12.96	1,528.74
9/26/1969	89.69	1,528.51	11/13/1969	13.06	1,528.04	10/20/1969	13.06	1,528.64
10/8/1969	89.66	1,528.54	11/14/1969	12.97	1,528.13	10/21/1969	14.28	1,527.42
10/16/1969	89.77	1,528.43	11/17/1969	12.77	1,528.33	10/22/1969	15	1,526.70
10/19/1969	90	1,528.20	11/24/1969	12.52	1,528.58	10/23/1969	15.42	1,526.28
10/20/1969	90.05	1,528.15	12/2/1969	12.45	1,528.65	10/24/1969	15.71	1,525.99
10/21/1969	90.39	1,527.81	12/3/1969	14.86	1,526.24	10/25/1969	16.02	1,525.68
10/22/1969	91.13	1,527.07	12/4/1969	15.33	1,525.77	10/26/1969	16.23	1,525.47
10/23/1969	91.33	1,526.87	12/5/1969	15.6	1,525.50	10/29/1969	16.72	1,524.98
10/24/1969	91.61	1,526.59	1/27/1970	11.86	1,529.24	10/30/1969	16.97	1,524.73
10/25/1969	92	1,526.20	3/10/1970	11.99	1,529.11	10/31/1969	17.06	1,524.64
10/26/1969	92.3	1,525.90	4/6/1970	11.76	1,529.34	11/1/1969	17.15	1,524.55
10/27/1969	92.44	1,525.76	6/8/1970	5.61	1,535.49	11/2/1969	17.28	1,524.42
10/28/1969	92.49	1,525.71	7/24/1970	9.68	1,531.42	11/3/1969	17.39	1,524.31
10/29/1969	92.58	1,525.62	8/27/1970	11.02	1,530.08	11/4/1969	17.38	1,524.32
10/30/1969	92.8	1,525.40	10/1/1970	11.4	1,529.70	11/5/1969	15.97	1,525.73
10/31/1969	92.86	1,525.34	12/23/1970	13.59	1,529.71	11/6/1969	15.35	1,526.35
11/1/1969	93.03	1,525.17	4/15/1971	12.81	1,530.49	11/7/1969	14.94	1,526.76
11/2/1969	93.22	1,524.98	7/22/1971	12.32	1,530.98	11/8/1969	14.75	1,526.95
11/3/1969	93.22	1,524.98	8/27/1971	13.02	1,530.28	11/9/1969	14.53	1,527.17
11/4/1969	93.24	1,524.96	12/21/1971	12.84	1,530.46	11/10/1969	14.31	1,527.39
11/5/1969	92.8	1,525.40	7/12/1972	11.63	1,531.67	11/11/1969	14.22	1,527.48
11/6/1969	92.38	1,525.82	10/12/1972	12.73	1,530.57	11/12/1969	14.07	1,527.63
11/7/1969	92.1	1,526.10	6/8/1973	13.22	1,530.08	11/13/1969	13.96	1,527.74
11/8/1969	91.88	1,526.32	7/2/1974	10.35	1,532.95	11/14/1969	13.9	1,527.80
11/9/1969	91.74	1,526.46	8/23/1974	12.91	1,530.39	11/17/1969	13.75	1,527.95
11/10/1969	91.44	1,526.76	9/7/1974	15.62	1,527.68	11/24/1969	13.48	1,528.22
11/11/1969	91.35	1,526.85	9/7/1974	14.7	1,528.60	12/2/1969	13.39	1,528.31
11/12/1969	91.3	1,526.90	9/7/1974	12.96	1,530.34	12/3/1969	14.52	1,527.18
11/13/1969	91.32	1,526.88	9/8/1974	15	1,528.30	12/4/1969	14.85	1,526.85
11/17/1969	91.08	1,527.12	9/8/1974	16.72	1,526.58	12/5/1969	15.1	1,526.60
11/24/1969	90.66	1,527.54	9/8/1974	16.48	1,526.82	1/27/1970	12.89	1,528.81
12/2/1969	90.53	1,527.67	10/5/1974	14.4	1,528.90	3/10/1970	13	1,528.70
12/3/1969	90.69	1,527.51	10/5/1974	13.94	1,529.36	6/9/1970	6.18	1,535.52
12/4/1969	90.86	1,527.34	10/5/1974	13.03	1,530.27	7/24/1970	10.64	1,531.06

154-82-7AAA			154-082-10 BBB1			*154-082-11 BCB*		
Casing Elevation = 1618.2			Casing Elevation = 1541.1			Casing Elevation = 1541.7		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
12/5/1969	91.07	1,527.13	10/6/1974	15.23	1,528.07	8/27/1970	12.14	1,529.56
1/27/1970	89.82	1,528.38	10/6/1974	15.56	1,527.74	10/1/1970	12.59	1,529.11
3/10/1970	90.05	1,528.15	10/13/1974	13.14	1,530.16	12/23/1970	11.91	1,529.79
4/6/1970	89.83	1,528.37	10/13/1974	13.14	1,530.16	4/15/1971	11.19	1,530.51
6/8/1970	84.99	1,533.21	11/16/1974	13.13	1,530.17	7/22/1971	10.51	1,531.19
7/24/1970	87.52	1,530.68	2/1/1975	13.7	1,529.60	8/27/1971	11.36	1,530.34
8/27/1970	88.75	1,529.45	2/2/1975	15.94	1,527.36	12/21/1971	11.19	1,530.01
9/30/1970	88.97	1,529.23	3/22/1975	14.71	1,528.59	10/12/1972	11.01	1,530.19
12/22/1970	88.39	1,529.31	3/23/1975	16.89	1,526.41	6/8/1973	11.56	1,529.64
4/15/1971	87.74	1,529.96	3/24/1975	17.49	1,525.81	7/2/1974	8.48	1,532.72
7/21/1971	87.64	1,530.06	6/8/1975	5.99	1,537.31	8/23/1974	11.23	1,529.97
8/26/1971	87.97	1,529.73	6/9/1975	10.94	1,532.36	8/14/1975	9.86	1,531.34
12/21/1971	87.94	1,529.76	8/14/1975	11.43	1,531.87	3/19/1976	8.52	1,532.68
7/13/1972	86.52	1,531.18	6/4/1976	9	1,534.30	6/4/1976	7.47	1,533.73
10/12/1972	88.11	1,529.59	7/16/1976	10	1,533.30	7/16/1976	8.43	1,532.77
6/6/1973	88.11	1,529.59	8/24/1976	16.35	1,526.95	8/27/1976	11.56	1,529.64
7/1/1974	85.47	1,532.23	8/27/1976	15.43	1,527.87	9/9/1976	13.03	1,528.17
8/13/1975	86.27	1,531.43	9/9/1976	17.63	1,525.67	9/23/1976	14.44	1,526.76
10/21/1976	88.89	1,528.81	9/23/1976	18.5	1,524.80	10/25/1976	12.6	1,528.60
9/22/1977	97.69	1,520.01	10/25/1976	14.06	1,529.24	12/3/1976	12.64	1,528.56
10/11/1977	97.72	1,519.98	12/3/1976	14.22	1,529.08	1/5/1977	14.09	1,527.11
11/10/1977	98.16	1,519.54	1/5/1977	18.91	1,524.39	2/8/1977	15.64	1,525.56
12/15/1977	97.91	1,519.79	2/8/1977	19.96	1,523.34	3/15/1977	15.86	1,525.34
1/24/1978	98.94	1,518.76	3/15/1977	19.86	1,523.44	5/6/1977	12.67	1,528.53
2/22/1978	99.22	1,518.48	5/6/1977	14.19	1,529.11	6/3/1977	13.31	1,527.89
3/28/1978	99.77	1,517.93	6/3/1977	14.78	1,528.52	6/30/1977	14.35	1,526.85
4/26/1978	99.25	1,518.45	6/30/1977	17.23	1,526.07	7/7/1977	17.28	1,523.92
5/23/1978	101.19	1,516.51	7/7/1977	22.24	1,521.06	7/14/1977	17.6	1,523.60
6/27/1978	101.66	1,516.04	7/14/1977	21.69	1,521.61	7/25/1977	19.25	1,521.95
7/26/1978	102.64	1,515.06	7/28/1977	24.02	1,519.28	8/10/1977	20.55	1,520.65
8/29/1978	102.92	1,514.78	8/10/1977	25.22	1,518.08	8/26/1977	21.13	1,520.07
9/26/1978	99.36	1,518.34	8/26/1977	26.1	1,517.20	9/14/1977	20.33	1,520.87
10/27/1978	101.72	1,515.98	9/14/1977	24.92	1,518.38	10/11/1977	20.33	1,520.87
12/4/1978	101.02	1,516.68	10/11/1977	24.89	1,518.41	11/10/1977	20.97	1,520.23
1/17/1979	101.25	1,516.45	11/10/1977	25.88	1,517.42	12/15/1977	20.88	1,520.32
2/28/1979	101.1	1,516.60	12/15/1977	25.63	1,517.67	3/28/1978	21.5	1,519.70
3/29/1979	100.22	1,517.48	1/24/1978	26.91	1,516.39	4/26/1978	21.58	1,519.62
4/30/1979	97.49	1,520.21	2/22/1978	27.69	1,515.61	5/24/1978	23.36	1,517.84
5/30/1979	93.24	1,524.46	3/28/1978	26.85	1,516.45	6/27/1978	23.19	1,518.01
6/27/1979	99	1,518.70	4/26/1978	27	1,516.30	7/26/1978	24.1	1,517.10
7/31/1979	95.74	1,521.96	5/24/1978	29.69	1,513.61	8/29/1978	24.24	1,516.96
8/28/1979	101.96	1,515.74	6/27/1978	28.69	1,514.61	9/26/1978	21.19	1,520.01
9/27/1979	102.63	1,515.07	7/26/1978	30.94	1,512.36	10/27/1978	23.75	1,517.45
10/31/1979	103	1,514.70	8/29/1978	29.03	1,514.27	12/4/1978	23.67	1,517.53
11/29/1979	103.33	1,514.37	9/26/1978	25	1,518.30	1/19/1979	23.85	1,517.35
12/18/1979	103.02	1,514.68	10/27/1978	28.52	1,514.78	4/30/1979	15.14	1,526.06
1/29/1980	103.25	1,514.45	12/4/1978	28.33	1,514.97	5/29/1979	10.14	1,531.06
2/27/1980	102.78	1,514.92	1/19/1979	28.86	1,514.44	6/27/1979	19.8	1,521.40
3/29/1980	102.55	1,515.15	2/27/1979	27.97	1,515.33	7/31/1979	16.75	1,524.45
4/25/1980	103.74	1,513.96	3/29/1979	26.32	1,516.98	8/28/1979	23.78	1,517.42
5/28/1980	106.46	1,511.24	4/30/1979	21.44	1,521.86	9/27/1979	25.42	1,515.78
6/27/1980	106.97	1,510.73	5/29/1979	16.02	1,527.28	10/31/1979	24.88	1,516.32
7/29/1980	103.08	1,514.62	6/27/1979	27.08	1,516.22	11/29/1979	25.55	1,515.65
8/28/1980	104.41	1,513.29	7/30/1979	19.16	1,524.14	12/18/1979	25.52	1,515.68
9/26/1980	104.33	1,513.37	8/28/1979	28.91	1,514.39	1/29/1980	25.49	1,515.71

154-82-7AAA			154-082-10 BBB1			154-082-11 BCB		
Casing Elevation = 1618.2			Casing Elevation = 1541.1			Casing Elevation = 1541.7		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
10/29/1980	103.58	1,514.12	9/27/1979	31.16	1,512.14	2/28/1980	25.19	1,516.01
11/25/1980	104.22	1,513.48	10/29/1979	30.55	1,512.75	3/25/1980	24.72	1,516.48
12/29/1980	104.92	1,512.78	11/29/1979	31.02	1,512.28	4/28/1980	26.58	1,514.62
1/29/1981	105.05	1,512.65	12/27/1979	29.75	1,513.55	5/27/1980	28.19	1,513.01
3/2/1981	105.13	1,512.57	1/29/1980	30.42	1,512.88	6/12/1980	27.35	1,513.85
3/26/1981	105.19	1,512.51	2/28/1980	30.03	1,513.27	6/19/1980	27.5	1,513.70
4/30/1981	106.47	1,511.23	3/25/1980	28.75	1,514.55	6/27/1980	28.97	1,512.23
5/28/1981	106.64	1,511.06	4/25/1980	31.52	1,511.78	7/16/1980	30.71	1,510.49
6/29/1981	106.35	1,511.35	5/28/1980	34.52	1,508.78	7/18/1980	29.75	1,511.45
7/28/1981	108.49	1,509.21	6/27/1980	35.66	1,507.64	7/21/1980	27.88	1,513.32
8/28/1981	108.22	1,509.48	7/29/1980	27.24	1,516.06	7/25/1980	26.35	1,514.85
9/29/1981	108.97	1,508.73	8/28/1980	30.96	1,512.34	7/29/1980	24.88	1,516.32
10/28/1981	108.8	1,508.90	9/26/1980	31.83	1,511.47	8/1/1980	24.47	1,516.73
11/27/1981	109.19	1,508.51	10/29/1980	30.11	1,513.19	8/5/1980	23.61	1,517.59
12/30/1981	109.53	1,508.17	11/25/1980	31.52	1,511.78	8/28/1980	26.22	1,514.98
1/8/1982	109.66	1,508.04	12/29/1980	31.77	1,511.53	9/26/1980	26.63	1,514.57
2/26/1982	110.85	1,506.85	1/29/1981	32.1	1,511.20	10/29/1980	25.6	1,515.60
3/29/1982	109.64	1,508.06	2/24/1981	32.75	1,510.55	11/25/1980	26.44	1,514.76
4/30/1982	102.8	1,514.90	3/26/1981	32.05	1,511.25	12/29/1980	26.99	1,514.21
5/27/1982	103.75	1,513.95	4/30/1981	33.49	1,509.81	1/29/1981	27.5	1,513.70
6/29/1982	105.36	1,512.34	5/28/1981	33.14	1,510.16	2/24/1981	27.47	1,513.73
7/28/1982	106.72	1,510.98	6/29/1981	33.69	1,509.61	3/26/1981	27.47	1,513.73
8/31/1982	109.36	1,508.34	7/28/1981	36.82	1,506.48	4/30/1981	28.64	1,512.56
9/30/1982	108.94	1,508.76	8/28/1981	35.28	1,508.02	5/28/1981	28.49	1,512.71
10/29/1982	107.44	1,510.26	9/29/1981	36.19	1,507.11	6/29/1981	28.47	1,512.73
11/29/1982	107.53	1,510.17	10/29/1981	36.88	1,506.42	7/28/1981	30.63	1,510.57
12/27/1982	107.89	1,509.81	11/29/1981	37.22	1,506.08	8/11/1981	28.16	1,513.04
1/28/1983	107.75	1,509.95	12/30/1981	38.13	1,505.17	8/18/1981	30.22	1,510.98
2/28/1983	108.07	1,509.63	1/28/1982	37.77	1,505.53	8/28/1981	30.3	1,510.90
3/31/1983	108.25	1,509.45	2/26/1982	38.91	1,504.39	9/29/1981	31.05	1,510.15
4/29/1983	105.92	1,511.78	3/29/1982	36.89	1,506.41	10/28/1981	31.22	1,509.98
5/27/1983	106.17	1,511.53	4/30/1982	24.05	1,519.25	11/27/1981	31.47	1,509.73
7/8/1983	109.63	1,508.07	5/27/1982	28.44	1,514.86	12/30/1981	31.91	1,509.29
7/28/1983	111.77	1,505.93	6/29/1982	31.25	1,512.05	1/28/1982	32.27	1,508.93
8/30/1983	112.5	1,505.20	7/28/1982	34.27	1,509.03	2/26/1982	33.1	1,508.10
9/2/1983	113.27	1,504.43	8/31/1982	36.86	1,506.44	3/29/1982	31.99	1,509.21
11/22/1983	111.11	1,506.59	9/30/1982	36.08	1,507.22	4/5/1982	31	1,510.20
12/8/1983	111.13	1,506.57	10/29/1982	34.69	1,508.61	4/13/1982	30.14	1,511.06
12/14/1983	111	1,506.70	11/29/1982	34.97	1,508.33	4/20/1982	26.27	1,514.93
1/3/1984	110.13	1,507.57	12/27/1982	34.03	1,509.27	4/30/1982	21.38	1,519.82
1/16/1984	110.24	1,507.46	1/28/1983	35.27	1,508.03	5/27/1982	23.8	1,517.40
2/1/1984	109.53	1,508.17	2/28/1983	35.39	1,507.91	6/30/1982	25.88	1,515.32
2/21/1984	109.5	1,508.20	4/29/1983	30.88	1,512.42	7/28/1982	28.52	1,512.68
3/12/1984	109.42	1,508.28	5/27/1983	31.75	1,511.55	8/31/1982	31.44	1,509.76
4/3/1984	109.33	1,508.37	7/8/1983	36.85	1,506.45	9/30/1982	30.6	1,510.60
4/18/1984	109.05	1,508.65	7/28/1983	40.8	1,502.50	10/29/1982	29.44	1,511.76
5/8/1984	108.77	1,508.93	8/30/1983	40.35	1,502.95	11/29/1982	29.74	1,511.46
5/29/1984	109.5	1,508.20	11/22/1983	38.91	1,504.39	12/27/1982	29.75	1,511.45
6/15/1984	109.47	1,508.23	12/8/1983	38.77	1,504.53	1/28/1983	30.11	1,511.09
6/26/1984	110.33	1,507.37	12/14/1983	37.75	1,505.55	2/28/1983	30.1	1,511.10
7/10/1984	112.3	1,505.40	1/3/1984	37.27	1,506.03	3/31/1983	30.16	1,511.04
7/27/1984	115.33	1,502.37	1/16/1984	36.64	1,506.66	4/29/1983	25.38	1,515.82
8/9/1984	116.55	1,501.15	2/1/1984	36.16	1,507.14	5/27/1983	25.86	1,515.34
8/16/1984	116.22	1,501.48	2/21/1984	36.22	1,507.08	7/8/1983	30.67	1,510.53
8/22/1984	116.16	1,501.54	3/12/1984	35.35	1,507.95	7/28/1983	33.19	1,508.01

154-82-7AAA			154-082-10 BBB1			154-082-11 BCB		
Casing Elevation = 1618.2			Casing Elevation = 1541.1			Casing Elevation = 1541.7		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/27/1984	115.3	1,502.40	4/3/1984	35.16	1,508.14	8/30/1983	34.13	1,507.07
9/7/1984	114.05	1,503.65	4/18/1984	35.02	1,508.28	12/8/1983	33	1,508.20
9/11/1984	113.11	1,504.59	5/8/1984	34	1,509.30	12/14/1983	32.86	1,508.34
9/20/1984	112.91	1,504.79	5/29/1984	36.82	1,506.48	1/3/1984	32.38	1,508.82
9/27/1984	111.88	1,505.82	6/15/1984	36.58	1,506.72	1/16/1984	31.88	1,509.32
10/4/1984	111.67	1,506.03	6/26/1984	38	1,505.30	2/1/1984	31.38	1,509.82
10/10/1984	111.69	1,506.01	7/10/1984	41.25	1,502.05	2/21/1984	31.41	1,509.79
10/23/1984	110.03	1,507.67	7/27/1984	45.52	1,497.78	3/12/1984	30.94	1,510.26
11/8/1984	108.52	1,509.18	8/9/1984	44.08	1,499.22	4/3/1984	30.61	1,510.59
11/20/1984	107.8	1,509.90	8/16/1984	45.57	1,497.73	4/18/1984	30.08	1,511.12
12/13/1984	106.38	1,511.32	8/21/1984	44.33	1,498.97	5/8/1984	29.49	1,511.71
1/9/1985	107.94	1,509.76	8/27/1984	43.8	1,499.50	5/29/1984	30.8	1,510.40
2/12/1985	108.55	1,509.15	9/7/1984	41.02	1,502.28	6/15/1984	30.72	1,510.48
3/6/1985	108.91	1,508.79	9/12/1984	38.19	1,505.11	6/26/1984	31.72	1,509.48
3/19/1985	109.1	1,508.60	9/20/1984	39.27	1,504.03	7/10/1984	33.77	1,507.43
4/16/1985	108.38	1,509.32	9/27/1984	38.3	1,505.00	7/27/1984	36.94	1,504.26
5/2/1985	108.49	1,509.21	10/3/1984	38.38	1,504.92	8/9/1984	37.41	1,503.79
5/14/1985	108.47	1,509.23	10/10/1984	37.38	1,505.92	8/16/1984	38.13	1,503.07
6/6/1985	109.19	1,508.51	10/23/1984	34.39	1,508.91	8/21/1984	38.21	1,502.99
6/20/1985	110.33	1,507.37	11/8/1984	33.1	1,510.20	8/27/1984	37.6	1,503.60
7/1/1985	110.55	1,507.15	11/20/1984	31.85	1,511.45	9/7/1984	36.33	1,504.87
7/17/1985	113.32	1,504.38	12/13/1984	30.25	1,513.05	9/12/1984	35.28	1,505.92
7/29/1985	114.35	1,503.35	1/9/1985	33.11	1,510.19	9/20/1984	34.77	1,506.43
8/14/1985	113.03	1,504.67	2/12/1985	34.5	1,508.80	9/27/1984	33.75	1,507.45
8/27/1985	113.22	1,504.48	3/6/1985	34.46	1,508.84	10/3/1984	33.47	1,507.73
9/11/1985	112.8	1,504.90	3/19/1985	34.41	1,508.89	10/10/1984	33.05	1,508.15
9/23/1985	112.66	1,505.04	4/16/1985	35.08	1,508.22	10/23/1984	31.11	1,510.09
10/22/1985	106.74	1,510.96	5/2/1985	34.3	1,509.00	11/8/1984	29.78	1,511.42
11/21/1985	104.97	1,512.73	5/14/1985	34.61	1,508.69	11/20/1984	28.91	1,512.29
12/30/1985	107.61	1,510.09	6/6/1985	36.27	1,507.03	12/13/1984	27.6	1,513.60
2/25/1986	106.37	1,511.33	6/20/1985	38.41	1,504.89	1/9/1985	28.86	1,512.34
3/26/1986	107.66	1,510.04	7/1/1985	36.49	1,506.81	2/12/1985	30.11	1,511.09
5/13/1986	107.87	1,509.83	7/17/1985	42.17	1,501.13	3/6/1985	30.11	1,511.09
6/3/1986	110.22	1,507.48	7/29/1985	43.1	1,500.20	3/19/1985	30.02	1,511.18
7/1/1986	113	1,504.70	8/14/1985	40.69	1,502.61	4/17/1985	29.38	1,511.82
8/6/1986	111.92	1,505.78	8/27/1985	41.16	1,502.14	5/2/1985	29.21	1,511.99
9/9/1986	114.31	1,503.39	9/11/1985	38.69	1,504.61	5/14/1985	29.47	1,511.73
10/8/1986	113.25	1,504.45	9/23/1985	38.42	1,504.88	6/6/1985	30.47	1,510.73
12/16/1986	109.17	1,508.53	10/23/1985	30.33	1,512.97	6/20/1985	31.74	1,509.46
4/8/1987	102.81	1,514.89	11/21/1985	28.35	1,514.95	7/1/1985	31.75	1,509.45
4/28/1987	101.44	1,516.26	12/30/1985	32.97	1,510.33	7/17/1985	34.72	1,506.48
5/13/1987	107.44	1,510.26	2/25/1986	30.97	1,512.33	7/29/1985	35.55	1,505.65
6/18/1987	111.61	1,506.09	3/26/1986	33.4	1,509.90	8/14/1985	34.63	1,506.57
7/14/1987	113.49	1,504.21	5/13/1986	33.48	1,509.82	8/27/1985	34.52	1,506.68
8/18/1987	113.99	1,503.71	6/4/1986	38.09	1,505.21	9/11/1985	33.78	1,507.42
9/24/1987	113.41	1,504.29	7/1/1986	41.48	1,501.82	9/24/1985	33.17	1,508.03
10/20/1987	112.28	1,505.42	8/6/1986	37.96	1,505.34	10/23/1985	28.13	1,513.07
11/12/1987	110.17	1,507.53	9/9/1986	42.77	1,500.53	11/21/1985	25.94	1,515.26
12/9/1987	106.6	1,511.10	10/9/1986	38.65	1,504.65	12/30/1985	28.66	1,512.54
4/8/1988	105.62	1,512.08	12/16/1986	33.77	1,509.53	2/25/1986	27.49	1,513.71
5/13/1988	106.69	1,511.01	4/8/1987	25.28	1,518.02	3/26/1986	28.6	1,512.60
6/7/1988	110.49	1,507.21	4/28/1987	23.92	1,519.38	5/14/1986	28.61	1,512.59
7/8/1988	110.86	1,506.84	5/13/1987	35.2	1,508.10	6/4/1986	31.39	1,509.81
8/4/1988	118.2	1,499.50	6/18/1987	40.11	1,503.19	7/1/1986	33.45	1,507.75
9/16/1988	114.23	1,503.47	7/14/1987	41.65	1,501.65	8/6/1986	33.64	1,507.56

154-82-7AAA			154-082-10 BBB1			154-082-11 BCB		
Casing Elevation = 1618.2			Casing Elevation = 1541.1			Casing Elevation = 1541.7		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
10/19/1988	109.38	1,508.32	8/18/1987	41.61	1,501.69	9/9/1986	35.96	1,505.24
11/18/1988	111.9	1,505.80	9/24/1987	39.61	1,503.69	10/9/1986	34.23	1,506.97
12/19/1988	112.46	1,505.24	10/20/1987	37.8	1,505.50	12/16/1986	30.29	1,510.91
3/8/1989	115.99	1,501.71	11/12/1987	34.09	1,509.21	4/8/1987	22.94	1,518.26
4/18/1989	113.29	1,504.41	12/9/1987	30.05	1,513.25	4/28/1987	21.43	1,519.77
5/9/1989	109.89	1,507.81	4/8/1988	31.9	1,511.40	5/13/1987	27.92	1,513.28
6/8/1989	108.4	1,509.30	5/13/1988	30.59	1,512.71	6/18/1987	31.98	1,509.22
7/6/1989	112.26	1,505.44	6/7/1988	37.82	1,505.48	7/14/1987	35.16	1,506.04
8/2/1989	113.63	1,504.07	7/8/1988	44.94	1,498.36	8/18/1987	35.48	1,505.72
8/30/1989	115.54	1,502.16	8/4/1988	47.68	1,495.62	9/24/1987	35.02	1,506.18
11/2/1989	117.78	1,499.92	9/16/1988	38.28	1,505.02	10/20/1987	33.51	1,507.69
12/13/1989	115.83	1,501.87	10/19/1988	32.61	1,510.69	11/12/1987	31.98	1,509.22
1/22/1990	110.57	1,507.13	11/18/1988	38.59	1,504.71	12/9/1987	28.06	1,513.14
3/19/1990	108.02	1,509.68	12/19/1988	39.67	1,503.63	4/8/1988	26.96	1,514.24
3/20/1990	108.02	1,509.68	3/8/1989	43.09	1,500.21	5/13/1988	28.28	1,512.92
5/2/1990	116.59	1,501.11	4/18/1989	36.8	1,506.50	6/7/1988	31.7	1,509.50
5/31/1990	117.52	1,500.18	5/9/1989	32.96	1,510.34	7/8/1988	35.91	1,505.29
6/27/1990	120.44	1,497.26	6/8/1989	31.45	1,511.85	8/4/1988	39.7	1,501.50
7/23/1990	119.22	1,498.48	7/6/1989	38.8	1,504.50	9/16/1988	36.32	1,504.88
8/14/1990	122.86	1,494.84	8/2/1989	40.55	1,502.75	10/19/1988	30.5	1,510.70
9/12/1990	124.88	1,492.82	8/30/1989	42.53	1,500.77	11/18/1988	32.88	1,508.32
10/9/1990	125.84	1,491.86	11/2/1989	45.63	1,497.67	12/19/1988	34.11	1,507.09
11/15/1990	123.98	1,493.72	12/13/1989	39.94	1,503.36	3/8/1989	37.52	1,503.68
12/11/1990	118.06	1,499.64	1/22/1990	34.11	1,509.19	4/18/1989	34.42	1,506.78
1/17/1991	114.6	1,503.10	3/19/1990	31.22	1,512.08	5/9/1989	30.8	1,510.40
2/13/1991	112.63	1,505.07	3/20/1990	31.22	1,512.08	6/8/1989	28.96	1,512.24
3/13/1991	111.65	1,506.05	5/2/1990	42.93	1,500.37	7/6/1989	32.46	1,508.74
4/15/1991	117.13	1,500.57	5/31/1990	46.1	1,497.20	8/2/1989	34.47	1,506.73
5/14/1991	119.82	1,497.88	6/27/1990	48.58	1,494.72	8/30/1989	36.73	1,504.47
6/11/1991	122.26	1,495.44	7/24/1990	48.42	1,494.88	11/2/1989	39.38	1,501.82
7/10/1991	123.49	1,494.21	8/13/1990	53.26	1,490.04	12/13/1989	38	1,503.20
8/16/1991	124.95	1,492.75	9/12/1990	55.74	1,487.56	1/22/1990	32.08	1,509.12
9/16/1991	128	1,489.70	10/9/1990	55.94	1,487.36	3/19/1990	29.1	1,512.10
10/15/1991	128.29	1,489.41	11/14/1990	49.82	1,493.48	3/20/1990	29.1	1,512.10
11/18/1991	127.73	1,489.97	12/11/1990	41.65	1,501.65	5/2/1990	38.11	1,503.09
12/19/1991	128.46	1,489.24	1/17/1991	37.83	1,505.47	5/31/1990	38.75	1,502.45
1/21/1992	128.79	1,488.91	2/13/1991	36.02	1,507.28	6/28/1990	41.19	1,500.01
2/25/1992	129.3	1,488.40	3/13/1991	34.83	1,508.47	7/23/1990	40.71	1,500.49
3/18/1992	127.38	1,490.32	4/15/1991	44.74	1,498.56	8/13/1990	44.14	1,497.06
4/21/1992	126.09	1,491.61	5/14/1991	47.92	1,495.38	9/12/1990	46.95	1,494.25
5/21/1992	128.22	1,489.48	6/12/1991	51.35	1,491.95	10/9/1990	47.86	1,493.34
6/16/1992	130.28	1,487.42	7/10/1991	52.13	1,491.17	11/14/1990	46.66	1,494.54
7/13/1992	130.59	1,487.11	8/16/1991	54.46	1,488.84	12/11/1990	39.61	1,501.59
8/20/1992	131.3	1,486.40	9/16/1991	56.5	1,486.80	1/17/1991	35.77	1,505.43
9/15/1992	131	1,486.70	10/15/1991	57.03	1,486.27	2/13/1991	34.04	1,507.16
10/20/1992	131.98	1,485.72	11/18/1991	56.18	1,487.12	3/13/1991	32.77	1,508.43
11/18/1992	131.7	1,486.00	12/19/1991	56.76	1,486.54	4/15/1991	37.56	1,503.64
12/16/1992	129.15	1,488.55	1/22/1992	56.45	1,486.85	5/14/1991	40.22	1,500.98
1/20/1993	126.65	1,491.05	2/26/1992	57.48	1,485.82	6/12/1991	43.26	1,497.94
2/22/1993	125.6	1,492.10	3/19/1992	53.96	1,489.34	7/10/1991	44.5	1,496.70
3/24/1993	126.04	1,491.66	4/21/1992	53.01	1,490.29	9/16/1991	49.82	1,491.38
4/19/1993	128.11	1,489.59	5/22/1992	56.32	1,486.98	10/15/1991	49.27	1,491.93
5/18/1993	129.35	1,488.35	6/16/1992	59.47	1,483.83	11/18/1991	49.17	1,492.03
6/15/1993	130.7	1,487.00	7/14/1992	58.1	1,485.20	12/19/1991	49.36	1,491.84
7/14/1993	129.99	1,487.71	8/20/1992	60.54	1,482.76	1/22/1992	49.89	1,491.31

154-82-7AAA			154-082-10 BBB1			154-082-11 BCB		
Casing Elevation = 1618.2			Casing Elevation = 1541.1			Casing Elevation = 1541.7		
Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)	Date	Depth to Water (ft)	Elevation (ft. amsl)
8/9/1993	126.03	1,491.67	9/15/1992	58.43	1,484.87	2/26/1992	50.71	1,490.49
9/15/1993	123.21	1,494.49	10/20/1992	59.93	1,483.37	3/19/1992	48.81	1,492.39
10/20/1993	125.22	1,492.48	11/18/1992	58.62	1,484.68	4/21/1992	46.85	1,494.35
11/17/1993	125.86	1,491.84	12/16/1992	54.1	1,489.20	5/22/1992	48.8	1,492.40
4/28/1994	127.45	1,490.25	1/20/1993	49.75	1,493.55	6/16/1992	51.33	1,489.87
6/1/1994	127.11	1,490.59	2/22/1993	50.07	1,493.23	7/14/1992	51.42	1,489.78
7/6/1994	127.82	1,489.88	3/23/1993	53.23	1,490.07	8/20/1992	53.85	1,487.35
8/2/1994	130.29	1,487.41	4/19/1993	56.04	1,487.26	9/15/1992	51.86	1,489.34
8/16/1994	131.58	1,486.12	5/18/1993	57.97	1,485.33	10/20/1992	52.84	1,488.36
9/8/1994	132.51	1,485.19	6/15/1993	58.4	1,484.90	11/18/1992	52.06	1,489.14
10/10/1994	132.04	1,485.66	7/14/1993	55.55	1,487.75	12/16/1992	49.46	1,491.74
11/15/1994	129.24	1,488.46	8/9/1993	48.31	1,494.99	1/20/1993	46.42	1,494.78
12/7/1994	126.75	1,490.95	9/16/1993	47.81	1,495.49	2/22/1993	45.83	1,495.37
5/2/1995	126.38	1,491.32	10/20/1993	50.56	1,492.74	3/23/1993	47.05	1,494.15
6/8/1995	128.03	1,489.67	11/17/1993	52.21	1,491.09	4/19/1993	49.31	1,491.89
7/12/1995	130	1,487.70	4/29/1994	52.7	1,490.60	5/18/1993	50.78	1,490.42
8/15/1995	131.35	1,486.35	6/2/1994	52.58	1,490.72	6/16/1993	51.4	1,489.80
10/10/1995	132.39	1,485.31	7/6/1994	53.86	1,489.44	7/14/1993	50.14	1,491.06
11/15/1995	132.68	1,485.02	8/2/1994	57.16	1,486.14	8/9/1993	44.8	1,496.40
5/7/1996	127.62	1,490.08	8/16/1994	60.67	1,482.63	9/16/1993	42.17	1,499.03
6/12/1996	128.95	1,488.75	9/9/1994	61.71	1,481.59	10/20/1993	44.89	1,496.31
7/17/1996	130.85	1,486.85	10/10/1994	58.77	1,484.53	11/17/1993	46.03	1,495.17
9/4/1996	133.1	1,484.60	11/15/1994	52.39	1,490.91	4/29/1994	47.12	1,494.08
10/10/1996	130.93	1,486.77	12/7/1994	49.24	1,494.06	6/2/1994	46.96	1,494.24
11/20/1996	131.17	1,486.53	5/2/1995	50.94	1,492.36	7/6/1994	47.21	1,493.99
5/21/1997	121.94	1,495.76	6/8/1995	54.12	1,489.18	8/2/1994	50.58	1,490.62
6/30/1997	126.11	1,491.59	7/12/1995	56.7	1,486.60	8/16/1994	52.32	1,488.88
8/4/1997	127.95	1,489.75	8/15/1995	58.49	1,484.81	9/9/1994	53.57	1,487.63
9/9/1997	129.61	1,488.09	10/10/1995	59.3	1,484.00	10/10/1994	52.32	1,488.88
10/7/1997	129.88	1,487.82	11/15/1995	58.77	1,484.53	11/15/1994	49.04	1,492.16
11/5/1997	129.04	1,488.66	5/7/1996	51.6	1,491.70	12/7/1994	46.2	1,495.00
12/2/1997	127.6	1,490.10	6/12/1996	53.94	1,489.36	5/2/1995	45.44	1,495.76
6/3/1998	130.83	1,486.87	7/17/1996	57.8	1,485.50	6/8/1995	46.47	1,494.73
7/28/1998	132.22	1,485.48	9/5/1996	60.64	1,482.66	7/12/1995	48.88	1,492.32
9/8/1998	131.98	1,485.72	10/10/1996	55.3	1,488.00	8/15/1995	50.68	1,490.52
10/21/1998	132.13	1,485.57	11/20/1996	57.04	1,486.26	10/10/1995	52.3	1,488.90
12/2/1998	131.03	1,486.67	5/21/1997	42.32	1,500.98	11/15/1995	52.42	1,488.78
			6/30/1997	50.82	1,492.48	5/7/1996	44.65	1,496.55
			8/4/1997	54.77	1,488.53	6/12/1996	46	1,495.20
			9/9/1997	57.32	1,485.98	7/17/1996	49.79	1,491.41
			10/7/1997	55.77	1,487.53	9/5/1996	53.02	1,488.18
			11/5/1997	53.4	1,489.90	10/10/1996	50.21	1,490.99
			12/2/1997	50.82	1,492.48	11/20/1996	50.76	1,490.44
			6/3/1998	57.61	1,485.69	5/21/1997	36.55	1,504.65
			7/28/1998	58.55	1,484.75	6/30/1997	43.82	1,497.38
			9/8/1998	57.54	1,485.76	8/4/1997	47.47	1,493.73
			10/20/1998	57.24	1,486.06	9/9/1997	50.37	1,490.83
			12/2/1998	56.09	1,487.21	10/8/1997	49.57	1,491.63
						11/5/1997	48.52	1,492.68
						12/3/1997	46.51	1,494.69
						6/3/1998	50.67	1,490.53
						7/28/1998	51.89	1,489.31
						9/8/1998	51.56	1,489.64
						10/20/1998	51.4	1,489.80
						12/1/1998	50.69	1,490.51

APPENDIX B

Minot City Water Production

	Minot City Water Production				
	River Water Pumped (gal)	Sundre Field Production (gal)	Minot Field Production (gal)	Total Water from Wells (gal)	Total City Water Production (gal)
Jan-68	50,407,200	0	58,446,900	58,446,900	108,854,100
Feb-68	31,389,600	0	71,483,000	71,483,000	102,872,600
Mar-68	24,717,600	0	87,851,600	87,851,600	112,569,200
Apr-68	55,732,200	0	56,610,000	56,610,000	112,342,200
May-68	64,653,200	0	65,591,300	65,591,300	130,244,500
Jun-68	70,316,000	0	66,503,300	66,503,300	136,819,300
Jul-68	82,562,000	0	80,769,500	80,769,500	163,331,500
Aug-68	65,517,200	0	63,307,800	63,307,800	128,825,000
Sep-68	52,900,600	0	53,059,600	53,059,600	105,960,200
Oct-68	55,196,600	0	54,332,200	54,332,200	109,528,800
Nov-68	54,087,200	0	49,790,000	49,790,000	103,877,200
Dec-68	57,911,400	0	45,925,500	45,925,500	103,836,900
Jan-69	40,211,300	0	60,295,000	60,295,000	100,506,300
Feb-69	7,672,800	0	92,786,800	92,786,800	100,459,600
Mar-69	0	0	109,179,100	109,179,100	109,179,100
Apr-69	33,821,600	0	66,855,800	66,855,800	100,677,400
May-69	75,397,400	0	62,234,700	62,234,700	137,632,100
Jun-69	76,256,700	0	60,801,800	60,801,800	137,058,500
Jul-69	75,382,400	0	60,193,600	60,193,600	135,576,000
Aug-69	112,538,900	0	94,424,400	94,424,400	206,963,300
Sep-69	38,083,800	0	107,332,400	107,332,400	145,416,200
Oct-69	52,383,900	0	55,225,000	55,225,000	107,608,900
Nov-69	54,434,600	0	51,766,500	51,766,500	106,201,100
Dec-69	63,394,400	0	42,435,800	42,435,800	105,830,200
Jan-70	68,885,400	0	43,562,700	43,562,700	112,448,100
Feb-70	70,402,800	0	43,438,100	43,438,100	113,840,900
Mar-70	72,916,800	0	45,461,400	45,461,400	118,378,200
Apr-70	50,804,600	0	61,220,400	61,220,400	112,025,000
May-70	60,595,400	0	64,467,800	64,467,800	125,063,200
Jun-70	101,186,800	0	75,061,400	75,061,400	176,248,200
Jul-70	78,468,700	0	121,268,900	121,268,900	199,737,600
Aug-70	0	0	197,505,100	197,505,100	197,505,100
Sep-70	23,942,800	0	108,685,200	108,685,200	132,628,000
Oct-70	59,548,200	0	64,646,800	64,646,800	124,195,000
Nov-70	67,380,100	0	49,326,500	49,326,500	116,706,600
Dec-70	74,114,900	0	44,719,200	44,719,200	118,834,100
Jan-71	80,401,200	0	43,581,400	43,581,400	123,982,600
Feb-71	72,999,700	0	35,950,800	35,950,800	108,950,500
Mar-71	67,941,500	0	55,334,700	55,334,700	123,276,200
Apr-71	43,789,300	0	72,294,000	72,294,000	116,083,300
May-71	75,236,800	0	69,260,000	69,260,000	144,496,800
Jun-71	79,832,900	0	62,554,000	62,554,000	142,386,900
Jul-71	79,096,000	0	78,986,000	78,986,000	158,082,000
Aug-71	126,525,600	0	107,427,900	107,427,900	233,953,500
Sep-71	71,554,400	0	58,887,100	58,887,100	130,441,500
Oct-71	72,540,000	0	56,528,200	56,528,200	129,068,200
Nov-71	66,922,600	0	54,629,200	54,629,200	121,551,800
Dec-71	70,936,400	0	51,675,400	51,675,400	122,611,800
Jan-72	77,979,300	0	50,023,100	50,023,100	128,002,400
Feb-72	73,162,200	0	47,853,100	47,853,100	121,015,300
Mar-72	58,842,800	0	71,544,000	71,544,000	130,386,800
Apr-72	41,338,300	0	81,417,500	81,417,500	122,755,800
May-72	79,199,000	0	64,102,100	64,102,100	143,301,100

	Minot City Water Production				
	River Water Pumped (gal)	Sundre Field Production (gal)	Minot Field Production (gal)	Total Water from Wells (gal)	Total City Water Production (gal)
Jun-72	49,332,000	0	104,820,000	104,820,000	154,152,000
Jul-72	79,204,800	0	92,474,600	92,474,600	171,679,400
Aug-72	65,807,300	0	94,001,200	94,001,200	159,808,500
Sep-72	27,823,200	0	111,016,800	111,016,800	138,840,000
Oct-72	63,014,000	0	68,759,400	68,759,400	131,773,400
Nov-72	69,621,200	0	53,527,300	53,527,300	123,148,500
Dec-72	72,456,600	0	52,329,700	52,329,700	124,786,300
Jan-73	73,951,600	0	48,897,100	48,897,100	122,848,700
Feb-73	67,795,200	0	44,864,000	44,864,000	112,659,200
Mar-73	67,489,400	0	56,635,600	56,635,600	124,125,000
Apr-73	59,912,800	0	72,462,500	72,462,500	132,375,300
May-73	67,281,500	0	96,118,000	96,118,000	163,399,500
Jun-73	54,709,900	0	120,445,000	120,445,000	175,154,900
Jul-73	40,168,400	0	146,291,000	146,291,000	186,459,400
Aug-73	48,006,600	0	119,942,000	119,942,000	167,948,600
Sep-73	38,970,700	0	82,882,000	82,882,000	121,852,700
Oct-73	29,418,300	0	97,071,000	97,071,000	126,489,300
Nov-73	28,009,000	0	91,778,000	91,778,000	119,787,000
Dec-73	29,396,000	0	92,260,000	92,260,000	121,656,000
Jan-74	29,786,400	0	95,993,000	95,993,000	125,779,400
Feb-74	29,082,300	0	87,531,000	87,531,000	116,613,300
Mar-74	57,053,000	0	74,187,000	74,187,000	131,240,000
Apr-74	63,957,000	0	70,922,000	70,922,000	134,879,000
May-74	77,257,000	0	52,102,000	52,102,000	129,359,000
Jun-74	90,169,000	0	110,968,000	110,968,000	201,137,000
Jul-74	119,918,000	0	131,219,000	131,219,000	251,137,000
Aug-74	88,964,000	0	86,598,000	86,598,000	175,562,000
Sep-74	53,632,000	0	84,734,000	84,734,000	138,366,000
Oct-74	66,875,000	0	78,318,000	78,318,000	145,193,000
Nov-74	76,889,000	0	54,681,000	54,681,000	131,570,000
Dec-74	79,792,000	0	51,789,000	51,789,000	131,581,000
Jan-75	85,642,000	0	54,652,000	54,652,000	140,294,000
Feb-75	57,943,000	0	64,883,000	64,883,000	122,826,000
Mar-75	51,446,000	0	81,247,000	81,247,000	132,693,000
Apr-75	57,273,000	0	77,488,000	77,488,000	134,761,000
May-75	93,526,000	0	63,799,000	63,799,000	157,325,000
Jun-75	103,599,000	0	67,648,000	67,648,000	171,247,000
Jul-75	87,746,000	0	152,777,000	152,777,000	240,523,000
Aug-75	42,232,000	0	127,728,000	127,728,000	169,960,000
Sep-75	57,930,000	0	92,107,000	92,107,000	150,037,000
Oct-75	62,783,000	0	81,728,000	81,728,000	144,511,000
Nov-75	62,626,000	0	75,561,000	75,561,000	138,187,000
Dec-75	60,384,000	0	81,038,000	81,038,000	141,422,000
Jan-76	72,895,000	0	69,253,000	69,253,000	142,148,000
Feb-76	70,992,000	0	66,132,000	66,132,000	137,124,000
Mar-76	61,098,000	0	85,800,000	85,800,000	146,898,000
Apr-76	37,460,000	0	108,041,000	108,041,000	145,501,000
May-76	106,584,000	0	113,132,000	113,132,000	219,716,000
Jun-76	74,271,000	0	102,804,000	102,804,000	177,075,000
Jul-76	123,519,000	0	153,059,000	153,059,000	276,578,000
Aug-76	89,129,000	0	150,546,000	150,546,000	239,675,000
Sep-76	61,550,000	0	127,651,000	127,651,000	189,201,000
Oct-76	42,200,000	0	114,722,000	114,722,000	156,922,000

	Minot City Water Production				
	River Water Pumped (gal)	**Sundre Field Production (gal)**	**Minot Field Production (gal)**	**Total Water from Wells (gal)**	**Total City Water Production (gal)**
Nov-76	58,215,000	0	90,052,000	90,052,000	148,267,000
Dec-76	75,648,000	0	78,915,000	78,915,000	154,563,000
Jan-77	83,442,000	0	75,940,000	75,940,000	159,382,000
Feb-77	73,067,000	0	64,019,000	64,019,000	137,086,000
Mar-77	80,147,000	28,590,000	41,402,000	69,992,000	150,139,000
Apr-77	116,348,000	0	96,739,000	96,739,000	213,087,000
May-77	123,483,000	0	92,701,000	92,701,000	216,184,000
Jun-77	117,024,000	8,159,000	84,927,000	93,086,000	210,110,000
Jul-77	81,795,000	101,469,000	83,697,000	185,166,000	266,961,000
Aug-77	28,303,000	121,050,000	52,941,000	173,991,000	202,294,000
Sep-77	9,798,000	80,057,000	47,874,000	127,931,000	137,729,000
Oct-77	25,872,000	82,683,000	33,992,000	116,675,000	142,547,000
Nov-77	24,814,000	76,500,000	34,439,000	110,939,000	135,753,000
Dec-77	23,134,000	73,451,000	43,978,000	117,429,000	140,563,000
Jan-78	21,370,000	78,810,000	41,035,000	119,845,000	141,215,000
Feb-78	9,613,000	68,335,000	43,956,000	112,291,000	121,904,000
Mar-78	13,766,000	78,817,000	46,966,000	125,783,000	139,549,000
Apr-78	26,743,000	72,196,000	36,005,000	108,201,000	134,944,000
May-78	33,107,000	95,976,000	56,713,000	152,689,000	185,796,000
Jun-78	31,693,000	95,871,000	59,236,000	155,107,000	186,800,000
Jul-78	36,361,000	100,440,000	61,932,000	162,372,000	198,733,000
Aug-78	54,312,000	117,924,000	96,119,000	214,043,000	268,355,000
Sep-78	39,426,000	64,914,000	61,931,000	126,845,000	166,271,000
Oct-78	36,143,000	74,028,000	35,400,000	109,428,000	145,571,000
Nov-78	32,998,000	65,130,000	33,800,000	98,930,000	131,928,000
Dec-78	34,576,000	62,000,000	36,406,000	98,406,000	132,982,000
Jan-79	35,617,000	64,497,000	36,699,000	101,196,000	136,813,000
Feb-79	31,360,000	54,079,000	38,940,000	93,019,000	124,379,000
Mar-79	43,954,000	51,027,000	41,050,000	92,077,000	136,031,000
Apr-79	40,015,000	57,472,000	29,759,000	87,231,000	127,246,000
May-79	39,200,000	63,801,000	34,251,000	98,052,000	137,252,000
Jun-79	45,230,000	92,043,000	47,824,000	139,867,000	185,097,000
Jul-79	47,408,000	56,246,000	119,686,000	175,932,000	223,340,000
Aug-79	13,216,000	111,410,000	86,092,000	197,502,000	210,718,000
Sep-79	15,876,000	91,621,000	56,550,000	148,171,000	164,047,000
Oct-79	33,900,000	75,503,000	30,467,000	105,970,000	139,870,000
Nov-79	39,282,000	64,800,000	22,617,000	87,417,000	126,699,000
Dec-79	41,184,000	69,910,000	20,070,000	89,980,000	131,164,000
Jan-80	42,197,000	62,706,000	18,564,000	81,270,000	123,467,000
Feb-80	29,415,000	50,337,000	31,336,000	81,673,000	111,088,000
Mar-80	29,676,000	45,483,000	45,978,000	91,461,000	121,137,000
Apr-80	45,780,000	54,598,000	52,158,000	106,756,000	152,536,000
May-80	76,638,000	96,179,000	74,100,000	170,279,000	246,917,000
Jun-80	58,222,000	77,511,000	105,960,000	183,471,000	241,693,000
Jul-80	50,122,000	30,600,000	117,860,000	148,460,000	198,582,000
Aug-80	42,042,000	73,746	122,017,254	122,091,000	164,133,000
Sep-80	40,726,000	80,921,000	22,623,000	103,544,000	144,270,000
Oct-80	40,960,000	55,881,000	44,214,000	100,095,000	141,055,000
Nov-80	40,957,000	65,505,000	18,258,000	83,763,000	124,720,000
Dec-80	27,851,000	72,879,000	26,576,000	99,455,000	127,306,000
Jan-81	24,840,000	68,310,000	35,409,000	103,719,000	128,559,000
Feb-81	23,340,000	64,185,000	33,180,000	97,365,000	120,705,000
Mar-81	28,737,000	67,485,000	41,958,000	109,443,000	138,180,000

	Minot City Water Production				
	River Water Pumped (gal)	Sundre Field Production (gal)	Minot Field Production (gal)	Total Water from Wells (gal)	Total City Water Production (gal)
Apr-81	36,933,000	79,530,000	48,786,000	128,316,000	165,249,000
May-81	41,784,000	87,120,000	66,966,000	154,086,000	195,870,000
Jun-81	34,728,000	71,775,000	56,259,000	128,034,000	162,762,000
Jul-81	44,630,000	104,181,000	70,071,000	174,252,000	218,882,000
Aug-81	50,442,000	87,822,000	91,995,000	179,817,000	230,259,000
Sep-81	21,810,000	92,664,000	61,920,000	154,584,000	176,394,000
Oct-81	2,925,000	80,580,000	53,820,000	134,400,000	137,325,000
Nov-81	27,630,000	70,584,000	38,094,000	108,678,000	136,308,000
Dec-81	30,420,000	79,560,000	35,055,000	114,615,000	145,035,000
Jan-82	30,420,000	79,560,000	35,559,000	115,119,000	145,539,000
Feb-82	29,250,000	76,500,000	31,386,000	107,886,000	137,136,000
Mar-82	35,382,000	78,546,000	33,426,000	111,972,000	147,354,000
Apr-82	56,231,000	23,868,000	87,261,000	111,129,000	167,360,000
May-82	59,484,000	47,874,000	68,079,000	115,953,000	175,437,000
Jun-82	62,040,000	66,552,000	62,568,000	129,120,000	191,160,000
Jul-82	67,056,000	76,200,000	67,272,000	143,472,000	210,528,000
Aug-82	61,575,000	80,987,000	62,659,000	143,646,000	205,221,000
Sep-82	63,096,000	77,436,000	56,859,000	134,295,000	197,391,000
Oct-82	51,150,000	58,125,000	38,155,000	96,280,000	147,430,000
Nov-82	51,548,000	58,500,000	34,503,000	93,003,000	144,551,000
Dec-82	51,612,000	58,650,000	34,698,000	93,348,000	144,960,000
Jan-83	52,404,000	59,550,000	36,153,000	95,703,000	148,107,000
Feb-83	46,992,000	54,000,000	33,336,000	87,336,000	134,328,000
Mar-83	35,544,000	63,828,000	46,128,000	109,956,000	145,500,000
Apr-83	48,966,000	61,884,000	32,346,000	94,230,000	143,196,000
May-83	54,480,000	73,548,000	42,936,000	116,484,000	170,964,000
Jun-83	70,800,000	96,768,000	61,671,000	158,439,000	229,239,000
Jul-83	71,520,000	101,916,000	64,029,000	165,945,000	237,465,000
Aug-83	75,000,000	124,305,000	83,889,000	208,194,000	283,194,000
Sep-83	53,280,000	94,572,000	43,881,000	138,453,000	191,733,000
Oct-83	48,000,000	85,200,000	38,220,000	123,420,000	171,420,000
Nov-83	20,592,000	85,413,000	53,853,000	139,266,000	159,858,000
Dec-83	41,796,000	72,291,000	52,902,000	125,193,000	166,989,000
Jan-84	42,552,000	63,180,000	61,182,000	124,362,000	166,914,000
Feb-84	28,626,000	57,252,000	64,959,000	122,211,000	150,837,000
Mar-84	30,966,000	61,932,000	70,269,000	132,201,000	163,167,000
Apr-84	44,514,000	62,088,000	49,088,000	111,176,000	155,690,000
May-84	82,120,000	80,226,000	41,400,000	121,626,000	203,746,000
Jun-84	71,863,000	88,727,000	51,520,000	140,247,000	212,110,000
Jul-84	41,919,000	158,193,000	133,552,000	291,745,000	333,664,000
Aug-84	88,746,000	149,353,000	75,087,000	224,440,000	313,186,000
Sep-84	74,461,000	65,708,000	44,904,000	110,612,000	185,073,000
Oct-84	81,063,000	32,142,000	54,052,000	86,194,000	167,257,000
Nov-84	73,373,000	13,100,000	64,823,000	77,923,000	151,296,000
Dec-84	49,778,000	20,564,000	89,231,000	109,795,000	159,573,000
Jan-85	37,830,000	50,658,000	70,200,000	120,858,000	158,688,000
Feb-85	30,477,000	47,190,000	67,993,000	115,183,000	145,660,000
Mar-85	38,636,000	60,088,000	65,138,000	125,226,000	163,862,000
Apr-85	43,123,000	50,128,000	61,865,000	111,993,000	155,116,000
May-85	63,043,000	74,570,000	76,521,000	151,091,000	214,134,000
Jun-85	59,113,000	76,577,000	65,810,000	142,387,000	201,500,000
Jul-85	74,202,000	119,230,000	97,440,000	216,670,000	290,872,000
Aug-85	56,805,000	91,121,000	38,639,000	129,760,000	186,565,000

	Minot City Water Production				
	River Water Pumped (gal)	Sundre Field Production (gal)	Minot Field Production (gal)	Total Water from Wells (gal)	Total City Water Production (gal)
Sep-85	79,142,000	66,950,000	11,290,000	78,240,000	157,382,000
Oct-85	83,251,000	0	89,838,000	89,838,000	173,089,000
Nov-85	83,367,000	10,810,000	66,554,000	77,364,000	160,731,000
Dec-85	34,115,000	56,300,000	64,770,000	121,070,000	155,185,000
Jan-86	68,683,000	47,540,000	49,462,000	97,002,000	165,685,000
Feb-86	74,455,000	32,605,000	42,805,000	75,410,000	149,865,000
Mar-86	32,157,000	50,670,000	78,035,000	128,705,000	160,862,000
Apr-86	45,136,000	50,167,000	54,310,000	104,477,000	149,613,000
May-86	76,746,000	72,680,000	52,771,000	125,451,000	202,197,000
Jun-86	83,622,000	117,740,000	84,585,000	202,325,000	285,947,000
Jul-86	80,186,000	120,601,000	19,894,000	140,495,000	220,681,000
Aug-86	55,304,000	86,030,000	118,843,000	204,873,000	260,177,000
Sep-86	44,873,000	101,430,000	24,494,000	125,924,000	170,797,000
Oct-86	82,565,000	57,300,000	31,370,000	88,670,000	171,235,000
Nov-86	83,347,000	10,180,000	66,554,000	76,734,000	160,081,000
Dec-86	34,125,000	65,300,000	64,770,000	130,070,000	164,195,000
Jan-87	67,653,000	43,650,000	49,462,000	93,112,000	160,765,000
Feb-87	95,583,000	30,840,000	24,643,000	55,483,000	151,066,000
Mar-87	32,157,000	50,670,000	78,035,000	128,705,000	160,862,000
Apr-87	84,348,000	9,954,000	100,091,000	110,045,000	194,393,000
May-87	91,686,000	111,760,000	45,681,000	157,441,000	249,127,000
Jun-87	70,811,000	133,120,000	100,769,000	233,889,000	304,700,000
Jul-87	59,311,000	122,680,000	44,228,000	166,908,000	226,219,000
Aug-87	57,301,000	114,220,000	31,724,000	145,944,000	203,245,000
Sep-87	90,228,000	91,210,000	6,390,000	97,600,000	187,828,000
Oct-87	96,473,000	59,250,000	9,530,000	68,780,000	165,253,000
Nov-87	98,881,000	16,430,000	45,550,000	61,980,000	160,861,000
Dec-87	34,125,000	65,300,000	64,770,000	130,070,000	164,195,000
Jan-88	13,744,000	34,260,000	132,854,000	167,114,000	180,858,000
Feb-88	95,583,000	30,840,000	24,643,000	55,483,000	151,066,000
Mar-88	32,157,000	50,670,000	78,035,000	128,705,000	160,862,000
Apr-88	84,348,000	9,954,000	100,091,000	110,045,000	194,393,000
May-88	40,165,000	85,896,000	141,967,000	227,863,000	268,028,000
Jun-88	39,463,000	159,864,000	11,485,000	171,349,000	210,812,000
Jul-88	83,440,000	142,884,000	2,367,000	145,251,000	228,691,000
Aug-88	8,636,000	233,119,000	44,388,000	277,507,000	286,143,000
Sep-88	0	32,286,000	181,597,000	213,883,000	213,883,000
Oct-88	0	0	169,147,000	169,147,000	169,147,000
Nov-88	0	69,834,000	81,062,000	150,896,000	150,896,000
Dec-88	0	112,836,000	44,305,000	157,141,000	157,141,000
Jan-89	19,011,000	106,722,000	31,092,000	137,814,000	156,825,000
Feb-89	2,035,000	98,667,000	46,358,000	145,025,000	147,060,000
Mar-89	28,132,000	86,026,000	40,997,000	127,023,000	155,155,000
Apr-89	88,411,000	27,795,000	49,950,000	77,745,000	166,156,000
May-89	168,918,000	8,022,000	73,578,000	81,600,000	250,518,000
Jun-89	150,784,000	41,642,000	75,461,000	117,103,000	267,887,000
Jul-89	8,636,000	233,119,000	44,388,000	277,507,000	286,143,000
Aug-89	8,360,000	165,364,000	140,721,000	306,085,000	314,445,000
Sep-89	919,000	76,432,000	120,492,000	196,924,000	197,843,000
Oct-89	841,000	123,050,000	71,562,000	194,612,000	195,453,000
Nov-89	852,000	144,377,000	17,299,000	161,676,000	162,528,000
Dec-89	34,125,000	65,300,000	64,770,000	130,070,000	164,195,000
Jan-90	2,438,000	0	161,966,000	161,966,000	164,404,000

	Minot City Water Production				
	River Water Pumped (gal)	Sundre Field Production (gal)	Minot Field Production (gal)	Total Water from Wells (gal)	Total City Water Production (gal)
Feb-90	1,112,000	0	145,454,000	145,454,000	146,566,000
Mar-90	1,105,000	62,244,000	102,348,000	164,592,000	165,697,000
Apr-90	1,277,000	112,038,000	43,978,000	156,016,000	157,293,000
May-90	88,840,000	125,400,000	2,815,000	128,215,000	217,055,000
Jun-90	39,463,000	159,864,000	11,485,000	171,349,000	210,812,000
Jul-90	83,440,000	142,884,000	2,367,000	145,251,000	228,691,000
Aug-90	8,636,000	233,119,000	44,388,000	277,507,000	286,143,000
Sep-90	855,000	203,729,000	4,150,000	207,879,000	208,734,000
Oct-90	841,000	173,335,000	0	173,335,000	174,176,000
Nov-90	1,012,000	65,254,000	82,682,000	147,936,000	148,948,000
Dec-90	1,113,000	0	145,800,000	145,800,000	146,913,000
Jan-91	2,172,000	159,090,000	0	159,090,000	161,262,000
Feb-91	1,217,000	0	129,908,000	129,908,000	131,125,000
Mar-91	1,492,000	16,920,000	130,942,000	147,862,000	149,354,000
Apr-91	1,105,000	62,244,000	102,348,000	164,592,000	165,697,000
May-91	2,921,000	185,064,000	4,566,000	189,630,000	192,551,000
Jun-91	979,000	177,662,000	16,670,000	194,332,000	195,311,000
Jul-91	12,110,000	184,037,000	63,960,000	247,997,000	260,107,000
Aug-91	1,942,000	194,705,000	647,000	195,352,000	197,294,000
Sep-91	11,402,000	124,958,000	61,418,000	186,376,000	197,778,000
Oct-91	1,003,000	166,452,000	0	166,452,000	167,455,000
Nov-91	1,051,000	154,770,000	0	154,770,000	155,821,000
Dec-91	10,176,000	65,016,000	56,660,000	121,676,000	131,852,000
Jan-92	2,172,000	159,090,000	0	159,090,000	161,262,000
Feb-92	1,554,000	144,368,000	4,882,000	149,250,000	150,804,000
Mar-92	1,587,000	93,136,000	53,403,000	146,539,000	148,126,000
Apr-92	1,277,000	112,038,000	43,978,000	156,016,000	157,293,000
May-92	966,000	168,866,000	63,860,000	232,726,000	233,692,000
Jun-92	927,000	190,241,000	74,018,000	264,259,000	265,186,000
Jul-92	932,000	184,321,000	27,392,000	211,713,000	212,645,000
Aug-92	1,068,000	176,866,000	92,980,000	269,846,000	270,914,000
Sep-92	2,449,000	152,946,000	39,900,000	192,846,000	195,295,000
Oct-92	953,000	172,488,000	5,900,000	178,388,000	179,341,000
Nov-92	1,647,000	121,312,000	23,520,000	144,832,000	146,479,000
Dec-92	3,173,000	44,944,000	97,857,000	142,801,000	145,974,000
Jan-93	19,011,000	106,722,000	31,092,000	137,814,000	156,825,000
Feb-93	2,361,000	41,964,000	83,855,000	125,819,000	128,180,000
Mar-93	1,712,000	86,909,000	58,395,000	145,304,000	147,016,000
Apr-93	1,105,000	62,244,000	102,348,000	164,592,000	165,697,000
May-93	1,277,000	112,038,000	43,978,000	156,016,000	157,293,000
Jun-93	4,922,000	145,770,000	35,537,000	181,307,000	186,229,000
Jul-93	5,695,000	53,942,000	102,482,000	156,424,000	162,119,000
Aug-93	67,630,000	0	128,547,000	128,547,000	196,177,000
Sep-93	32,126,000	57,141,000	77,995,000	135,136,000	167,262,000
Oct-93	16,242,000	71,816,000	71,675,000	143,491,000	159,733,000
Nov-93	1,647,000	121,312,000	23,520,000	144,832,000	146,479,000
Dec-93	0	103,182,000	33,266,000	136,448,000	136,448,000
Jan-94	0	91,814,000	48,245,000	140,059,000	140,059,000
Feb-94	0	91,491,000	35,712,000	127,203,000	127,203,000
Mar-94	8,608,000	99,815,000	33,168,000	132,983,000	141,591,000
Apr-94	1,277,000	112,038,000	43,978,000	156,016,000	157,293,000
May-94	77,099,000	85,275,000	46,125,000	131,400,000	208,499,000
Jun-94	46,473,000	83,736,000	36,099,000	119,835,000	166,308,000

	Minot City Water Production				
	River Water Pumped (gal)	Sundre Field Production (gal)	Minot Field Production (gal)	Total Water from Wells (gal)	Total City Water Production (gal)
Jul-94	0	179,366,000	57,015,000	236,381,000	236,381,000
Aug-94	0	183,304,000	92,884,000	276,188,000	276,188,000
Sep-94	0	146,153,000	44,306,000	190,459,000	190,459,000
Oct-94	0	131,889,000	24,000,000	155,889,000	155,889,000
Nov-94	0	113,796,000	21,645,000	135,441,000	135,441,000
Dec-94	0	58,153,000	71,048,000	129,201,000	129,201,000
Jan-95	0	58,560,000	78,627,000	137,187,000	137,187,000
Feb-95	0	73,969,000	54,212,000	128,181,000	128,181,000
Mar-95	0	43,127,000	78,150,000	121,277,000	121,277,000
Apr-95	0	77,724,000	66,879,000	144,603,000	144,603,000
May-95	0	131,865,000	68,711,000	200,576,000	200,576,000
Jun-95	0	148,373,000	76,999,000	225,372,000	225,372,000
Jul-95	0	179,366,000	57,015,000	236,381,000	236,381,000
Aug-95	0	183,304,000	92,884,000	276,188,000	276,188,000
Sep-95	0	173,449,000	14,154,000	187,603,000	187,603,000
Oct-95	0	146,774,000	18,074,000	164,848,000	164,848,000
Nov-95	0	113,796,000	21,645,000	135,441,000	135,441,000
Dec-95	0	58,153,000	71,048,000	129,201,000	129,201,000
Jan-96	0	58,560,000	78,627,000	137,187,000	137,187,000
Feb-96	0	52,826,000	71,801,000	124,627,000	124,627,000
Mar-96	0	46,127,000	71,150,000	117,277,000	117,277,000
Apr-96	0	93,899,000	65,365,000	159,264,000	159,264,000
May-96	0	130,770,000	64,711,000	195,481,000	195,481,000
Jun-96	0	179,891,000	90,789,000	270,680,000	270,680,000
Jul-96	0	194,975,000	62,720,000	257,695,000	257,695,000
Aug-96	12,142,000	171,069,000	69,116,000	240,185,000	252,327,000
Sep-96	17,963,000	84,036,000	70,183,000	154,219,000	172,182,000
Oct-96	0	70,318,000	78,403,000	148,721,000	148,721,000
Nov-96	0	102,827,000	36,420,000	139,247,000	139,247,000
Dec-96	10,176,000	65,016,000	56,660,000	121,676,000	131,852,000
Jan-97	19,101,000	61,594,000	70,334,000	131,928,000	151,029,000
Feb-97	20,850,000	63,298,000	60,144,000	123,442,000	144,292,000
Mar-97	32,738,000	75,271,000	53,564,000	128,835,000	161,573,000
Apr-97	45,740,000	58,641,000	39,623,000	98,264,000	144,004,000
May-97	86,566,000	52,588,000	70,209,000	122,797,000	209,363,000
Jun-97	86,706,000	145,254,000	53,155,000	198,409,000	285,115,000
Jul-97	38,761,000	153,380,000	66,589,000	219,969,000	258,730,000
Aug-97	10,969,000	160,718,000	116,654,000	277,372,000	288,341,000
Sep-97	11,402,000	124,958,000	61,418,000	186,376,000	197,778,000
Oct-97	7,202,000	98,656,000	54,531,000	153,187,000	160,389,000
Nov-97	5,611,000	62,317,000	82,122,000	144,439,000	150,050,000
Dec-97	10,176,000	65,016,000	56,660,000	121,676,000	131,852,000

VITA /

Bradley Brittain

Candidate for the Degree of

Master of Science

Thesis: GROUND WATER DRAWDOWN TRENDS AND MODEL POST AUDIT FOR THE SUNDRE AND MINOT/LOWER SOURIS AQUIFERS, NORTH DAKOTA

Major Field: Geology

Biographical:

Personal Data: Born in Mooreland, Oklahoma, on September 29, 1974, the son of Larry and Francine Brittain.

Education: Graduated from Mustang High School, Mustang, Oklahoma in May 1992; received Bachelor of Science degree in Geology from Oklahoma State University, Stillwater, Oklahoma in December 1998. Completed the requirements for the Master of Science degree with a major in Geology at Oklahoma State University in December 2004.

Experience:

Research and Teaching Assistant, Department of Geology, Oklahoma State University, August 1999 to May 2001.

Hydrogeologist, The Phoenix Group, Oklahoma City, Oklahoma, April 2001-March 2002

Hydrogeologist, Enercon Services, Oklahoma City, Oklahoma, March 2002-Present

Professional Memberships: Oklahoma Ground Water Association