NORTH DAKOTA GEOLOGICAL SURVEY
WILSON M. LAIRD, *State Geologist*

BULLETIN 44

NORTH DAKOTA STATE
WATER CONSERVATION COMMISSION
MILO W. HOISVEEN, *State Engineer*

COUNTY GROUND WATER STUDIES 5

GEOLOGY AND GROUND WATER RESOURCES

of Eddy and Foster Counties, North Dakota

PART II — GROUND WATER BASIC DATA

by

HENRY TRAPP, JR.

GEOLOGICAL SURVEY
United States Department of the Interior

Prepared by the United States Geological Survey in cooperation with the North Dakota State Water Commission, North Dakota Geological Survey, and the Boards of Commissioners of Eddy and Foster Counties.

GRAND FORKS, NORTH DAKOTA

1966

NORTH DAKOTA GEOLOGICAL SURVEY

WILSON M. LAIRD, *State Geologist*

BULLETIN 44

NORTH DAKOTA STATE
WATER CONSERVATION COMMISSION

MILO W. HOISVEEN, *State Engineer*

COUNTY GROUND WATER STUDIES 5

GEOLOGY AND GROUND WATER RESOURCES

of Eddy and Foster Counties, North Dakota

PART II — GROUND WATER BASIC DATA

by

HENRY TRAPP, JR.

GEOLOGICAL SURVEY
United States Department of the Interior

Prepared by the United States Geological Survey in cooperation with the North Dakota State Water Commission, North Dakota Geological Survey, and the Boards of Commissioners of Eddy and Foster Counties.

GRAND FORKS, NORTH DAKOTA

1966

This is one of a series of county reports published cooperatively by the North Dakota Geological Survey and the North Dakota State Water Conservation Commission. The reports are in three parts; Part I describes the geology, Part II presents ground water basic data, and Part III describes the ground water resources. Part III will be published later and will be distributed as soon as possible.

CONTENTS

ILLUSTRATIONS

TABLES

GEOLOGY AND GROUND WATER RESOURCES OF EDDY AND FOSTER COUNTIES, NORTH DAKOTA
PART II - GROUND WATER BASIC DATA

By

Henry Trapp, Jr.

INTRODUCTION

Purpose and Scope

The purposes of the investigation of the geology and ground-water resources of Eddy and Foster Counties, North Dakota were to determine the location and extent of the ground-water reservoirs (aquifers); to determine the occurrence and movement of ground water, including the sources of recharge and discharge; and to determine the chemical quality of the ground water. The investigation should provide sufficient information about the occurrence of ground water to plan its safe and intelligent development for irrigation, domestic, industrial, and municipal purposes (fig. 1).

The investigation was made cooperatively by the U.S. Geological Survey, North Dakota State Water Commission, North Dakota Geological Survey, and the Commissioners of Eddy and Foster Counties. The results of the investigation will be published in three separate parts of the bulletin series of the North Dakota Geological Survey and the county ground-water studies series of the North Dakota State Water Commission. Part I is an interpretive report describing the geology, Part II is a compilation of the ground-water basic data, and Part III is an interpretive report describing the ground-water resources. Part II makes available data collected during the investigation and functions as a reference for Parts I and III.

The information in this report was collected chiefly between 1962 and 1965 and consists of the following: (1) data on about 2,000 wells, springs, and test holes; (2) water-level measurements in 100 observation wells; (3) logs of about 193 test holes and selected wells; and (4) chemical analyses of 130 water samples.

The data in this report are useful for predicting geologic and ground-water conditions in Eddy and Foster Counties. For example, a person considering the construction of a new well can locate the proposed site on figure 3. The characteristics of nearby wells may be determined from table 1 and the water-level fluctuation in the area may be determined from table 2. The type of material encountered in nearby wells may be determined from table 3, and the chemical quality of water in adjacent wells may be determined from table 4. Extrapolations based on these data should be conservative because of the irregular distribution of the water-bearing rocks.

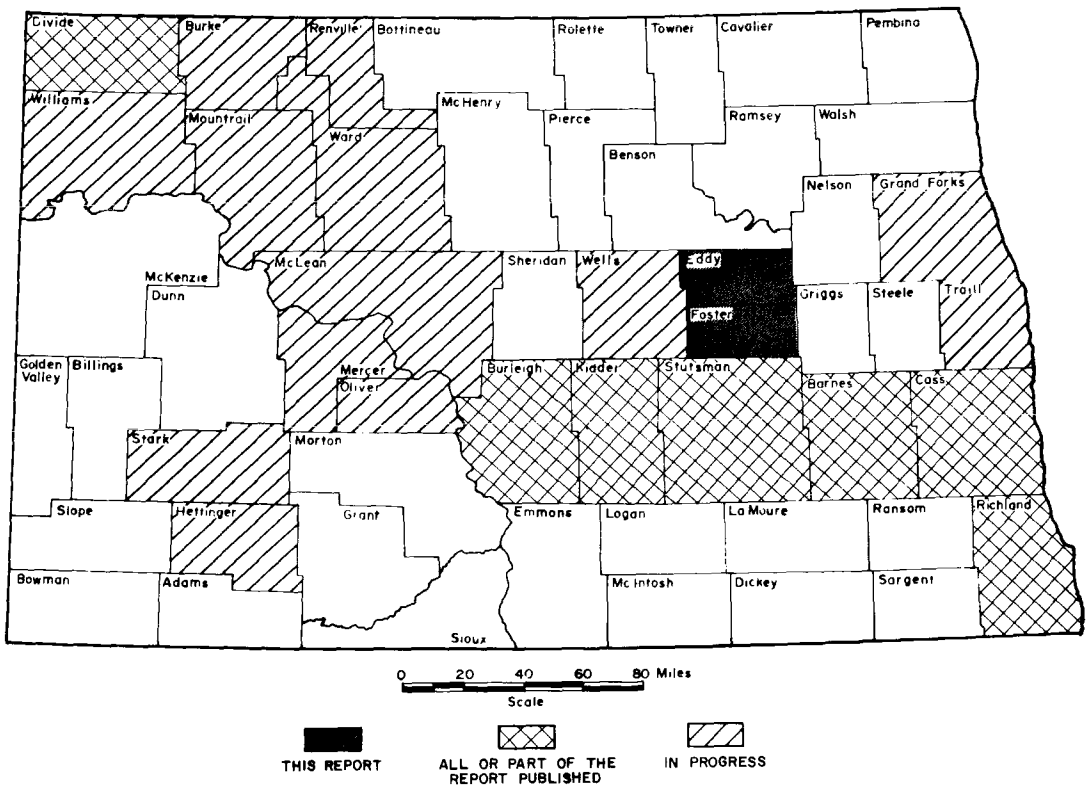


Figure 1.—County ground-water studies in North Dakota.

Well-Numbering System

The wells, springs, and test holes in the tables are numbered according to a system based on the location in the public land classification of the United States Bureau of Land Management. It is illustrated in figure 2. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principal meridian, and the third numeral denotes the section in which the well is located. The letters a, b, c, and d designate, respectively, the northeast, northwest, southwest, and southeast quarter sections, quarter-quarter sections, and quarter-quarter-quarter sections (10-acre tract). For example, well 147-62-15aad is in the SE¼NE¼NE¼ sec. 15, T. 147 N., R. 62 W. Consecutive terminal numerals are added if more than one well is recorded within a 10-acre tract. The location of each well, spring, and test hole listed in the tables is shown on figure 3 (in pocket).

Acknowledgments

Thanks are due to the county commissioners, township assessors, and the people of Eddy and Foster Counties for their cooperation in the collection of these data. The geologic logs were compiled principally by R. W. Schmid, L. L. Froelich, and Alain Kahil of the North Dakota State Water Commission. The author is especially grateful to the U.S. Bureau of Reclamation, Great Northern Railway, Schnell Inc., and other drillers who supplied logs and information for this report.

Information from the Sheyenne study (Froelich, 1964) and from parts of the Devils Lake study (Paulson and Akin, 1964) has been incorporated into this report. Previously unpublished logs of test holes drilled in past years by the U.S. Geological Survey and the North Dakota State Water Commission also have been included.

The early stages of the investigation were under the direction of C. J. Huxel, Jr. of the U.S. Geological Survey.

EXPLANATION OF TABLES

The test holes listed in table 1 with numbers 2256 to 2308 and 3040 to 3074 were drilled as part of this investigation. Test holes with lower numbers, including those prefixed by "NR" or "B", were drilled as part of earlier unpublished studies. Test holes with numbers prefixed by "Sh" or "DL" have logs published in the Sheyenne (Froelich, 1964) or Devils Lake (Paulson and Akin, 1964) studies, respectively.

Observation wells were developed in selected test holes. These consist for the most part of 1¼-inch plastic pipe slotted in the lower 10 or 20 feet. Most of these were pumped for a few hours and a water sample was collected for chemical analysis (table 4).

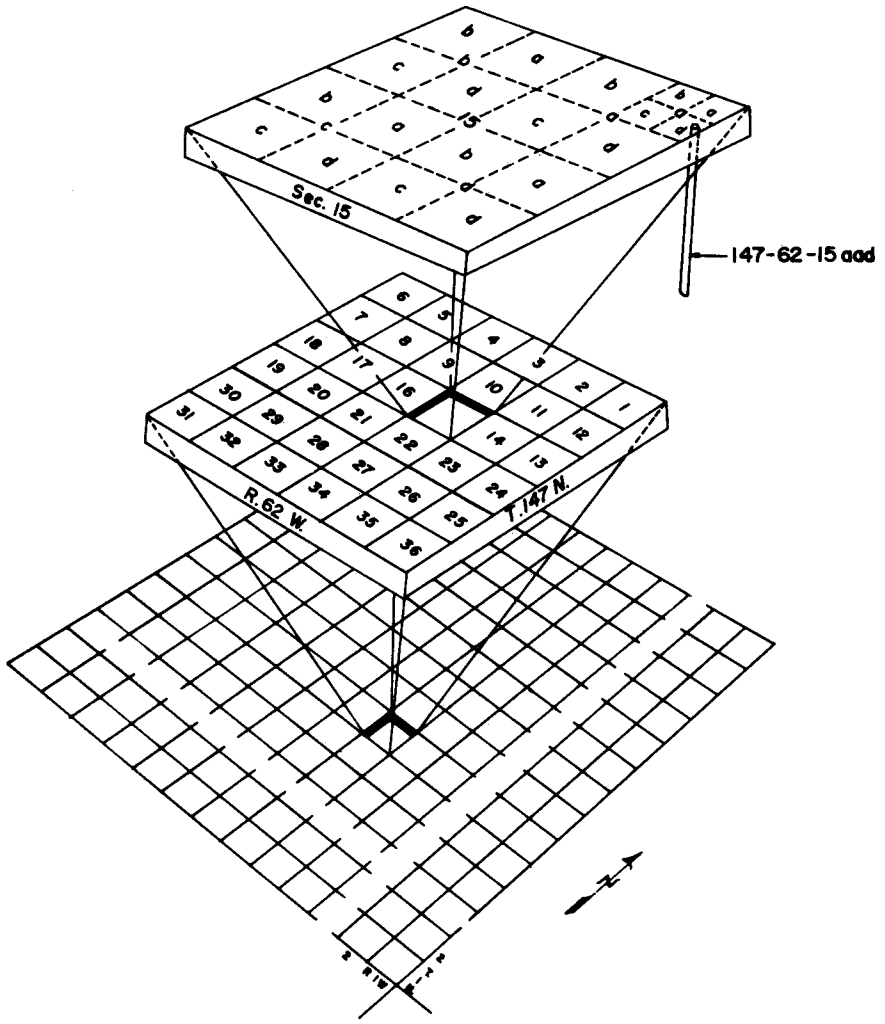


Figure 2.–System of numbering wells, springs, and test holes.

Water levels in observation wells were measured periodically beginning in the summer of 1963. During most of 1964 and 1965, from 50 to 60 wells were measured each month. Of these, 23 were constructed from test holes. Four wells were equipped with continuous water-level recorders. Previously unpublished water-level data from U.S. Bureau of Reclamation observation wells, mostly dating from the 1950's, and references to published data on Federal observation wells going back to the mid-1930's are included in table 2 with water-level measurements made during this study. The locations of observation wells are shown on figure 3.

The well logs noted in table 1 but not listed in table 3 may be obtained from the U.S. Geological Survey, Bismarck, North Dakota, or from the North Dakota State Water Commission, Bismarck, North Dakota.

Sample description logs for all test holes drilled for this project were prepared at each test-hole site. Visual examination, while the samples were still wet and fresh, was made by using a binocular microscope. Color descriptions were determined by comparing the sample with the Geological Society of America rock-color chart (1963). If the cuttings reacted (effervesced) when treated with diluted hydrochloric acid, the material was described as calcareous. Grain-size determinations used in the logs refer to the Wentworth (1922) size scale. Plastic is a term generally applied to clay and indicates that the material may be molded into any form without fracturing. Cohesive is used to indicate the capacity of the material to stick together.

The term "till" indicates an unsorted, unstratified, cohesive, agglomeration of rock particles ranging from clay to boulders. Generally clay is the dominant particle size. If a particle size other than clay is present in appreciable amounts, that particle size is used as a modifying term. Consequently, terms such as silty, sandy, or gravelly are textural terms used to indicate that the material described contains an appreciable, but not a dominant amount of the modifying material.

The lithologic descriptions for U.S. Geological Survey and North Dakota State Water Commission test holes in table 3 are a composite from the driller's log, sample analysis log, and electric log (where available). The rest of the logs are from various sources, and are mostly driller's logs. They have been edited slightly, chiefly to prevent misunderstanding.

Most of the logs in table 3 are presented in graphic as well as verbal form; electric and gamma-ray logs are included where available. The electric logs represent the electrical properties of material penetrated in the test hole. They are of use in identifying the various lithologies penetrated in a hole, including location of permeable zones, and in locating the approximate position of the water table. Under favorable conditions, lithologic boundaries can be determined with precision. Using more intensive

logging techniques, quantitative values can be obtained for the porosity of aquifers and specific conductance of ground water.

Only a brief mention of electric logging principles can be made here. In general, the spontaneous-potential (left) curve is convex outward (to the left) opposite permeable zones, and approaches a vertical line close to the center through impermeable material. However, where the ground water in a permeable zone has a specific conductance lower than that of the drilling mud, the curve may move to the right instead (reversed SP). This condition is fairly common in the logs run for this project (see log 3, p. 110, from 75 to 100 feet); it can be recognized by the concave shape of the spontaneous-potential curve and by comparison with the sample description.

The resistivity curve (right side of log) generally shows a very high value at the surface, and moves inward at the water table. Below the water table, the curve moves outward opposite zones of relatively high effective porosity. At the top of the Pierre Shale bedrock, both the resistivity and the spontaneous-potential curves are deflected toward the center of the log and are relatively featureless below the contact as compared to the irregular traces logged through the overlying glacial drift.

Gamma-ray curves are included on a few of the logs. They show the natural radiation of the material penetrated, and are plotted on a scale with radioactivity increasing to the right. In general, clay and shale are more radioactive than clean sand and gravel; so the gamma-ray curve usually has a configuration similar to that of the spontaneous-potential curve.

WATER-QUALITY DATA

All natural waters contain dissolved mineral matter. Water in contact with soils or rock, even for only a few hours, will dissolve some mineral matter. The quantity of dissolved mineral matter in a natural water depends primarily on the type of rocks or soils with which the water has been in contact and the length of time of contact. Ground water is generally more highly mineralized than surface water because it remains in contact with the rocks and soils for much longer periods.

The mineral constituents and physical properties of natural waters reported in the table of analyses include those that have a practical bearing on the value of the waters for most purposes. The analyses generally include determinations of silica, iron, calcium, magnesium, sodium, potassium (or sodium and potassium together calculated as sodium), alkalinity as carbonate and bicarbonate, sulfate, chloride, fluoride, nitrate, boron, dissolved solids, pH, and specific conductance. The source and significance of the different constituents and properties of natural waters are discussed in the following paragraphs.

Mineral Constituents in Solution

Silica (SiO_2)

Silica is dissolved from practically all rocks. Some natural waters contain less than 5 ppm (parts per million) of silica and few contain more than 50 ppm, but the more common range is from 10 to 30 ppm. Silica affects the usefulness of a water because it contributes to the formation of scale in pipes, water heaters, and boilers.

Iron (Fe)

Iron is dissolved from many rocks and soils. On exposure to air, normal basic waters that contain more than 1 ppm of iron soon become turbid with the insoluble reddish ferric oxide produced by oxidation. Surface waters, therefore, seldom contain as much as 1 ppm of dissolved iron, although some acid waters carry large quantities of iron in solution. Ground waters commonly contain up to 10 ppm. Rarely, concentrations over 50 ppm may occur in waters with a pH of 5 to 8 (Hem, 1959). Iron causes reddish-brown stains on porcelain or enameled ware and fixtures and on fabrics washed in the water. The U.S. Public Health Service (1962) recommends an upper limit of 0.3 ppm of iron in drinking water.

Calcium (Ca)

Calcium is dissolved from almost all rocks and soils. Calcium and magnesium cause hard water and are largely responsible for the formation of scale in pipes, water heaters, and boilers. Water associated with granite or silicious sands may contain less than 10 ppm of calcium, whereas water associated with dolomite and limestone may contain from 30 to 100 ppm. Water that has been in contact with deposits of gypsum may contain several hundred parts per million of calcium.

Magnesium (Mg)

Magnesium is dissolved from many rocks, particularly from dolomitic rocks. Its effect in water is similar to that of calcium. The magnesium in soft waters may amount to only 1 or 2 ppm, but water in areas that contain large quantities of dolomite or other magnesium-bearing rocks may contain from 20 to 100 ppm or more of magnesium.

Sodium and potassium (Na and K)

Sodium and potassium are dissolved from practically all rocks. Sodium is the predominant cation in some of the more highly mineralized waters found in the western United States. Natural waters that contain only 3 or 4 ppm of the two together are likely to carry almost as much potassium as sodium. As the total quantity of these constituents increases, the proportion of sodium becomes much greater. However, the

potassium concentration in water does not often exceed 50 ppm. Moderate quantities of sodium and potassium have little effect on the usefulness of the water for most purposes, but waters that carry more than 50 or 100 ppm of the two may require careful operation of steam boilers to prevent foaming. More highly mineralized waters that contain a large proportion of sodium salts may be unsatisfactory for irrigation. The presence of several hundred parts per million of sodium in water makes it unsuitable for use in sodium-restricted diets used as therapy for cardiovacular diseases.

Bicarbonate and carbonate (HCO_3 and CO_3)

Bicarbonate and carbonate are sometimes reported as alkalinity. Since the major causes of alkalinity in most natural waters are carbonate and bicarbonate ions dissolved from carbonate rocks, the results are usually reported in terms of these constituents. Although alkalinity is primarily due to the presence of carbonate and bicarbonate, other ions also contribute to alkalinity such as silicates, phosphates, borates, possibly fluoride, and certain organic anions which may occur in colored waters. The significance of alkalinity to the domestic, agricultural, and industrial user usually is dependent upon the nature of the cations (Ca, Mg, Na, and K) associated with it. However, moderate amounts of alkalinity do not adversely affect most use.

Sulfate (SO_4)

Sulfate is dissolved from many rocks and soils--in especially large quantities from gypsum and from beds of shale. It is formed also by the oxidation of sulfides of iron and may therefore be present in considerable quantities in mine waters. The concentration of sulfate in waters is generally limited to about 1,500 ppm by the solubility of calcium sulfate. Sulfate in waters that contain much calcium and magnesium causes the formation of hard scale in steam boilers and may increase the cost of softening the water. The U.S. Public Health Service (1962) recommends that 250 ppm of sulfate should be the upper limit for drinking water.

Chloride (Cl)

Chlorides are generally very soluble compounds and are found in most rocks so that chlorides are found in all natural waters. Large quantities of chloride may affect the industrial use of water by increasing the corrosiveness of waters that contain large quantities of calcium and magnesium. The U.S. Public Health Service (1962) recommends an upper limit of 250 ppm of chloride for drinking water.

Fluoride (F)

Fluoride has been reported as being present in igneous and some sedimentary rocks to about the same extent as chloride. However, most fluorides, unlike the chlorides, are

low in solubility so that the quantity of fluoride in natural waters is ordinarily very small compared to that of chloride. Hem (1959) reported that fluoride concentrations in excess of 10 ppm are rare. Investigations have proved that fluoride concentrations of about 0.6 to 1.7 ppm reduced the incidence of dental caries and that concentrations greater than 1.7 ppm also protect the teeth from cavities but cause an undesirable black stain (Durfor and Becker, 1964). U.S. Public Health Service (1962, p. 8) states, "When fluoride is naturally present in drinking water, the concentration should not average more than the appropriate upper control limit (0.6 to 1.7 ppm). Presence of fluoride in average concentrations greater than two times the optimum values shall constitute grounds for rejection of the supply." Concentration higher than the stated limits may cause mottled enamel in teeth, endemic cumulative fluorosis, and skeletal effects.

Nitrate (NO_3)

Nitrate in water is considered a final oxidation product of nitrogeneous material and may indicate contamination by sewage or other organic matter. U.S. Public Health Service (1962) sets 45 ppm as the upper limit for nitrate because ingestion of water containing more than this may result in infantile methemoglobinemia. If the concentration is sufficiently great, both man and animals can be poisoned by nitrate.

Boron (B)

Boron in small quantities has been found essential for plant growth, but irrigation water containing more than 1 ppm boron is detrimental to navy beans and other boron-sensitive crops.

Dissolved solids

The reported quantity of dissolved solids--the residue on evaporation--consists mainly of the dissolved mineral constituents in the water. It also may contain some organic matter and water of crystallization. Waters with less than 500 ppm of dissolved solids usually are satisfactory for domestic and some industrial uses. Water containing several thousand parts per million of dissolved solids is sometimes successfully used for irrigation where practices permit the removal of soluble salts through the application of large volumes of water on well-drained lands, but generally water containing more than about 2,000 ppm is considered to be unsuitable for long-term irrigation under average conditions.

Properties and Characteristics of Water

Temperature

Temperature is an important factor in properly determining the quality of water. This is very evident for such a direct use as an industrial coolant. Temperature also is important, but perhaps not so evident, for its indirect influence upon concentrations

of dissolved gases and distribution of chemical solutes in ground water. Normally, the temperature of ground water within 60 feet of the surface approximates the mean annual air temperature and increases 1° F for each 60 to 100 feet increase with depth.

Hardness

Hardness is the characteristic of water that receives the most attention in industrial and domestic use. It is commonly recognized by the increased quantity of soap required to produce lather. The use of hard water also is objectionable because it contributes to the formation of scale in boilers, water heaters, radiators, and pipes, with the resultant decrease in rate of heat transfer, possibility of water heater or boiler failure, and loss of flow.

Hardness is caused almost entirely by compounds of calcium and magnesium. Other constituents--such as iron, manganese, aluminum, barium, strontium, and free acid--also cause hardness, although they usually are not present in quantities large enough to have any appreciable effect.

Generally, bicarbonate and carbonate determine the proportions of "carbonate" hardness of water. Carbonate hardness is the amount of hardness chemically equivalent to the amount of bicarbonate and carbonate in solution. Carbonate hardness is approximately equal to the amount of hardness that is removed from water by boiling and is termed temporary hardness.

Noncarbonate hardness is the difference between the hardness calculated from the total amount of calcium and magnesium in solution and the carbonate hardness. If the carbonate hardness (expressed as calcium carbonate) equals the amount of calcium and magnesium hardness (also expressed as calcium carbonate) there is no noncarbonate hardness. Noncarbonate hardness is about equal to the amount of hardness remaining after water is boiled. The scale formed at high temperatures by the evaporation of water containing noncarbonate hardness commonly is tough, heat resistant, and difficult to remove.

Although many people talk about soft water and hard water, there has been no firm line of demarcation. Water that seems hard to an easterner may seem soft to a westerner. In this report hardness of water is classified as follows:

Hardness range (calcium carbonate in ppm)	Hardness description
0-60	Soft
61-120	Moderately hard
121-180	Hard
more than 180	Very hard

For public use, water with hardness about 200 ppm generally requires softening treatment (Durfor and Becker, 1964).

Sodium-adsorption ratio (SAR)

The term "sodium-adsorption ratio (SAR)" was introduced by the U.S. Salinity Laboratory Staff (1954). It is a ratio expressing the relative activity of sodium ions in exchange reaction with soil and is an index of the sodium or alkali hazard to the soil. Sodium-adsorption ratio is expressed by the equation:

$$SAR = \frac{Na+}{\sqrt{\frac{Ca++ + Mg++}{2}}}$$

where the concentrations of the ions are expressed in milliequivalents per liter (or equivalents per million for most irrigation waters).

Waters are divided into four classes with respect to sodium or alkali hazard: low, medium, high, and very high, depending upon the SAR and specific conductance. At a conductance of 100 micromhos per centimeter the dividing points are at SAR values of 10, 18, and 26; but at 5,000 micromhos the corresponding dividing points are SAR values of approximately 2.5, 6.5, and 11. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Specific conductance (micromhos per centimeter at 25° C)

Specific conductance is a convenient, rapid determination used to estimate the amount of dissolved solids in water. It is a measure of the ability of water to conduct an electrical current. Commonly, the amount of dissolved solids (in parts per million) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from well to well and it may even vary in the same source with changes in the composition of the water (Durfor and Becker, 1964).

Specific conductance of most waters in the eastern United States is less than 1,000 micromhos, but in the arid western parts of the country, a specific conductance of more than 1,000 micromhos is common.

Hydrogen-ion concentration (pH)

Hydrogen-ion concentration is expressed in terms of pH units. The values of pH often are used as a measure of the solvent power of water or as an indicator of the chemical behavior certain solutions may have toward rock minerals.

The degree of acidity or alkalinity of water, as indicated by the hydrogen-ion concentration, expressed as pH, is related to the corrosive properties of water and is useful in determining the proper treatment for coagulation that may be necessary at water-treatment plants. A pH of 7.0 indicates that the water is neither acid nor

alkaline. Readings progressively lower than 7.0 denote increasing acidity and those progressively higher than 7.0 denote increasing alkalinity. The pH of most natural ground waters ranges between 5.5 and slightly more than 8.

SELECTED REFERENCES

Bluemle, J. P., 1965, Geology and ground water resources of Eddy and Foster Counties, North Dakota, Part I, Geology: North Dakota Geol. Survey Bull. 44 and North Dakota State Water Comm. County Ground Water Studies 5, 66 p.

Durfor, C. N., and Becker, Edith, 1964, Public water supplies of the 100 largest cities in the United States, 1962: U.S. Geol. Survey Water-Supply Paper 1812, 364 p.

Froelich, L. L., 1964, Ground-water survey of the Sheyenne area, Eddy County, North Dakota: North Dakota State Water Comm. Ground-Water Studies no. 60, 46 p.

Geological Society of America, 1963, Rock-color chart.

Hem, J. D., 1959, Study and interpretation of the chemical characteristics of natural water: U.S. Geol. Survey Water-Supply Paper 1473, 269 p.

Laird, W. M., 1941, Selected deep well records: North Dakota Geol. Survey Bull. 12, p. 18-21.

North Dakota Geological Survey, 1954-63, Well summaries: North Dakota Geol. Survey Circs. 22, 43, 45, 46, 89, 141, 180, and 263-271.

Paulson, Q. F., and Akin, P. D., 1964, Ground-water resources of the Devils Lake area, Benson, Ramsey, and Eddy Counties, North Dakota: North Dakota State Water Comm. Ground-Water Studies no. 56, 211 p.

U.S. Geological Survey, 1953, 1954a, 1955a, 1956a, 1957a, 1958, 1959a, 1960, 1961a, and 1962a, Surface water supply of the United States, Part 5, Hudson Bay and Upper Mississippi River Basins: U.S. Geol. Survey Water-Supply Papers 1208, 1238, 1278, 1338, 1388, 1438, 1508, 1558, 1628, and 1708.

U.S. Geological Survey, 1961b, 1962b, 1963, Surface-water records of North Dakota and South Dakota: Open-file reports.

U.S. Geological Survey, 1937-40, Water levels and artesian pressure in observation wells in the United States: U.S. Geol. Survey Water-Supply Papers 817, 840, 845, and 886.

U.S. Geological Survey, 1942-44, 1946-49, 1951a, 1951b, 1952a, 1952b, 1954b, 1954c, 1955b, 1956b, and 1957b, Water levels and artesian pressure in observation wells in the United States, Part 3, North-central states: U.S. Geol. Survey Water-Supply Papers 908, 938, 946, 988, 1018, 1025, 1073, 1098, 1128, 1158, 1167, 1193, 1223, 1267, 1323, and 1406.

U.S. Public Health Service, 1962, Drinking water standards: Public Health Service Pub. 956, 61 p.

U.S. Salinity Laboratory Staff, 1954, Diagnosis and improvement of saline, and alkaline soils: U.S. Dept. of Agriculture, Agriculture Handb. no. 60, 160 p.

Wentworth, C. K., 1922, A scale of grade and class terms for clastic sediments: Jour. of Geol., v. 30, p. 377-392.

TABLE 1.--Records of wells, springs, and test holes

Explanation

Except where qualified under column 15 (Remarks), the wells and springs listed below are considered by their users to be adequate for the purpose specified under column 9 (Use). As used here, domestic ordinarily means that the well supplies all the water needs for one single-family rural household; stock means that the well supplies up to 50 head of cattle or 300 sheep. Exceptions and substantially larger domestic or stock use are indicated under column 15.

Also, except where qualified under column 15, users consider the water from the wells and springs listed to be satisfactory in taste and mineral content. However, almost all the water exceeds 60 parts per million in hardness; water from glacial drift aquifers commonly exceeds 180 parts per million. Thus, the reported hardness is recorded in column 15 only where it appears to differ significantly from the average hardness of waters in the area.

Abbreviations and Symbols

Column 2, (Owner or name): B, Brantford (unpublished study); DL, Devils Lake report (Paulson, Q. F., and Akin, P. D., 1964); NR, New Rockford (unpublished study); Sh, Sheyenne report (Froelich, L. L., 1964); USBR, U.S. Bureau of Reclamation.

Column 5, (Type): B, bored; Dr, drilled; Du, dug; Dv, driven; Sp, spring.

Column 9, (Use): D, domestic; I, irrigation; O, observation; Oil, oil test; PS, public supply; S, stock, Sc, school; T, test hole; U, unused.

Column 10, (Aquifer): Gv, gravel; Sd, sand; Sh, shale; Ss, sandstone; Tl, till.

Column 11, (Geologic unit): Kd, Dakota Sandstone, Kp, Pierre Shale; Qal, alluvium; Qg, glacial drift, undifferentiated; Qob, outwash or other glaciofluvial deposits, buried; Qos, outwash or other glaciofluvial deposits, surficial.

Column 12, (Bedrock elevation): 1,500, top of bedrock 1,500 feet above sea level; 1,500+, top of bedrock more than 1,500 feet above sea level; 1,500-, top of bedrock less than 1,500 feet above sea level; 1,500e, estimated, approximate, or reported top of bedrock 1,500 feet above sea level.

Column 15, (Remarks): C, chemical analysis; Cd, cased depth; Dd, drawdown; DL, Devils Lake report (Paulson, Q. F., and Akin, P. D., 1964), reference to log or chemical analysis in this report; Ds, dry seasonally, or in periods of drought; F, flow; Fe, water reported to contain iron; Fo, formerly, as FoDS, formerly for domestic use and stock watering; gpm, gallons per minute; L, log; P, pumps or pumped; Pdo pumps dry occasionally, but generally considered adequate by owner for intended use; Ri, reported inadequate; Rs, water reported to be relatively soft; Sdu, sands up or sanded up; Sh, Sheyenne report (Froelich, L. L., 1964), reference to log or chemical analysis in this report; T, temperature, degrees Fahrenheit; Tm, water reported to have mineral taste; Tsa, water reported to have salty taste; Vh, water reported very hard; W, water.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
Foster County														
145-62														
2bdc	Minnie LaMotte	45	36	Du	1925	35	5- 1-63	D,S	Tl	Qg	1,455-	1,500	4,250	T = 45°, Vh
2ccb	M. J. Anderson	85	4	Dr	....	32.1	5- 1-63	U	..	Qg	1,417-	1,502	.....	
3aad	M. Walen	95	5	Dr	1949	20	5- 7-63	D	Gv	Qg	1,405-	1,500	2,140	T = 45°
5cdc	G. Erickson	52	4	Dr	1952	42	4-26-63	U	Sd	Qg	1,448-	1,500	.....	
6dad	C. Pramhuis	52.5	..	Dr	....	25.8	4-26-63	U	..	Qg	.....	1,500	.....	
7ccb1	R. Kramer	24	18	B	1918	14	4-26-63	D	Tl	Qg	.....	1,515	.....	Pdo
7ccb2	do.	30	18	B	1918	22.4	4-26-63	S	Tl	Qg	1,480-	1,510	.....	
10ba	R. Johnson	102	5	Dr	....	50	4- 3-63	U	..	Qg(?)	.....	1,500	.....	FoS
12abb	S. Kirkaby	75	6	Dr	....	30	5- 1-63	U	..	Qg(?)	.....	1,495	.....	Rs
12ccd	M. Walen	11.3	36	Du	....	10.7	5- 1-63	U	..	Qg(?)	.....	1,485	.....	
14aba	S. Olson	130	4	Dr	1909	23	5- 1-63	U	Gv	Qg	1,370-	1,500	.....	FoDS
15ddb1	A. E. Anderson	60	36	Du-B	1900	30	5- 1-63	S	..	Qg	.....	1,490	.....	P dry
15ddb2	do.	70	36	B	1931	40	5- 1-63	U	Sd	Qg	.....	1,490	.....	FoS
15ddb3	do.	137	6	Dr	....	40	5- 1-63	D	Sd	Qg	1,363-	1,500	1,170	T = 44°
16ccc	V. Hoggarth	150	4	Dr	1954	..	4-26-63	D	Sd	Qg	1,360-	1,510	.....	Rs
18cbd	H. Hockert	23.0	24	Du	1914	15.8	4-26-63	D	..	Qg	.....	1,510	.....	FoS, Ri, have other well.
19ccc	R. Lipetzky	38	42	Du	1914	8	4- 9-62	D,S	..	Qg	.....	1,510	.....	
20cbd	G. Lampert, Jr.	154	4	Dr	....	130	4-26-63	D,S	..	Qg(?)	.....	1,537	.....	Rs
20daa1	V. Hoggarth	30	72	Du	1902	15	4-26-63	S	Sd,Gv	Qg	.....	1,515	.....	
20daa2	do.	180	4	Dr	1955	90	4-26-63	D	..	Qg	1,335-	1,515	963	C, T = 44°
22baa	A. Anderson	26.5	36	B	....	11.4	10-14-64	O	Sd	Qg	1,474-	1,500	.....	FoD
22cbc	A. R. Sharpe	95	5	Dr	1960	33	5- 1-63	D,S	Sd	Qg	1,405-	1,500	1,560	T = 44°
24aaa	Test hole 2263	189	1¼	Dr	1964	20.6	10-14-64	T,O	Sd,Gv	Qob	1,314	1,485	1,890	L, C, Cd 166 ft, destroyed.
24aad	R. Bailey	100	5	Dr	1920	40	5- 1-63	D,S	Sd	Qob	.....	1,498	2,920	Deepened from 90 ft, T. = 44°.
24ccc	L. Anderson	90	6	Dr	1920	20	5- 1-63	D,S	Tl,Sd	Qg	1,400-	1,490	1,530	T = 44°

26ac	T. M. Evans, F. L. Bailey No. 1	2,861	..	Dr	1953	..	.....	Oil	..	..	1,231+	1,491	.....	L, NDGS Circ. 32. Reached Winnipeg Sandstone.
26dcb1	Fern Tucker	22	30	Du	1923	13.6	4-27-63	U	Sd,Gv	Qg	.....	1,500	.....	
26dcb2	do.	42	42	Du	....	32	4-27-63	U	..	Qg	.....	1,500	.....	P dry, W reptd. not good for S.
26dcb3	do.	118	5	Dr	1950	45	4-27-63	D	Sd	Qg	1,382-	1,500	1,130	Fe
27aaa1	D. Fors	20	30	Du	1945	13.7	5- 1-63	U	Sd	Qg	.....	1,495	.....	
27aaa2	do.	117+	6	Dr	1960	50	5- 1-63	D,S	Sd	Qob	1,378-	1,495	1,433	C, T = 44°
27bbb	Test hole 3050	159	..	Dr	1963	..	8- 6-63	T	..	..	1,366	1,500	.....	L
28add	V. Hoggarth	26.2	24	Du	....	18.4	4-26-63	U	..	Qg	.....	1,515	.....	
29bbb1	J. Hoggarth	150	5	Dr	1949	70	4-26-63	S	Sd	Qg(?)	1,375e	1,525	1,350	No Tsa, Rs
29bbb2	do.	150	5	Dr	1953	70	4-26-63	D	Tl	Qg(?)	1,375e	1,525	.....	
32bdc1	E. Bakke	52	36	Du	....	10	4-27-63	U	Gv	Qg	.....	1,520	.....	P dry, FoS
32bdc2	do.	50	36	B	....	15	4-27-63	S	Gv	Qg	.....	1,520	1,520	
32bdc3	do.	135	6	Dr	....	30	4-27-63	D	Gv	Qg	1,385-	1,520	1,040	C, deepened from 52 ft, T = 44°.
34dbc1	L. Anderson	24	36	Du	1916	23	4-27-63	U	Gv	Qg	.....	1,510	3,670	FoS, Vh, T = 43°
34dbc2	do.	125	4½	Dr	1949	50	4-27-63	D	Sd	Qg	1,400-	1,525	1,460	T = 44°
35ccb1	R. T. Anderson	24	36	Du	....	14.9	4-27-63	D	Gv	Qg	.....	1,515	.....	Garden, FoS
35ccb2	do.	170	5½	Dr	1955	50	4-27-63	D	Sd	Qg	1,345-	1,515	1,560	Sdu, T = 44°
145-63														
1aaa	Anna Glasner	102	4	Dr	1961	18	4-26-63	D,S	Sd	Qg	1,398-	1,500	1,290	T = 44°
3aab	J. M. and F. R. Eddy	29.7	36	B	....	21.6	5-18-65	U	..	Qg	.....	1,527	.....	
6bcb	D. Samsen	43	28	B	1956	37	4-17-63	D,S	Tl	Qg	1,497-	1,540	.....	P dry
6ddb	Mary Horejsi	32	36	B	1923	24	4-17-63	S	Gv	Qg	.....	1,535	.....	
6ddc1	do.	225	5	Dr	1945	30	4-17-63	S	Sh	Kp	1,305+	1,530	1,520	Rs, T = 44°
6ddc2	do.	228	4	Dr	1953	30	4-17-63	D	Sh	Kp	1,302+	1,530	.....	
7ccc1	Pearl Hoggarth	34	36	Du	1937	20	4-17-63	D,S	Gv	Qg	.....	1,535	.....	
7ccc2	Test hole 2262	189	..	Dr	1964	..	7- 8-64	T	..	..	1,354	1,530	.....	L
8baa	R. Kramer	36.0	36	Du	....	20.8	4-18-63	S	..	Qg	.....	1,525	.....	P dry
8ccd1	W. Chmelik	50	36	Du	1938	44	4-17-63	S	Tl,Sd	Qg	.....	1,565	1,660	Vh, Fe, T = 44°
8ccd2	do.	194	4	Dr	1957	60	4-17-63	D,S	Sd,Sh(?)	Kp(?)	.....	1,565	.....	Rs
8ddc	E. Gauderman	200	6	Dr	....	..	4-18-63	D,S	Sh	Kp	1,330+	1,530	2,330	Rs, Tsa, T = 43°
10cda1	F. R. Eddy	56	36	Du	1903	30	4-18-63	U	Sd,Gv	Qg	.....	1,550	.....	
10cda2	do.	100	4	Dr	1957	50	4-18-63	D,S	Gv(?)	Qg	.....	1,550	.....	
11bbb	Test hole 3048	194	..	Dr	1963	..	8- 5-63	T	..	..	1,339	1,517	.....	L
12bbb	P. DeVillers	34.8	36	Du	1898	26.1	4-18-63	U	Tl	Qg	.....	1,530	.....	FoDS, Ri

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
145-63, Cont.														
12dda	G. Erickson	24	36	Du	1914	19	4-26-63	D,S	Gv	Qg	.....	1,510	2,220	C, Vh, T = 43°
13ada	V. Hoggarth	48.0	36	Du	....	28.9	4-18-63	U	..	Qg	.....	1,510	.....	Also Dr well, depth unknown.
15dccl	W. Lipetzky	160	5	Dr	1950	45	4-17-63	D,S	Sd	Qg	1,385e	1,545	.....	Rs
15dcc2	do.	160	5	Dr	1950	45	4-17-63	S	Sd	Qg	1,385e	1,545	1,600	C, P sand, T = 44°.
17bbc	J. A. Fousek	205	5	Dr	1927	30	4-17-63	D,S	Gv,Sh(?)	Qg,Kp(?)	1,320e	1,525	2,530	Rs, Tsa, T = 37°
18abc	G. N. Hoffman	30.5	36	B	....	22.9	4-17-63	D	..	Qg	.....	1,535	.....	
18dac	do.	29.0	36	Du	....	18.2	4-17-63	U	Sd	Qg	.....	1,520	.....	
20add	J. Paczkowski	56	36-12	Du-B	1915	28	4-17-63	D,S	..	Qg	.....	1,542	.....	
21cbc	Test hole 3047	182	..	Dr	1963	..	8- 5-63	T	..	..	1,379	1,545	.....	L
21ccd	G. Brewer	28	60	Du	1900	14	4-16-63	D,S	Tl	Qg	.....	1,515	1,590	Vh, T = 42°
22cbcl	W. Blahna	32	6	Dr	....	26	4-17-63	D	Gv	Qg	.....	1,520	.....	
22cbc2	do.	33	36	Du	1934	26	4-17-63	S	Gv	Qg	.....	1,520	.....	
23dac	L. Lipetzky	30	36	Du	1921	16	4-18-63	D,S	Tl	Qg	.....	1,520	.....	
24add	R. Lipetzky	28	36	Du	....	22.1	4-18-63	U	..	Qg	.....	1,525	.....	
25bba	L. Lipetzky	160	5	Dr	1943	..	4-18-63	S	Sh(?)	Kp(?)	1,345+	1,505	2,340	Rs, Tsa, T = 43°
25cdc	O. Ekren	150	5	Dr	....	..	4-18-63	U	..	Qg(?)	1,378-	1,528	.....	
26aaa	Test hole 3049	148	..	Dr	1963	..	4-18-63	T	..	..	1,372	1,500	.....	L
26acb	L. Lipetzky	211	3	Dr	1915	30	4-18-63	D,S	Sh	Kp	1,294+	1,505	1,660	Rs, T = 43°
26bbbl	J. Lipetzky	24	36	Du	....	11	4-18-63	S	Sd	Qg	.....	1,520	.....	Pdo
26bbb2	do.	88	6	Dr	1947	25	4-18-63	D,S	..	Qg	.....	1,515	.....	
27abcl	D. Ableidinger	24	36	Du	....	20	4-18-63	S	..	Qg	.....	1,525	.....	
27abc2	do.	176	5	Dr	1954	20	4-18-63	D	Gv	Qg	1,349-	1,525	.....	
28dccl	J. Nihill	34	36	Du	1899	..	4-17-63	S	Sd,Gv	Qg	.....	1,530	.....	
28dcc2	do.	95	6	Dr	1947	..	4-17-63	D,S	..	Qg(?)	.....	1,530	.....	Rs
29ddc	K. Spitzer	40	36	Du	1886	23.3	10-14-64	S,O	Gv	Qg	1,495-	1,535	1,460	P dry, Vh
30ada	G. Bata	160	5	Dr	1927	22	4-17-63	D,S	Sh	Kp	1,385+	1,545	1,450	Rs, T = 44°
31cdd	P. Simonsen	160	6	Dr	1900	50	4-16-63	D,S	Sh	Kp	1,370+	1,530	2,320	Rs, Tsa, T = 44°
32adc	C. Fousek	120	5	Dr	1940	40	4-16-63	U	..	Qg(?)	.....	1,525	.....	

32bba	W. Witt	186	5	Dr	1951	..	4-16-63	D,S	Sh	Kp	1,351+	1,537	3,610	C, Rs, Tsa, T = 42°.
33bbc1	W. Spitzer	78	6	Dr	1896	..	4-16-63	S	Sd,Sh(?)	Qg,Kp	1,447e	1,525	1,770	P dry in 2 hours at 2 gpm, T = 44°.
33bbc2	do.	120	5	Dr	1940	40	4-16-63	U	Sh(?)	Kp(?)	.....	1,515	.....	
33bbc3	do.	185	5	Dr	1945	25	4-16-63	D,S	Sh	Kp	.....	1,525	.....	Rs, Tsa
34ccal	Bessie Bredahl	110	6	Dr	1948	30	4-16-63	D,S	Sd	Qg	1,420-	1,530	.....	
34cca2	do.	100	6	Dr	....	30	4-16-63	D,S	Sd	Qg	1,420-	1,535	.....	
35add	O. Ekren	32	36	Du	....	26	4-18-63	U	Gv	Qg	.....	1,510	.....	
36caa	do.	54.0	18	Du	....	32.0	4-18-63	U	..	Qg	.....	1,543	.....	
145-64														
1dcd	C. Bata	14	36	Du	....	8	4- 3-62	S	Gv	Qg	.....	1,545	.....	Similar D well.
2cda	J. Nihill	52	..	Du	....	24	4-17-63	D	Gv	Qg	.....	1,530	.....	
2ddd	C. Stangeland	43	36	Du	1943	35	4- 2-63	D,S	Gv	Qg	.....	1,530	.....	
4cbb1	A. Fandrich	40	36	Du	"old"	..	4- 2-63	S	Gv	Qg	.....	1,438	744	Pdo, Sp nearby, T = 44°.
4cbb2	do.	37	36	B	1960	21.3	4- 2-63	D,S	Gv	Qg	1,503-	1,540	316	L, P dry in 3 hr at 15-20 gpm.
6bbb	H. Schroder	46	6	Dr	1922	15	10-17-62	D,S	Gv	Qg	.....	1,525	.....	
6cbd	do.	31.8	24	B	1935	21.4	10-17-62	U	Gv	Qg	.....	1,533	.....	FoDS
7aaa	Test hole 3043	68	..	Dr	1963	..	7-31-63	T	..	..	1,494	1,524	.....	L
8bcc	K. Jensen	35.5	6	Dr	1930	21.5	7-21-64	U	Gv	Qg	.....	1,533	.....	
9bcc	F. and S. Petra	20.0	36	Du	"old"	17	4- 2-63	U	..	Qg	.....	1,530	.....	
10acal	C. C. Mack	..	..	Sp	....	..	4- 2-63	S	Sd,Gv	Qos	.....	1,470	523	F 1/2-1 gpm, reliable, T = 47°.
10aca2	do.	14	36	Du	1916	12	4- 2-63	D	Gv	Qg	.....	1,480	.....	
12acc	V. Ableidinger	34	36	Du	1898	22	4- 2-63	D,S	Sd	Qg	.....	1,535	.....	Pdo
12bcc	L. and R. Petra	192	4	Dr	1943	30	4- 2-63	D,S	Sh(?)	Kp	1,338e	1,530	1,540	Rs
12ccc	Test hole 3046	270	..	Dr	1963	..	8- 1-63	T	..	..	1,260	1,520	.....	L
12cdc	B. Kramer	266	5	Dr	1933	30	4- 2-63	D,S	Sd	Qg	1,260-	1,525	832	C, T = 46°
13cdd	C. and A. Jorgenson	120	6	Dr	1920	..	4- 2-63	D,S	Gv	Qg	1,430-	1,550	1,200	Vh, T = 44°
14cd	K. Spitzer	180	3	Dr	1917	..	5-16-63	U	Sh	Kp	1,345+	1,525	.....	FoS
14dcc	R. Lipetzky	20	24	Du	1913	18	4- 2-63	D,S	Sd	Qg	.....	1,522	.....	Pdo
17ccb	W. Liebig	29.0	36	Du	1933	23.4	4- 4-63	D,S	..	Qg	.....	1,535	1,370	Pdo, Vh, T = 44°.
17ddc1	E. Hart	90	5½	Dr	1920	50	4- 4-63	S	Sd,Gv	Qg	1,457-	1,547	689	T = 44°
17ddc2	do.	62	5½	Dr	1948	40	4- 4-63	D,S	Gv	Qg	.....	1,550	.....	Gv 60-62 ft

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
145-64, Cont.														
18bca	T. Kollman	42	4	Dr	1926	28	4- 4-63	D,S	..	Qg	.....	1,525	1,080	T = 44°
18dca	do.	32.9	36	Du	1914	21.3	4- 4-63	U	..	Qg	.....	1,520	.....	FoDS, Ri
19bbc	E. Turner	18.5	36	Du	....	4.0	10-19-62	U	..	Qg	.....	1,515	.....	FoS
19bcb	do.	25.0	24	Du	....	15.6	10-19-62	D,O	..	Qg	.....	1,528	.....	
21bba	E. Hart	42	5½	Dr	1948	20	4- 4-63	S	Gv	Qg	.....	1,510	.....	
21bbb	Test hole 3044	113	..	Dr	1963	..	7-31-63	T	..	Qg	1,428	1,520	.....	L
21dba	Test hole 3071	62	1¼	Dr	1963	3.6	10-14-64	T,O	Gv	Qos	1,412	1,450	837	L, C, Cd 33 ft
22da	Test hole 3045	113	1¼	Dr	1963	3.2	10-14-64	T,O	Gv	Qos	1,347	1,441	.....	L, Cd 58 ft
23dcd	L. Norheim	155	6	Dr	1932	35	4- 2-63	S	Gv	Qg	1,405-	1,560	1,370	Rs, T = 43°
24da	T. M. Evans, C. Ericksen No. 1	3,279	..	Dr	1953	..	3-54	Oil	..	..	1,290+	1,537	.....	Reached Precambrian. L, NDGS Circ. 46.
25cbb	L. Norheim	80	5	Dr	1943	..	4- 2-63	S	Gv	Qg	1,450-	1,530	1,260	T = 44°
26abal	do.	80	6	Dr	1906	30	4- 2-63	S	Sd	Qg	1,465-	1,545	1,690	P dry, Vh, Tm, T = 40°.
26aba2	do.	125	4	Dr	1961	35	4- 2-63	D	Gv	Qg	1,420-	1,545	1,360	Vh
26cbb	M. Florhaug	42	36	B	....	30	10-22-62	D,S	..	Qg	.....	1,530	.....	
27bdd	M. Johnson	170	4	Dr	1919	75	10-22-62	D,S	Sh	Kp	1,335+	1,510	.....	Rs, Tm
28cdb1	L. S. Reimers	40	30	Du	1910	15.3	10-22-62	D,S	Gv	Qg	.....	1,450	.....	Rs, Tm
28cdb2	do.	80	5	Dr	1940	35	10-22-62	S	Gv	Qg	1,370-	1,450	.....	Rs
29bdb	F. Multz	52	..	B	....	40	10-10-62	S	Gv	Qg	.....	1,540	.....	Rs
30abb1	H. Linde	85	4	Dr	1917	38	4- 4-63	S	Sd	Qg	1,450-	1,535	1,060	T = 44°
30abb2	do.	33	..	Dr	1953	25	4- 4-63	D	..	Qg	.....	1,535	.....	Rs
30cad1	H. Schulz	220	5	Dr	....	90	4-15-63	D	Gv,Sh	Qg,Kp	1,320e	1,540	1,280	T = 44°
30cad2	do.	38	72	Du	1914	25	4-15-63	S	Tl	Qg	.....	1,540	.....	
32bba	Test hole 3042	285	..	Dr	1963	..	7-30-63	T	..	..	1,248	1,508	.....	L
32bbd	T. Cousins	210	5	Dr	....	..	10-22-62	U	Sd	Qg	1,295-	1,505	.....	
32cdd	Alma Kruger	26.0	24	B	....	24.3	10-22-62	D,S	Gv	Qg	.....	1,520	.....	

35bbb	R. Timm	26.9	36	Du	....	24.2	10-22-62	S	Gv	Qg	.....	1,525	.....	Rs, Fe
35ddd	P. Florhaug	41.4	36	Du	....	27.9	10-22-62	D,S	..	Qg	.....	1,530	.....	
36dcd	C. Goehring	35.3	24	Du	1905	27.6	10-22-62	D,S	Tl	Qg	.....	1,550	.....	
145-65														
1cdc	G. Golz	135	6	Dr	1913	30	10-17-62	D,S	..	Qg,Kp (?)	1,400e	1,525	1,400	
2abc	P. Schroeder	96	5	Dr	1944	20	10-17-62	S	Sh	Kp	1,439+	1,535	.....	
2bcc	G. Veen	82	6	Dr	1914	15	10-17-62	D,S	..	Qg	.....	1,535	.....	
3bcb	F. Pierce	14.5	30	..	....	11.6	10-17-62	U	..	Qg	.....	1,527	.....	
6aaa	J. W. Murphy	25	36	..	1906	13.6	10-16-62	S	Sd	Qg	.....	1,530	.....	P dry, 2 other wells, short supply.
6cdd	T. C. Murphy	160	4	Dr	....	20	10-16-62	D,S	Sd,Sh	Qg,Kp	1,390e	1,548	2,350	Supplies 100 cattle, Tm.
6dcc	do.	19.4	30	Du	1933	9.1	10-16-62	S	Sd	Qg	....	1,545	.....	P 5 gpm
8dda	Lake George School District No. 4	109	6	Dr	1932	10	10-16-62	Sc	Gv,Sd	Qg	1,431-	1,540	1,500	C
9cba	M. Carr	17.9	30	B	1959	11.8	10-16-62	D	Gv	Qg	.....	1,525	.....	
10dcd	Lewis Estate	18.0	42	Du	....	13.5	10-17-62	D,S	..	Qg	.....	1,535	.....	
11bba1	Rachel Bauer	40	6	Dr	....	20	10-17-62	S	Sd (?)	Qg (?)	.....	1,532	3,680	Vh
11bba2	do.	16.1	24	Du	1954	12.0	10-17-62	D	Gv	Qg	.....	1,532	.....	
13ddd	R. Erickson	74	4	Dr	....	21.0	10-19-62	U	Gv	Qg	.....	1,525	.....	P dry, Sdu
14aaa	A. Schroeder	120	5	Dr	1961	Flow	10-17-62	S	Gv	Qg	1,380-	1,500	.....	Head--2 ft above land surface, Rs.
15aba	J. Clancy	32.6	30	..	....	7.2	10-17-62	S	..	Qg	.....	1,515	.....	
15bcc	W. Wolsky	23.5	24	Du	....	14.9	10-17-62	D,S	Sd,Gv	Qg	.....	1,530	.....	
15dad	Test hole 3041	182	...	Dr	1963	....	7-30-63	T	..	..	1,356	1,526	.....	L
16bba	D. Moriarty	155	6	Dr	1915	25	10-18-62	S	..	Qg	.....	1,530	1,230	P dry, Tm, T = 45°
17aaa	Margaret Wolf	16.5	48	Du	1932	8.5	10-16-62	D,S	..	Qg	.....	1,530	.....	
17ccc	H. Haman	36.7	36	Du	1910	10.8	10-16-62	D,S	Tl	Qg	.....	1,562	.....	
18ccc	G. Zink	45	66	Du	1890	20	10-16-62	S	..	Qg	.....	1,575	.....	Ds, Rs
20abd	E. E. Zink	12.4	42	..	....	10.5	10-18-62	S	..	Qg	.....	1,550	.....	Fe
20ccc	L. Zink	25.6	20	..	....	12.9	10-18-62	S	..	Qg	.....	1,565	.....	Ri
21ccc	D. Anderson	19.5	20	..	....	3.6	10-18-62	U	..	Qg	.....	1,540	.....	
22bbc	W. Morris	247	4	Dr	1947	...	10-19-62	S	Sd,Sh	Qg,Kp	1,288+	1,535	5,910	Rs, Tsa, T = 45°
23abb	H. Schmit	14.7	36	Du	1915	8.0	10-19-62	S	Sd	Qg	.....	1,530	.....	
23ccd	S. Schmit	17.5	36	Du	1959	11.8	10-19-62	S	Gv	Qg	.....	1,545	.....	Tm

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
145-65, Cont.														
24ddc	J. Murphy and P. Beckley	36.9	24	B	1952	18.0	10-19-62	D,S	..	Qg	.....	1,530	.....	Tsa, hard
25ddd	USBR Jamestown-Pingree 4	24	..	B	1950	12.9	11- 1-50	T,O	Tl	Qg	.....	1,540	.....	L
26abal	P. Beckley	67	4	Dr	1936	14.6	10-19-62	D,S	..	Qg	.....	1,535	1,410	
26aba2	do.	108.9	4	Dr	1949	13.4	10-14-64	O	Gv	Qg	.....	1,537	.....	Vh
26cca	LaVerne Brandt	86	4	Dr	1934	30	10-20-62	D,S	Gv	Qg	.....	1,545	.....	
27adal	R. F. Reimers	25.9	30	Du	1913	11.6	10-14-64	O	Sd	Qg	.....	1,545	.....	FoS, destroyed
27ada2	do.	100+	4	Dr	....	..	10-19-62	U	Sh(?)	Kp(?)	.....	1,545	.....	
28abb	R. Erickson	280	6	Dr	....	20	5- 7-62	D	Sh(?)	Kp(?)	1,260+	1,540	.....	P dry, Rs
29bcc	M. Hanna	30.9	30	..	....	14.6	10-18-62	S	..	Qg	.....	1,580	.....	
30bcd	W. Behrbaum	31.1	24	..	....	13.8	10-18-62	D	..	Qg	.....	1,585	.....	
31aba	L. S. Reimers	1,960	6-2	Dr	1959	17	10-18-62	D,S	Ss	Kd	.....	1,585	4,420	C, Rs, Tsa, T = 51°.
31dbb	L. S. and F. F. Reimers	28.0	30	B	....	2.8	10-18-62	U	..	Qg	.....	1,580	.....	FoS
33bbbl	D. Anderson	24	36	B	....	12	10-18-62	S	..	Qg	.....	1,555	.....	Standby
33bbb2	do.	150	5	Dr	1936	30	10-18-62	D,S	..	Qg(?)	.....	1,555	1,640	Supplies 100 cattle, 100 sheep.
34ccb	W. Hussey	30.8	36	Du	1934	13.3	10-14-64	O	Sd	Qg	.....	1,550	.....	FoDS, I
35bbc	S. Schmit Estate	113	4½	Dr	1930	..	10-20-62	U	Sd	Qg	1,432-	1,545	.....	FoDS
36aab	F. Lamm	40	30	Du	1906	30	10-20-62	D,S	Sd	Qg	.....	1,545	.....	
36adb	do.	105	4	Dr	1961	25	10-20-62	S	Sd	Qg	1,435-	1,540	1,510	Standby, Fe
36dcc	W. Walsky	130	4	Dr	....	..	10-20-62	U	..	..	.....	1,540	.....	FoDS
145-66														
ldcc	E. E. Zink	1,849	6-4	Dr	1959	Flow	10-15-62	D,S	Ss	Kd	.....	1,555	4,490	C, Tsa, T = 60°.
2ccd	E. Carr	25	40	Du	1935	19	10-15-62	S	Sd	Qg	.....	1,585	.....	
3bdd	E. Gedrose	22.4	36	B	....	12.6	10-15-62	D,S	..	Qg	.....	1,585	1,890	Tm
4bbc	W. Page	23.0	24	B	1960	11.1	10-15-62	D	Tl	Qg	.....	1,580	.....	Ds
5ccbl	G. Miller	58.3	24	B	....	11.8	10-15-64	O	Gv	Qg	.....	1,601	.....	FoS
5ccb2	Test hole 2257	147	..	Dr	1964	..	7- 6-64	T	..	..	1,474	1,600	.....	L

6aaa	J. Held	13.8	24	Du	....	7.4	10-15-64	O	..	Qg	.....	1,600	.....	
6bcc	H. Page	18.9	36	Du	1900	12.8	10- 8-62	S	..	Qg	.....	1,605	.....	
7aab	G. Miller	64.3	36	B	1920	30.6	10-15-62	D,S	..	Qg	.....	1,600	2,820	C, W bad for plants.
8aaa	A. Klein	50	24	Du	1922	33	10-15-62	D,S	..	Qg	.....	1,610	1,960	P dry
8ccd	W. Lentz, Jr.	12.7	48	Du	1942	10.4	10-13-62	D,S	Sd	Qg	.....	1,595	.....	
10baa	J. E. Carr	17.6	30	B	....	7.0	10-15-62	S	Sd	Qg	.....	1,585	.....	
12aaa	do.	28.4	36	B	....	7.9	10-15-62	D,S	..	Qg	.....	1,560	.....	P dry
13aaa	do.	1,900	6	Dr	1961	Flow	10-15-62	S	Ss	Kd	.....	1,560	4,480	C, supplies 1,100 pigs, Tsa.
14caa	Ruth Zink	13.4	24	Du	....	7.0	10-16-62	S	Sd	Qg	.....	1,580	.....	
14ddd	Test hole 3040	136	..	Dr	1963	..	7-29-63	T	..	..	1,463	1,582	.....	L
15bbb	W. Page	15.0	36	..	....	5.3	10-16-62	S	..	Qg	.....	1,590	.....	
17dd	S. D. Johnson, Burnham No. 1	2,780	..	Dr	1954	..	5-63	Oil	..	..	1,442+	1,592	.....	L, NDGS Circ. 267. Reached Devonian.
18dad	C. L. March	18	30	Du	1882	11.4	10-13-62	S	Sd	Qg	1,568e	1,585	.....	Supplies 120 cattle, 25 sheep, Tsa.
22aad	A. Pederson	29.0	30	..	....	6.3	10-20-62	U	..	Qg	.....	1,590	.....	
24ddb	R. Zink	31.9	30	Du	1914	13.9	10-15-62	S	..	Qg	.....	1,585	4,380	Vh, Tm
25aac	do.	28	30	B	1954	4	10-15-62	D,S	..	Qg	.....	1,580	.....	
26bdc	F. Galt	27.7	30	B	1954	17.1	10-12-62	D	Sd,Gv	Qg	.....	1,600	.....	
27baa	W. Willyard	27.5	20	B	....	10.2	10-13-62	S	..	Qg	.....	1,595	.....	Pdo
27ccc	USBR Jamestown-Pingree 1	24	3	B	1950	8.2	11- 1-50	T,O	Sd	Qg	.....	1,575	.....	L
28cda	B. Eidsvoog	175	30-6	Du-Dr	1924	15	10-13-62	S	..	Qg(?)	.....	1,595	.....	P dry
29bac	H. Wede	30.0	24	B	....	5.0	10-13-62	U	..	Qg	.....	1,575	.....	FoS, P dry, Tm
29cdd	Willmar Investment	28	32	Du	1915	26	10-10-62	D,S	Gv,Sd	Qob	.....	1,580	943	On esker, T = 44°.
30cabl	W. Hertel	53	24	..	....	30	5-23-62	D,S	..	Qg	.....	1,574	1,540	
30cab2	do.	22	24	B	1939	8	10-13-62	D,S	Gv	Qg	.....	1,568	2,760	F at times, Vh
31bbb	Magdalene Neuman	21.7	24	B	1954	11.7	10-15-64	O	Gv	Qg	.....	1,570	.....	FoDS, Tm
32baa	Test hole 3067	159	1¼	Dr	1963	23.2	10-15-64	T,O	Gv	Qob	1,427	1,575	1,068	L, C, Cd 88 ft, on esker.
32dbd	E. Neuman	32.4	24	B	....	26.8	10-12-62	S	Sd,Gv	Qob	.....	1,570	.....	On esker.
35dbb	O. Hansen	25.6	36	B	1942	6.5	10-12-62	D,S	Gv	Qg	.....	1,600	.....	T = 44°
36bcc	W. Loesch	27.7	30	B	1920	12.9	10-14-64	O	Gv	Qg	.....	1,600	.....	FoS

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
145-67														
1adb	Dr. F. B. Peik	27.0	18	Du	1898	19.7	10- 8-62	U	Sd	Qg	1,583-	1,610	.....	FoS
2aad	A. Suckut	13.4	36	B	....	6.5	10- 8-62	S	..	Qg	.....	1,595	.....	
2cba	J. Garrett	23.9	24	B	1962	8.5	10- 8-62	S	Gv	Qg	1,571e	1,595	.....	Vh, Tm, bottomed on "blue clay."
4bbb	G. E. Aljets	28.0	24	..	....	11.9	10- 8-62	D,S	Sd	Qg	1,557-	1,585	.....	
4ccc	A. Waliser	34	36	B	1948	14	10- 8-62	S	Sd	Qg	1,541-	1,575	.....	
5ddc	L. Kutz	36.0	30	Du	1950	17.0	10- 8-62	D	Sd	Qg	1,544-	1,580	2,000	P dry in 2 hr
6bbc	Emma Nelson	16.3	42	..	....	11.1	10- 5-62	U	..	Qg	.....	1,595	.....	
7baa1	A. Leppke	17.7	20	Du	1931	10.8	10- 5-62	U	Sd	Qg	.....	1,585	.....	FoDS, Vh
7baa2	do.	23.4	36	Du	1953	16.1	10- 5-62	D,S	Sd	Qg	.....	1,590	.....	Sdu
9bbd	E. Smith	18.0	24	B	1950	12.8	10- 8-62	S	Sd	Qos	1,552-	1,570	.....	
10bbd	T. V. Glaser	35	36	B	....	25	4-62	D,S	Sd,Gv	Qob	1,535-	1,570	.....	Supplies 900 sheep, on esker.
11ada	W. Neuman	16.3	24	..	....	9.1	10-11-62	D,S	..	Qg	.....	1,600	.....	P dry
13dcc	Test hole 3068	170	1¼	Dr	1963	20.6	10-15-64	T,O	Gv	Qob	1,427	1,584	1,057	L, C, Cd 48 ft, on esker.
15cda	T. Montgomery	25.0	30	Du	1916	15.6	10-11-62	S	Gv	Qg	1,530-	1,555	.....	
16bbb	D. Schmid	22.0	24	B	....	12.9	10- 8-62	D,S	Sd	Qos	.....	1,570	.....	Rs
16ccb	Test hole 3069	113	1¼	Dr	1963	1.3	10-15-64	T,O	Sd	Qos	1,462	1,562	1,623	L, C, Cd 37 ft
17bba	Taylor Bros.	16.4	30	Du	1900	12.6	10- 9-62	S	..	Qg	.....	1,575	.....	Windmill P continuously.
18bcb	H. Neuman	27	36	Du	1900	20	10- 9-62	D,S	..	Qg	.....	1,622	2,290	Vh, Tsa
18dcb	do.	..	..	Sp	....	..	10- 9-62	S	..	Qg	.....	.....	.....	F 3 1/3 gpm, dependable, T = 50°.
19cda	R. Klein	23.2	36	Du	1920	10.2	10-10-62	S	..	Qg	.....	.....	.....	
20aad	D. Laughlin	86	4	Dr	1961	15	10-10-62	D,S	Gv	Qg	1,509-	1,595	.....	
20cd	S. D. Johnson Co., Taylor No. 1	3,050	..	Dr	1954	..	4-63	Oil	..	..	1,582	1,652	.....	L, NDGS Circ. 263. Reached Devonian.
22bca	T. Montgomery	24.9	36	..	....	14.1	10-15-62	U	Sd(?)	Qos	.....	1,548	.....	

22daa	J. Braunberger	21.4	24	B	1962	13.9	10-10-62	D,S	Gv	Qos	1,528-	1,550	.....	Supplies 120 cattle, 250 sheep, small Dd.
23baa	Test hole 2256	42	..	Dr	1964	..	7- 6-64	T	..	..	1,557	1,570	.....	L
24bad	A. Thieson	17.4	36	..	....	10.8	10-11-62	U	..	Qg	.....	1,570	.....	P dry, Tm
25bbal	G. Klein	30	30	Du	1895	23	10-11-62	D	..	Qg	.....	1,570	2,060	Vh
25bba2	do.	18.7	30	Du	1908	8.0	10-11-62	S	..	Qg	.....	1,570	.....	
26cab	Monica Kautzman	24.4	24	B	1951	7.1	10-10-62	D,S	Sd	Qg	1,541-	1,565	.....	Pdo, Rs
28add	F. D. Wentland	33.0	24	B	1958	17.5	10-13-62	D	Sd	Qg	1,547-	1,580	.....	P dry, Tm
28baa	G. Mathews	19.8	24	B	1950	9.8	10-10-62	D,S	Gv	Qg	.....	1,625	.....	Supplies 6,000 turkeys, Rs.
28cdd	A. and L. Hoffman	40	24	B	1953	35	10-10-62	S	Gv	Qg	.....	1,705	1,570	Pdo, Vh
29dcc	F. D. Wentland	..	..	Sp	....	..	10- 9-62	S	Tl	Qg	.....	1,780	.....	Dependable, T = 52°.
30bca	H. Paluh	..	..	Sp	....	..	10-10-62	S	Gv	Qg	.....	.....	.....	F 4-5 gpm, dependable.
30bcd	do.	42.5	24	B	1948	36.9	10-10-62	D,S	Sd	Qg	.....	.....	.....	P dry
30ddb	W. Krueger	74.8	30	B	1920	43.8	10- 9-62	D,S	Gv	Qg	.....	1,845	1,330	Vh
32bacl	P. Kautzman	73.0	20	B	1944	55.6	10- 9-62	D,S	Sd	Qg	1,773e	1,845	.....	Ds (1961). Bottom on "blue clay."
32bac2	do.	19.2	24	B	1961	5.1	10- 9-62	S	Gv	Qg	.....	1,840	.....	P dry in 1961
32ccc	M. Hallwachs	21.0	24	B	1961	7.4	10- 9-62	S	Gv	Qg	.....	1,895	.....	
34cdd	V. Henning	48.0	24	B	1952	33.8	10-10-62	D,S	Gv	Qg	.....	1,705	.....	
35daa	H. Henning	13.1	48	Du	....	7.9	10-10-62	U	Sd	Qg	.....	1,580	.....	FoDS
36bba	J. Braunberger	29.0	30	Du	1914	23.7	10-10-62	U	Gv	Qg	.....	1,564	.....	FoDS
Griggs County														
146-61														
19ccc	Test hole 2264	252	3	Dr	1964	12.8	10-14-64	T,O	Sd,Gv	Qob	1,243	1,474	.....	L, Cd 100 feet, estimated.
Foster County														
146-62														
1cbb	H. Eli	108	5	Dr	1950	30	5- 8-63	D,S	Sh(?)	Kp(?)	1,379+	1,485	2,140	Orig. total depth 330 ft, T = 44°.
1daa	Test hole 2266	168	..	Dr	1964	..	7-13-64	T	..	..	1,329	1,477	.....	L
2add1	A. Palmer	90.5	5	Dr	1943	25.5	5- 8-63	S	..	Qg,Kp(?)	1,395e	1,485	2,630	T = 45°
2add2	do.	40	30	B	....	25	5- 8-63	U	..	Qg	.....	1,485	.....	

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
146-62, Cont.														
4ccb1	E. H. Walen	50	36	B	1934	20	5- 8-63	S	Sd,Gv	Qg	.....	1,500	.....	
4ccb2	do.	60	6	Dr	1951	20	5- 8-63	D	Sh	Kp	1,445e	1,500	.....	Rs
5bcc1	B. McKinney	202	3½	Dr	1909	100	5- 8-63	U	Sh	Kp	1,298e	1,500	.....	
5bcc2	do.	227	4	Dr	1961	27	5- 8-63	D,S	Sh	Kp	.....	1,500	4,270	P 4 gpm, with 140 ft Dd after 10 hr, T = 47°.
6cdb	J. Edlund	100+	6	Dr	....	..	5- 8-63	S	..	Qob	.....	1,510	1,200	T = 45°
6cdd	do.	25	36	Du	....	17.8	5- 8-63	U	Sd,Gv	Qg	.....	1,505	.....	FoDS
7bbb	A. Johnson	143	5	Dr	1942	25	5-22-63	D,S	Sd	Qob	1,365-	1,508	968	L, C, P 4 gpm, 8 ft screen, T = 44°.
7dad1	E. Alley	128	6	Dr	....	..	5- 8-63	D	Sd	Qob	.....	1,505	1,100	T = 44°
7dad2	do.	73	4	Dr	1962	20	5- 8-63	S	Sd	Qob	.....	1,505	.....	P 10 gpm with 15 ft Dd after 5 hr, screened.
8bbc1	J. Edlund	40	36	Du	1932	..	5- 8-63	S	Sd	Qg	.....	1,515	.....	P dry
8bbc2	do.	105	6	Dr	1948	40	5- 8-63	D	..	Qob	.....	1,515	1,060	Pdo, T = 44°
8ccd1	J. Soma	30	24	B	....	20	5- 8-63	S	..	Qg	.....	1,515	.....	
8ccd2	do.	75	4	Dr	1950	20	5- 8-63	D	..	Qg	.....	1,515	.....	
9bbb	Test hole 3054	68	..	Dr	1963	..	8- 9-63	T	..	..	1,443	1,496	.....	L
11add	C. Alley	22	36	Du	1934	18	5- 8-63	D,S	Sd	Qg	.....	1,490	.....	
12bcb	W. Eli	18	48	Du	1947	12	5- 8-63	D,S	Sd	Qg	.....	1,490	.....	P dry in 1 hr at 20 gpm.
13cbb1	R. Pierson	47	24	B	....	20	5- 8-63	U	Sd,Gv	Qg	.....	1,485	.....	FoS
13cbb2	do.	75	4	Dr	1960	64	5- 8-63	D	Gv	Qob	1,410+	1,485	1,680	T = 44°
14aaa	A. Walen	182	5	Dr	1941	20	5- 8-63	D,S	Sh	Kp	1,303+	1,485	2,230	Rs, T = 44°
15cbb	F. Paczkowski	146	5	Dr	....	16	5-29-63	D,S	Sd	Qob	1,350-	1,495	.....	P 15 gpm, 15 ft Dd.
15dca1	T. Asmael Estate	123	4	Dr	1958	35	5-22-63	D	Sd	Qob	.....	1,500	1,130	T = 45°
15dca2	do.	124	4¼	Dr	1958	35	5-22-63	U	Sd	Qob	1,376-	1,500	.....	Fine sand 97-111 ft, 123-3/4-124 ft.

16bbbl	W. Johnson	30	36	Du	1910	18	5-22-63	S	Gv,Sd	Qg	.....	1,505	.....	P dry
16bbb2	do.	146	8	Dr	1947	38	5-22-63	D,S	Sd	Qob	.....	1,505	827	Pdo, T = 44°
17aba	do.	70+	6	Dr	....	..	5-22-63	S	Gv	Qob(?)	.....	1,505	.....	
17ddd	Test hole 1096	170	..	Dr	1956	..	4-26-56	T	..	..	1,347	1,503	.....	L
18aba	Cora Freeman	75	36	B	1924	50	5-22-63	D,S	Sd,Gv	Qg	.....	1,511	1,230	T = 44°
18d	Glenfield Oil Co.	3,240	..	Dr	1929	..	1941	Oil	..	..	1,323	1,510	.....	L, Laird, W. M. 1941, p. 18-22. Reached Pre-cambrian.
19daal	A. and S. Gulstad	140	4½	Dr	1948	..	5- 7-63	D	..	Qob	1,365-	1,505	.....	Pdo, screened
19daa2	do.	120	5	Dr	1960	..	5- 7-63	D,S	..	Qob	.....	1,505	1,680	Screened, T = 44°
20bbb	Test hole 1097	230	..	Dr	1956	..	4-28-56	T	..	..	1,280	1,502	.....	L
20dccl	L. Johnson	29.0	36	B	....	23.9	5- 7-63	U	..	Qg	.....	1,506	.....	
20dcc2	do.	..	4	Dr	....	..	5- 7-63	U	..	Qob	.....	1,506	932	Fe, Rs
21aac	Village of Glenfield	153	4	Dr	1954	..	8-18-64	PS	Sd	Qob	.....	1,495	932	C, W hauled from here, T = 47°.
22aaa	Test hole 1093	235	..	Dr	1956	..	4-20-56	T	..	..	1,257	1,485	.....	L
22bbb	Test hole 1094	244	..	Dr	1956	..	4-23-56	T	..	..	1,254	1,495	.....	L
22cda	L. Lampert	30	28	Du	1913	20+	5- 7-63	D	..	Qg	.....	1,500	.....	
23dcdl	W. Johnson	135	3	Dr	1948	25	5- 7-63	U	..	Qg	.....	1,485	.....	FoS
23dcd2	do.	128	4	Dr	1961	28	5- 7-63	D,S	Sd	Qob	.....	1,485	1,240	P 7 gpm with 25 ft Dd after 10 hr, screened, T = 44°.
24aaa	Test hole 1092	115	..	Dr	1956	..	4-20-56	T	..	..	1,364	1,474	.....	L
24aabl	L. Erickson	92	5	Dr	1955	15	5- 7-63	D,S	..	Qob	.....	1,495	1,520	T = 44°
24aab2	do.	92	5	Dr	1961	15	5- 7-63	D,S	Sd	Qob	.....	1,495	.....	
24bbb	Test hole 1095	190	..	Dr	1956	..	4-25-56	T	..	..	1,329	1,484	.....	L
24cdc	A. Palmer	162	4	Dr	1926	25	5- 7-63	D,S	Sd	Qob	1,328-	1,490	1,250	T = 44°
25acd	K. O. Knapp	80	12	B	1903	40	5- 7-63	D	..	Qg	.....	1,495	.....	
26bbc	H. Walen	108	5	Dr	1945	50	5- 7-63	D,S	..	Qob	1,386-	1,500	1,370	T = 44°
27daa	Josephine Halvorson	65	24-14	B	1932	50	5- 7-63	D,S	Sd,Gv	Qg	.....	1,490	2,650	P dry 1 hr, Sdu, T = 44°.
28abbl	C. Gader	160	38-8	Dr	1927	20	5- 7-63	S	Sd,Gv	Qob	1,335-	1,495	.....	
28abb2	do.	138	6	Dr	1959	27	5- 7-63	D	Sd	Qob	.....	1,495	1,740	P 10 gpm with 53 ft Dd after 10 hr, Fe, T = 44°.
30aab	N. Papanfuss	20	48	Du	1948	18	5- 7-63	D,S	..	Qg	.....	1,510	.....	Pdo
30ccc	Test hole 3051	177	1¼	Dr	1963	11.5	10-14-64	T,O	Sd	Qob	1,346	1,502	1,495	L, C, Cd 150 ft
30ccd	L. Johnson	140	4	Dr	1962	22	5- 7-63	D,S	Sd	Qob	.....	1,510	1,440	T = 44°, P 5 gpm with 15 ft Dd after 24 hr.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
146-62, Cont.														
32dcb	A. G. Johnson	155	6	Dr	1910	22	5- 7-63	D	Sd	Qob	1,345-	1,500	1,420	T = 44°
35ccb	R. Halvorson	60	36	Du	....	21.0	5- 1-63	S	..	Qg	....	1,500	3,840	Vh, T = 44°
35dcd	A. H. Walen	143	5	Dr	1950	35	5- 1-63	D,S	Sd	Qob	1,352-	1,495	1,720	Fe
36bbb	Test hole 2265	231	1¼	Dr	1964	23.0	10-14-64	T,O	Sd,Gv	Qob	1,273	1,486	2,030	L, C, Cd 198 ft,
36bbcl	H. Walen	85	4	Dr	1944	25.7	5- 1-63	U	Sd	Qob	.....	1,485	.....	Rs compared to 36bbc2
36bbc2	do.	122	4	Dr	1958	20	5- 1-63	D,S	Gv	Qob	1,363-	1,485	2,150	Vh, T = 44°
146-63														
1dad	A. Johnson	160	6	Dr	....	30	5-22-63	S	Gv	Qob	1,345-	1,505	.....	
4aaa	Test hole 2269	263	..	Dr	1964	..	7-14-64	T	..	..	1,249	1,503	.....	L
4daa	N. S. Olson	46	4½	Dr	....	17	5-22-63	D,S	Gv	Qg	.....	1,505	.....	
5ada	Nisstad Bros.	50	18	Du	1944	30	5-23-63	D,S	Gv(?)	Qg	.....	1,510	.....	
6bccl	T. Munson	35	6	..	1945	25	5-23-63	S	Sd	Qg	.....	1,500	.....	P dry, Ds (1961)
6bcc2	do.	18	2½	Dv	....	..	5-23-63	D	..	Qg	.....	1,500	.....	
7abcl	Raundal Bros.	32	42	Du	1914	..	5-23-63	U	Sd	Qg	.....	1,519	.....	FoDS, P dry
7abc2	do.	35	6	Dr	1962	27	5-23-63	D	Sd	Qg	.....	1,525	.....	
7bbal	do.	40	42	Du	1914	31	5-23-63	S	Sd	Qg	.....	1,528	.....	Pdo
7bba2	do.	38	18	B	....	31	5-23-63	D,S	..	Qg	.....	1,528	.....	
9ccdl	A. Stedman	35.0	20	B	....	17.1	7-21-64	U	..	Qg	.....	1,512	.....	FoS, destroyed
9ccd2	do.	178	4½	Dr	....	110	7-21-64	S	Sd	Qob(?)	1,334e	1,512	3,230	C, P sand at times, T = 44°.
10bbb	Test hole 3072	318	..	Dr	1963	..	8-29-63	T	..	..	1,205	1,508	.....	L
10dcd	L.and D. Topp	32	4	B	....	12	7-21-64	D,S	..	Qg	.....	1,505	.....	
11bbbl	O. Knutson	35	24	Du	1932	32	5-22-63	D	Tl	Qg	.....	1,510	.....	P dry
11bbb2	do.	252	4	Dr	1961	17	5-22-63	D	Sd,Sh(?)	Qob,Kp(?)	1,258+	1,510	2,600	T = 44°
13bb	Ray Holbert Dunbar No. 1	3,118	..	Dr	1953	..	8-54	Oil	..	..	1,213+	1,513	.....	L, NDGS Circ. 89. Reached Precambrian. "Fresh" W recovered from Ordovician.

13dad	S. Kadry	45.4	5	Dr	....	26.3	5-22-63	S,O	..	Qg	.....	1,510	.....	
13ddd	Test hole 1098	200	..	Dr	1956	..	5- 1-56	T	..	..	1,312	1,505	.....	L
15aba	L. and D. Topp	140	4	Dr	1961	16	7-21-64	S	Sd	Qob	1,341-	1,501	1,030	C, P 20 gpm with very small Dd after 1 hr. Orig. total depth 160 ft, T = 44°.
15bbd1	F. Strause	75	3½	Dr	1940	25	5-22-63	D	Gv	Qob	.....	1,510	1,240	L, Fe, T = 42°
15bbd2	do.	55	5½	Dr	1950	10	5-29-63	S	Gv	Qob	.....	1,510	.....	P 15 gpm with 30 ft Dd after 5 hr.
17aba	H. Topp	138	5	Dr	1941	50	5-23-63	D	Sd	Qob	1,372-	1,510	1,920	37 ft well, drilled deeper, T = 44°.
17cdd	J. Vlach	240	4	Dr	1960	..	7-21-64	S	Sh	Kp	1,273+	1,513	.....	Rs, Tsa
18adal	L. Ellingson	31	30	B	1934	..	5-23-63	D	Tl	Qg	.....	1,515	.....	
18ada2	do.	170	6	Dr	1945	20	5-23-63	D	Sh	Kp	1,345+	1,515	4,660	P dry, Rs, Tsa, T = 45°.
19abb	C. Stedman	145	4½	Dr	....	125	7-21-64	S	Sh	Kp	1,380+	1,525	.....	
20bda	J. Vlach	170	4	Dr	....	100	7-21-64	D	Sh	Kp	1,356+	1,526	5,050	Rs, Tsa
20bdd1	do.	28	36	Du	....	20	7-21-64	S	Sd	Qg	.....	1,526	.....	Pdo
20bdd2	do.	65	4	Dr	....	60	7-21-64	D,S	Sd	Qg	1,462-	1,527	.....	
20cdc1	F. Bowden	34	30	Du	1946	12	7-21-64	S	Gv,Sd	Qg	.....	1,523	.....	
20cdc2	do.	24	6	..	1947	10	7-21-64	D	Gv	Qg	.....	1,522	.....	Fe
22add	F. Balvitsch	25	32	Du	....	18	5-22-63	D,S	Gv	Qg	.....	1,505	.....	
23dcc	E. Papenfuss	80	18	B	1930	35	5-22-63	D,S	..	Qg(?)	.....	1,510	1,540	T = 44°
26cab	J. E. Soma	25	36	Du	1930	0	7-23-64	D,S	Sd	Qg	.....	1,506	.....	
27cdc	F. Ellingson	30	36	Du	1897	20	5-22-63	S	Sd	Qg	.....	1,515	2,310	Vh, T = 45°
27ddd1	G. Pedersen	33	42	Du	1918	..	5-22-63	D,S	Tl	Qg	.....	1,500	2,380	Vh
27ddd2	do.	258	4	Dr	1960	35	5-22-63	D,S	Sh	Kp	.....	1,521	7,330	P 4 gpm, 160 ft Dd, Tsa, hard, T = 44°.
28aaa	R. Bear	32	36	Du	1900	24	5-23-63	D,S	Sd	Qg	.....	1,510	.....	Pdo
28bcc	C. Hutchinson	139	6	Dr	1953	35	7-23-64	D,S	Sd(?)	Qg(?)	1,381e	1,520	1,490	Rs
29add	do.	26	36	B	....	6	7-23-64	S	Sd	Qg	.....	1,521	.....	Pdo, Tm
29bab1	F. Bowden	22	18	B	....	8	7-21-64	S	Gv,Sd	Qg	.....	1,518	.....	
29bab2	do.	18	16	Du	....	8	7-21-64	S	Gv,Sd	Qg	.....	1,523	.....	
30bba1	E. Stangeland	50	36	B	1930	30	5-23-63	S	Tl	Qg	.....	1,530	985	T = 44°
30bba2	do.	151	4	Dr	1955	20	5-23-63	D	Sd	Qg	.....	1,530	1,750	Vh

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
146-63, Cont.														
32bad	E. A. Johnson	50	24	Du	....	28	5-23-63	D,S	Sd	Qg	.....	1,510	.....	
33bba	A. Nelson	29.0	18	Du	....	21.7	5-23-63	D	..	Qg	.....	1,529	.....	
34cbc	C. Nelson	30	36	Du	1931	22	5-23-63	D,S	Sd,Gv	Qg	.....	1,500	.....	
36cdc	L. A. Anderson	20.0	24	B	1922	11.4	5-22-63	U	Gv	Qg	.....	1,500	.....	
146-64														
1dcd	E. Ellingson	182	4	Dr	1936	100	6-25-64	D,S	Sd	Qob	1,325-	1,507	1,010	C, Sdu
2cbbl	B. Scanson	25.3	40	Du	....	24.3	6-24-64	D	Sd	Qg	.....	1,506	.....	
2cbb2	do.	27	36	Du	....	26	6-24-64	S	Sd	Qg	.....	1,508	.....	W smells bad
4adb	O. Holland	62	36	B	1922	55	6-25-64	S	Gv	Qg	.....	1,555	.....	
4cccl	Bertha Hoffman	40	36	Du	1944	25	6-24-64	D	Sd	Qg	.....	1,551	.....	
4ccc2	do.	40	6	Dr	....	25	6-24-64	S	Sd	Qg	.....	1,555	.....	
4dcc	Cecilia House	92	5	Dr	1961	20+	6-24-64	D,S	Sd	Qg	1,501-	1,593	.....	
6bbc	Gertrude Schlotman	130	4	Dr	....	60	6-24-64	D,S	Gv	Qg	1,448-	1,578	.....	Pdo, Fe
7ada	Elsie Nygaard	60	5	Dr	....	40	6-25-64	U	..	Qg	.....	1,555	.....	
8bbcl	D. Schander	40	36	B	....	..	6-25-64	D,S	..	Qg	.....	1,552	.....	
8bbc2	do.	28	5	Dr	....	..	6-25-64	S	..	Qg	.....	1,540	.....	P dry after 15 g
8bbd	do.	75	5	Dr	....	..	6-24-64	S	Sd	Qg	.....	1,550	1,640	Vh, T = 45°
8dcc	C. Ibsen	51	5	Dr	1912	9	6-25-64	D,S	Gv	Qg	.....	1,564	1,720	Vh
9daa	O. Holland	45	36	B	1928	37	6-25-64	D,S	Gv	Qg	.....	1,551	2,530	Vh
10ddd	E. Munson	40	5	Dr	....	..	6-25-64	U	..	Qg	.....	1,485	.....	
11cab	L. Fousek	143	4	Dr	1950	18	6-25-64	D,S	Sh	Kp	1,354+	1,497	2,110	Rs, Tsa, T = 45°
12cddl	J. Varhaug	20	36	Du	1934	17	6-25-64	S	Gv	Qg	.....	1,515	.....	
12cdd2	do.	20	24	Du	1957	17	6-25-64	D	Gv	Qg	.....	1,516	.....	
13cac	W. Gauderman	65	6	Dr	1945	30	6-25-64	D,S	Gv,Sd	Qg	.....	1,546	.....	
14bddl	O. E. Varhaug	20	36	Du	....	15	6-25-64	D	..	Qos	.....	1,484	.....	
14bdd2	do.	140	5	Dr	....	..	6-25-64	S	Sh	Kp	1,353+	1,493	4,220	Supplies 300 cattle, Tsa.
14daa	do.	35	48	Du	....	20	6-25-64	S	..	Qg	.....	1,530	.....	
15ddbl	G. N. Lindstrom	24.0	30	B	....	19.1	6-25-64	S	Gv	Qos	.....	1,486	.....	

15ddb2	do.	60?	40	Du	....	30	6-25-64	U	Gv	Qg	.....	1,476	.....	
15ddb3	do.	60	4	Dr	....	30	6-25-64	S	..	Qg	.....	1,481	.....	
15ddc	do.	60	5	Dr	1962	30	6-25-64	D	Gv	Qg	.....	1,486	.....	
16ddb	State of North Dakota	102	4	Dr	....	60	6-25-64	S	Sd	Qg	.....	1,520	.....	P 4 gpm
17bcb1	O. Solberg	70	30	..	....	..	6-25-64	S	..	Qg	.....	1,562	.....	
17bcb2	do.	..	5	Dr	....	..	6-26-64	D	..	Qg	.....	1,562	990	Reptd "deep," Pdo
18bcc1	K. Stedman	26	36	Du	....	18	6-17-64	S	Gv	Qg	.....	1,513	.....	P dry, Tm
18bcc2	do.	136	6	Dr	1961	20	6-17-64	S	Sd	Qg	.....	1,513	.....	P 7 gpm, 40 ft Dd, Rs.
18ccd	Test hole 2260	32	..	Dr	1964	..	7- 8-64	T	..	..	1,492	1,513	.....	L
19add	G. Norby	45	5	Dr	....	22	6-25-64	D,S	Sd	Qg	.....	1,530	1,480	
19bcb1	B. Nystad	70	48	B	1928	..	6-26-64	S	..	Qg	.....	1,528	.....	
19bcb2	do.	108	24	B	1932	40	6-26-64	D,S	Sh (?)	Kp (?)	1,414+	1,522	1,510	Pdo
19bcb3	do.	25	..	Du	1954	15	6-26-64	U	Sd	Qg	.....	1,531	.....	P dry
21bcd	C. Thurlow	75	4	Dr	....	..	6-24-64	S	..	Qg	.....	1,536	.....	
23cac1	O. Boesch	14	48	Du	1936	10	6-26-64	S	Gv,Sd	Qg	.....	1,496	.....	
23cac2	do.	40	4	Dr	1960	12	6-26-64	D,S	Sd	Qg	.....	1,497	1,910	P 5+ gpm
24cba1	V. and R. Topp	120	6	Dr	1961	38	6-26-64	D,S	Gv,Sh	Qg,Kp (?)	.....	1,532	2,470	P 5 gpm, Rs
24cba2	do.	110	6	Dr	1962	24	6-26-64	S	Gv,Sh	Qg,Kp	1,420e	1,530	2,330	P 5+ gpm
25aaa	F. Ellingson	96	4	Dr	1961	26	6-26-64	D,S	Sd	Qg	1,446-	1,543	.....	P 5 gpm
25bcb1	G. Ellingson	212	6	Dr	1950	140	6-26-64	U	Sh	Kp	1,319+	1,531	5,210	P dry at 4 gpm, Tsa, FoD.
25bcb2	do.	40	36-24	B	1952	25	6-26-64	D,S	Sd	Qg	.....	1,538	.....	
28cbb1	Othilda Thurlow	37	5	Dr	....	21	6-29-64	D	Sd	Qg	.....	1,534	608	
28cbb2	do.	121	4	Dr	....	21	6-29-64	S	Sh	Kp	1,415+	1,536	....	P 5 gpm, Rs, Tsa
28cbb3	do.	83	4	Dr	1963	21	6-29-64	S	Sd	Qg	1,452-	1,535	638	L, T = 44°
28dba1	O. C. Thurlow	57	4	Dr	1950	11	6-29-64	S	Sd,Gv	Qg	1,477-	1,534	.....	P 6+ gpm, Fe
28dba2	do.	55	4	Dr	1961	11	6-29-64	D	Sd,Gv	Qg	.....	1,534	723	P 6+ gpm, Fe
29abb1	Gertrude Schlotman	60	6	Dr	....	..	6-29-64	D,S	..	Qg	1,471-	1,531	553	
29abb2	do.	30	6	Dr	1958	24	6-29-64	S	Gv	Qg	.....	1,535	.....	
32abc	L. H. Zink	98	..	Dr	1908	..	6-26-64	U	Sd,Gv	Qg	1,427-	1,525	.....	
32ccd1	S. Clausen	83	6	Dr	1910	..	6-29-64	U	Gv	Qg	.....	1,522	.....	
32ccd2	do.	145	5	Dr	1954	110	6-29-64	D,S	Sh	Kp	.....	1,522	1,880	P 4+ gpm, Rs, no Tsa.
34daa	Mercedes Gader	18	24	Du	1961	5	6-26-64	S	Gv	Qo s	.....	1,451	.....	Rs, W level varies with river.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
146-65														
1dcc1	A. Grager	40	36	Du	....	20	6-17-64	S	Sd	Qg	.....	1,546	.....	P dry
1dcc2	do.	80	6	Dr	....	15	6-17-64	D,S	Sd	Qg	.....	1,541	960	C, supplies 200 cattle, 2 houses, T = 45°.
2bbb	D. Nicolson	150	6	Dr	....	..	6-17-64	U	Sd,Gv	Qg	1,381-	1,531	.....	FoDS
2ddc	R. D. Bort	185	5	Dr	....	40	6-22-64	D,S	Sh(?)	Kp(?)	1,368+	1,553	2,460	Rs, Tm
4dca	J. Marmo	250	5	Dr	....	30	5-63	D,S	Sh	Kp	1,276+	1,526	.....	Tsa
5ccc	Test hole 1471	168	..	Dr	1959	..	3-27-59	T	..	..	1,366	1,524	.....	L
6bbb	C. Carr	60	6	Dr	1934	13	6-16-64	D,S	Sd,Sh(?)	Qg,Kp(?)	1,466+	1,526	2,550	Tsa
8cd	Cardinal Oil Co., Smith No. 1	3,553	..	Dr	1956	..	4-63	Oil	..	..	.....	1,526	.....	L NDGS Circ. 271, reached Precambrian.
8db	R. D. Bort	185	5	Dr	....	10	6-22-64	S	..	Qg(?)	.....	1,541	.....	
9bdc	J. Marmo	54	60	Du	1933	20	1947,1963	U	Sd	Qg	.....	1,532	.....	Sd 44-54 ft
10dbb	do.	30.6	36	Du	....	14.4	6-17-64	U	..	Qg	.....	1,529	.....	
11aaa	Grager Bros.	30.9	..	..	....	27.3	6-17-64	D,S	..	Qg(?)	.....	1,553	.....	
12cdc	I. Langseth	153	5 3/4	Dr	1950	14	6-17-64	D,S	Sd,Gv	Qg	1,373-	1,526	.....	P 8 gpm, 8 ft Dd after 5 hr, Fe.
12dab1	Helen Langseth	30	30	B	....	..	6-17-64	S	Gv	Qg	.....	1,523	.....	P dry
12dab2	do.	133	5 3/4	Dr	....	21	6-17-64	D	Sh	Kp	1,389+	1,522	.....	P 2 gpm with 51 ft Dd after 5 hr, Rs, Fe.
13add	K. Stedman	156	5	Dr	1954	12	6-17-64	D	Sh	Kp	1,361+	1,517	2,970	F originally, now almost total Dd when P, Rs, Tsa, T = 45°.
13ccc	W. and J. Rosenau	105	5½	Dr	1961	16	6-17-64	D	Gv	Qg	1,430-	1,535	.....	Fe
14add	E. Lund	25	24	B	1933	15	6-18-64	U	Sd	Qg	.....	1,534	.....	P dry, originally 60 ft, Sdu, FoS.
14daa	do.	100	6	Dr	1962	25	6-18-64	D,S	Gv	Qg	1,435-	1,535	.....	Fe
14dcd1	Annie Reimers	20	36	Du	....	12	6-18-64	U	Sd	Qg	.....	1,535	.....	Rs

14dcd2	do.	90	6	Dr	....	30	6-18-64	D,S	Sd	Qg	1,430-	1,535	.....	Pdo, originally 105 ft, Sdu.
17ccc	Test hole 1472	199	..	Dr	1959	..	3-28-59	T	..	..	1,435	1,526	.....	L
17cdd1	W. Zink	32	4	Dr	1962	18	6-18-64	D	Gv,Sd	Qg	.....	1,526	.....	P dry, Rs
17cdd2	do.	175	6	Dr	1963	10	6-18-64	D,S	Sh(?)	Kp(?)	1,351+	1,526	2,550	Rs, Tsa
18acc	V. Zink	140	6	Dr	....	12	6-18-64	S	Gv	Qg	1,387-	1,527	.....	
18ddc	Dorothy Quenemoen	32	36	B	1920	24	6-21-64	U	Gv	Qg	.....	1,526	.....	P dry in 1930's, Tm, hauls W.
19bab	C. Miller	23	36	Du	....	..	6-22-64	S	Tl	Qg	.....	1,528	.....	Tm
20bbb	W. Kleb	17.3	30	Du	....	16.1	6-16-64	U	..	Qg	.....	1,526	.....	
20dcc1	G. Ferguson	28	60	Du	1914	15	6-19-64	U	Gv	Qg	.....	1,536	.....	P dry, Tm, Fe
20dcc2	do.	105	5	Dr	1958	..	6-19-64	D,S	Sd	Qg	.....	1,531	.....	P Sd
20ddd	do.	23	30	Du	....	13	6-16-64	D	..	Qg	.....	1,526	1,900	Ds, Tm
21abal	L. Fornshell	100	6	Dr	....	..	6-18-64	U	Gv	Qg	.....	1,532	.....	FoDS
21aba2	do.	55.8	24	Du	1951-61	23.7	6-18-64	D,S	Gv	Qg	.....	1,532	.....	P dry in 1 hr, Fe
22abb1	C. Vande Hoven	32	30	Du	....	21	6-18-64	D,S	Gv	Qg	.....	1,528	.....	P dry
22abb2	do.	34	24	Du	1941	15	6-18-64	S	Gv	Qg	.....	1,525	.....	P dry
22abb3	do.	43	24	Du	1963	15	6-18-64	S	Gv	Qg	.....	1,527	3,860	Pdo, supplies 65 cattle, Vh.
22dadl	L. Tollefson	30	24	Du	1912	24	6-18-64	D	Gv	Qg	.....	1,521	.....	Pdo, deepened
22dad2	do.	28	24	B	1918	25	6-18-64	D	Gv	Qg	.....	1,521	.....	Pdo
23dda	W. A. Rosenau	103	5½	Dr	1950	20	6-17-64	S	Gv	Qg	1,426-	1,529	.....	
24bbbl	L. Fornshell	25	30	Du	....	11	6-22-64	S	Sd,Gv	Qg	.....	1,530	.....	P dry
24bbb2	do.	103	4½	Dr	....	20	6-22-64	D,S	Gv	Qg	1,427-	1,530	.....	P 12 gpm, Fe
24bbb3	USBR 158-6E	19	3½	Dr	1951	14.2	10-17-51	T,O	Sd	Qg	.....	1,535	.....	L
24cbc	W. A. Rosenau	105	5½	Dr	1958	20	6-17-64	D	Gv	Qg	1,426-	1,531	1,760	C, P dry, T = 46°
24ccbl	do.	180	6	Dr	....	20	6-17-64	S	Sh	Kp	1,349+	1,529	1,990	C, Pdo, Rs, Tsa
24ccb2	do.	105	5½	Dr	1960	20	6-17-64	S	Gv	Qg	1,424-	1,529	.....	
26abdl	E. Sheen	46.6	40	Du	....	25	6-19-64	D	Sd	Qg	.....	1,520	.....	Pdo
26abd2	do.	24	40	Du	1934	16	6-19-64	U	Tl	Qg	.....	1,520	.....	Tm
26bbb	H. Black	28	24	B	1924	19	6-19-64	D,S	Sd,Gv	Qg	.....	1,534	1,910	Rebored 1963, adequate through 1930's, T = 43°.
27bddl	Henry Zink	104	5	Dr	....	11	6-19-64	D	..	Qg	.....	1,526	1,590	
27bdd2	do.	130	5	Dr	....	13	6-19-64	S	Sh(?)	Qg,Kp(?)	1,422e	1,526	.....	Supplies more than 200 cattle, Rs.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
146-65, Cont.														
28bbd1	Harold Zink	25	36	Du	1889	..	6-19-64	D	..	Qg	.....	1,526	.....	P dry
28bbd2	do.	30	30	Du	1902	..	6-19-64	S	..	Qg	.....	1,526	.....	P dry, Tm
28bbd3	do.	30	30	Du	1908	..	6-19-64	S	..	Qg	.....	1,526	.....	P dry, Tm
29ccd1	W. Schroeder	26	36	Du	1925	20	6-19-64	S	Sd,Gv	Qg	.....	1,531	.....	P dry
29ccd2	do.	275	4	Dr	1961	12	6-19-64	D,S	Sh	Kp	1,256+	1,431	3,260	Tsa, T = 44°
30abc1	O. Zink	34	36	Du	1928	18	6-18-64	U	Gv	Qg	.....	1,537	.....	P dry
30abc2	do.	155	6	Dr	1960	16	6-18-64	D,S	Sd	Qg	1,382-	1,537	.....	P 10 gpm, small Dd
30cbb1	E. Waldon	30	24	Du	1933	6.8	6-12-64	D	..	Qg	.....	1,535	.....	Garden W only, Fe, Tm.
30cbb2	do.	33	20	Du	....	16	6-12-64	S	..	Qg	.....	1,535	.....	Pdo
32cbb1	W. Schroeder	30	48	Du	....	26	6-19-64	S	..	Qg	.....	1,536	.....	P dry
32cbb2	do.	195	4	Dr	1959	20	6-19-64	D,S	Sh	Kp	1,337+	1,532	.....	Tsa
32dad	G. Doeling	65	4	Dr	1961	15	6-19-64	D,S	Gv	Qg	.....	1,525	.....	C
33bbb	E. Lambrecht	60	30	B	....	20	6-19-64	D,S	Gv	Qg	.....	1,522	.....	Ds (June 1964)
33cbc	G. Doeling	16	..	Du	1919	9	6-19-64	D,S	Sd,Gv	Qg	.....	1,522	.....	Pdo, 3 similar wells.
33ccb	do.	335	..	Dr	....	Dry	7- 1-64	U	..	Kp	1,206e	1,521	.....	Destroyed
34dcc	H. Kamwischer	37	30	Du	1930	9	10-17-62	D,S	Sd	Qg	.....	1,540	.....	
35bbc	C. Schroeder	68	6	Dr	1945	..	6-19-64	S	Sh	Kp	1,469+	1,537	.....	Rs
35ccd1	do.	78	6	Dr	1919	30	6-19-64	U	Sd	Qg	1,454-	1,532	1,190	Standby, T = 44°
35ccd2	do.	105	6	Dr	1959	11	6-19-64	D,S	Gv	Qg	1,427e	1,532	1,260	P 5 gpm, 20 ft Dd after 24 hr, T = 45°.
36aad1	K. Jensen	22	36	Du	1950	8	6-19-64	D	Sd	Qg	.....	1,526	.....	Pdo
36aad2	do.	150	4	Dr	1960	12	6-19-64	S	Sh	Kp	1,445e	1,526	1,510	P dry at 7½ gpm, Rs, Tsa, T = 44°.
36ccc	W. Hains	30	36	B	1963	10	6-19-64	D	Sd	Qg	.....	1,533	.....	Rs
146-66														
1ddd	C. Carr	119.5	4	Dr	....	7.3	7-27-62	U	Gv	Qg	1,404-	1,523	.....	FoS
2aaa1	E. J. Straley	72	4½	Dr	....	12	3-27-59	S	Gv	Qg	.....	1,528	.....	Tm

2aaa2	do.	100	4½	Dr	....	12	3-27-59	D,S	Gv	Qg	.....	1,528	.....	P 5 gpm, 1 ft Dd in 24 hr, Tm.
2bbb	Test hole 3058	170	..	Dr	1963	..	8-14-63	T	..	..	1,370	1,525	.....	L
2ccd	G. Simon	135	5	Dr	1956	14	7-27-62	D,S	Sd,Gv	Qob	.....	1,532	.....	Rs
2dcc	J. Straley	147	6	Dr	1933	..	7-27-62	D	Sd	Qob	.....	1,532	.....	Pdo
3cdd	M. Gussiaas	105	5	Dr	1934	28	3-27-59	S	Sd	Qob	.....	1,537	.....	
3ddd	R. Edwardson	105	6	Dr	1958	8	7-27-62	D	Sd,Gv	Qob	.....	1,534	.....	P 10 gpm
6aad	City of Carrington	25.0	240	Du	1926	3.6	10-15-64	O	Sd,Gv	Qob	.....	1,542	.....	C, FoPS, P 600 gpm.
6acc	Lloyd Butts	54	13	Du	1954	50	6- 1-55	U	Sd	Qob	.....	1,562	.....	FoI
6adb	do.	85	6	Dr	1960	25	7-27-62	D,S	Sd	Qob	.....	1,570	.....	Supplies 1,500 cattle.
6adc	Test hole 1270	105	..	Dr	1957	..	12-16-57	T	..	..	1,471	1,570	.....	L
6bdb	Lloyd Butts	60	13	Du	1954	54	6- 1-55	U	Sd	Qob	.....	1,562	.....	FoI
6cac	do.	85	18	Dr	....	..	6-30-65	U	Sd,Gv	Qob	.....	1,566	.....	FoI
6dddl	N. A. Graves	73	5-3	Dr	1926	..	1962	U	Sd,Gv	Qob	.....	1,559	.....	Fine Sd 21-50 ft, Sd, Gv 50-73 ft.
6ddd2	do.	96	6	Dr	1960	20	7-27-62	D	Sd	Qob	.....	1,559	.....	
6ddd3	Test hole 1271	105	..	Dr	1957	..	12-20-57	T	..	..	1,467	1,562	.....	L
7ddd	R. Hatch	80	6	Dr	....	30	7-27-62	D,S	Sd	Qob	.....	1,572	.....	
8dccl	L. Quesenberry	28	42	Du	1934	..	7-27-62	U	..	Qg	.....	1,567	.....	Poor W reported
8dcc2	do.	94	6	Dr	1942	..	7-27-62	D,S	Sd	Qob	.....	1,567	956	
9bcc	L. Torscher	92	6	Dr	1959	60	7-27-62	D	Gv	Qob	.....	1,563	753	Pdo, Fe
11cbb	W. Silkey	115	6	Dr	1952	15	7-27-62	D,S	Gv	Qob	1,421-	1,536	.....	Fe
11dcd	L. Sullivan	140	4	Dr	1955	30	7-27-62	D	Sd	Qob	1,397-	1,537	.....	Fe
12bbb	Test hole 1470	147	..	Dr	1959	..	3-27-59	T	..	..	1,390	1,525	.....	L
12dcc	O. Gussiaas	108	5	Dr	1951	22	6- 5-64	D,S	Sd	Qob	1,430-	1,538	1,810	Fe
14cdd	W. Sheehan	153	4	Dr	1959	23	5-26-64	D	Gv,Sh	Qg,Kp	1,385+	1,538	2,250	W kills plants, T = 45°.
14ddd	G. Stambaugh	120	5	Dr	1944	..	8-27-63	S	Sh	Kp	1,416+	1,536	2,300	P dry, Tsa, T = 46°.
15aa	Pure Oil Co., Carr. No. 1	3,567	..	Dr	1953	..	.....	Oil	..	..	.....	1,537	.....	L, NDGS Circ. 43, reached Precambrian.
15cbb	E. Fandrich	148	5	Dr	1934	20	6- 5-64	D,S	Sd	Qg	1,401-	1,551	.....	P Sd, P 6 gpm
16ccbl	H. Stokes	40	36	Du	....	20	6- 4-64	D,S	Sd	Qg	.....	1,565	.....	Standby, Ds
16ccb2	do.	20	24	Du	....	..	6- 4-64	S	Sd	Qg	.....	1,565	.....	
16ccb3	do.	93	5	Dr	1962	65	6- 4-64	D	Sd,Gv	Qob	.....	1,565	.....	

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
146-66, Cont.														
17bcc1	Jesse Stambaugh	32	96-24	Du	1898	29	3-13-64	D	Gv	Qg	.....	1,572	.....	
17bcc2	do.	34	24	Du	1898	29	3-13-64	D	Sd	Qg	.....	1,571	.....	Pdo, W garden only, FoS.
17ccb	John Stambaugh	26.4	36	Du	....	20.2	6- 4-64	U	..	Qg	.....	1,575	.....	
18adal	City of Carrington	89.9	18	Dr	1958	28.9	7-24-62	PS	Sd,Gv	Qob	1,480	1,571	.....	L, C, P 650 gpm, drilled to 94 ft.
18ada2	do.	89.2	24	Dr	1958	27.8	7-24-62	PS	Sd,Gv	Qob	.....	1,572	740	C, P 900 gpm
18cdd	W. Radke	36	36	Du	....	2	6- 8-64	D	Tl	Qg	.....	1,582	.....	P 1/6 gpm
18dcc	Cargill, Inc.	30	22	B	1958	8	6- 8-64	D	..	Qg	.....	1,581	.....	
19ac	City of Carrington	1,947	..	Dr	1900	Flow	1929	U	Ss	Kd	.....	1,588	.....	Rs W aquifer at 1,847 ft. Hard W F at 1,927 ft, F 10 gpm, Sdu.
20accl	E. Stokes	40	36	B	1930	..	.....	U	..	Qg	.....	1,576	.....	FoS
20acc2	do.	88	5	Dr	1955	..	6- 4-64	D	Sd,Gv	Qob	.....	1,576	1,010	Fe
20bbc	A. Schroeder	65	..	Dr	1960	Dry	6- 8-64	U	..	Kp	1,562e	1,582	.....	"Surface W" at 12 ft, destroyed.
20dcc	Mrs. Ross McKenzie	40	72	Du	1888	..	6-12-64	U	..	Qg	.....	1,586	.....	Tm
21dcc	T. G. McCreary	150	4	Dr	1935	20	6-12-64	D	Sh(?)	Kp(?)	.....	1,567	.....	Pdo, Rs, Fe
22abbl	J. A. Carr	24.3	24	Du	....	9.0	6- 5-64	S	Sd	Qg	.....	1,541	.....	P dry, hauls W
22abb2	do.	18.5	36	Du	....	8.4	6- 5-64	S	Sd	Qg	.....	1,541	.....	P dry, hauls W
22caal	S. Nicolson	90	24	B	1915	20	7-27-62	U	..	Qg	.....	1,552	.....	
22caa2	do.	130	5	Dr	1949	20	7-27-62	D	Sd,Gv	Qg	.....	1,552	.....	P dry, Fe
23aa	Cardinal Oil Co., Graves No. 1	3,803	..	Dr	1956	..	5-63	Oil	..	..	.....	1,529	.....	L, NDGS Circ. 264, reached Precambrian.
23dcc	J. R. Carr	17.5	30	B	....	10.5	6-12-64	U	..	Qg	.....	1,541	.....	
24bbb	Test hole 3070	136	..	Dr	1963	..	8-27-63	T	..	..	1,414	1,537	.....	L

24caal	R. Miller	20	..	B	....	17	6-12-64	D	Tl	Qg	.....	1,535	.....	Ds, Tm, not used for drinking.
24caa2	do.	220	..	Dr	1956	Dry	6-12-64	U	..	Kp	.....	1,536	.....	Dry except "surface W," destroyed
24cad	do.	20	..	B	....	17	6-12-64	S	Tl	Qg	.....	1,536	.....	Tm, not used for drinking.
25cab	L. Bort	18	24	Du	1898	8	6-12-64	S	Sd	Qg	.....	1,535	.....	Supplies 100 cattle, Fe.
25daa	E. Waldon	32	30	Du	....	16	6-12-64	D,S	..	Qg	.....	1,535	.....	
26bbb	D. Nicolson Estate	190	5	Dr	1940	23.0	6-22-64	D	Sh	Kp	1,416e	1,547	.....	Tsa, not used for drinking.
28ba	J. Semmens	73	5	Dr	1935	20	6-12-64	U	Sd	Qg	.....	1,573	.....	FoS
30aaa	E. Okert	30	24	B	....	7	6-12-64	U	Tl	Qg	.....	1,586	.....	Tm
30aad	C & G Inc.	36	30	Du	....	0	6-12-64	D	..	Qg	.....	1,585	.....	Supplies store and machine shop, Tm.
31aca	E. Okert	54.5	24	B	....	39.5	6-12-64	S	..	Qg	.....	1,606	.....	P dry, W smells bad.
31cad	do.	42.3	36	Du	....	32.8	6-12-64	D,S	..	Qg	.....	1,601	.....	
32ccb1	A. Paulson	30	36	B	....	25	6-12-64	U	Sd	Qg	.....	1,601	.....	
32ccb2	do.	50	36	B	....	20	6-12-64	D,S	Sd,Gv	Qg	.....	1,605	.....	
33bbb	C. R. Cook	20	22	B	1961	15	6-12-64	D	Sd	Qg	.....	1,581	.....	Tm
33bbd	do.	30	22	B	1960	12	6-12-64	S	Sd	Qg	.....	1,581	.....	Pdo
34abb	F. W. Carr	24	36	Du	1891	..	6-12-64	D	Gv	Qg	.....	1,562	.....	
35bba	D. Nicolson Estate	18	36	Du	1928	10	6-12-64	D,S	..	Qg	.....	1,551	.....	P dry, Fe
146-67														
1aad	Marie Harmon	45	5	Dr	1959	25	7-25-62	S	Sd	Qob	.....	1,556	885	C, Ds, (fall 1961)
1acc	do.	90	4	Dr	1953	28	8-63	T	..	..	.....	1,568	.....	L
1ada	do.	96	5	Dr	1960	35	7-25-62	S	Sd	Qob	1,465e	1,563	.....	Supplies 380 cattle, 80 ft well for D, Fe.
3ddd	Test hole 1473	32	..	Dr	1959	..	3-28-59	T	..	..	1,557	1,580	.....	L
4ccc	Sophia Kuehn	35	36	Du-B	1947	10	10- 2-62	D,S	Sd	Qg	.....	1,605	.....	
5caa	R. Rindy	30	24	B	1957	20	10- 2-62	S	Gv	Qg	.....	1,605	4,210	Pdo, Tm, Vh, not used for drinking.
7aaa	W. Engle, Jr.	40	36	B	....	6	10- 2-62	U	Gv	Qg	.....	1,610	.....	FoDS, well deepened 6 ft, T = 46°
8bab	E. Miller	28	24	B	1944	8	10- 2-62	D,S	Sd	Qg	.....	1,610	1,610	P 8+ gpm, T = 46°

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
146-67, Cont.														
8ddc1	R. Montgomery	12.3	36	Du	1922	8.3	10- 3-62	S	Sd	Qg	.....	1,610	6,840	P dry in 1 hr at 5 gpm, Vh, Tsa.
8ddc2	do.	18.3	30	B	1956	9.0	10- 3-62	S	Sd	Qg	.....	1,610	.....	P dry in 1 hr at 6 gpm.
10acc	R. Reimers	36.5	36	B	1927	12.0	10- 2-62	U	Sd	Qg	.....	1,594	.....	FoDS, Ri
10bb	Cardinal Drilling Co., J. M. Anderson, No. 1	4,185	..	Dr	1956	..	4-63	Oil	..	..	1,380+	1,582	.....	L, NDGS Circ. 270, reached Precambrian.
10ccd	J. W. Watson, Jr.	28	24	B	1946	15	10- 2-62	D,S	Sd	Qg	.....	1,605	1,490	Ds (April 1962), P 6+ gpm, Tm.
12ada	Lloyd Butts	102	4½	Dr	1950	32	10- 3-62	U	Gv	Qob	.....	1,580	726	FoDS, Fe
12bda	do.	102	18	Dr	1965	36.2	6-30-65	I	Gv	Qob	.....	1,578	.....	P 1,500 gpm with 30 ft Dd.
12ddd1	C. Gruntjes	53	30	B	1930	35	10- 3-62	D	Gv	Qob	.....	1,580	.....	Sd at 35 ft, Gv at 49 ft. Garden W only, FoS.
12ddd2	do.	78	5	Dr	....	30	10- 3-62	D	Gv	Qob	1,502-	1,580	640	Sd at 35 ft, Gv 45 ft to 78 ft.
15ccd	S. Senechal	19.0	36	Du	....	11.0	10- 4-62	D	..	Qg	.....	1,605	5,470	Originally 40-50 ft, partly caved, Vh, Fe.
15dcd	H. Hagel	38.0	36	Du	1900	10.3	10- 4-62	D,S	Tl	Qg	.....	1,605	1,700	Tm
16aac	do.	21.0	21	..	....	13.2	10- 4-62	U	..	Qg	.....	1,610	.....	
16bab	Ardell Montgomery	22	30	B	1950	10	10- 3-62	D	Sd	Qg	.....	1,615	.....	P dry after 1 hr at 6 gpm.
17aaa	R. Montgomery	21	30	B	1954	10	10- 3-62	S	..	Qg	.....	1,610	.....	P dry after 1 hr at 6 gpm.
19aba	W. Goter	30.0	24	B	....	8.3	10-15-64	O	..	Qg	.....	1,601	.....	
19abb	do.	11.7	57	Du	....	2.2	10- 3-62	D,S	Sd	Qg	1,560e	1,571	1,140	
19abd	do.	100.5	24	B	1952	10.7	10-15-64	O	Sh	Kp	.....	1,590	5,080	FoS, Tsa, Fe

19bab	do.	150	5	Dr	1964	..	9- 3-64	D	Sh	Kp	.....	1,582	4,010	C, supplies campground, Tsa, Fe.
19ccc	Edith Hanson	15.5	24	B	1958	5.2	10- 3-62	D,S	Sd	Qg	.....	1,601	.....	P dry in dry years.
20ddd	do.	20.4	36	Du	1883	10.2	10- 4-62	S	Tl	Qg	.....	1,600	.....	
21dcc	S. Senechal	12.4	30	Du	....	10.2	10- 5-62	U	..	Qg	.....	1,605	.....	
22aaa	Test hole 1474	105	..	Dr	1959	..	3-30-59	T	..	..	1,509	1,605	.....	L
22baa	C. Hagel	18.2	36	Du	1910	10.0	10- 4-62	O	..	Qg	.....	1,610	.....	FoDS, Ri, destroyed.
22bbb	Wyard School Dist.	28.0	30	B	1956	12.2	10- 4-62	Sc	..	Qg	.....	1,610	3,130	C, Tm
23ada	A. W. Klein	30.4	24	..	....	18.6	10- 5-62	D,S	..	Qg	.....	1,610	2,260	Pdo, Vh, Fe
24add1	D. Bohnet	14.1	72	Du	....	6.8	10- 6-62	U	..	Qg	.....	1,595	.....	FoS, Tm
24add2	do.	16	..	B	1962	12	10- 6-62	U	Sd	Qg	1,523e	1,595	.....	Sh at 72 ft, in dry hole.
25aaa	L. Garrett	30	36	..	....	15	10- 6-62	D,S	..	Qg	.....	1,600	.....	
25baa	T. A. Roney	13.0	36	Du	1932	6.7	10- 5-62	U	..	Qg	.....	1,600	.....	
25daa	L. Garrett	18.5	36	..	....	11.0	10- 6-62	S	..	Qg	.....	1,600	.....	
26baa	M. Brandt	38	22	B	1962	23	10- 5-62	S	Sd	Qg	.....	1,605	.....	P 6 gpm
26bbb	Test hole 1475	32	..	Dr	1959	..	3-30-59	T	..	..	1,585	1,607	.....	L
27bbb	D. Linderman	15.4	24	..	....	7.6	10- 5-62	S	..	Qg	.....	1,600	.....	
28abc	E. D. Mitchell	35	30	B	1946	20	10-10-62	S	Gv,Sd	Qg	.....	1,590	.....	Standby, Vh, Tm
30cbc	A. Prentice	34	36	Du	1900	27	10- 5-62	U	Sd	Qg	1,565e	1,600	.....	FoDS, Ri, Tsa
31bbc	S. Prentice	21.0	24	Du	1922	5.5	10- 5-62	U	Tl	Qg	.....	1,596	.....	
32baa	A. Leppke	66.9	36	B	1952	63.5	10- 8-62	D,S	Sh	Kp	1,521+	1,588	1,510	Recharged by hauling 2,000 gallons per month.
32dab	E. Butts	40	24	..	....	20	10- 8-62	S	Sd	Qg	.....	1,590	3,160	
33dcal	Leroy Butts	21.3	30	Du	1902	9.4	10- 6-62	U	Tl	Qg	.....	1,595	.....	Supplies only 400 gallons per day, Vh, Tm.
33dca2	do.	23.6	30	B	1958	11.9	10- 6-62	D	Gv	Qg	.....	1,595	.....	Pdo
33dcb	do.	75	4	Dr	1960	15	10- 6-62	S	Sd,Sh	Qg,Kp	1,520e	1,595	.....	L, C, P dry at 20 gpm, Tm, Tsa.
34cdd	Lloyd Butts	20.7	30	..	....	9.7	10- 6-62	U	..	Qg	.....	1,600	.....	P dry, Tm
35ddal	F. L. Aljets	18.9	30	..	....	9.7	10- 6-62	S	Sd	Qg	.....	1,605	610	
35dda2	do.	21.5	30	..	....	10.9	10- 6-62	D	Sd,Gv	Qg	.....	1,605	.....	
36dcb1	Mabel Rusk	14.4	30	..	....	11.0	10- 6-62	S	..	Qg	.....	1,610	.....	Sdu, Tm
36dcb2	do.	30	30	..	....	13	10- 6-62	D,S	Sd	Qg	.....	1,610	.....	Sdu, Tm

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
147-62														
2ada	R. Aasand	74	4	Dr	1950	22	5-29-63	D,S	Sd,Gv	Qg	1,458-	1,530	.....	P 7 gpm with 24 ft Dd in 5 hr.
2ddal	E. G. Larson	52	5	Dr	....	13	5-29-63	D	Sd,Gv	Qg	1,459e	1,510	660	P 15 gpm with 23 ft Dd in 3 hr, Sd, Gv to 51 ft, T = 45°.
2dda2	do.	32	5	Dr	....	12	5-29-63	S	..	Qg	.....	1,510	.....	
4dbb1	R. F. Lowe	25	36	Du	....	10	5-29-63	U	..	Qg	.....	1,510	.....	Tm
4dbb2	do.	105	5	Dr	1960	..	5-29-63	D	Sh	Kp	1,405+	1,510	2,720	T = 50°
5dbd1	C. R. Christianson	95	..	Dr	1953	..	9-30-64	D	Sh	Kp	1,412+	1,507	2,020	C, supplies gas station and house, Rs, no Tsa.
5dbd2	J. Aarestad	110	8	Dr	1959	..	9-30-64	D	Sh	Kp	.....	1,507	3,070	C, supplies house, store, cafe, Tsa.
6dcd1	D. Ramey	64	4½	Dr	1949	13	5-29-63	..	Sd	Qg	1,456-	1,520	.....	P 2 gpm, Fe
6dcd2	do.	100	5	Dr	1954	12	5-29-63	D	Sh	Kp	1,420+	1,520	1,780	P 2 gpm, Rs, Fe, T = 45°.
7acc	S. T. Smith	28	36	Du	....	20	7- 2-64	S	Sd	Qg	.....	1,521	.....	
7caa	do.	175	4	Dr	1959	11	7- 2-64	D,S	Sh	Kp	1,390e	1,521	3,180	Drilled 100 ft of Sd, Rs, Tsa.
10abb	Test hole 2277	63	1¼	Dr	1964	10.2	10-14-64	T,O	Sd,Gv	Qob	1,452	1,504	1,380	L, C, Cd 48 ft
11bbb	N. P. Black	161	4	Dr	1952	11	5-29-63	D,S	Sh	Kp	1,334+	1,495	6,250	P 6 gpm, 94 ft Dd in 5 hr, Tsa.
12add	M. J. Rondestvedt	56	4	Dr	1958	18	5-29-63	D	..	Qg	.....	1,515	.....	Fe
12daa	do.	25	36	Du	....	20	5-29-63	U	..	Qg	.....	1,515	.....	P dry
14abc	Test hole 3052	86	..	Dr	1963	..	8- 8-63	T	..	..	1,449	1,515	.....	L
14bbc	P. W. Brandt	248	4	Dr	....	100	5-24-63	D,S	Sh	Kp	.....	1,530	5,580	Rs, Tsa, T = 46°.
14dbd	do.	85	4	Dr	1961	30	5-24-63	S	Sd	Qg	.....	1,540	.....	P 6 gpm, 34 ft Dd in 6 hr.
15aad	do.	87	4	Dr	....	45	5-24-63	D	Sd	Qg	.....	1,532	770	P dry, T = 44°
15cbc	R. McDaniel	80	4	Dr	....	25	8- 9-63	D,S	Sd	Qg	.....	1,530	.....	Fe

18baa	S. T. Smith	110	4	Dr	1962	6	7- 2-64	S	Sh(?)	Kp(?)	.....	1,527	.....	P 5 gpm, 64 ft Dd in 5 hr.
18cdd	A. T. Smith	55	24	Du	....	20	5-29-63	D	..	Qg(?)	1,467e	1,522	.....	
19bad	A. Frappier	55	24	Du	....	25	5-29-63	D	..	Qg	.....	1,510	.....	
19dad	M. R. Thompson	118	4	Dr	1950	25	5-29-63	D,S	Sd,Sh	Qg,Kp	1,382+	1,500	1,530	Tsa
19dda	do.	90	24-16	B	1918	40	5-29-63	S	Sd	Qg	1,410-	1,500	.....	
21cbb	O. Tufte	30	24	B	....	20	7- 2-64	D,S	Gv	Qg	.....	1,495	.....	Pdo
22ccb1	E. Pewe	90	24-16	Dr	1917	20	5-24-63	D	Tl(?)	Qg	1,402e	1,492	.....	P dry
22ccb2	do.	105	6	Dr	....	40	5-24-63	S	Sh	Kp	.....	1,490	3,830	Rs, Tsa, T = 44°.
22ccd	do.	29.0	24	B	1926	6.0	9-22-64	O	Tl	Qg	.....	1,490	.....	FoS, Ri
22ddd	Test hole 3053	68	..	Dr	1963	..	8- 9-63	T	..	..	1,426	1,473	.....	L
23ccc	F. Westerhausen	40	36	Du	....	20	7- 2-64	D,S	Gv	Qg	.....	1,480	1,960	
24aaa1	K. F. Hoyt	73	36	B	1937	20	5-23-63	S	Sd	Qg	1,427-	1,500	.....	P dry, Rs
24aaa2	do.	59	4	Dr	....	23	5-23-63	D	Sd,Gv	Qg	.....	1,500	.....	P 7 gpm, 28 ft Dd in 5 hr, Rs.
25bcb1	P. Frappier	200	5	Dr	....	50	5-24-63	S	Sh	Kp	.....	1,460	.....	Tsa
25bcb2	do.	117	5	Dr	1961	12	5-24-63	D,S	Sh	Kp	1,343+	1,460	3,360	Rs, Tsa
26ada	P. Frappier, Jr.	80	4	Dr	1952	20	7- 2-64	D,S	Sh	Kp	.....	1,461	2,950	P dry, Rs, Tsa, T = 45°.
26add	Test hole 2267	47	..	Dr	1963	..	7-14-64	T	..	..	1,429	1,451	.....	L
27aaa1	S. J. Fintoski	22	36	Du	1900	20	5-24-63	S	Gv	Qg	.....	1,480	.....	
27aaa2	do.	12	36	Du	....	8	5-24-63	U	..	Qg	.....	1,470	1,160	F at times, T = 38°.
27aaa3	do.	54	4¼	Dr	....	18	5-24-63	D	Tl	Qg	1,426-	1,480	1,900	P 7 gpm, 10 ft Dd in 5 hr, T = 45°.
29add1	L. Hoyt	30	24	Du	....	12	5-29-63	D	..	Qg	.....	1,500	.....	Rs
29add2	do.	42	18	Du	....	40	5-29-63	S	..	Qg	.....	1,500	.....	P dry
29add3	do.	143	6	Dr	1957	22	5-29-63	D	Sh	Kp	1,357+	1,500	6,250	Pdo, Rs, Tsa
30aab	M. R. Thompson	100+	6	Dr	1944	30	5-29-63	S	Sd	Qg	.....	1,500	.....	Rs
31dda	A. Schmidt	..	5	Dr	....	..	5-29-63	D	Sh	Kp	.....	1,470	11,700	Reported "deep," W hard, Tsa, T = 46°.
32bcc	E. F. Hoyt	155	4	Dr	....	20	5-29-63	D,S	Sh	Kp	.....	1,490	10,400	P dry, Tsa, T = 45°.
32dcc1	L. Hazer	44.0	36	Du	....	33.9	5-29-63	D	..	Qg	1,451-	1,495	.....	P dry
32dcc2	do.	238	6	Dr	....	20	5-29-63	S	Sh	Kp	.....	1,495	5,910	P dry, Rs, Tsa, T = 47°.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
147-62, Cont.														
34bbb1	J. Delfs	75	18	B	1928	..	7- 2-64	S	Sh(?)	Kp(?)	.....	1,461	.....	Ds
34bbb2	do.	110	6	Dr	1951	30	7- 2-64	D	Sh	Kp	1,442e	1,472	2,350	Rs, 2 other similar wells.
35bbc	F. Westerhausen	28.0	36	Du	....	19.7	5-24-63	U	..	Qg	.....	1,490	.....	
36cbb	Ada Bergstad	17	1¼	Dv	....	6	7- 2-64	D,S	Sd	Qg	.....	1,486	.....	Fe
147-63														
1acb	L. E. Ellingson	16	30	Du	....	8	6-30-64	S	Sd,Gv	Qos	.....	1,520	.....	
1bdc1	do.	76	5	Dr	1937	..	6-30-64	D	Gv	Qg	1,466-	1,542	.....	
1bdc2	do.	71	5	Dr	1959	..	6-30-64	S	Gv	Qg	.....	1,542	.....	
3ddb	F. Shimon Estate	64.1	24	B	....	42.0	6-30-64	U	..	Qg(?)	.....	1,541	.....	
4ccc	Test hole 3074	159	..	Dr	1963	..	8-30-63	T	..	..	1,345	1,490	.....	L
6add	G. Dreher	17	6	Dv	1956	11	6-30-64	S	Gv	Qos	.....	1,489	.....	"Peculiar" taste, 3 other similar wells.
6cbc	Test hole 3073	68	..	Dr	1963	..	8-30-63	T	..	..	1,446	1,484	.....	L
8baa	R. H. Wallbridge	33	48	Du	1934	29	6-30-64	D,S	Gv	Qg	.....	1,509	901	
9aaa	do.	174	5-4	Dr	....	105	6-30-64	S	Sh	Kp	1,447e	1,547	.....	Rs
11adb	S. Tufte	92	6-4	Dr	....	25	6-30-64	D,S	Gv,Sd	Qg	.....	1,552	1,390	C, P 6 gpm, T = 44°, deepened 9 ft in 1955.
13bda	W. Luttschwager	87	4	Dr	1955	25	6-30-64	D,S	Gv	Qg	.....	1,562	.....	
13dad	D. Short	140	6-4	Dr	1960	15	6-30-64	D,S	Sh	Kp	.....	1,532	1,080	P dry, Rs, T = 44°
13dda	do.	22	48	Du	1938	6	6-30-64	S	Sd	Qg	.....	1,521	1,260	T = 47°
15aacl	W. Luttschwager	80	4	Dr	....	..	5-30-63	D	..	Qg	.....	1,550	.....	Fe
15aac2	do.	140	4	Dr	1961	..	5-30-63	S	Sh(?)	Kp(?)	.....	1,550	1,560	Rs, T = 46°
16add	H. Pierce	31.9	30	Du	....	20.3	6-30-64	D,S	Sd	Qg	.....	1,510	.....	
17bda	L. J. Gauderman	12	1¼	Dv	1960	4	6-30-64	D	Sd	Qos	.....	1,458	.....	Rs
17cacl	L. Gauderman	87	4½	Dr	....	40	6-30-64	D	Sd	Qg	1,398-	1,485	.....	Fe, Tm
17cac2	do.	93	5	Dr	....	40	6-30-64	D,S	Sd	Qg	.....	1,485	.....	Fe
20ccc	Test hole 3057	159	..	Dr	1963	..	8-31-63	T	..	..	1,392	1,515	.....	L
21dda	A. Hegvik	30.5	24	Du	....	17.4	10-14-64	O	..	Qg	.....	1,510	.....	

22add	Howard Topp	63	5	Dr	1959	Flow	5-30-63	S	Gv	Qob	1,420-	1,483	1,100	Originally F 12 gpm, choked to 2 gpm, T = 44°.
24add1	Jennie Vining	24	36	B	1931	18	6-30-64	D,S	Sd	Qg	.....	1,514	.....	Pdo, Tm
24add2	do.	24	36	Du	....	18	6-30-64	S	Sd	Qg	.....	1,514	.....	Ds, Vh, Tm
24ccc	R. Dreher	139	5	Dr	1954	112	6-24-64	D,S	Sh	Kp	1,372+	1,511	1,340	P 6 gpm, 20 ft Dd, Rs, no Tsa.
25adc	M. R. Thompson	28.0	36	Du	....	20.6	5-30-63	U	..	Qg	.....	1,510	.....	
25bba1	C. Pewe	53	24	Du	1907	..	5-30-63	D,S	Gv	Qg	.....	1,510	880	P dry in 1 hr at 5 gpm, T = 44°.
25bba2	do.	48	48	Du	1940	44	5-30-63	S	Tl	Qg	.....	1,510	.....	
25bbb	Test hole 3056	113	..	Dr	1963	..	8-12-63	T	..	..	1,431	1,513	.....	L
25dda	W. Wheeler	34.5	18	Du	....	23.5	5-30-63	U	..	Qg	.....	1,510	.....	
26bbc	S. Moss	82	18	B	1922	10.8	5-31-63	D	Sd	Qob	1,402-	1,485	1,190	T = 44°
26ccc	Howard Topp	117	6	Dr	....	15	5-31-63	D	..	Qob	1,386-	1,503	833	Similar S well
27bac	J. Grothe	108	6	Dr	1959	14	6-30-64	D,S	Sd	Qob	.....	1,504	1,280	C
27ccd	Test hole 2268	147	..	Dr	1964	..	7-14-64	T	..	..	1,379	1,510	.....	L
28acd	L. and C. Pewe	137	4	Dr	1950	80	5-30-63	D,S	..	Qg	1,373-	1,510	638	C, T = 44°
28ccd1	D. Dreher	50	36	Du	....	40	5-31-63	S	..	Qg	.....	1,530	.....	Fe
28ccd2	do.	175	5	Dr	....	20	5-31-63	D	..	Qg	1,355-	1,530	674	T = 49°
30dac1	G. C. Black	180	6	Dr	....	..	5-31-63	U	..	Qg(?)	.....	1,510	.....	Fe
30dac2	do.	30	30	Du	1930	23	5-31-61	S	..	Qg	.....	1,510	.....	
30dac3	do.	115	5	Dr	1960	55	5-31-63	D	..	Qg	1,395-	1,510	1,140	Fe
32ccc	L. and D. Topp	180	4	Dr	....	140	7-22-64	U	Gv	Qob	1,342-	1,522	1,260	C
32ddd	Jensina and Norma Forsberg	40	36	Du	....	25	5-31-63	D,S	..	Qg	.....	1,510	.....	
33aba	D. Otto	120	4	Dr	....	20	5-31-63	D,S	Gv(?)	Qob	1,390e	1,510	764	Bottomed in Sh, hard W, no Tsa.
34cbd	F. Beach	130	4	Dr	....	50	7- 2-64	S	..	Qob	.....	1,508	868	
34cca	C. Sampson	30	28	Du	....	20	7- 2-64	D,S	Gv	Qg	.....	1,506	.....	
34cda	B. Beach	150	4	Dr	....	40	7- 2-64	D	Gv	Qob	.....	1,505	1,350	
35ada	A. and K. Stangeland	109	5	Dr	....	10	5-30-63	D,S	Sd	Qob	.....	1,485	897	T = 44°
35ddd	Test hole 3055	136	..	Dr	1963	..	8-12-63	T	..	..	1,374	1,502	.....	L
36dcd	V. Pierce	35	36	Du	1910	18.4	5-30-63	D,S	Tl(?)	Qg	.....	1,500	3,720	P dry, Vh, T = 43°.
147-64														
1dad	J. H. Lyman	9	36	Du	....	7	7-16-64	S	..	Qg	.....	1,486	.....	

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
147-64, Cont.														
2ac	Calvert Drilling, Inc. Woodrow Topp No. 1	2,053	..	Dr	1956	..	4-63	Oil	..	..	1,402+	1,492	.....	L, NDGS Circ. 266, recovered "fresh" W from Mississippian, reached Devonian.
2add	Woodrow Topp	17	5	Du	1960	15	7- 6-64	D,S	Sd	Qos	.....	1,496	.....	Fe
2bbb	USBR 6S-11E	17	3½	Dr	1951	13.2	10-29-53	T,O	Sd	Qg	.....	1,518	.....	L
3ddd	Calvin Topp	45	24	Du	1935	30	7- 6-64	U	..	Qg	.....	1,534	.....	
4aabl	Wallace Topp	125	5	Dr	....	22	7-16-64	S	Sh	Kp	1,390+	1,515	7,190	Tsa
4aab2	do.	87	5	Dr	....	25	7-16-64	D	..	Qg(?)	1,429-	1,516	.....	
4dddl	P. Black	80	5	Dr	....	15	7- 6-64	S	Sh	Kp	.....	1,511	.....	Rs, Tm
4ddd2	do.	64	5	Dr	1949	15	7- 6-64	D	Sh	Kp	1,449+	1,513	3,920	Rs, Tsa
5abb	do.	90	5	Dr	....	40	7- 6-64	U	Sh(?)	Kp(?)	.....	1,520	.....	
6bbcl	D. Willoughby	80	6	Dr	1946	50	7- 6-64	D,S	Gv	Qg	1,431e	1,511	2,380	Pdo
6bbc2	do.	90	4	Dr	1959	50	7- 6-64	S	Gv	Qg	.....	1,511	.....	Supplies 100 cattle.
7abb	R. Anderson	96	5	Dr	1942	40	7- 6-64	D,S	Gv,Sd	Qg	1,420e	1,516	2,170	
7daa	C. and R. Grager	87	5	Dr	1912	..	7- 6-64	U	Sd,Gv	Qg	.....	1,505	.....	FoDS, Ri
8bbb	USBR 7S-8E	18	3½	Dr	1951	12.4	10-29-53	T,O	Sd,Tl	Qg	.....	1,517	.....	L
9bcc	R. Otto	117	6	Dr	1911	21	7- 6-64	D,S	..	Qg(?)	.....	1,511	.....	Rs
9daa	Ruth House	23	36	Du	1916	16	7- 6-64	U	..	Qg	.....	1,516	.....	FoDS
10add	P. Black	17.1	24	Du	1920	9.4	10-20-50	D,O	..	Qos	.....	1,511	.....	Small supply, W level measured 1946-49.
11daa	M. House	54	24	B	....	40	7-17-64	U	..	Qg	.....	1,515	.....	
12dba	State of North Dakota	8.8	30	Du	....	3.9	7-17-64	S	Sd	Qos	.....	1,475	.....	
15acd	Grace City School	44	5	Dr	1951	22	10-14-64	Sc	Sd	Qg	1,467-	1,511	1,950	C, P dry in ½ hr at 10 gpm.
15bbb	M. House	128	6-5	Dr	....	30	7-17-64	D,S	Sh	Kp	1,386+	1,514	2,880	Rs, Tsa

15dad	J. Sandvol	24	36	B	....	21	7-17-64-	D	Gv	Qg	.....	1,513	1,160	Pdo
20aaa	L. Wright	115	6	Dr	1954	30	7-20-64	D,S	..	Qg(?)	1,396e	1,511	1,760	
21ccd	Ervin Topp	110	5	Dr	1959	80	7-17-64	D,S	Gv	Qg	.....	1,517	.....	P dry, Fe
22bcc	L. Wright	146	5	Dr	1941	50	7-20-64	D,S	Sh	Kp	1,364+	1,510	1,630	Tsa
22ddd1	G. N. Stedman	50	72	Du	....	14	7-17-64	S	..	Qg	.....	1,501	.....	
22ddd2	do.	65	48	Du-B	1918	18	7-17-64	D	Sd	Qg	.....	1,522	.....	Pdo, Tm
23ccb	N. Stedman	98	6	Dr	....	40	7-17-64	D,S	..	Qg(?)	.....	1,506	1,530	
24abal	W. Meier	54	24	Du	....	25	7-17-64	S	Tl(?)	Qg	.....	1,505	.....	Pdo, supplies 250 cattle, reported unfit for humans.
24aba2	do.	102	4	Dr	1962	..	7-17-64	D	Tl,Sh	Qg,Kp(?)	1,400e	1,502	2,970	Vh, Tsa
25aa	Mike Wetch, Spickler No. 1A	3,273	..	Dr	1956	..	5-63	Oil	..	..	.....	1,463	.....	L, NDGS Circ. 268, reached Pre-cambrian.
25add	Test hole 2261	84	1¼	Dr	1964	3.3	10-14-64	T,O	Sd	Qob	1,391	1,458	892	L, C, Cd 63 ft.
25dbd	H. F. Spickler	13	36-3	Du-Dv	1964	12	7-20-64	D	Sd	Qal	.....	1,467	.....	Four other similar wells.
26cbc	W. Meier	45	5	Dr	....	..	7-17-64	D,S	..	Qg	.....	1,520	.....	Pdo
27ccc	do.	96	6	Dr	1914	..	7-17-64	U	Sd,Gv	Qg	.....	1,530	.....	FoDS, Ri
28aab1	H. Jensen	24	20	Du	....	23	7-17-64	D,S	Sd	Qg	.....	1,500	.....	P dry
28aab2	do.	152	6	Dr	1964	30	7-17-64	D	Gv	Qob	1,360e	1,510	1,540	C
29abc	Ervin Topp	65	18	B	....	50	7-17-64	S	Gv	Qg	.....	1,554	.....	
29dcd1	E. T. Scanson	54	24	Du	1947	40	7-20-64	D	Sd	Qg	.....	1,554	.....	Pdo, Fe
29dcd2	do.	162	4	Dr	1954	60	7-20-64	S	Sd	Qob	1,385e	1,545	.....	Fe
30cbc1	O. Scanson	17	36	Du	1946	10	7-20-64	S	Sd	Qg	.....	1,532	.....	P dry in 1 hr
30cbc2	do.	166	5	Dr	1959	45	7-20-64	D,S	Sd	Qob	1,367-	1,533	1,160	Fe
32abd	E. T. Scanson	30	24	Du	....	16	7-17-64	S	Gv	Qg	.....	1,565	.....	
33baa	J. Goheen	31	4	Dr	....	23	7-17-64	D	..	Qg	.....	1,530	.....	
34ddc1	J. Lindstrom	28	36	Du	1918	23	7-20-64	D,S	Sd	Qg	.....	1,563	.....	P dry in 1930's
34ddc2	do.	23	32	Du	1951	19	7-20-64	S	Sd	Qg	.....	1,562	.....	
147-65														
1bbb1	E. Weisenburger	80	6	Dr	1956	40	5-27-64	S	Sh	Kp	1,435+	1,515	.....	P 6+ gpm, Tsa
1bbb2	do.	79	6	Dr	1958	40	5-27-64	D	Sh	Kp	.....	1,518	.....	P 6+ gpm, Tsa
1ddd1	G. Ellingson	90	5	Dr	....	18	5-27-64	D	Sd(?)	Qob	1,417-	1,507	.....	Fe
1ddd2	do.	85	5	Dr	1914	25	5-27-64	S	Gv	Qob	1,417-	1,507	.....	Fe
2bcc	Test hole B 2	299	..	Dr	1947	..	9-18-47	T	..	..	1,221	1,516	.....	L

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
147-65, Cont.														
3a	C. Klein, Test hole 1	242	..	Dr	1961	60	5-27-64	T	Gv	Qob	1,279	1,521	.....	L, C
3aaal	C. Klein	170	5	Dr	1941	50	5-27-64	S	Sd,Gv	Qob	.....	1,522	.....	Ri
3aaa2	do.	203	5	Dr	1955	50	5-27-64	D	Sd	Qob	.....	1,522	.....	Fe
3d	C. Klein, Test hole 3	246	..	Dr	1961	60	5-27-64	T	Sd,Gv	Qob	1,273	1,519	.....	L, C
4bba	E. Anderson	87.0	4	Dr	....	39.0	5-27-64	U	..	Qob(?)	.....	1,522	438	T = 49°
6aaa	J. Aaland	28	30	Du	1915	..	5-27-64	S	Gv(?)	Qg	.....	1,510	.....	
6ddb	O. Kuske	150	8	Dr	1918	125	5-27-64	D,S	Sh	Kp	.....	1,526	.....	P dry in 1 hr at 3 gpm, Tsa, T = 46°.
8baal	W. Roaldson	195	5	Dr	1933	30	6-23-64	S	Sh	Kp	.....	1,519	3,000	C, Tsa, T = 45°
8baa2	do.	199	6	Dr	1949	30	6-23-64	D	Sh	Kp	.....	1,519	2,500	C, Rs, Tsa
8dcd	J. E. Edwardson	130	8	Dr	1915	50	5-27-64	D,S	Gv	Qg	.....	1,529	.....	Fe
9bbb	Emma Miller	27.0	24	B	1910	22.4	4- 3-64	U	..	Qg	.....	1,520	.....	
11aaa	A. Utke	196	..	Dr	1962	92	5-26-62	T	..	..	1,331	1,517	.....	L
11cbb	Test hole B 4	207	..	Dr	1947	..	9-26-47	T	..	..	1,275	1,478	.....	L
13ddc1	J. Goheen	40	36	B	1918	10	5-27-64	D	..	Qg	.....	1,523	.....	
13ddc2	do.	87	..	Dr	1956	..	5-27-64	U	..	Qob(?)	.....	1,526	.....	Fe, destroyed
14bbb1	H. Miller	65	36-24	B	1918	..	5-27-64	U	Sd,Gv	Qg	.....	1,521	.....	FoD, Ri
14bbb2	do.	160	6	Dr	....	..	5-27-64	D	..	Qob(?)	1,361-	1,521	.....	Fe
15dcc	T. Gussiaas	185	5	Dr	....	..	6-19-64	D,S	Sd,Gv	Qob(?)	1,340-	1,525	1,790	
16bbb	A. Landon	165	8	Dr	1904	..	5-27-64	D,S	Gv	Qg	.....	1,523	.....	
17dcc1	Thea Gussiaas	100	7	Dr	1913	50	6-19-64	S	Gv	Qg	.....	1,534	.....	Supplies 200 cattle.
17dcc2	do.	120	5	Dr	1946	55	6-19-64	S	Gv	Qg	.....	1,534	.....	
17dcc3	do.	156	5	Dr	....	70	6-23-64	D	Sh(?)	Kp(?)	1,378+	1,534	.....	
17dcc4	do.	140	5	Dr	....	60	6-23-64	S	Gv,Sh	Qg,Kp	.....	1,534	.....	
18ccb1	J. M. Indergaard	27	30	Du	1920	..	6-23-64	U	Sd	Qg	.....	1,550	.....	
18ccb2	do.	88	4¼	Dr	....	40	6-23-64	D,S	Gv	Qg	.....	1,548	1,420	
18daa	G. and C. Gussiaas	160	5	Dr	....	100	6-23-64	U	..	Qg(?)	.....	1,541	.....	P dry

19bbbl	E. Gussiaas	60	6	Dr	....	37	6-24-64	S	Gv	Qg	.....	1,545	1,040	P 7+ gpm
19bbb2	do.	60	5	Dr	1950	23	6-24-64	D	Gv	Qg	.....	1,540	.....	
20abb	Thea Gussiaas	140	5	Dr	....	60	6-23-64	D	Gv	Qg	.....	1,534	.....	
20ccdl	E. Hjelseth	98	5	Dr	1926	25	3-26-59	D,S	Sd	Qg	.....	1,537	.....	
20ccd2	do.	20	6	..	....	18	3-26-59	D	Sd	Qg	.....	1,537	.....	T = 46°
24accl	E. Rusten	28	36	Du	1915	..	6-23-64	U	Sd,Gv	Qg	.....	1,535	.....	
24acc2	do.	26	16	B	1949	15	6-23-64	D	Sd	Qg	.....	1,530	.....	Pdo
27cb	H. Swanson	200	4	Dr	....	..	6-24-64	D,S	Sh(?)	Kp(?)	1,350e	1,546	1,180	
27dcd	C. Miller	140	5	Dr	....	65	6-23-64	D	Sd,Sh	Qg,Kp	1,405+	1,545	1,060	Rs, Tsa, T = 45°
28bbbl	L. W. Davis	125	6	Dr	....	50	6-24-64	S	Sd	Qg	1,413-	1,538	.....	
28bbb2	do.	65	20	B	1948	..	6-24-64	S	Sd	Qg	.....	1,538	.....	P dry, Tm
28bbb3	do.	145	4½	Dr	1959	50	6-24-64	D	Sh	Kp	1,399e	1,538	.....	P 5 gpm, small Dd, Tsa.
28dcdl	R. Roaldson	150	5	Dr	....	70	6-24-64	U	Gv	Qg	.....	1,538	.....	Standby
28dcd2	do.	155	4¼	Dr	1950	55	6-24-64	D,S	Gv	Qg	1,381-	1,536	.....	Small Dd
29cccl	Gustav Miller	160	4	Dr	1935	..	6-24-64	S	Sh	Kp	1,375+	1,535	4,220	P dry, Tsa
29ccc2	do.	13	30	B	1956	..	6-24-64	D	..	Qg	.....	1,537	.....	P dry
29ccc3	do.	38	4	Dr	1961	25	6-24-64	S	Gv	Qg	.....	1,535	.....	P dry
30add	O. Edwardson	210+	5	Dr	1915	80	6-24-64	D	Sh	Kp	1,346+	1,536	5,240	Pdo, deepened from 190 ft, Fe, Tsa, not used for drinking.
30cbbl	Lenore Vennes	100	5	Dr	1917	..	3-26-59	..	..	Qg	.....	1,532	.....	
30cbb2	do.	160	5	Dr	1935	27	3-26-59	..	Gv	Qg	1,372-	1,532	.....	
30daa	O. Edwardson	33	14	B	1938	17	3-26-59	U	Sd	Qg	.....	1,537	.....	P dry
31ccc	C. Carr	80	5	Dr	1910	16	3-26-59	D,S	Sh(?)	Kp(?)	1,455e	1,530	.....	Tsa, T = 47°
34cbcl	J. Reiniger	110	5	Dr	1918	85	6-23-64	D,S	Gv	Qg	1,433-	1,543	.....	P at 4+ gpm
34cbc2	do.	172	5	Dr	1956	32	6-23-64	D	Sh	Kp	1,403e	1,551	2,650	Tsa
35abbl	J. Goheen	110	3	Dr	1910	60	6-23-64	D	Sd	Qg	.....	1,536	.....	Pdo, casing replaced.
35abb2	do.	143	6	Dr	1962	29	6-23-64	S	Sh	Kp	1,440e	1,540	.....	P 7 gpm
147-66														
1bcc	S. Hoveskeland	175	5	Dr	1950	40	7-26-62	D	Sh	Kp	1,357+	1,532	1,620	P dry, Rs
1ccc	G. Hall	160	4	Dr	1900	60	7-26-62	D	..	Qg(?)	1,375-	1,535	2,710	Fe, Vh, Tm
4abc	O. Hoveskeland	30	36	B	....	5	6- 9-64	U	Sd	Qg	.....	1,537	4,370	FoD, Ri, Fe, Vh, Tm.
5cdd	A. J. Mullenberg	22	48	Du	1954	15	7-25-62	S	Sd	Qg	.....	1,529	3,230	Supplies 85 cattle, Vh, similar D well.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
147-66, Cont.														
7daa	J. W. Schmid	65	6	Dr	1953	..	7-26-62	D	..	Qg	.....	1,540	.....	P dry, Fe
8cbb1	do.	120	8	Dr	....	20	7-26-62	S	..	Qg(?)	.....	1,542	.....	Supplies 140 cattle, W has gas odor.
8cbb2	do.	79	..	Dr	1950	4	7-26-62	D	..	Qg	.....	1,542	1,540	
9baa1	A. J. Mullenberg	22.4	36	Du	1924	17.8	7-25-62	D	..	Qg	.....	1,542	.....	
9baa2	do.	72	4½	Dr	1962	18	1962	D	Gv	Qg	1,469-	1,541	.....	L, P 5-6 gpm
10baa	T. Montgomery	150	6	Dr	1927	40	7-24-62	D,S	..	Qg(?)	.....	1,546	1,780	Fe
10ccd	A. Linderman	115	5	Dr	1960	..	7-25-62	D	Sd	Qg	1,422-	1,537	.....	
12bbc	Anna Dawalt	160	6	Dr	1915	55	7-26-62	D,S	Sd,Sh(?)	Qg,Kp(?)	1,375e	1,535	1,770	Rs
14aaa	M. Miller	119.9	4	Dr	1931	50.9	10-15-64	O	..	Qg(?)	.....	1,532	.....	FoDS
14ccc	Test hole 2259	168	..	Dr	1964	..	7- 7-64	T	..	..	1,379	1,527	.....	L
18aaa	Test hole 1273	94	..	Dr	1957	..	12-21-57	T	..	..	1,456	1,544	.....	L
18ddb	R. Iverson	19.7	30	B	....	5.2	7-26-62	U	..	Qg	.....	1,547	.....	
19aaa	Test hole 1272	94	..	Dr	1957	..	12-21-57	T	..	..	1,465	1,550	.....	L
19aad	H. Erickson, Jr.	76	4	Dr	1958	9	7-26-62	U	Gv	Qob	.....	1,545	827	C
19bca	H. Erickson, Sr.	25	48	Du	1932	10	7-26-62	U	Sd	Qg	.....	1,557	.....	P dry
23ccb	L. Becker	15.6	48	Du	....	6.3	7-26-62	U	Sd,Gv	Qg	.....	1,526	.....	FoS, Ri, Vh
24cbb	E. Edwardson	125	..	Dr	....	25	3-26-59	..	Sd	Qg	.....	1,528	.....	Rs
24cbc	do.	194	6	Dr	1907	20	7-26-62	D,S	Gv	Qg	.....	1,528	.....	Rs
27ccd1	R. and P. Theis	28	30	B	1959	4	7-26-62	D,S	Sd	Qg	.....	1,532	.....	P dry, Vh
27ccd2	Test hole 1469	168	..	Dr	1959	..	3-26-59	T	..	..	1,373	1,530	.....	L
28cac	M. Landon	40	36	B	....	10	3-26-59	D,S	Gv	Qg	.....	1,547	.....	
28cbd	do.	118	6	Dr	1960	10	7-26-62	D,S	Sd	Qob	1,429-	1,547	1,180	Supplies 100 cattle.
28daa	S. J. Copenhaver	112	6	Dr	1902	20	7-26-62	S	Sd	Qob	1,425-	1,537	1,700	P dry in 1930's, Tm, 85 ft D well in Sd.
29acc	E. Lechner	76	40-5	B	1906	13.3	3-26-59	D,S	Sd	Qg	.....	1,556	411	T = 47°
29ddd	Test hole 2258	105	3	Dr	1964	13.2	10-15-64	T,O	Gv	Qob	1,456	1,545	1,470	L, C, Cd 87 ft, recorder.
30aab	Test hole 1268	105	..	Dr	1957	..	12-14-57	T	..	..	1,459	1,554	.....	L
30ccc	E. Stouffer	70	4	Dr	1937	..	3-13-64	D	Gv	Qob	.....	1,567	.....	Fe
30dab	Test hole 1267	115	..	Dr	1957	..	12-13-57	T	..	..	1,461	1,563	.....	L
31aab	Test hole 1266	94	..	Dr	1957	..	12-12-57	T	..	..	1,465	1,553	.....	L

31accl	Carrington Irrigation Branch Station 1	93	14	Dr	1958	22.3	10-15-64	I,O	Sd,Gv	Qob	1,471	1,564	958	C, aquifer test
31acc2	Carrington aquifer test 2	90	1¼	Dr	1964	20.2	5-14-64	O	Sd	Qob	.....	1,562	.....	L, Cd 84 ft
31bbb	Test hole 1262	115	..	Dr	1957	..	12- 4-57	T	..	..	1,472	1,572	.....	L
31caa	Carrington Irrigation Branch Station 3	97	4	Dr	1965	..	6-30-65	I	Sd,Gv	Qob	.....	1,563	.....	P 120 gpm, Gv 59-66 ft, Sd and Gv 66-97 ft.
31cac	Carrington Irrigation Branch Station 4	86	17	Dr	1965	18.7	8-16-65	I	Sd,Gv	Qob	1,475	1,562	.....	L, P 1,000 gpm, 12 ft Dd after 1 hr.
31ccc	Test hole 3060	103	1¼	Dr	1963	17.6	10-15-64	T,O	Sd,Gv	Qob	1,474	1,561	951	L, C, Cd 79 ft
31dd	Carrington Irrigation Branch Station 2	92	12	Dr	1958	29.1	10-15-64	I,O	Sd,Gv	Qob	1,478	1,570	.....	
31ddb	Test hole 1265	105	..	Dr	1957	..	12- 9-57	T	..	..	1,467	1,565	.....	L
32ccc	J. Carr	30	30	B	1956	15	7-26-62	D,S	..	Qg	.....	1,562	.....	
33ccc	Test hole 3066	125	..	Dr	1963	..	8-21-63	T	..	..	1,438	1,538	.....	L
33dad	Test hole 3059	170	1¼	Dr	1963	0.5	10-15-64	T,O	Sd,Gv	Qob	1,374	1,531	1,825	L, C, Cd 129 ft
34acc	M. Landon	96	6	Dr	1962	10	7-26-62	S	Sd	Qg	.....	1,528	1,750	
35bcd	O. Gussiaas	76	5	Dr	1956	20	7-26-62	S	Sd	Qg	.....	1,535	1,730	Sdu, supplies 400 cattle.
35cbal	do.	75	4½	Dr	....	12	3-26-59	D,S	Gv	Qg	.....	1,532	.....	
35cba2	do.	70	4½	Dr	....	10	3-26-59	S	Gv	Qg	.....	1,532	.....	T = 47°
36bab	G. and L. Theis	115	5½	Dr	1937	20	7-26-62	D,S	Sd	Qg	1,411-	1,531	1,950	
147-67														
1ddd	B. N. Davis	97	6	Dr	1943	30	7-24-62	D,S	Sd	Qg	.....	1,540	.....	P dry, Tm
3ccd	J. Bloomquist	100	6	Dr	1907	15	7-24-62	D,S	Sd	Qg	1,452-	1,552	.....	
4bbb	Test hole 3064	113	..	Dr	1963	..	8-20-63	T	..	..	1,454	1,556	.....	L
4ccc	Elmer Lura	83	6	Dr	1952	11	7-24-62	D	Gv	Qob	1,476-	1,559	.....	
4dcd	G. Zeller	60	6	Dr	1925	12	7-24-62	D,S	..	Qob	.....	1,555	.....	
5aab	Elmer Lura	49	6	Dr	1942	Flows	7-24-62	S	Gv	Qob	.....	1,548	.....	F 3 gpm, estimated
5dda	J. Lura	72	6	Dr	1921	8	7-24-62	S	Sd	Qob	.....	1,566	.....	85 ft D well
6dcb	K. Skadberg	80	4	Dr	1961	Flows	7-24-62	S	Sd	Qob	1,475-	1,555	.....	
6dcd	do.	90	5	Dr	1951	25	7-24-62	S	Sd	Qob	.....	1,568	.....	85 ft D well, 75 ft U well.
7aaa	J. Skadberg	100	4	Dr	1948	20	7-24-62	D,S	Sd	Qob	1,475-	1,575	.....	

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
147-67, Cont.														
9aab	Edwin Lura	40	6	Dr	....	15	7-24-62	S	Sd,Gv	Qg	.....	1,556	.....	Tm, 80 ft D well
10dda	Test hole 3065	91	1¼	Dr	1963	8.8	10-15-64	T,O	Gv	Qob	1,473	1,551	1,129	L, C, Cd 68 ft
11baa	G. Zeller	50	6	Dr	1902	9	7-24-62	D,S	Sd	Qob(?)	.....	1,546	.....	P Sd
12bbb	L. Wells	52	5	Dr	1914	0.9	7-24-62	D,S	Sd,Gv	Qg	.....	1,546	.....	
13abd	Z. Schmid Estate	97	5	Dr	1955	16	7-25-62	D	Sd,Gv	Qg	1,454e	1,550	1,974	C, Ds (summer 1963), Fe.
14dac1	S. Schmid	20	7	Du	1902	10	3-31-64	D	..	Qg	.....	1,560	1,130	P dry in dry seasons.
14dac2	do.	34	5	Dr	1961	16	3-31-64	D,S	Gv	Qob	.....	1,560	.....	C
14dac3	do.	40	6	Dr	1928	..	3-31-64	U	Sd	Qob	.....	1,560	.....	Sd 24 ft to total depth.
15bab	J. Skadberg	60	4	Dr	1960	20	7-24-62	D,S	Sd	Qob	.....	1,553	1,460	
17aaa1	O. Lura	26	36	Du	1900	20	7-25-62	D	Sd	Qg	.....	1,564	.....	Pdo
17aaa2	do.	100	5	Dr	....	12	7-25-62	D	Gv	Qob	.....	1,564	.....	
17ddd	do.	27	36	Du	1950	22	7-25-62	D	Gv	Qg	.....	1,572	.....	P dry in dry seasons.
18bcd	W. Roth	71	6	Dr	1952	57	7-24-62	D	Gv	Qob	.....	1,576	.....	P dry, Fe
19bcc	G. Linderman	70	4	Dr	....	27.7	1-17-63	U	Sd	Qob	.....	1,577	.....	
19cbc	Test hole 3062	110	1¼	Dr	1963	14.6	10-15-64	T,O	Sd,Gv	Qob	1,481	1,568	830	L, C, Cd 79 ft
20aaa	Test hole 3063	68	..	Dr	1963	..	8-19-63	T	..	..	1,540	1,573	.....	L
20add	D. Linderman	23	32	B	1958	14	7-24-62	S	Gv	Qg	.....	1,577	.....	P dry, similar D well.
20cad	G. Linderman	26	36	Du	1900	19	7-24-62	S	Gv	Qg	.....	1,574	.....	
21bdd1	G. S. Garland	35	6	Dr	1915	27	7-24-62	S	Gv	Qg	.....	1,582	.....	P dry in dry years, Fe.
21bdd2	do.	70	24-6	B-Dr	1962	27	3-31-64	D	Sd,Gv	Qob	.....	1,582	980	
21cdd	G. M. Garland	60	4	Dr	1961	30	7-24-62	D	Sd	Qob	.....	1,580	866	
22cdc	T. White	30	36	B	1910	19	7-25-62	D,S	Gv	Qg	.....	1,576	.....	Pdo, Vh
22ddd	Test hole 3061	136	1¼	Dr	1963	22.9	10-15-64	T,O	Sd,Gv	Qob	1,443	1,566	1,050	L, C, Cd 99 ft
24bda1	R. Holth	40	15	Du	1900	38	7-25-62	U	Gv	Qg	.....	1,575	.....	FoDS, Ri

24bda2	do.	86	24-4	Dr	1963	32	3-31-64	D,S	Gv	Qob	.....	1,575	1,470	
25aad	W. Larson	35	36	B	1938	26	7-25-62	D,S	Sd	Qg	.....	1,566	.....	22 ft D well, 63 ft S well.
25ddd	E. Stauffer	38.0	36	Du	....	28.6	10-15-64	O	..	Qg	.....	1,572	.....	Recorder
26bdb	Lloyd Butts	87.0	18	Dr	1965	20.5	6-30-65	I	Gv	Qob	1,476e	1,563	.....	
26cdd	W. Larson	75	4½	Dr	1952	20	7-26-62	D,S	Gv	Qob	1,497-	1,572	.....	
26ddd	H. Vande Hoven	65	36	B	1916	25	7-25-62	D,S	Gv	Qob	.....	1,569	.....	
27dcd	H. Linderman	22.0	24	B	1962	11.8	7-25-62	S	Gv	Qos	.....	1,570	.....	C
28aa	Calvert Drilling, Inc., G. S. Garland No. 1	2,266	..	Dr	1956	..	5-63	Oil	..	..	1,372+	1,577	.....	L, NDGS Circ. 265, recovered "fresh" W from Mississipian.
28bad	Ione Roberts	15	12	Du	1932	4	7-24-62	S	Sd	Qg	.....	1,562	.....	P dry in dry years
28dcc	L. Erickson	50	4½	Dr	1961	30	7-25-62	D,S	Sd	Qg	.....	1,579	.....	Fe
29cdd1	do.	53	4	Dr	....	32	3-25-59	D,S	Sd	Qg	.....	1,585	.....	Vh, Tm, T = 47°
29cdd2	do.	44	36-22	B	1925	24	7-25-62	D,S	..	Qg	.....	1,585	.....	P dry, Vh
30bab	F. White	68	4	Dr	1960	27	1-17-63	D,S	Sd	Qob	1,513-	1,581	919	Yield estimated at 50+ gpm.
30bcb1	do.	90	36-18	B	1925	13.9	10-15-64	O	Tl	Qg	1,492e	1,582	.....	FoS, Ri
30bcb2	do.	70	24	B	1927	14.4	1-17-63	U	..	Qg	.....	1,586	.....	
31acd	F. J. Lemert, Jr.	25	6	Du	....	10	3-25-59	D,S	Sd	Qg	.....	1,595	.....	T = 47°
31bcc	D. Linderman	19	18	B	1949	12	7-25-62	S	Gv	Qg	.....	1,591	.....	P dry, similar D well.
32aad	F. Laber	50	24-16	B	1915	44	7-24-62	U	Sd	Qg	.....	1,582	.....	P dry
33abb	L. Erickson, Sr.	22	48	Du	....	14	3-25-59	D,S	Sd,Gv	Qg	.....	1,582	.....	Tm
33bba	Ione Roberts	38	24	Du	1906	..	3-25-59	S	Sd	Qg	.....	1,586	.....	
33bbb	Test hole 1467	63	..	Dr	1959	..	3-25-59	T	..	..	1,529	1,580	.....	L
34aab	R. L. Harmon	47.9	24	B	....	19.3	3-25-59	S	Sd	Qg	.....	1,576	.....	
35bbb	Test hole 1466	105	..	Dr	1959	..	3-25-59	T	..	..	1,474	1,570	.....	L
35cda	H. Vande Hoven	33	36	B	1915	23	7-25-62	S	Sd	Qg	.....	1,567	.....	Ds (1930's), supplies 90 cattle.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
Eddy County														
148-62														
1cad	L. Tweed	157	4	Dr	1960	117	6-25-64	D	..	Qg	1,445-	1,602	.....	P 3+ gpm, Fe
2bbc	R. Haven	130	..	Dr	1960	..	6-25-64	D,S	..	Qg	1,410-	1,540	.....	
3dda	K. Comer	86	..	Dr	1959	30	6-25-64	D,S	Sd	Qg	.....	1,510	1,180	Fe
4cdc	Test hole 2273	74	..	Dr	1964	..	7-16-64	T	..	..	1,444	1,500	.....	L
5add1	R. Harding	24	36	Du	1912	..	6-25-64	D	Tl	Qg	.....	1,525	.....	P dry after 100 gallons.
5add2	do.	24	36	Du	1916	18	6-25-64	S	Gv	Qg	.....	1,525	.....	
5add3	do.	100	5	Dr	1949	40	6-25-64	S	Gv	Qg	1,426-	1,526	.....	
7ada1	A. R. Wallace	40	24	Du	1950	30	6-25-64	D	Gv	Qg	.....	1,595	950	
7ada2	do.	111	4	Dr	1954	30	6-25-64	S	Sd	Qg	.....	1,580	456	Tm
7dcc	O. Erickson	16	36	Du	1961	13	6-25-64	D	Sd,Gv	Qg	.....	1,550	.....	
9acc	C. E. Blaskey	144	5	Dr	1963	66	6-25-64	S	Sh	Kp	1,429	1,568	.....	P 4 gpm, 38 ft Dd in 75 min, Rs, layers of fine Sd in hard blue clay 139-144 ft.
9ccb	do.	114	5	Dr	1958	49	6-25-64	D,S	Gv	Qg	.....	1,569	520	Supplies 100 cattle.
9dd	Wetch, Zachmeier, & Disney, C. E. Blaskey No. 1	3,102	..	Dr	1956	..	9-57	Oil	..	..	1,405+	1,578	.....	L, NDGS Circ. 180, reached Precambrian.
10bcb	R. Harding	85	4	Dr	1960	..	6-22-64	D,S	..	Qg	.....	1,551	.....	
12add	O. Nelson	40	36	Du	1934	..	6-25-64	D,S	Sd	Qg	.....	1,555	.....	
14aab	M. Kjelgaard	100	6	Dr	....	40	6-25-64	D,S	..	Qg	1,462-	1,562	.....	
14bcd	T. Beckerl	37	31	Du	1964	12	6-25-64	D,S	Gv	Qg	.....	1,555	1,460	Vh
15bcb1	M. Manz	26	30-24	B	1920	18	7-22-64	D,S	Sd,Gv	Qg	.....	1,531	.....	P dry
15bcb2	do.	90	5	Dr	1963	10	7-22-64	S	Gv	Qob	1,433-	1,523	699	P 6 gpm, 14 ft Dd in 5 hr.

15bcb3	do.	..	..	Sp	....	..	7-22-64	S	Gv	Qg	.....	1,530	.....	Gets low but not dry.
15cdd	Test hole 2274	168	1¼	Dr	1964	Flow	8-12-64	T	Gv	Qob	1,359	1,507	1,090	L, C, Cd 50 ft, head = 1.0 above LSD, destroyed.
16cda	E. Hoyt	112	40-5	Du-Dr	1936	18.5	6-25-64	U	..	Qg(?)	.....	1,540	.....	Was 23 ft Du well, inadequate before drilling to 112 ft.
18acd1	S. K. Haugland	30	24-12	B	1915	..	5-22-64	D	Sd	Qg	.....	1,541	.....	Used for washing
18acd2	do.	73	4½	Dr	1962	12	5-22-64	D,S	Sd	Qg	1,350	1,545	701	L, drilled as T to 196 ft. P 3½ gpm, 20 ft Dd, Fe.
20bdb1	C. Anderson	11	48	Du	1918	9	7-22-64	S	Sd	Qg	.....	1,521	.....	P dry
20bdb2	do.	80	..	Dr	1964	20	6-25-64	D,S	Sd	Qg	.....	1,522	.....	
23abc	S. Balken	40	36	Du	1910	20	7-22-64	D,S	Sd	Qg	.....	1,550	.....	
25acc1	W. Bakko	65	36	Du	....	20	7-22-64	S	..	Qg	.....	1,520	.....	P dry
25acc2	do.	112	4½	Dr	1956	30	7-22-64	D,S	Gv	Qob	.....	1,520	1,350	C, T = 44°
25add	Test hole 2275	273	1¼	Dr	1964	..	7-20-64	T	Gv	Qob	1,264	1,525	.....	L, Cd 251 ft. Casing plugged, destroyed.
26bcc1	O. Hove	42	36	B	1928	38	6-25-64	S	Sd	Qg	.....	1,530	.....	P dry in ½ hr at 5 gpm, Tm.
26bcc2	do.	125	4	Dr	1959	25	6-25-64	D	..	Qg	1,410-	1,535	.....	
27cdd	J. Dalrymple	30.8	34	Du	....	12.9	7-22-64	D	..	Qg	.....	1,520	.....	
28ccc1	W. Wallace	80	..	Dr	1954	..	6-25-64	S	Sd	Qg	.....	1,534	477	
28ccc2	do.	80	..	Dr	1960	..	6-25-64	D,S	Sd	Qg	1,452-	1,532	.....	
29daa	Test hole 2276	126	1¼	Dr	1964	24.5	10-14-64	T,O	Sd	Qob	1,434	1,540	472	L, C, Cd 98 ft
31dcd1	A. Anderson	85	4	Dr	....	20	7-22-64	U	Sh(?)	Kp(?)	.....	1,520	.....	
31dcd2	Test hole 2270	63	..	Dr	1964	..	7-15-64	T	..	..	1,462	1,510	.....	L
32baa	L. E. Tufte	138	4	Dr	1915	40	1960	D,S	Gv	Qg	1,392-	1,530	.....	Supplies 90 cattle
33ccc	H. Ehlers	40	36	Du	1916	34	7-22-64	D,S	Sd	Qg	.....	1,523	.....	Pdo
34aaa	H. Grafsgaard	49	6	Dr	1946	..	6-25-64	D	Sd	Qg	.....	1,542	565	Pdo
34cda	S. Balvitsch	50	6	Dr	1952	10	6-25-64	D,S	Gv	Qg	.....	1,510	.....	
35baa1	F. Hoyt	60	24-18	B	1938	41	1963	D,S	Sd	Qg	1,461-	1,521	.....	P dry
35baa2	do.	160	6	Dr	1958	..	6-25-64	S	Sh	Kp	1,361+	1,521	.....	Supplies 100 cattle, Rs, W has odor.
36dda2	H. Strand	54	30	B	....	30	7-22-64	D,S	Gv	Qg	.....	1,541	573	T = 45o

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
148-63														
1add	A. H. Wallace	142	6	Dr	1951	43	7-23-64	D,S	Gv	Qg	1,467-	1,609	601	T = 45°
2bdb1	C. G. Pinkerton	80	5	Dr	1950	27	7-23-64	D,S	Sd	Qg	.....	1,529	600	Sdu, Fe
2bdb2	do.	85	6	Dr	1962	35	7-23-64	S	Sd	Qg	1,444-	1,529	.....	
2db	A. Campbell	..	..	Sp	....	..	7-23-64	S	Gv	Qg	.....	1,525	.....	F 10-15 gpm, several openings.
4bbc1	S. C. Bauclair	75	30	Du	1920	30	7-23-64	U	..	Qg	.....	1,552	.....	
4bbc2	do.	100	6	Dr	1937	30	7-23-64	D	..	Qg	1,452-	1,552	1,810	
6cab	R. Haley	40	4	Dr	....	..	8-22-63	D,S	Sd,Gv	Qos	.....	1,530	.....	
6ccc	C. Haakenson	40	42	B	1933	36	8-22-63	D,S	Sd,Gv	Qos	.....	1,530	.....	
8ccd	R. Leichtman	85	6	Dr	1957	..	8-22-63	D,S	Gv	Qg	.....	1,582	.....	80 ft S well, 150 ft well plugged.
10dda	Pearl Farnswarth	80	4	Dr	1964	16	7-23-64	S	Sd	Qg	.....	1,507	.....	P 10 gpm
11ccb	Test hole 2272	84	1¼	Dr	1964	2.2	10-14-64	T,O	Sd	Qob	1,441	1,511	689	L, C, Cd 38 ft
11dcd	B. Farnswarth	76	4	Dr	1948	23	7-23-64	D,S	Gv,Sd	Qg	.....	1,551	.....	P 7 gpm
12cdd	M. Erickson	152	4	Dr	1957	40	7-23-64	S	Sd	Qg	.....	1,640	.....	P 5 gpm
18ccc	Russell Topp	104	30	B	....	9.1	7-24-63	D,S	Gv	Qg	1,420e	1,524	552	T = 51°, also 94 ft well, Tsa.
19dcc	Wayne Topp	45.0	30	B	....	9.1	7-24-64	U	..	Qg	.....	1,532	.....	
21dbc	A. R. Cunningham	..	..	Sp	....	..	7-24-64	S	..	..	.....	1,540	.....	Dug out, runs into water hole, doesn't go dry.
21dcc1	do.	113	4	Dr	1951	..	7-24-64	D	Sh	Kp	1,438+	1,551	2,740	P dry, Tsa, Tm, smells bad, iron, bacteria.
21dcc2	do.	200+	4	Dr	....	..	7-24-64	S	Sh	Kp	.....	1,542	.....	P dry, Tsa, smells bad, iron, bacteria.
21dcc3	do.	200	4	Dr	1962	30	7-24-64	S	Sd,Sh	Qg,Kp	.....	1,541	.....	Rs, Tsa, muddy, P 2½ gpm.
22dcc	Marion Loffelmacher	39	5¼	Dr	1944	19	7-24-64	D,S	Gv	Qg	.....	1,545	.....	Supplies 400 sheep and 50 cattle, Tm.

23dba	K. Topp	70	36	B	....	65	7-23-64	D	..	Qg	.....	1,571	.....	Pdo, Fe
23dbc	do.	18	36	Du	....	12	7-23-64	S	..	Qg	.....	1,534	.....	
24adal	Rose Merrick	156	5	Dr	1910	..	7-24-64	D	Sd	Qg	1,395-	1,551	2,030	Pdo, Vh, Fe
24ada2	do.	137	4	Dr	1963	72	7-24-64	D	Sd	Qg	.....	1,550	.....	
29aaa	C. Rosenberg	40	24	Du	1905	..	7-24-64	S	Tl	Qg	.....	1,542	.....	
30ccd	do.	36	36	B	1926	22	7-24-64	D,S	..	Qg	.....	1,513	1,130	
32acc	Wayne Topp	70	6	Dr	1915	..	7-29-64	D,S	..	Qg	.....	1,522	1,340	Supplies 250 cattle, Rs.
32cbal	R. J. Topp	100	3½	Dr	1915	20	7-29-64	D,S	..	Qg	1,442-	1,542	1,050	P dry in 1 hr, Fe
32cba2	do.	190	36-4	Dr	....	30	7-29-64	S	Sh	Kp	.....	1,542	.....	P dry, Tsa
32cba3	do.	110	6	Dr	1953	40	7-29-64	D	Sh	Kp	1,431+	1,541	6,940	P dry, Tsa, Fe, T = 45°.
33cc	Wayne Topp	..	..	Sp	....	..	7-29-64	S	..	..	.....	1,500	.....	Dug out, doesn't go dry, Fe.
34aaa	E. Aarestad	50	36	Du	1932	36	7-29-64	D,S	..	Qg	.....	1,542	.....	
34ada	Test hole 2271	74	..	Dr	1964	..	7-16-64	T	..	..	1,469	1,520	.....	L
35cddl	C. and E. Ellingson	54	48	Du	1901	..	7-29-64	U	..	Qg	.....	1,545	.....	FoDS, destroyed
35cdd2	do.	110	6	Dr	....	..	7-29-64	D,S	..	Qg	1,442-	1,554	889	Fe
36dcc	L. E. Ellingson	10	36	Du	....	8	6-30-64	..	Sd,Gv	Qos	.....	1,519	.....	
54 148-64														
1bcc	R. Kiker	40	4	Dr	....	17	8-22-63	S	Gv	Qos	.....	1,513	.....	Tm
3dcc	Forest Topp	12	4	Dv	....	8	8-22-63	D	Gv	Qos	.....	1,505	.....	
5bab	I. Tuntland	26.4	4	Dr	....	9.3	10-15-64	O	..	Qg	.....	1,525	.....	
6bdb	O. Gedrose	110	4	Dr	1962	40	8-21-63	D	Sh	Kp	1,420+	1,530	.....	Rs, Tsa
9bccl	Collier Farm	195	6	Dr	1932	20	8-21-63	S	Sh	Kp	1,327+	1,522	.....	Tsa, Fe
9bcc2	do.	28	36	Du	....	..	8-21-63	D	Sd	Qg	.....	1,522	.....	
9ccc	do.	10.4	30	B	....	9.6	8-24-63	U	..	Qg	.....	1,511	.....	Ds
10ccc	USBR 9	20	..	Dr	1951	..	1951	T	..	..	1,493-	1,513	.....	Clay 0-3 ft, Tl 3-20 ft.
11cbc	R. L. Kiker, Jr.	14	4	Dv	....	8	8-22-63	D,S	Sd	Qos	.....	1,503	.....	C, high nitrate, P 6 gpm, T = 50°.
11cdc	Test hole 2299	94	..	Dr	1964	..	8-19-64	T	..	..	1,428	1,501	.....	L
12ccd	A. Fenneman	53	6	Dr	1949	20	8-22-63	D,S	Sd	Qg	.....	1,518	659	C, drilled to 120 ft, hit salt W, plugged back, T = 52°.
15bcb	L. Dungan	24.9	18	B	1924	16.3	8-21-63	U	Sd(?)	Qg	.....	1,514	.....	FoDS, Ri

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
148-64, Cont.														
18add	Test hole 2298	63	..	Dr	1964	..	8-19-64	T	..	..	1,473	1,513	.....	L
19aab	E. Gedrose	80	4	Dr	1953	10	8-21-63	D	Sh	Kp	1,430+	1,510	4,300	P dry, Rs, Fe, Tsa, T = 52°.
19cdd	C. Schatz	30	36	Du	1909	19	8-21-63	D	Tl	Qg	.....	1,524	.....	P dry, Vh
19dcc	do.	170	6-4	Dr	1926	50	8-21-63	U	Sh	Kp	.....	1,524	.....	FoS
20baal	T. Barth	180	5	Dr	1906	..	8-21-63	S	Sh	Kp	1,329+	1,509	.....	
20baa2	do.	80	4	Dr	1945	6	8-21-63	D,S	Sd	Qg	1,430-	1,510	830	T = 53°
21cdc1	F. and S. Topp	20	36	Du	1907	..	8-22-63	D	Sd	Qos	.....	1,505	.....	P dry, drinking W.
21cdc2	do.	85	4	Dr	....	..	8-22-63	D	Sh	Kp	1,420+	1,505	.....	Rs, Tsa
21ddd	USBR 10	20	..	Dr	1951	..	1951	T	..	..	1,481-	1,501	.....	L
23dcd	Rudolph Topp	95	5	Dr	1955	35	8-22-63	S	Sh	Kp	1,408+	1,503	.....	Tsa
25baa	do.	100	6	Dr	....	10	8-22-63	S	Sd,Sh	Qg,Kp	1,397+	1,497	.....	Tsa
27abb1	Anna D. Topp	20	36	..	1914	5	8-22-63	S	Sd	Qos	.....	1,502	1,100	
27abb2	do.	16	..	Dv	"old"	..	10-22-64	D	Sd	Qos	.....	1,502	1,100	C
29bbb	USBR 48-8E	20	3	Dr	1951	11.0	10-29-53	T,O	Tl	Qg	.....	1,515	.....	L
29ccd1	I. Aam	180	6	Dr	....	..	8-22-63	S	Sh	Kp	.....	1,518	.....	
29ccd2	do.	80	4	Dr	....	..	8-22-63	D	Sh	Kp	1,438+	1,518	3,710	Tsa
32acb	P. Ludwig	80	24	B	....	..	8-22-63	D,S	..	Qg	1,440-	1,520	.....	
34ada	Test hole 2297	42	..	Dr	1964	..	8-19-64	T	..	..	1,479	1,496	.....	L
34add	Orin Topp	25	36	Du	1961	..	8-22-63	D,S	Sd	Qos	.....	1,508	.....	Vh
36cdd	P. Becker	13	36	Du	1961	..	8-22-63	D,S	Sd	Qos	.....	1,495	.....	Fe
148-65														
2aab	USBR 08-6E	20	..	Dr	1951	4.2	10-29-53	T,O	Sh	Kp	1,505	1,512	.....	L
8add	H. Utecht	27.3	30	Du	1920	8.3	8-15-63	U	Tl	Qg	1,494-	1,521	.....	FoDS, Ri
8bab1	R. Belquist	20	36	Du	1951	10	8-20-63	D	..	Qos	.....	1,525	.....	P dry
8bab2	do.	180	6	Dr	1927	..	8-20-63	S	Sh	Kp	1,350+	1,530	.....	
8dda	J. Anderson	20	24	Du	1951	18	8-15-63	D	..	Qos	.....	1,522	.....	P dry in 1½ hr after 100 gallons.
9abb1	C. Richter	168	6	Dr	1934	20	4- 1-64	S	Sh	Kp	1,354+	1,522	.....	Tsa
9abb2	do.	60	36	Du	1958	20	8-20-63	D	Sd,Sh	Qg,Kp	1,462e	1,522	1,580	Tsa

10abb	M. J. Haas	51.1	4	Dr	....	19.0	8-20-63	U	..	Qg(?)	.....	1,532	.....	
10ddc	J. Held	29.8	30	Du	1915	16.9	8-21-63	U	..	Qg	.....	1,541	.....	Destroyed
11cbb1	V. Belquist	22	36	Du	1908	..	8-21-63	D	Tl	Qg	.....	1,532	3,720	Pdo, Vh, Tm not used for drinking.
11cbb2	do.	148	5	Dr	1934	..	8-21-63	S	Sh	Kp	1,384+	1,532	.....	Tsa
12ccc	M. Williams	23.5	36	Du	1943	19.0	8-21-63	S	Sd	Qg	.....	1,526	.....	Tm, P dry at 1 gpm.
13bbb	USBR 2S-6E	20	..	Dr	1951	10.8	10-29-53	T,O	Tl	Qg	.....	1,523	.....	L
14baa	L. Williams	188	6	Dr	1915	60	8-21-63	S	Sh	Kp	1,349+	1,532	.....	Rs, Tsa
16bab	A. Utecht	238	4	Dr	1933	120	8-15-63	S	Sh	Kp	1,280+	1,518	.....	Rs, Tsa
17aaa	J. Anderson	18	24	Du	1960	8	8-15-63	S	Sd	Qos	.....	1,518	.....	
17ddd	E. Koepplin	185	4	Dr	1957	..	8-20-63	D	Sd,Sh(?)	Qg,Kp(?)	1,340e	1,525	1,580	Fe
19bab	W. H. Lindsey	175	6	Dr	1913	..	8-20-63	D	..	Qob(?)	1,349-	1,524	679	Rs
19daa	Test hole 2295	242	1¼	Dr	1964	45.1	10-15-64	T,O	Gv	Qob	1,303	1,526	1,270	L, C, Cd 217 ft
20cbb	A. Gedrose	150	6	Dr	1910	30	8-15-63	D,S	Sd,Gv	Qob	.....	1,526	.....	
20daa1	E. Koepplin	21.1	30	B	....	14.8	8-15-63	U	..	Qos	.....	1,523	.....	
20daa2	do.	175	6	Dr	1925	..	7-15-65	U	Gv	Qob	1,351-	1,526	.....	FoS
21aaa	J. Rybus	28.0	24	Du	1938	17.5	8-25-46	D	Tl	Qg	.....	1,532	.....	
22bbb	do.	160	6	Dr	1908	..	7-15-65	S	Sh	Kp	1,371+	1,531	.....	Tsa
22cbb	H. Krenzel	140	6	Dr	1910	..	8-20-63	D	Sd,Sh(?)	Qg,Kp(?)	1,395e	1,535	.....	Rs, Tm
22ddc	K. Williams	19.3	36	Du	....	9.2	10-15-64	O	Sd	Qg	.....	1,527	.....	
23aba	M. Williams	219	4	Dr	1943	..	8-21-63	S	Sh	Kp	1,313+	1,532	.....	Rs, Tsa
24cdd	Olga Challed	170	4	Dr	1937	..	8-21-63	S	Sh	Kp	1,356+	1,526	5,030	Rs, Tsa, T = 47°
26cbb	Test hole B 3	87	..	Dr	1947	..	9-25-47	T	..	..	1,437	1,518	.....	L
26ccd	E. Moline	126	6	Dr	1936	..	8-21-63	D,S	Sd	Qob	1,399-	1,525	.....	P Sd
26dca	D. Ludwig	160	4	Dr	1907	..	8-21-63	D,S	Gv,Sh	Qob,Kp	1,365e	1,525	.....	Tsa
26dcc	Stene Estate	24.1	30	Du	1916	12.6	10-15-64	O	Sd	Qg	.....	1,527	.....	
29ccd	R. A. Anderson	120	6	Dr	....	50	8-20-63	S	Sh	Kp	1,410+	1,530	2,330	Rs, Tsa
29ddd	L. Rosenberg	140	4	Dr	1913	..	8-20-63	D	..	Qob(?)	1,379-	1,519	.....	Fe
30bdc	Sadie Indergaard	22	6	Du	1913	17	8-20-63	D	Sd,Gv	Qg	.....	1,530	.....	P dry
30ccc	Test hole 2296	116	..	Dr	1964	..	8- 7-64	T	..	..	1,441	1,527	.....	L
33add	Elizabeth Wilson	120	6	Dr	1953	40	8-21-63	D,S	Sd	Qob	1,406-	1,526	.....	Vh
34ddd	J. Weisenburger	112	4	Dr	1909	..	8-20-63	D,S	Gv,Sd	Qob	1,420-	1,532	.....	Vh
35bbd	Plainview School District No. 14 (1)	25	36	Du	1932	15	5-27-64	Sc	Sd	Qg	.....	1,522	1,640	C, supplied up to 100 pupils, plus several families.
35bdd	F. Stene	28	5	Dr	....	16	8-21-63	S	Sd	Qg	.....	1,526	.....	Tm, P Sd

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
148-65, Cont.														
35cbb	Test hole B 1	225	..	Dr	1947	..	9-16-47	T	..	..	1,308	1,527	.....	L
35cdb	C. Klein test hole 2	216	..	Dr	1961	60	1961	T	..	Qob	1,315e	1,531	1,680	L, C
148-66														
1aab	P. Baeder	11.3	36	Du	1918	9.1	10-20-50	D,S	Gv	Qos	.....	1,521	.....	
2dcc1	W. Hulbert	..	36	Du	1944	12.9	8-14-63	D	Sd	Qos	.....	1,527	.....	Pdo, Tm
2dcc2	do.	20.0	24	Du	....	12.9	6-30-64	S	Sd	Qos	.....	1,527	.....	Pdo, Tm
3abb	H. Lies, Jr.	36.0	30	Du	....	27.4	6- 9-65	U	..	Qg	.....	1,518	.....	FoS
3acc	do.	116	30-6	Du-Dr	1909	13	6- 9-65	D	Gv	Qob	1,399-	1,515	670	Fe, Vh
3dbb	do.	135	4	Dr	....	..	6- 9-65	S	Gv	Qob	.....	1,515	700	
3ddc	Test hole 2294	252	1¼	Dr	1964	12.1	10-15-64	T,O	Sd,Gv	Qob	1,275	1,493	2,230	L, C, Cd 218 ft
4aab	USBR OS-1.7W	24	3	Dr	1953	6.7	10-29-53	T,O	Tl	Qg	.....	1,520	.....	L
4bda1	W. Starke	165	4	Dr	1937	60	6-30-64	S	Sd	Qob	.....	1,545	.....	Pdo
4bda2	do.	169	4	Dr	1960	60	6-30-64	D,S	Sd	Qob	1,372-	1,541	.....	Vh, Fe
4cbb1	J. Pfeiffer	120	5	Dr	1917	60	6-30-64	S	..	Qob	.....	1,530	.....	
4cbb2	do.	150	5	Dr	1954	60	6-30-64	D,S	Sd	Qob	1,391-	1,541	.....	C
5bcc	J. Haedt	25	36	Du	....	15	8-15-63	D	..	Qg	.....	1,542	.....	
6bbc	Test hole NR 1	130	..	Dr	1947	..	8-21-47	T	..	..	1,412	1,532	.....	L
6bcc1	City of New Rockford	146	5	Dr	....	21.5	4-26-65	O	Gv	Qob	.....	1,534	.....	C, FoPS, O for aquifer test, 6 similar wells standby for PS.
6bcc2	do.	180	..	Dr	1963	19	3-22-63	T	..	..	1,352-	1,532	.....	L, next to 6bcc3
6bcc3	do.	140	48-17	Dr	1963	19	3-22-63	PS	Gv	Qob	.....	1,532	1,770	C, aquifer test
6bcc4	New Rockford aquifer test 2D	231	1¼	Dr	1964	18.4	4-26-65	O	Gv	Qob	1,319	1,531	1,990	C, Cd 195 ft
6bcc5	New Rockford aquifer test 3D	231	1¼	Dr	1964	17.2	4-26-65	O	Gv	Qob	1,311	1,530	1,890	C, Cd 209 ft
6bcc6	New Rockford aquifer test 3S	126	1¼	Dr	1964	17.0	4-26-65	O	Gv	Qob	.....	1,530	1,420	C, Cd 106 ft

6ccb	Test hole NR 2	250	..	Dr	1947	..	8-23-47	T	..	..	1,293	1,538	.....	L
6daa1	J. Evanson	110	4	Dr	1935	10.2	8-15-63	D	Sd	Qob	.....	1,526	.....	P dry
6daa2	do.	210	4	Dr	1962	..	8-15-63	D	Gv	Qob	1,316-	1,526	.....	
7bbc	Test hole NR 3	272	..	Dr	1947	..	8-25-47	T	..	..	1,270	1,540	.....	L
7cbc	Test hole NR 4	260	..	Dr	1947	..	8-28-47	T	..	..	1,280	1,537	.....	L
8bca	O. Josund	226	6	Dr	1910	..	6-11-65	D,S	Gv	Qob	.....	1,538	1,810	P dry, Sdu
9ccb	C. Schatz	187	5	Dr	1917	45	6-30-64	D	..	Qob	1,350-	1,537	.....	Fe
9ddd	R. Christ	70	6	Dr	1916	15	8-14-63	D,S	Sd,Gv	Qob	.....	1,522	.....	
10bbd	Lydia Weber	148	4	Dr	1956	60	6-30-64	D,S	Sd,Gv	Qob	.....	1,533	.....	
10ccb	Erma Christ	70	6	Dr	1900	..	8-14-63	D,S	Sd,Gv	Qob	.....	1,531	.....	
10ddd1	F. L. Duda	68.3	6	Dr	1915	29.0	6-10-65	O	Gv	Qob	.....	1,509	.....	FoDS, originally 116 ft, Sdu.
10ddd2	do.	168	5	Dr	1964	30	6-10-65	D,S	Gv	Qob	1,345-	1,513	1,700	Sd at 70 ft, Gv to total depth.
12aad	D. L. Dodds	28.2	24	B	....	5.2	10-15-64	O	..	Qos	.....	1,524	.....	FoS
12bbb	do.	80	4	Dr	1910	16	6-30-64	D,S	..	Qg	.....	1,527	1,370	Fe
13dac	A. Omoth	118	5	Dr	1959	30	8-14-63	D,S	Sd,Gv	Qob	1,409-	1,527	623	C
15aca	E. Duda	74.2	6-4	Dr	1927	22.8	6-10-65	U	Gv	Qob	1,414-	1,510	.....	FoDS, original total depth 96 ft, Sdu.
16bbb	USBR 2S-2.5W	18	3	Dr	1953	10.4	10-29-53	T,O	Tl	Qg	.....	1,537	.....	Tl 0-18 ft
16cdd	L. Schwoebel	127	5	Dr	1925	40	8-14-63	S	..	Qob(?)	.....	1,531	.....	Similar D well
17abb1	do.	22	36-1¼	Du-Dv	....	18	6-30-64	D	Gv	Qg	.....	1,546	.....	
17abb2	do.	195	6	Dr	1956	40	6-30-64	S	Gv	Qob	1,351-	1,546	.....	Rs
17bbb	G. Settelmeyer	78	5 3/4	Dr	1956	19	6-30-64	D,S	Gv,Sd	Qob(?)	.....	1,542	870	
18bbb1	Katherina Seiler	38	36	Du	1940	32	6-30-64	D,S	Sd	Qg	.....	1,543	.....	P 300 gallons and dry.
18bbb2	do.	127	5	Dr	1959	40	6-30-64	D,S	Gv	Qob(?)	1,416-	1,543	.....	Fe
18bbc	Test hole NR 5A	180	..	Dr	1947	..	9- 2-47	T	..	..	1,350	1,530	.....	L
19cbc1	W. Holts	80	6	Dr	1909	..	8-13-63	S	Sd,Gv	Qg	1,458-	1,538	.....	
19cbc2	do.	200	4	Dr	1958	20	8-13-63	D	Sh	Kp	1,338+	1,538	.....	Pdo, Tsa, hard
20baa	A. Haas	18.5	30	Du	1918	6.2	10-15-64	O	..	Qg	.....	1,527	.....	
22bbb1	J. Seiler, Sr.	160	6	Dr	1912	..	8-14-63	U	Sd	Qob(?)	1,332-	1,522	.....	FoDS, plugs up
22bbb2	do.	12	36	Du	....	6	8-14-63	D	Gv	Qg	.....	1,522	.....	P dry, seldom used
22bbb3	do.	130	4	Dr	1963	45	6-30-64	D,S	Sd	Qob(?)	.....	1,520	.....	
24bcc1	G. Dutton	170	5	Dr	1930	110	6-30-64	S	Sh	Kp	.....	1,523	1,270-	FoDS, Rs, no Tsa, P dry starting 1964.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
148-66, Cont.														
24bcc2	G. Dutton	165	5	Dr	1964	95	6-11-65	D,S	Sh	Kp	1,411e	1,523	1,320	C
24dcc	J. Carson	90	6	Dr	1962	..	6-30-64	D	Gv	Qob	1,440-	1,530	2,100	P 5 gpm, Fe
25bbb	E. Johnson	120	6	Dr	1908	60	6-11-65	D	Sd,Gv	Qob	1,405e	1,524	1,770	Report bottomed in Sh, Fe.
26ddd1	C. Steele	20	36	Du	....	15	6-30-64	D	..	Qg	.....	1,533	.....	Seldom used
26ddd2	do.	160	4	Dr	1956	60	6-30-64	S	Sh(?)	Kp(?)	.....	1,533	.....	Fe, Tm
27bcc	Haas, Inc.	110	6	Dr	....	..	6-11-65	U	Sd	Qob(?)	.....	1,536	.....	FoS, feedlot, casing collapsed or Sdu.
28bbc	A. Haas	170	6	Dr	1905	..	6-11-65	S	Gv	Qob(?)	1,357-	1,427	1,980	C, feedlot, similar well adjoining.
28dcc	N. Eizenzimmer	180	6	Dr	1915	..	6-11-65	U	Sh	Kp	1,356+	1,536	.....	Tsa, Fe
29bcb	Test hole MR 9A	157	..	Dr	1947	..	9- 9-47	T	..	..	1,373	1,527	.....	L
30ddc	O. Kittelson	190	4	Dr	1910	Dry	8-14-63	U	Sh	Kp	1,341+	1,531	.....	Diverts Rocky Run streamflow into cistern for DS.
31dcd	H. Lindermann	60	4	Dr	1953	40	8-13-63	D	Sd	Qg	1,474-	1,534	.....	P dry
32dcd	A. DeCrans	100	6	Dr	....	..	10-19-64	U	Gv	Qg	1,429-	1,529	.....	FoDS, Ri, destroyed.
33abb	N. Eizenzimmer	115	6	Dr	1957	60	6-30-64	D	Sh(?)	Kp(?)	1,422+	1,537	2,330	Tsa, Fe
33ccb1	A. DeCrans	15	42	Du	....	..	10-19-64	D	Tl	Qg	.....	1,537	.....	Ds, Tm
33ccb2	do.	300	4½	Dr	1962	28	2- 2-65	S	Sh	Kp	1,379-1,425	1,537	.....	L, P 3-4 gpm, W turbid.
33ccb3	do.	165	6	Dr	....	..	8-14-63	U	Sh	Kp	.....	1,537	.....	FoD, P 3/4 gpm, Sdu.
34dcd	C. A. Anderson	140	6	Dr	....	..	8-14-63	D	..	Qg(?)	.....	1,529	.....	
35add	E. Norton	200	4	Dr	....	..	8-14-63	D,S	Sh	Kp	.....	1,530	.....	Tsa, 30 ft well for drinking use.
148-67														
2baa	M. Aas	130	6	Dr	1910	20	7- 1-64	S	Sd	Qg	1,410-	1,540	.....	P 7 gpm

4abb	A. Irmen	165	6	Dr	1958	..	8-12-63	D,S	..	Qg(?)	.....	1,549	.....	Vh
4ccc	V. and E. Hartl	170	6	Dr	1914	40	8-12-63	S	Sd	Qg	.....	1,547	1,900	Fe, Tm, haul drinking W.
5cdd	John S. Allmaras	60	6	Dr	....	30	8-12-63	D,S	..	Qg	.....	1,548	.....	
5ddd	V. and E. Hartl	328.9	6-4	Dr	1915	21.8	6-25-65	U	Sh	Kp	1,218+	1,547	.....	FoS, Tsa, not very corrosive to pipes.
7aaa	Test hole 2289	126	..	Dr	1964	..	8- 3-64	T	..	..	1,435	1,545	.....	L
8baa	J. Settelmeyer	11.9	30	Du	....	8.2	10-15-64	O	..	Qg	.....	1,547	.....	
8ccc	F. Lies	150	6	Dr	1956	20	8-12-63	D,S	Sh	Kp	1,393+	1,543	.....	Tsa
10aaa	B. Whetham	158	4	Dr	1953	..	8-12-63	S	..	Qg	.....	1,537	.....	Fe
10baa	do.	196	3	Dr	1962	25	8-12-63	D,S	Sh	Kp	1,388	1,543	.....	L, P 3 gpm, Fe, Tm
10cdd	Jones & Laasch	12.0	36	Du	1899	6.0	10-15-64	O	..	Qos	.....	1,533	.....	FoS
11aad1	Q. Georgeson	23.1	36	Du	....	11.7	8-15-63	S	..	Qos	.....	1,540	.....	
11aad2	do.	90	6	Dr	....	45	4-27-64	D,S	..	Qg(?)	.....	1,540	.....	
12aaa1	M. Schwoebel	30	..	Du	....	15	5-28-64	U	..	Qg	.....	1,541	.....	W high in nitrate
12aaa2	do.	130	6	Dr	....	40	5-28-64	D,S	Gv	Qob	.....	1,541	.....	
13cdc1	E. Tollefson	60	6	Dr	1910	..	8-13-63	D,S	Sd	Qob	1,483-	1,543	.....	
13cdc2	do.	210	4	Dr	....	6	8-13-63	S	Sh	Kp	.....	1,543	.....	
14aaa	E. Walz	130	5	Dr	1959	..	7- 1-64	D,S	Sd,Sh	Qg,Kp	1,407e	1,537	4,380	P dry, Tsa, Fe
14cdc	P. Weissenberger	30	22	B	....	15	8-13-63	D,S	..	Qg	.....	1,502	.....	P dry in 1 hr at 3-4 gpm.
14ddd	E. Walz	274	3½	Dr	....	..	6-25-65	U	Sh	Kp	1,268+	1,542	.....	P 10-12 gallons per day, Tsa, Fe, destroyed.
17ccd	Mary Guler	54	6	Dr	1949	20	8-12-63	D,S	Gv	Qg	1,504-	1,558	.....	Tm
19baa	F. Pardau	128	6	Dr	1910	45	4-27-64	U	Tl	Qg	.....	1,557	1,580	FoDS, Fe, T = 48°
20baa	L. and J. Guler	134	6	Dr	1961	20	8-12-63	D	Sd,Gv	Qg	.....	1,555	.....	
21abb	M. Birkeland	60	5	Dr	1910	Flow	6-25-65	U	Gv	Qob	.....	1,545	.....	FoDS, destroyed
23baa	R. Weisenburger	36	32	Du	1957	..	8-13-64	D	Tl	Qg	.....	1,552	.....	P dry in ½ hr, Vh, not used for drinking.
25bbb	J. and D. Taverna	10.0	36	Du	1938	3.7	7- 1-64	U	Sd	Qg	.....	1,534	.....	FoDS
26baa	Test hole 2290	116	..	Dr	1964	..	8- 4-64	T	..	..	1,449	1,544	.....	L
26cac	G. Kolsrud	82	5	Dr	1942	12	8-13-63	D,S	Sd	Qob(?)	.....	1,546	.....	
28bda1	L. Steinbach	23	36	B	....	20	8-13-63	D	Sd	Qg	.....	1,547	.....	P dry
28bda2	do.	65	4	Dr	1960	Flow	10- 1-64	S	Sd	Qob	.....	1,546	1,250	C, supplies 100 dairy cattle and 52 beef, also other flowing wells, T = 45°.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
148-67, Cont.														
28ddb	L. Steinbach	43.0	5	Dr	1904	Flow	1- 6-64	S,O	Sd	Qob	.....	1,540	.....	F 5.9-15 gpm
30adc	T. Gedrose	64	4	Dr	1959	0.2	7- 1-64	D	Gv	Qob	1,471-	1,548	731	
30bdd	do.	100	..	Dr	1928	..	7- 1-64	U	Sd	Qob	1,450-	1,550	.....	
30daa	do.	32	24	B	1909	Flow	7- 1-64	U	Sd	Qob	.....	1,547	.....	Plugged, FoDS
32dba	Selma Anderson	80	6	Dr	1903	20	8-13-63	D	Sd	Qob(?)	.....	1,550	.....	Fe
34bad	Doyen Bros. Corp.	56	5	Dr	1918	8	8-13-63	D,S	Sd	Qob(?)	.....	1,555	.....	
34ddd	C. A. Anderson	100+	4	Dr	....	..	8-13-63	D	..	Qg	.....	1,554	.....	P dry, Fe, Tm, haul W.
35bc	Calvert Drilling, Elliott No. 1	2,229	..	Dr	1956	..	5-63	Oil	..	..	1,410+	1,546	.....	L, NDGS Circ. 269, reached Mississippian.
149-62														
laaa	Test hole 2278	252	..	Dr	1964	..	7-22-64	T	..	..	1,243	1,471	.....	L
labb	O. Rismoen	93	24-14	B	1920	85	7-29-64	D,S	Sd	Qg	1,359-	1,452	1,380	P dry in 15 min, T = 44°.
lbda	G. S. Flaagen	21	24-3	Du-Dv	....	19	7-29-64	D,S	Sd	Qg	.....	1,463	.....	
lcadl	C. Ryan	40	36	Du	1915	35	7-29-64	S	..	Qg	.....	1,475	.....	Ds
lcad2	do.	40	6	Dr	1930	20	7-29-64	D,S	..	Qg	.....	1,475	.....	Fe
3bbd	E. R. Hollum	50	36	Du	1924	45	7-30-64	D	Sd	Qg	1,463-	1,513	.....	P dry in 4-5 hr, Fe.
3cdcl	M. Hoveskeland	32	36	Du	1910	20	7-30-64	D	..	Qg	.....	1,484	.....	Pdo
3cdc2	do.	32	36	Du	1924	20	7-30-64	S	..	Qg	.....	1,485	.....	Pdo
3cdc3	do.	108	5	Dr	1938	18	7-30-64	U	Sh	Kp	1,372+	1,480	.....	
3cdc4	do.	..	..	Sp	....	..	7-30-64	S	Sd	Qg	.....	1,470	.....	Flows 1½ gpm, piped to stock tank.
3daal	H. Ehlers	30	5	Dr	....	..	7-30-64	S	..	Qg	.....	1,461	.....	
3daa2	do.	52	6	Dr	1960	..	7-30-64	D,S	..	Qg	1,413-	1,465	.....	P 25 gpm
4aba	C. Johnson	29	6	Dr	1954	25	7-30-64	D,S	Sd	Qg	.....	1,496	642	Fe
4cdd	Clara Waldo	67	24	B	1915	63	7-31-64	D,S	Gv	Qg	.....	1,521	756	P dry in 1930's, T = 46°.

5ada	G. Haas	12.6	36	Du	....	6.7	7-30-64	U	..	Qos	.....	1,480	.....	
6aaa	J. R. Ziebart	51	36	Du	1932	40	7-31-64	D,S	Sd	Qg	.....	1,512	846	C, T = 43°
7dad1	G. Harding	22	36-40	Du	1928	15	7-31-64	S	Sd	Qos	.....	1,489	.....	Pdo
7dad2	do.	20	6	Dr	1956	15	7-31-64	D	..	Qos	.....	1,487	.....	
8aba	Arthur Haugland	24.7	36	Du	1922	10.1	10-16-64	O	..	Qos	.....	1,488	.....	FoS
8ada	G. Messner	21.8	30	Du	....	14.7	7-31-64	U	..	Qos	.....	1,495	.....	
8add	do.	..	..	Sp	....	..	7-31-64	S	..	Qos	.....	1,462	.....	Dug out, flows into stock tank.
8ccc	S. Sommerville	..	..	Sp	....	..	7-31-64	S	..	Qos	.....	1,498	.....	Dug out
9cdc1	R. Sommerville	100	6	Dr	1931	80	7-31-64	U	Gv	Qg	.....	1,505	.....	FoDS, destroyed
9cdc2	do.	26	36	Du	....	23	7-31-64	S	Tl(?)	Qg	.....	1,502	.....	P dry
9cdc3	do.	127	6	Dr	1953	26	7-31-64	D	Sh	Kp	1,391e	1,503	1,410	P 2½ gpm, Rs
9dcd1	C. Anderson	26	36	Du	1934	24	7-31-64	D,S	Sd	Qos	.....	1,478	.....	P dry in 1930's
9dcd2	do.	16.1	36	Du	....	13.6	7-31-64	U	..	Qos	.....	1,475	.....	
10dcc	O. P. Quam	66	5	Dr	....	40	8- 5-64	D,S	Gv	Qg	.....	1,534	.....	
11aba	S. Samuelson	44	24	B	1919	..	7-30-64	U	..	Qg	.....	1,535	.....	FoDS
11bba1	G. Messner	35	42	Du	1920	32	5-12-64	D	Sd	Qg	.....	1,512	.....	P dry
11bba2	do.	54	6	Dr	1951	34	5-12-64	S	Sd	Qg	.....	1,512	.....	P dry, P Sd
12bab	W. P. Alm	30	42	Du	1915	20	7-30-64	D	Tl	Qg	.....	1,503	.....	Vh
12ddc1	J. Dronen	40	42	Du	1934	..	7-30-64	U	Sd	Qg	.....	1,545	.....	FoDS, destroyed
12ddc2	do.	96	8	Dr	1946	50	7-30-64	D	Sd	Qg	.....	1,545	.....	
13bcc	G. Twedt	45	48	Du	1915	..	7-30-64	U	Sd	Qos	1,483-	1,528	.....	FoDS
13daa	P. A. LaMotte	125	6	Dr	1920	..	7-30-64	U	Sh	Kp	1,455+	1,580	.....	FoDS
14bda	O. Jensen	72	36	Du	1917	..	7-30-64	D,S	Sd	Qg	1,481-	1,553	555	P dry
14cdc	A. Twedt	60	6	Dr	1941	..	8- 5-64	D,S	Sd	Qg	.....	1,541	.....	Fe
15acb1	Ingaborg Aakre	42	24-18	Du	1927	..	7-31-64	U	Sd	Qg	.....	1,512	.....	FoDS, P dry
15acb2	do.	40	30	Du	1951	37	7-31-64	D,S	Sd	Qg	.....	1,512	1,090	P dry
18aad1	S. Somerville	20	36	Du	1917	..	8- 6-64	S	Tl	Qg	.....	1,511	.....	Pdo, Fe
18aad2	do.	17	34-24	Du	....	..	8- 6-64	D	..	Qg	.....	1,509	.....	
18cdd1	A. Ness	60	36	Du	1915	58	8- 7-64	U	Sd	Qg	.....	1,515	.....	Pdo, FoDS
18cdd2	do.	70	4	Dr	1958	..	8- 7-64	D,S	Sd,Gv	Qob	.....	1,515	.....	Supplies 90 cattle.
19bdd	do.	80	4	Dr	1962	..	8- 7-64	S	Sd,Gv	Qob	1,485-	1,565	.....	
20aaa1	M. Haugland	21	39-30	Du	1901	..	8- 5-64	S	Tl	Qg	.....	1,529	.....	P dry in 1 day
20aaa2	do.	84	5	Dr	1960	34	8- 5-64	D,S	Gv	Qob	.....	1,532	754	P 10 gpm, Fe
20caa	Mrs. P. Gifford	..	..	Sp	....	..	8- 6-64	S	..	..	.....	1,528	.....	Dug out, opens into water hole.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
149-62, Cont.														
22aaa1	E. Becker	20	42	Du	1903	..	8- 5-64	S	Sd	Qg	.....	1,543	.....	Supplies 100 cattle.
22aaa2	do.	17	10	Du	1949	10	8- 5-64	D	Sd	Qg	.....	1,544	.....	
22bba	do.	22	36	Du	1926	..	8- 5-64	U	Tl	Qg	.....	1,500	.....	FoDS, destroyed
22cba	S. O. Hoveskeland	..	..	Sp	....	..	8- 5-64	S	..	..	.....	1,535	.....	Water hole dug out
23adc	R. Eidoen	38	36	Du	....	..	8- 5-64	D,S	Gv	Qg	.....	1,523	.....	P dry in 1½ hr at 3 gpm.
23cdb1	C. Haven	25	16	B	1917	20	8- 5-64	D,S	Sd	Qg	.....	1,505	.....	Pdo
23cdb2	do.	30	28	Du	1962	18	8- 5-64	D,S	Sd	Qg	.....	1,537	.....	
24bab	K. Twedt	90	4	Dr	....	70	8- 5-64	D,S	Sd	Qob(?)	.....	1,555	666	C, supplies 2 houses, 125 cattle, T = 45°.
25bbb	R. Rasmusson	80	24	B	1915	17	8- 7-64	D,S	Sd	Qg	.....	1,552	.....	
27cac	M. Haven	125	6	Dr	1945	20	8- 6-64	D,S	Sh	Kp	1,376+	1,501	2,060	P dry, Tsa
27cad	do.	100	4	Dr	1962	..	8- 6-64	S	Sh	Kp	1,404+	1,504	.....	
28acd	S. O. Hoveskeland	..	..	Sp	....	..	8- 5-64	S	..	Qg(?)	.....	1,482	.....	F 1 gpm, piped to trough.
28cbb	M. Haugland	23.1	34	Du	....	17.5	8- 5-64	U	..	Qg	.....	1,535	.....	
29bdb	do.	120	5	Dr	....	..	8- 5-64	S	..	Qg	1,460-	1,580	450	
29dba	J. Aakre	45	36	Du	1928	Dry	8- 5-64	U	Sd	Qg	.....	1,583	.....	Caved, also drilled well unused.
33abd	F. Henssler	35	30	Du	....	25	8- 5-64	U	..	Qg	.....	1,501	.....	P dry
33bba1	do.	14	36	Du	1950	7	8- 5-64	D,S	Sd	Qg	.....	1,520	627	Pdo
33bba2	do.	14	..	Du	....	7	8- 5-64	S	..	Qg	.....	1,520	.....	Pdo
33dda	F. LaMotte	190	6	Dr	....	..	8- 6-64	U	Sd	Qob	1,343-	1,533	504	Rs, "surplus" in 1930's.
35bbb	R. Syverson	60.0	5	Dr	....	19.5	8- 6-64	U	..	Qg(?)	.....	1,525	.....	
35cdc1	Ida Leean	56	9	B	1952	39	8- 6-64	U	Sd	Qg	.....	1,538	.....	P 30 gallons and dry.
35cdc2	do.	60	22	B	1961	46	8- 6-64	D,S	Gv	Qg	.....	1,538	.....	T = 45°

35dacl	H. Odland	50	36	Du	1902	..	8- 6-64	U	Sd	Qg	.....	1,542	.....	P dry, caved in
35dac2	do.	100	4	Dr	....	50	8- 6-64	D,S	Gv	Qob	.....	1,542	1,400	C
149-63														
2bbcl	H. Coenen	28	36	Du	1944	22	6-29-64	D,S	Gv	Qg	.....	1,490	2,580	P dry in ½ hr, Fe, Vh.
2bbc2	do.	18	36	Du	1959	14	6-29-64	S	Sd	Qg	.....	1,488	.....	
4aab	E. Jurgenson	14.5	30	Du	1939	10.0	6-29-64	U	..	Qg	.....	1,488	.....	FoDS
6bcd	S. Torrison	18+	30	Du-Dv	....	17	7-29-65	D,S	Sd	Qos	.....	1,533	.....	
7abcl	C. Seckinger	21	36	Du	1952	17	6-29-64	S	Gv	Qg	.....	1,525	.....	W level low in 1961.
7abc2	do.	21	30	Du	1957	20	6-29-64	D	Gv,Sd	Qg	.....	1,537	.....	P dry after 100 gallons.
9dca	A. Gjestvang	35	39-27	Du	....	..	6-30-65	U	..	Qg	.....	1,532	.....	FoDS, destroyed.
11ccc	Test hole 2302	199	..	Dr	1964	..	8-20-64	T	..	..	1,306	1,488	.....	L
14bad	A. Campbell	..	..	Sp	....	..	6-29-64	D,S	..	Qg	.....	1,510	618	C, supplies 3 houses, bunkhouse, trailers, 300 cattle, 40 hogs.
17dcb	M. Erman	31	36	Du	1957	28	6-29-64	D,S	Sd	Qg	.....	1,545	.....	P dry, supplies 300 cattle.
19aaa	W. Fleming	30	36	Du	....	27	6-29-64	D,S	Gv	Qg	.....	1,527	.....	P dry, formerly adequate, W turbid.
21acdl	E. Lewis	136	6	Dr	1945	..	6-29-64	U	..	Qg(?)	.....	1,518	.....	Low yield
21acd2	do.	35	6	Dr	1954	20	6-29-64	D,S	Sd	Qg	.....	1,518	.....	Supplies 100 cattle, 150 sheep.
22aab	A. Campbell	..	..	Dr	....	..	6-30-65	D,S	..	Qg	.....	1,551	920	Reported as "deep," supplies up to 600 cattle, Fe.
22bba	I. Gjestvang	44	30	Du	1935	18	6-29-64	D,S	..	Qg	.....	1,522	.....	Supplies 40 cattle and 300 sheep, Fe.
23bab	Annie Sundquist	24	24	Du	....	16.0	6-30-65	S	..	Qg	.....	1,505	1,920	FoD, T = 46°
30abdl	R. Haley	60	30	Du	1932	..	5-21-64	U	Sd	Qg	.....	1,521	.....	FoDS, Ri
30abd2	do.	28.7	18	B	....	23.9	5-21-64	U	..	Qg	.....	1,519	.....	
32abbl	S. and C. Erman	70	30	Du-B	1915	16.2	6-30-65	O	..	Qg	.....	1,520	.....	Originally 43 ft, B to 70 ft, FoDS, P dry.
32abb2	do.	45	36	B	1962	20	6-29-64	D	Tl	Qg	.....	1,512	870	Pdo
34caa	A. Welk	63	36	Du	....	55	6-29-64	D,S	Sh(?)	Kp(?)	.....	1,552	2,890	P dry, Tsa
34dbb	Test hole 2303	178	..	Dr	1964	..	8-26-64	T	..	..	1,440	1,550	.....	L

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
149-64														
3cbd	H. Allmaras	20	30	B	1963	9	5- 6-64	D,S	Sd	Qos	1,383	1,400	.....	Auxilliary to Sp, P ¼ gpm.
3cca	do.	..	..	Sp	....	..	5- 6-64	D,S	..	Qg	.....	1,460	.....	
6aaa	C. Cudworth	23	6	Dv	....	..	8-23-63	D	Sd	Qos	.....	1,523	.....	
6ddd	USBR 15	45	..	Dr	1951	..	6-14-51	T	..	..	1,475-	1,520	.....	L
8ccc	USBR 25	40	..	Dr	1953	11.1	7-30-53	T	..	..	1,486-	1,526	.....	L
8dcd	W. Tedrow	15	3	Dv	....	10	8-23-63	D,S	Sd	Qos	1,507-	1,522	583	C, T = 48°
8ddd	USBR 14	30	..	Dr	1951	..	6-13-51	T	..	..	1,483-	1,513	.....	L
9ccc	E. Boyer	14	3	Dv	....	8	8-23-63	D,S	Sd	Qos	.....	1,518	.....	
10dcc	USBR 4N-9½E	16	3	Dr	1951	13.5	10-29-53	T,O	Tl	Qg	1,476-	1,492	.....	L, hole destroyed
12cdd	S. M. Hugger	37	24	Du	1924	18	8-23-63	D,S	Sd(?)	Qos(?)	.....	1,520	.....	P 5 gpm
12ddc	R. S. Barthwich	25	24	Du	1948	15	8-23-63	U	Sd	Qos	.....	1,527	.....	P dry
13aaa	Test hole 2301	105	..	Dr	1964	..	8-19-64	T	..	..	1,448	1,529	.....	L
14aaa	O. Laube	100	4	Dr	1959	35	8-23-63	D,S	Sh	Kp	1,427+	1,527	1,550	P 19 gpm, Rs, Tsa
18bbb	USBR 2	40	3	Dr	1951	8.4	10-15-64	T,O	Sd	Qos	1,484-	1,524	.....	L
18dda	D. Rimmareid	15	3	Dv	....	10	8-23-63	D,S	Sd	Qos	.....	1,521	.....	
19ccc	USBR 3	15	3	Dr	1951	5.2	10-29-53	T,O	Sd	Qos	.....	1,519	.....	L
19ddd	J. K. Williams	12	24-2	Dv	....	10	8-23-63	D,S	Sd	Qos	1,507-	1,519	1,070	C, similar D well
20ddd1	F. Carlson	15	3	Dv	....	9	8-23-63	D,S	Sd	Qos	.....	1,517	.....	
20ddd2	USBR 26	32	..	Dr	1953	5.2	8- 3-53	T	..	..	1,486	1,517	.....	L
21aaa	USBR 13	35	..	Dr	1951	..	6-13-51	T	..	..	1,477-	1,512	.....	L
21bbb	USBR 22	35	..	Dr	1953	4.9	7-31-53	T	..	..	1,482-	1,517	.....	L
21dcc	H. Carlson	12	3	Dv	1961	..	8-23-63	D	Sd	Qos	.....	1,514	482	
22cdc	G. Bourdeau	18	3	Dv	....	13	8-23-63	D	Sd	Qos	.....	1,515	.....	
22ddd	USBR 27	50	..	Dr	1953	9.7	8-4-53	T	..	..	1,469	1,514	.....	L
23aaa	W. Gisi	26	..	Du	1951	..	6-24-64	D,S	Sd	Qg	1,479-	1,505	.....	Pdo
23bcd	G. H. Gisi	10	1¼	Dv	....	..	6-24-64	D,S	Sd	Qos	.....	1,502	.....	Supplies 700 sheep, 50 cattle.
24cbc	Test hole 2300	63	..	Dr	1964	..	8-19-64	T	..	..	1,457	1,498	.....	L
24dbc	E. Coenen	42	6	Dr	1951	..	6-24-64	D,S	Sd	Qg	1,463-	1,505	.....	Supplies 100 cattle, 400 sheep, Tm.

25bcc	W. C. Wipperling	16	1¼	Dv	1954	..	6-24-64	D,S	Gv,Sd	Qos	.....	1,510	.....	Supplies 200 cattle.
26ddd	J. Casey	18	1¼	Dv	1945	4	6-24-64	D,S	Gv,Sd	Qos	.....	1,513	.....	
27bbb	USBR 7	30	..	Dr	1951	..	6-12-51	T	..	..	1,485-	1,515	.....	L
27ddc	Arnold Omoth	16	1¼	Dv	1958	..	6-24-64	D,S	Gv,Sd	Qos	.....	1,513	.....	3 other similar wells.
28ccc1	G. Anderson	40.0	30	Du	....	8.5	10-20-50	O	Sd	Qg	.....	1,532	.....	
28ccc2	do.	14.4	36	Du	....	9.8	6-24-64	U	..	Qg	.....	1,517	.....	
28dcc	P. Glaser	16	1½	Dv	1937	8	6-24-64	D,S	Sd	Qos	1,500-	1,516	.....	Supplies 200 sheep
30ccc	W. B. Aultman	12	4	Dv	....	9	8-23-63	D,S	Sd	Qos	.....	1,521	.....	
31cbb1	E. Boyle	10.1	30	Du	1931	4.0	6-11-65	O	..	Qos	.....	1,516	.....	FoD
31cbb2	do.	10	48	Du	1943	7	8-23-63	S	Sd	Qos	.....	1,516	.....	P dry at 1 gpm
32aaa	USBR 1N-8E	13+	3	Dr	1951	12.5	10-29-53	T,O	Sh	Kp	1,517	1,524	.....	L, destroyed
33abb	D. Backman	15	1¼	Dv	1961	..	6-24-64	D,S	Gv	Kp	.....	1,516	.....	Supplies 80 cattle, 3 similar wells.
34aca	W. Boyle	10	1½	Dv	1946	5	6-24-64	D,S	Sd	Kp	.....	1,512	.....	3 similar wells
34cdc	USBR 8	20	..	Dr	1951	..	6-12-51	T	..	..	1,491-	1,511	.....	L
149-65 1bba	G. Riggle	20	1¼	Dv	1961	16	6-23-64	D,S	Sd	Qos	1,512-	1,532	474	C, supplies 100 cattle, 200 sheep.
2bbb	USBR GWI 21	60	..	Dr	1953	9.5	7-29-53	T	Sd,Gv	Qos	1,482	1,533	.....	L
3aaa	USBR 6N-3E (21)	14	..	Dr	1951	12.4	10-29-53	T,O	Sd	Qos	1,521-	1,535	.....	Destroyed
3ccb	H. G. Nystrom	10	2	Dv	1935	..	6-24-64	D,S	Sd	Qos	.....	1,532	.....	Supplies 110 cattle, 3 other similar wells.
4dcc	D. Throlson	12	2	Dv	1964	6	6-23-64	D	Sd	Qos	.....	1,532	2,290	
6cbb1	M. Bickler	15	32	Du	....	..	6-23-64	S	Gv	Qos	1,522-	1,537	.....	P dry after 60 gallons.
6cbb2	do.	14	2	Dv	....	..	6-23-64	D	Sd	Qos	.....	1,537	.....	
7bcd	Fred Miller	28	36	Du	1952	14	6-24-64	D,S	Sd	Qos	1,503-	1,531	2,900	Pdo at 5 gpm
8bbb	C. W. Throlson	8	2	Dv	....	6	6-23-64	D,S	Sd	Qos	.....	1,530	.....	
9bbb	Test hole 2306	84	..	Dr	1964	..	8-26-64	T	..	..	1,497	1,529	.....	L
10bbb	USBR GWI 19	26	..	Dr	1951	..	6-18-51	T	..	..	1,502-	1,528	.....	L
10dda	D. Nystrom	7.8	30-1¼	Du-Dv	....	5.6	10-20-50	S,O	Gv	Qos	.....	1,525	.....	
10ddd	do.	18	2	Dv	1956	15	6-23-64	D	Sd	Qos	1,510-	1,528	.....	
11abb	J. R. Anderson	12	1	Dv	1947	..	6-24-64	D	Sd	Qos	.....	1,528	600	Fe, similar S well.
11bbb	USBR GWI 20	35	..	Dr	1953	..	7-28-53	T	Sd	Qos	1,495	1,530	.....	L

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
149-65, Cont.														
14abb1	J. McAvoy	15	36-1½	Du-Dv	1938	10	8-10-64	S	Sd	Qos	1,511-	1,526	.....	
14abb2	do.	12	1¼	Dv	....	10	8-11-64	D	Sd	Qos	.....	1,526	.....	
15aaa	USBR 4N-4E (20)	11	..	Dr	1951	5.7	10-15-64	T,O	Sd	Qos	1,514-	1,525	.....	Clay 0-6 ft, Sd 6-11 ft.
18bbb	USBR 4N-OE (10)	13.4	..	Dr	1951	6.3	10-29-53	T,O	Sd	Qos	.....	1,530	.....	Soil and Sd 0-5 ft, Tl 5-13 ft.
18cbb	Test hole 2307	63.	..	Dr	1964	..	8-27-64	T	Sd	Qos	1,491	1,530	.....	L
19bcc	C. Miller	15	36	Du	1918	11	6-24-64	D,S	Sd	Qos	1,517-	1,532	2,630	P dry in ½ hr at 12 gpm, haul W for washing.
22dad	Mrs. B. A. Kurtz	9	1¼	Dv	1944	3	6-24-64	D,S	Sd	Qos	1,518	1,527	1,090	Supplies 115 cattle, 400 sheep, 3 other similar wells.
27aaa	USBR 2N-4E (19)	9	..	Dr	1951	7.4	10-17-51	T,O	Sd	Qos	.....	1,527	.....	Sd and Gv 5-9 ft, destroyed.
27ddd	USBR 1N-4E (18)	10	..	Dr	1951	6.7	10-17-51	T,O	Sd	Qos	1,514-	1,524	.....	Sd and Gv 2-10 ft, destroyed.
29baa1	M. Tollefson	12	36	Du	1948	9	6-24-64	D	Sd	Qos	.....	1,525	.....	P dry, Tm
29baa2	do.	14	36	Du	....	10	6-24-64	S	Sd	Qos	1,511-	1,525	2,130	C, supplies 145 cattle, Tm.
30aab1	A. Tollefson	15	36	Du	1955	11	6-23-64	S	Sd	Qos	1,511-	1,526	.....	P dry after 400 gallons, Tm, deepened.
30aab2	do.	12	36	Du	1956	9	6-24-64	D	Sd	Qos	.....	1,526	.....	P dry after 200 gallons, Tm.
30cbb	W. P. Romonoski	9	30	Du	....	7	6-24-64	D	Sd	Qos	.....	1,526	.....	4 other similar wells.
32cbc	P. Baeder	81.4	5	Dr	1918	43.7	8-11-65	U	Gv	Qob	1,443-	1,524	.....	FoDS
34cdc1	H. Wick	160	6	Dr	1937	15	6-24-64	S	Sh	Kp	1,356+	1,516	7,000+	Tsa
34cdc2	do.	11	36-24	Du	1962	4	6-24-64	D	Sd,Tl	Qg,Qos	1,505-	1,516	2,900	Pdo
34daa	USBR ½N-4E (17)	12	..	Dr	1951	9.1	10-29-53	T,O	Sd,Tl	Qg,Qos	1,508-	1,520	.....	Sd 1-8 ft

35acb	F. Coenen	25	30	Du	....	4	6-23-64	D,S	Gv,Sd	Qos	1,495-	1,520	.....	
35ccb1	B. Overdick	10.0	42	Du	1939	5.7	10-20-50	S,O	Sd,Gv	Qos	.....	1,516	.....	P 5 gpm, Rs
35ccb2	do.	15	1¼	Dv	1957	..	6-23-64	D	Sd	Qos	1,501-	1,516	.....	Rs
149-66														
1bcc	C. H. Wilcox	100	5	Dr	....	..	6-26-64	S	Sh	Kp	1,448+	1,548	6,720	Tsa, haul W for D
2acc	USBR AP 18	13	..	Dr	1960	9.8	7-22-60	T	..	..	1,529-	1,542	.....	Silt and Sd 0-6 ft, Tl 6-13 ft.
2dbb1	P. Gross	16	36	Du	....	13	6-26-64	D	Gv	Qg	.....	1,542	.....	Pdo
2dbb2	do.	10	4	Dv	....	..	6-26-64	S	Sd	Qg	.....	1,542	.....	Supplies 160 sheep, 80 cattle.
3acc	USBR AP 17	11	..	Dr	1960	7.7	7-22-60	T	..	..	1,532-	1,543	.....	Silty Sd 0-5 ft, Sd 5-11 ft.
3ccd1	R. and A. Hoffman	24	36	Du	....	19	6-10-65	U	Sd	Qg	.....	1,548	.....	FoS
3ccd2	do.	29	24	Du	1959	16.0	6-10-65	D	..	Qg	1,522-	1,551	2,090	Pdo
4cdd	Test hole 2292	84	..	Dr	1964	..	8- 5-64	T	..	..	1,486	1,549	.....	L
6daa	A. Haman	38.7	36	Du	1914	37.5	6-26-64	S	..	Qg	.....	1,585	.....	Reported inadequate in 1930's.
7add	O. Thueson	42	36	Du	1908	41	6-26-64	D,S	Gv	Qg	.....	1,573	.....	Reported inadequate in 1930's.
8ada	W. J. Broderius	15	36	Du	1909	7	6-26-64	D	Gv	Qg	.....	1,548	1,920	Vh, Tm, Fe
9bcc	USBR AP 15	9	..	Dr	1960	1.1	7-11-60	T	..	..	1,535-	1,544	.....	Sd 0-5 ft
9cbb1	V. Cooper	14	36	Du	1924	..	6-26-64	D,S	Sd	Qg	.....	1,546	.....	P dry in 6 hr
9cbb2	do.	26	24-15	..	1949	9	6-26-64	S	Sd	Qg	.....	1,546	.....	
9ccc	USBR 4N-4W	21	3	Dr	1951	4.2	10-15-64	T,O	Sd,Tl	Qg	1,521-	1,542	.....	L
9ddd	Rockford Consolidated School District	25	36-30	Du	1916	18	10-21-64	Sc	Tl	Qg	.....	1,556	802	C, small supply, T = 47°.
11dcb1	G. Gross	22	36	Du	1940	21	6-26-64	D	Tl	Qg	.....	1,542	.....	P dry, Tm, Vh
11dcb2	do.	20	36	Du	1914	..	6-26-64	S	Sd,Gv	Qg	.....	1,542	.....	P dry, Tm
14bad	L. Sanderson	25	36	Du	1937	20	6-26-64	S	Sd	Qg	.....	1,542	3,900	Ds, Vh, Tm, haul W for D.
15cba1	W. Jones	29	36	Du	1922	..	6-26-64	S	Sd	Qg	.....	1,542	.....	Reported inadequate in 1930's.
15cba2	do.	300	6	Dr	1935	..	6-26-64	S	Sh	Kp	.....	1,542	.....	Tsa
15cba3	do.	150	5	Dr	1963	35	6-26-64	D,S	Sh	Kp	1,397+	1,547	.....	Tsa
16abb1	E. Anderson	100	4	Dr	1909	..	6-26-64	S	Sh	Kp	.....	1,551	.....	Tsa
16abb2	do.	50	..	Dr	1959	..	6-26-64	D	Sd,Sh	Qg,Kp(?)	1,500e	1,551	10,200	Tsa, Vh
18baa	O. Thueson	50.3	48	Du	....	39.6	5-27-65	U	..	Qg	.....	1,582	.....	

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
149-66, Cont.														
18ddc	C. Halquist	14	36	Du	1920	..	6-26-64	U	Sd	Qg	.....	1,536	.....	P dry, W laxative.
19cdd1	H. and J. Eldridge	15	36	Du	....	12	6-24-64	S	Gv	Qos	.....	1,536	.....	Supplies 100 cattle.
19cdd2	do.	15	1½	Dv	....	12	6-26-64	D	Sd	Qos	.....	1,536	883	C
21aaa	Test hole 2293	63	..	Dr	1964	..	8- 5-64	T	..	..	1,491	1,536	.....	L
21daa	J. Sullivan	10	24	Du	....	..	6-10-65	D	Sd	Qos	.....	1,537	2,050	Ds, Vh, Haul W for drinking, similar S well.
24bcc	A. Allmaras	36	36	Du	1912	18.8	6- 9-65	S	..	Qg	.....	1,547	970	
25aaa	USBR 2N-OW	21	..	Dr	1951	8.7	10-29-53	T	..	..	1,509-	1,530	.....	Tl 0-21 ft
25cbd	R. Mechtle	55	4	Dr	1963	..	6-26-64	D,S	..	Qg	.....	1,530	.....	Rs
25dca	Malcolm Thompson test hole 1	105	..	Dr	1961	..	4-24-64	T	..	..	1,468	1,524	.....	L, also 55 ft TH
26aad	C. Lies	10	24	Du	....	6	6-10-65	D,S	Sd	Qos	.....	1,527	.....	
27bbb	W. Newhorth	19	24	Du	1954	5	6-26-64	S	Tl	Qg	.....	1,538	1,260	Supplies 75 cattle. Use Dv wells for 2 houses.
27cdd	Kuehn Bros.	12	36	Du	"old"	4	6-10-65	D	Sd	Qos	.....	1,525	530	Ds
27dcc	do.	16	..	B	1963	6	6-10-65	S	Gv	Qos	.....	1,525	750	
29cad	Test hole NR 8	40	..	Dr	1947	..	1947	T	..	..	1,493	1,523	.....	L
29cbb	L. Nelson	10	26	Du	....	7	6-26-64	D,S	Gv	Qos	.....	1,532	.....	Pdo
29cdd	H. Vollum	14.9	24	Du	....	5.2	6-10-65	S	..	Qal(?)	.....	1,514	4,200	Ds, Tm, kills grass.
29dcd	R. Beatty	90	5	Dr	1932	..	6-10-65	U	Sh	Kp	1,427+	1,517	.....	FoS, Tsa
31cad1	City of New Rockford	146	12	Dr	1918	23.8	6-30-65	O	Sd	Qob	1,394-	1,540	.....	L, former GNRR well.
31cad2	do.	143	12	Dr	1946	..	6-30-65	U	Sd	Qob	.....	1,539	.....	Plugged
31dad	R. Weber	150	4½	Dr	1961	22	8- 6-64	D	Gv	Qob	1,390-	1,540	.....	Supplies 2 houses

31ddd	B. Anderson	157	5	Dr	1949	23	6-26-64	D	Sd,Gv	Qob	.....	1,552	.....	Fe
32bad	Test hole NR 7	40	..	Dr	1947	..	9- 5-47	T	..	..	1,507	1,520	.....	L
32bdd1	R. Zweigele	150	4	Dr	1930	75	7-31-64	U	Sh	Kp	.....	1,533	.....	Former creamery use, small supply, Tsa.
32bdd2	do.	350	4	Dr	1948	75	7-31-64	U	Sh	Kp	.....	1,533	.....	P 5 gpm, former creamery use, Tsa.
33acb1	Mabel Tonn	143	5	Dr	1919	..	4-24-64	U	Sh	Kp	1,392+	1,535	.....	FoS, Tsa
33acb2	do.	65	8	Dr	....	52	4-24-64	D,S	..	Qg	.....	1,544	.....	Vh, Fe
35dbd1	G. Laber	90	5	Dr	....	30	6-26-64	D,S	..	Qob	.....	1,517	695	C, P dry in 20 min at 6 gpm, P sand.
35dbd2	do.	100	4	Dr	1963	12	6-26-64	S	Gv	Qob	1,417-	1,517	.....	
35dda	Irene Noack	150	5	Dr	1934	..	6- 9-65	U	Gv	Qob	1,367-	1,517	.....	
36aaa	USBR N1-W0	20.5	3	Dr	1951	4.0	10-15-64	T,O	..	Qos	1,503-	1,525	.....	L
36bbb	Irene Noack	11.5	30	Du	....	9.3	6-10-65	U	..	Qos	.....	1,524	.....	FoS
149-67														
2cdc	Gunhild Myhre	30	48	Du	1904	18	9-18-63	D,S	Gv	Qg	1,527-	1,557	.....	Vh, Tm
2ddc1	M. Heglund	30	..	Du	....	..	9-18-63	D	..	Qg	1,547-	1,577	.....	P dry
2ddc2	do.	25	24	B	....	22	9-18-63	S	..	Qg	.....	1,575	1,250	T = 47°
4daa	L. Linstrom	37	..	Du	1937	..	7- 2-64	D,S	Gv	Qg	.....	1,572	.....	Vh, Tm, not used for drinking.
5ccd	D. Holtz	29	36	Du	1952	..	7- 2-64	D	Sd	Qg	.....	1,588	.....	Also 27 ft S well which P dry.
6ccd	R. Steinbeck	35	36	B	....	..	7- 2-64	D,S	..	Qg	.....	1,590	.....	Ds, supplies 500 sheep, 30 cattle.
6ddd	R. Olson	25.0	32	Du	....	20.3	10-15-64	O	..	Qg	.....	1,589	.....	FoS
7aad	do.	38	36	Du	1915	35	7- 2-64	D,S	..	Qg	.....	1,585	901	P dry in 45 min
7dab1	W. Erdelbrock	90	..	Du-Dr	....	..	6- 9-65	U	Sd	Qg	1,491-	1,581	.....	Sdu
7dab2	do.	35	..	Du	....	..	6- 9-65	D	Sd	Qg	.....	1,585	1,160	P dry, Fe
9ada	W. Green	19.6	42	B	....	13.5	10-15-64	D,O	..	Qg	.....	1,560	1,070	T = 46°
9bdb	A. Bymoen	8.0	36	Du	....	3.6	9-18-63	U	..	Qg	.....	1,554	.....	
9bdc	do.	64	6	Dr	1932	..	9-18-63	U	Sd,Gv	Qg	1,494-	1,558	.....	FoS
10baa	Ingar Skaar	25	36	B	....	20	9-18-63	D,S	..	Qg	.....	1,557	.....	P 8+ gpm
11cbd	A. Olson	30	..	Du	1933	..	9-18-63	D,S	..	Qg	.....	1,560	.....	Reported high nitrate content.
12dda	W. Edinger	35	24	Du-B	....	..	8- 5-64	D,S	Sd,Gv	Qg	.....	1,575	.....	Deepened 6 ft by boring in 1951, P dry in 2 hr.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
149-67, Cont.														
13cca	Lily Shroyer, Tr.	26	30	Du	1914	23	5-27-65	D,S	..	Qg	.....	1,552	1,220	T = 42°
14ddal	D. Giesinger	28	36	Du	1917	25	5-27-65	D,S	Gv	Qg	.....	1,548	1,830	Vh, reported high in nitrate.
14dda2	do.	14	30	Du	....	11	5-27-65	S	Gv	Qg	.....	1,538	.....	
16bcb1	L. J. O'Connor	78	42-18	Du-Dr	1913	..	7- 2-64	D,S	Tl	Qg	.....	1,570	.....	Du to 40 ft, Dr to 275 ft, W at 60 ft and 275 ft, Cd 78 ft, P dry, standby.
16bcb2	do.	19	36	Du	1960	15	7- 2-64	D,S	Sd,Gv	Qal	.....	1,545	.....	Dr 105 ft, 275 ft dry test hole on bluff.
17bba	M. Mauch	27	36	Du	....	25	6- 9-65	D,S	Gv	Qg	.....	1,555	780	
17bbb	Test hole 2291	284	1¼	Dr	1964	1.8	10-15-64	T,O	Sd,Gv	Qob	1,278	1,540	3,150	L, C, Cd 258 ft
17ccb	Test hole 2287A	158	1¼	Dr	1964	25.2	10-15-64	T,O	Sd,Gv	Qob	1,421	1,559	.....	L, Cd 137 ft
18add	Test hole 2287	222	..	Dr	1964	..	7-29-64	T	..	..	1,302e	1,523	.....	L
19cddl	C. Laube	90	5	Dr	1940	60	7- 2-64	D	Sd	Qg	1,467-	1,557	.....	P dry after 30 gallons.
19cdd2	do.	28	36	Du	....	27	7- 2-64	S	Sd,Tl	Qg	.....	1,557	4,240	Ds, Fe, Vh
20abcl	T. O'Connor	30	12	B	....	..	4-24-64	U	..	Qg	.....	1,542	.....	FoD, Ri
20abc2	do.	170	5	Dr	....	10	4-24-64	D,S	Sd	Qob	.....	1,542	.....	Deepened from 159 ft, Sdu, Fe.
20abc3	do.	240	4	Dr	1963	..	4-24-64	D,S	Sd	Qob	1,300e	1,542	3,600	
20dbb	K. Mauch, Jr.	35	4	Dr	1961	6	6- 9-65	D	Sd	Qg	.....	1,535	.....	Fe
22bca	Leslie Shroyer	22.0	1¼	Dr	1963	13.8	4-23-64	T	..	..	1,513	1,532	.....	L
22dad	do.	18	18	Du	1942	16	4-23-64	D	Sd,Gv	Qos	1,513e	1,531	615	2 similar S wells
24cdd	C. K. Weber	20	24	Du-Dv	1948	15	5-27-65	D	Sd	Qos	.....	1,533	1,310	
24dcc	do.	20	36	Du	....	..	5-27-65	S	Sd	Qos	1,513-	1,533	.....	Pdo
25bbb	A. J. Votendahl	16	36	Du	....	11	5-27-65	D	Gv,Sd	Qos	1,516e	1,531	1,160	Pdo

25ccc	M. Whetham	120	4½	Dr	1962	15	5-28-65	S	Gv	Qob	1,412-	1,532	1,610	L, C, 2 similar wells, one plugged, haul W for D, T = 45°.
26cbb	H. C. Klumpf	80	5	Dr	1964	8.7	5-27-65	S	Gv	Qob	1,453-	1,523	.....	
26ccc	USBR 1N-8W	23	..	Dr	1951	8.3	11- 4-53	T,O	Tl	Qg	1,520-	1,546	.....	L, destroyed
28add	J. Allmaras	69	5	Dr	1928	..	7- 1-64	D,S	Gv	Qob(?)	.....	1,546	.....	Vh, Fe
29bdd	Emma Bush	27.7	48	Du	1920	8.2	5-28-65	U	Tl,Sd	Qg	.....	1,553	.....	FoS, Ri
30ccb	Test hole 2288	105	..	Dr	1964	..	8- 3-64	T	..	..	1,483	1,565	.....	L
30cdd1	A. J. Allmaras	186	..	Dr	....	Dry	5-27-65	U	Sh	Kp	.....	1,554	.....	FoS, Tsa
30cdd2	do.	29	32	B	1955	15	5-27-65	D	Sd	Qg	.....	1,561	.....	Pdo, similar S well.
31baa1	P. Allmaras	238	6	Dr	1919	Dry	5-27-65	U	Sh	Kp	1,351e	1,561	.....	FoDS, Ri, Tsa
31baa2	do.	47	..	B	1935	..	5-27-65	U	..	Qg	.....	1,561	.....	Tm, laxative
31baa3	do.	30	36	B	1964	Dry	5-27-65	D,S	Sd	Qg	.....	1,557	.....	Pdo, also 50 ft S well.
32dad1	R. Lies	209	5	Dr	1926	..	7- 1-64	U	Sh	Kp	.....	1,558	.....	FoS
32dad2	do.	46	30	Du	....	17	7- 1-64	S	..	Qg	.....	1,502	.....	Pdo
33aba	J. W. Irmen	79	5	Dr	1918	30	5-27-65	D,S	Sd	Qob	1,487e	1,557	1,030	C, P 5 gpm, small Dd, T = 44°.
33cca	L. Biechler	156	6	Dr	....	54	1 1947	D,S	Sd(?)	Qg(?)	.....	1,561	2,720	P dry in 6 hr at 3 gpm, Fe, Vh, Haul W for washing.
34aba1	H. C. Klumpf	90	5	Dr	1919	40	5-27-65	S	Sd,Gv	Qob	1,458-	1,548	680	Sdu, Fe, T = 41°
34aba2	do.	70	4	Dr	1948	..	5-27-65	D	Gv	Qob	.....	1,548	.....	Fe
35cdd	Margaret Allmaras	71.6	5	Dr	....	31.4	5-28-65	U	..	Qob(?)	.....	1,543	.....	FoS, Fe
36ddd	H. Haley	92	5	Dr	1910	80	7- 1-64	D,S	Sd	Qob(?)	.....	1,543	1,170	
150-62														
1dad	Maude Mannie	14	12	Du-Dv	1952	11	6-29-65	D	Sd	Qos	.....	1,472	505	Sp for S
2dbb	G. Gleason	..	..	Dv	....	5.4	10-13-50	U	Sd	Qos	.....	1,468	.....	Destroyed
3aaa	USBR 416	24	3	B	1952	5.5	8-17-55	T,O	Sd	Qos	.....	1,467	.....	L, C, DL, destroyed.
3aba	Great Northern Railway	157	6	Dr	1958	19	7-18-58	U	Gv	Qob	1,314-	1,471	.....	L, P 10 gpm, 21 ft Dd.
3abc	I. Johnson	9	24	Du	....	4	10-26-50	S	Sd	Qos	.....	1,473	.....	Similar D well
3abd	E. Johnson	6	1¼	Dv	....	4	10-27-50	D	Sd	Qos	.....	1,472	.....	Another similar well.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-62, Cont.														
3aca	S. Clute	12	30	Du	....	6	10-27-50	D	Sd	Qg	.....	1,472	.....	Sd 0-6 ft, Tl 6-12 ft.
3acb	C. C. Brudeseth	10	1¼	Dv	....	6	10-26-50	D	Sd	Qos	.....	1,474	.....	Garden W, another similar D well.
6ada	Henry Forde	20	1¼	Dv	....	..	6-29-65	D	Sd	Qos	1,455-	1,475	.....	Similar S wells
7bab	K. Quam	8+	12	Du-Dv	1908	8	10-13-50	D,S	Sd	Qos	.....	1,472	.....	3 other wells
8aab	Hazel Cox	28	30	Du	1962	..	6-29-65	D,S	Sd,Tl	Qos,Qg	1,453-	1,481	900	Vh, also S wells
8bbb	USBR 412	10	3	Dr	1952	7.2	10-23-55	T,O	Sd	Qos	.....	1,471	.....	C, DL, Sd 0-10 ft
8dcc	Howard Forde	18	1¼	Dv	....	14	10-14-50	D,S	Sd	Qos	1,456-	1,474	.....	
12ddc	G. Tomter	8	72	Du	....	6	6- 8-65	S	Sd	Qos	.....	1,460	.....	Sd point for D
14abc	L. Gleason	10	48	Du	1954	8	6- 8-65	D	Sd	Qos	.....	1,469	500	Similar S well at barn, caves in.
14acb	do.	12	48	Du	1938	9	6- 8-65	S	Sd	Qos	.....	1,472	.....	Pdo
15baa	Test hole 2279	189	1¼	Dr	1964	97.2	8-11-64	T	Sd,Gv	Qob	1,310	1,478	.....	L, Cd 169 ft, plugged.
17baa	N. Forde	17	1¼	Dv	....	14	10-15-50	D,S	Sd	Qos	.....	1,470	.....	
17caa	G. Forde	18	2	Dv	....	6	10-14-50	D,S	Sd	Qos	1,454-	1,472	.....	
18aaa	USBR 413	19	3	B	1952	16.5	10-23-55	T,O	Sd	Qos	1,459-	1,478	.....	C, DL, Sd 0-9 ft, Sd and Gv 9-19 ft.
21ba	J. Hanson	12	..	Dv	1945	8	10-13-50	S	Sd	Qos	.....	1,455	.....	
22aaa	E. E. Jurgenson	11+	24	Du	....	5.8	10-13-50	D,S	Sd	Qos	.....	1,463	960	
22ddd	USBR 418	13	3	Dr	1952	8.1	10-23-55	T,O	Sd	Qos	1,450	1,463	.....	L, destroyed
23ddd	Justin Rude	14	36	Du	1919	..	6- 8-65	D	Gv	Qos	.....	1,464	.....	
24abc	E. Steigberg	6.2	48-24	Du	....	0.6	6- 8-65	U	..	Qos	.....	1,464	.....	FoS
24bcc	do.	10	36	Du-Dv	....	8.9	10-13-50	D,S	Sd	Qos	.....	1,465	.....	
24dcal	A. B. Dahl	27	..	Du	....	..	6- 8-65	D	Sd	Qos	.....	1,463	1,130	P dry, Rs, standby
24dca2	do.	161	36-4	B-Dr	1950	95	6- 8-65	D,S	Sd,Gv	Qob	1,302-	1,463	591	C, B to 50 ft, Dr to 161 ft, P 10-20 gpm.

25bcc	K. Haugeland Estate	14	24	Du	1938	3.5	6-16-65	D	Gv	Qos	.....	1,460	1,210	Garden W, FoS, similar well at house, T = 43°.
25cbc	J. S. Knutson	11	48	Du	1912	..	6-16-65	S	Gv	Qos	.....	1,453	850	2 D Sd points
26add	K. Haugeland Estate	7.0	48	Du	....	0.9	6-16-65	U	..	Qos	.....	1,458	.....	
26bbb	K. Gleason	15	30	Du	1938	12	6-16-65	S	Sd	Qos	.....	1,462	500	Similar D well
27bcc	Test hole 2304	472	..	Dr	1964	..	8-25-64	T	..	..	1,397	1,460	.....	L
28aac	O. Vrem	26	42	Du	1934	22	9-30-64	D,S	Gv	Qos	.....	1,458	606	C
28cdc1	L. Tweed	35	36	Du	1900	30	6-16-65	S	Sd	Qg	.....	1,492	970	Ri in 1930's
28cdc2	do.	130	4	Dr	1955	70	6-16-65	D	..	Qg	1,363-	1,493	1,100	L, deepened from 35 ft in 1963, P 10 gpm, 10 ft Dd, Fe.
29cca	Halvor Haugland	24	24	Du	....	18	6-11-65	S	Gv	Qos	.....	1,495	910	P dry, also D well, B.
29dcd	A. Eikom	70	4	Dr	1955	30	6-16-65	D,S	Sd	Qob	1,428-	1,498	679	C, Sd 12-70 ft
31dbd	Howard Miller	62	36	Du	1930	..	6-11-65	D,S	Gv	Qg	1,466-	1,528	520	
32daa1	Eikom Bros.	45	36	Du	1924	..	6-11-65	D	Sd	Qg	.....	1,507	1,140	P dry in 1 hr, Vh
32daa2	do.	116	5	Dr	1960	42	6-11-65	S	Tl	Qg	.....	1,517	1,250	W has "swamp" smell.
33adc	J. Hovdenes	112	4	Dr	1954	..	6-23-65	S	..	Qg	1,353-	1,465	1,300	T = 49°
33bbb	J. Eikom	27	..	Du	....	..	6-16-65	U	Sd,Gv	Qg	.....	1,498	.....	FoDS
33dbc	J. Anderson	22	24	Du	1945	15	6-11-65	D	Sd	Qg	.....	1,481	810	Similar S well
34cdc1	J. Hovdenes	40	36	Du	"old"	..	6-23-65	D,S	..	Qg	.....	1,510	.....	Vh, used for drinking.
34cdc2	do.	230	4	Dr	1959	..	6-23-65	D	Sh	Kp	1,281-1,411	1,511	2,800	Was 100 ft, Tsa after deepening in 1963.
35bcc	B. Hovdenes	78	6	Dr	1942	8	6-16-65	D,S	Gv	Qg	.....	1,440	2,280	Fe
35cdd	O. and W. Hovdenes	11	60	Du	1950	8	6-16-65	D,S	Sd,Gv	Qos	.....	1,418	595	
36cca	H. Engvik	30	48	Du	1928	..	6-16-65	U	Sd	Qg	.....	1,448	.....	Ri in 1930's, filled in, digging new well at site.
150-63														
1ada	J. Forde	20	..	Dv	1930	10	6-29-65	D	Sd,Gv	Qos	1,447-	1,467	505	C, DL, several S wells.
1bcc	Test hole DL 333	100	..	Dr	1950	..	1964	T	..	..	1,388	1,470	.....	L, DL

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-63, Cont.														
1cdd	USBR 429	14	..	Dr	1954	9.3	10-23-55	T,O	Sd	Qos	1,460-	1,474	.....	Sd 0-14 ft, destroyed.
1dba	K. Sharbono	16	..	Dv	1906	10	8-25-50	D	Sd	Qos	.....	1,475	.....	
2bbb	M. Anderson	12	42	Du	1934	6.0	8-25-50	S	Sd	Qos	.....	1,473	.....	
2ddd	USBR 409	15	..	Dr	1952	12.4	11-20-52	T,O	Sd	Qos	1,460-	1,475	.....	Sd 0-15 ft, destroyed.
3cbb	E. T. Brudeseth	14	..	Dv	1927	11	8-25-50	D	Sd	Qos	.....	1,477	.....	Similar S well
4daa	Ruth Stubson	11	..	Du-Dv	1945	9	8-25-50	S	Sd	Qos	.....	1,477	.....	
6ccd1	B. J. Langely	28.6	36	Du	1928	20.9	8-26-50	D,S	Sd,Gv	Qg	.....	1,494	.....	
6ccd2	do.	20.8	24	Du	1911	6.1	8-26-50	D,S	Sd,Gv	Qg	.....	1,500	.....	
6dcd1	O. H. Langley	27.6	24	Du	1935	22.0	8-26-50	D,S	Sd	Qg	.....	1,485	.....	
6dcd2	do.	10.4	72	Du	1935	6.1	8-26-50	S	Sd	Qg	.....	1,495	.....	
7bbb	J. P. Langley	50.6	18	B	1912	43.1	8-26-50	U	Sd,Gv	Qg	.....	1,508	.....	FoDS, Dr deeper, 4½ inch casing.
8bcb	Salmonson Estate	18	48	Du	1906	..	5-12-65	S	..	Qos	.....	1,475	.....	Pdo, FoD, another Du D well.
9abb1	Marjorie Walter	22	..	Dv	1950	20	8-25-50	S	Sd	Qos	.....	1,477	.....	Rs
9abb2	USBR 406	13	..	Dr	1952	12.1	10-23-55	T,O	Sd	Qos	1,462-	1,475	.....	Sd 0-13 ft, caving at 13 ft, destroyed.
9bdd	Cora Anderson	24	24	Du	1917	15.2	8-25-50	U	Sd,Gv	Qos	.....	1,479	.....	FoDS, Fe
10bcc	M. Walter	16	..	Du-Dv	1935	13	8-28-50	U	Sd	Qos	.....	1,460	.....	FoDS, Rs
10dda	Test hole DL 332	100	..	Dr	1950	..	1964	T	..	..	1,387	1,477	.....	L, DL
11bbb	R. Krebsbach	16	36	Du	....	9	4-13-65	D	Gv	Qg	.....	1,480	710	
13ada	J. Brodell	9.7	36	Du	1928	5.8	8-25-50	S	Sd	Qos	.....	1,460	.....	
13bbb	USBR 408	17	3	Dr	1952	11.1	10-15-64	T,O	Sd	Qos	.....	1,477	.....	L
14bac1	D. Kieffer	89	4	Dr	1925	70	3-10-65	D	Sd	Qg	1,423-	1,512	948	C, Fe, T = 43°
14bac2	do.	207	4	Dr	1962	..	3-10-65	D,S	Sh	Kp	1,301+	1,508	6,950	C, Tsa, not used for drinking, T = 43°.

15ccb	do.	..	..	Sp	....	..	.....	PS,O	..	Qg	.....	1,395	498	C, multiple openings, supplies picnic area, T = 42°.
16bbb	USBR 407	12	..	Dr	1952	11.3	10-23-55	T,O	Sd,Gv	Qos	1,462-	1,474	.....	Sd and Gv to 12 ft, caving at bottom.
17abb	J. Hatlestad	14.8+	..	Dv	....	10.1	8-26-50	D,S	Sd	Qos	.....	1,480	.....	
18cad	Olga Christianson	33.2	18	B	....	25.2	8-26-50	U	..	Qg	.....	1,490	.....	
19bbb	Test hole 2280	63	..	Dr	1964	..	7-23-64	T	..	..	1,464	1,508	.....	L
19bdd	Olga Christianson	35	..	Du	1916	25	8-26-50	D,S	Gv	Qg	.....	1,510	.....	
22cdd	A. Wessel	35	36-18	Du	1924	33	4-13-65	D,S	Sd,Gv	Qg	.....	1,493	2,000	Tm, Vh
22ddd	E. B. Eversvik	5.2	36	Du	....	0.1	5-12-65	U	..	Qg	.....	1,458	610	Dug into Sp, FoS
23abc	M. Dutee	8	36	Du	....	Flow	5-12-65	U	Sd	Qal	1,389-	1,397	.....	W level originally below surface.
23acal	C. Dutee	30	..	Du	....	..	5-12-65	U	Sh	Kp	1,402e	1,408	.....	Tm, filled in
23aca2	do.	10	36	Du	1957	5	5-12-65	D	Sd	Qal	.....	1,402	500	Ds, T = 45°
23bdb	do.	..	..	Sp	....	..	.....	S	..	Qal	.....	1,420	.....	
25ccb	M. Dutee	23	48	Du	1939	20	4-13-65	D,S	Sd,Tl	Qg	.....	1,480	.....	Tm
28adb	E. B. Eversvik	32	..	Du	1910	30	4-13-65	D,S	Sd	Qg	.....	1,492	.....	Sdu
28cdc	J. C. Haugland	30	6	Dr	....	..	5-26-65	D,S	Sd(?)	Qg	.....	1,480	910	Fe, T = 41°
32ccb	S. Torrison	32	48	Du	1930	..	5-12-65	U	Sd	Qg	.....	1,540	.....	FoDS, Ri, destroyed, also Dr well.
35aab	V. Stokke	22	36-32	Du	1939	20	4-14-65	D,S	Sd	Qg	.....	1,481	2,540	Tm, T = 39°
35bbb	M. Quam	33.9	30	B	....	31.3	4-13-65	U	..	Qg	.....	1,499	.....	FoS, Pdo
35dab	M. Dutee	52	6	Dr	1949	32	4-14-65	D	Sd	Qg	.....	1,498	1,410	C, Sdu, T = 43°
36ccd	State of North Dakota	11.3	36	Du	....	0	5-12-65	S	..	Qg	.....	1,492	.....	
150-64														
2dda	J. Kolstad	126	4	Dr	1920	..	7- 1-64	D,S	Sh	Kp	1,424+	1,550	2,070	Rs, Tm
3abc	E. J. Moen	40	30	Du	....	35	5-28-65	S	..	Qg	.....	1,560	.....	
3baal	do.	53.5	42	Du	1937	50.8	8-25-47	U	..	Qg	.....	1,582	.....	FoS, now almost dry.
3baa2	do.	108	6	Dr	....	..	5-28-65	D	..	Qg	1,475-	1,583	750	
3bcd	H. Mikelvey	34	72	Du	....	27	1947	D,S	..	..	.....	1,538	.....	Fe
4bcc	R. McNett	23	24	Du	....	21	5-28-65	D	Sd	Qg	.....	1,549	905	P dry, Vh
5aaa	Test hole DL 339	110	..	Dr	1950	..	1950	T	..	..	1,445	1,542	.....	L, DL
5cdd1	N. Ystass	25.4	30	Du	1933	18	6-64	D	Tl	Qg	1,533-	1,558	1,590	
5cdd2	do.	140	4	Dr	....	100	6-64	S	Sh	Kp	1,416+	1,556	2,320	Rs, Tsa

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-64, Cont.														
6bbd	R. Soderholm	26.0	36	Du	1908	23.1	1950	U	Sd	Qg	.....	1,532	.....	Adequate in 1930's
6cad	Mamie Birkeland	..	..	Sp	....	..	1945	S	..	Qg	.....	1,495	....*	F 50 gpm, measured 7-29-40.
6cdc1	do.	18	30	Du	1927	17	4-15-65	S	Gv	Qg	.....	1,510	.....	P dry, Vh
6cdc2	do.	15	30	Du	1947	13	4-15-65	D	..	Qg	.....	1,502	1,130	C
6ddc	do.	185	5	Dr	1938	..	4-15-65	U	Sh	Kp	1,367+	1,552	.....	Destroyed
7bab	do.	90	4	Dr	1954	75	4-15-65	D	Sh	Kp	1,399+	1,489	2,380	C, sulfur odor
8abal	L. Loe	25.0	36	Du	1910	21.8	4-14-65	U	Sd	Qg	.....	1,559	.....	P dry in $\frac{1}{2}$ hr, FoS.
8aba2	do.	23	24	Du	1955	19	4-14-65	D	Sd	Qg	.....	1,558	560	P dry in 2 hr, Rs
9bab	M. Marsaa	18.5	36	Du	1910	14.2	4-26-47	U	..	Qg	.....	1,540	.....	Adequate in 1930's, partly caved in.
9bbb	Test hole 2282	116	..	Dr	1964	..	7-24-64	T	..	..	1,446	1,537	.....	L
9cdd1	Johnson Bros.	60	30	B	1924	55	10-31-50	U	Sd	Qg	1,472-	1,532	.....	FoD, Ri
9cdd2	do.	165	6	Dr	....	..	5-28-65	U	Sh	Kp	1,367+	1,532	.....	FoS, Tsa
10adal	L. Hanson	24.9	24	Du	....	21.3	4-14-65	U	..	Qg	.....	1,532	.....	Originally 40 ft, partly caved.
10ada2	do.	65	6	Dr	1938	..	4-14-65	U	Gv	Qg	.....	1,530	.....	FoS, Ri
10cabl	do.	54.0	30	Du	1923	29.4	10-31-50	S	Tl	Qg	.....	1,533	.....	Tm
10cab2	do.	85	5	Dr	1955	35	5-28-65	D	Sd	Qg	1,456-	1,541	710	P 5 gpm, Tm
11aad	G. Kolstad	50	36	Du	1948	..	4-14-65	U	Sd,Tl	Qg	.....	1,537	.....	
12dabl	O. Enstad	22	24	Du	....	16	5-13-65	D	Sd,Tl	Qg	.....	1,478	.....	Supplies house and trailer.
12dab2	do.	75	4	Dr	1935	20	5-13-65	S	Sd	Qg	1,393-	1,468	870	T = 45°
13bcc	C. Loe	83	4	Dr	1952	70	4-15-65	D	..	Qg	1,436-	1,519	1,030	C, T = 45°
13cbbl	do.	29.4	24	Du	1919	21.6	10-30-50	U	..	Qg	.....	1,528	.....	Tm, cattle won't drink it.
13cbb2	do.	83	4	Dr	1953	70	4-15-65	S	..	Qg	.....	1,519	.....	Fe
16dad	J. McLaughlin	12.5	36	Du	....	9	10-31-50	U	Gv,Tl	Qg	.....	1,520	.....	Tm, also Dr well U.

17bbd	Indian land	63.8	24	B	....	8.5	4-15-65	U	..	Qg(?)	.....	1,540	.....	
18abd	USBR Warwick Siphon DH 3	84	..	Dr	1960	47.3	1-13-61	T	..	..	1,447	1,523	.....	L
18ba	F. Langley	18	18	Du	1934	15	1950	U	Sd	Qg	1,391-	1,406	.....	FoD
18bcd	USBR Warwick Siphon DH 1	59	..	Dr	1960	15.2	12-16-60	T	..	..	1,452	1,502	.....	L
18bda	USBR Warwick Siphon DH 2	44	..	Dr	1961	9.8	1-31-61	T	..	..	1,373	1,406	.....	L
19cacl	B. J. Langley	26.6	24	Du	....	17.4	11- 1-50	S	Sh	Kp	1,385+	1,411	.....	Reported small yield.
19cac2	do.	130	4	Dr	....	30	6-64	D,S	Sh	Kp	.....	1,411	.....	C, Tsa, not used for drinking.
19cba	Laura Cudworth	160	..	Dr	1961	..	5-28-65	S	Sh	Kp	.....	1,477	.....	Tsa
19cbbl	do.	10	30	Du	....	8	5-28-65	D,S	..	Qg	.....	1,488	.....	Pdo
19cbb2	do.	150	4	Dr	1960	70	5-28-65	D,S	Sh	Kp	.....	1,502	.....	Pdo, Tsa
21dccl	W. Rasmussen	60	36	B	....	30	6-26-64	D	..	Qg	1,474-	1,534	.....	Pdo
21dcc2	do.	143	4	Dr	1959	22	6-26-64	S	Sh	Kp	1,390+	1,533	.....	Tsa
22bdc	J. Wood	80.7	4	Dr	....	49.8	6-26-64	U	..	Qg	1,481-	1,562	.....	FoDS
22dad	do.	13.0	36	Du	....	7.2	6-26-64	S	..	Qg	.....	1,519	.....	
22dda	A. Rasmussen	23.0	36	Du	1907	10.7	10-31-50	D	..	Qg	.....	1,519	.....	Similar S well
23bab	J. Walde	32.4	30	Du	....	28.2	4-15-65	U	..	Qg	.....	1,498	.....	FoS
24abd	Meta Hultgren	62.4	24	Du	....	57.3	8-30-47	D,S	Sd	Qg	.....	1,538	579	Pdo, Fe
26bac	D. Seibold	37.0	18	Du	....	25.2	6-26-64	U	..	Qg	.....	1,522	.....	FoS, Fe
28aba	W. Rasmussen	143	4	Dr	1963	14	6-26-64	S	Sh	Kp	1,378+	1,521	.....	Tsa
28bba	do.	120	4	Dr	....	..	6-26-64	U	Sh	Kp	1,432+	1,552	.....	Tm
28dcc	J. Brown	25.5	36	Du	1907	16.7	6-26-64	U	..	Qg	.....	1,525	.....	
31bba	J. Cudworth	..	..	Sp	....	..	.....	D	..	..	.....	1,524	468	C, also another Sp, S, which F 3 gpm, estimated.
31bbd	do.	..	..	Sp	....	..	.....	S	..	..	.....	1,512	.....	F 10 gpm
33bcb	Hubin Bros.	36	32	Du	1920	20	6-26-64	D,S	..	..	.....	1,523	.....	
33bcc	Test hole 2281	94	..	Dr	1964	..	7-23-64	T	..	..	1,456	1,530	.....	L, drilled on esker.
33cdc	L. Hanson	9.6	36	Du	1938	5.6	11- 1-50	S	..	Qg	.....	1,513	.....	
34bbc	do.	15.4	36	Du	1920	12.8	9-29-47	U	Sd	Qg	.....	1,512	.....	Destroyed, Ri in 1930's.
34cdc	G. Loe	17.5	48	Du	....	15	6-26-64	S	Tl	Qg	.....	1,473	.....	W muddy, not used for drinking.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-64, Cont.														
36bdb1	G. Torrison	55	30	B	"old"	5	5-20-65	D,S	Tl	Qg	.....	1,522	1,040	Pdo, Tm, T = 46°
36bdb2	do.	139	4	Dr	1962	35	5-20-65	D	Sd	Qg	1,383-	1,522	996	C, W slightly turbid, T = 45°.
36ddd	USBR GWI 1	35	..	Dr	1951	..	6- 4-51	T	..	..	1,495-	1,530	.....	L
150-65														
1bbb	J. Miller	25.0	36	Du	1948	21.9	10-14-50	D	Sd,Tl	Qg	.....	1,515	.....	P dry
2ddb1	B. Peterson	17.9	42	Du	1928	15.3	8-26-47	D	Gv	Qos	.....	1,432	.....	
2ddb2	do.	20	36	Du	....	14	6-22-64	S	Gv	Qos	.....	1,432	.....	
3cbc1	H. W. Lovejoy	20	36	Du	....	17	6-22-64	S	Sd,Gv	Qg	.....	1,535	.....	P dry in 2 hr
3cbc2	do.	19	..	Du	1946	18	6-22-64	D	Sd,Gv	Qg	.....	1,535	.....	P dry, W had high nitrate content.
4dcb1	R. Berglund	55	22	B	1960	37	6-22-64	D	Sd	Qg	1,473-	1,528	.....	P dry, Vh
4dcb2	do.	103	4	Dr	1962	60	6-22-64	S	Sh	Kp	1,432e	1,532	.....	Tsa, Rs
4dcc	do.	55	30	B	1950	44	6-22-64	S	Sd	Qg	.....	1,530	.....	P dry, Tm
5aac1	E. Bonderson	62.5	30-16	B	1919	48.3	8-27-47	U	Sd,Tl	Qg	.....	1,573	.....	P dry, FoS
5aac2	do.	200	4	Dr	1951	60	6-22-64	D,S	..	Qg	1,373-	1,573	813	C, P 5 gpm
5adc	Test hole 2284	432	..	Dr	1964	..	7-24-64	T	..	..	1,167	1,590	.....	L
5bcc	A. Thompson	27	48	Du	1945	0	6-22-64	D,S	..	Qg	.....	1,520	1,390	P dry in ½ day
6cdd	M. Modin	85	..	Dr	1909	..	10-16-64	U	Sh	Kp	1,445+	1,530	.....	FoS, Ri, Tsa, destroyed.
7ccc	R. and V. Berglund	84	6	Dr	1959	30	8-13-64	S	Gv,Sd	Qg	.....	1,606	.....	
8aa	Calvert Exploration Co., State No. 1	3,865	..	Dr	1954	..	.....	Oil	..	..	1,426e	1,550	.....	L, NDGS Circ. 141, reached Precambrian.
8dcc	M. Modin	23	42	Du	1938	..	2- 5-64	U	..	Qg	.....	1,542	.....	FoD, Ri, Plugged
9aba	R. Soderholm	25	..	Dr	1937	..	6-22-64	S	Sh(?)	Kp(?)	1,507e	1,532	1,600	Tsa
10bba	Sontag Bros.	21.3	36	Du	1916	18.1	8-27-47	D	Gv	Qg	1,504-	1,525	.....	FoS
10ccb	R. Cudworth	35	4	Dr	1918	..	6-22-64	U	..	Qg(?)	.....	1,530	.....	FoS, Ri, destroyed
11aaa	Test hole 2283	42	..	Dr	1964	..	7-24-64	T	..	..	1,402	1,408	.....	L
11abc	H. Throlson	6	..	Du	....	1	6-22-64	D,S	..	Qg	.....	1,480	1,410	

11bac1	R. Cudworth	15	30	Du	1947	12	6-22-64	S	Gv	Qg	.....	1,520	.....	P dry after 300 gallons.
11bac2	do.	15	30	Du	1950	12	6-22-64	D,S	Gv	Qg	.....	1,520	679	P dry after 50 gallons.
11bdb	H. Throlson	..	..	Sp	....	..	.....	S	..	..	.....	1,508	.....	
11daa	H. Serumgard	30.1	24	Du	....	26.9	8-27-47	D	Gv	Qg	.....	1,550	.....	P dry after 50 gallons, use Sp for S.
12bcd1	F. Langley	50	30	Du	....	48	6-22-64	D	Sd	Qg	.....	1,475	.....	P dry after 50 gallons.
12bcd2	do.	180	4	Dr	1959	90	6-22-64	D,S	Sh	Kp	1,385e	1,475	.....	P 5 gpm, Tsa, contains gas.
12cab	Olga Langley	150	4	Dr	1961	25	6-22-64	S	Sh	Kp	1,425e	1,475	.....	Tsa, Rs
15ccc	Arvid Berglund	50	..	Dr	1961	16	1- 7-64	D	Sd	Qos	1,490-	1,540	.....	P 18 gpm, Fe
16dcb	do.	76	..	Dr	1961	18	1- 7-64	S	Sd	Qos	1,458e	1,538	.....	Salt W at 102 ft, plugged back, P 30 gpm.
17aba	D. Bonderson	24	24	Du	....	20	6-22-64	D,S	..	Qos	.....	1,547	.....	
19bcc1	L. P. Smith	23	24	Du	1885	20	6-22-64	D,S	Sd	Qg	.....	1,560	.....	P dry after 130 gallons.
19bcc2	do.	30	24	B	....	13	8-28-64	U	Sd	Qg	.....	1,551	.....	P sand
19bcc3	do.	130	4	Dr	1962	..	8-28-64	U	Sh	Kp	1,454e	1,552	.....	Tsa, unfit for S
20cdc1	C. Smith	10	30	Du	1949	9	6-23-64	D,S	Gv,Sd	Qos	.....	1,540	.....	
20cdc2	do.	18	..	Du	1954	10	6-23-64	S	Gv	Qos	1,522-	1,540	.....	
21aca	E. Berglund	90	..	Dr	1961	..	1- 7-64	T	..	..	1,454-	1,544	.....	L
22aad	J. Eversvik	23.7	28	B	1925	18.3	8-27-47	S	Sd	Qos	1,520e	1,544	.....	
22bdb	E. Berglund	46	17	Dr	1962	14.7	8-24-64	I	Sd	Qos	1,496-	1,542	468	L, C, aquifer test, irrigates 80 acres.
24ccc	USBR GWI 17	45	..	Dr	1951	Dry	6-15-51	T	..	..	1,546-	1,591	.....	L
26bbb	USBR 8N-4E	12	3	Dr	1951	8.3	10-29-53	T,O	Sd,Gv	Qos	1,525-	1,537	.....	Sd and Gv 6-12 ft, destroyed.
27bcc	USBR AP 23	13	..	Dr	1960	9.7	7-25-60	T	..	..	1,524-	1,537	.....	Sd 0-13 ft
27cdd	A. Hofer	20	36	Du	1910	14	6-22-64	D,S	Gv	Qos	.....	1,534	.....	Supplies 70 cattle.
28aaa	F. Smith	117	..	Dr	....	..	.....	U	Sh(?)	Kp(?)	1,451+	1,568	.....	Destroyed
28aac	do.	56	12	B	1917	28	1958	D,S	Tl	Qg	.....	1,562	.....	
28abd	do.	56	5	Dr	1939	15	1960	D	Gv,Sd	Qos	1,494-	1,550	.....	Lawn watering
28bbb	USBR AP 22	10	..	Dr	1960	4.2	7-25-60	T	..	..	.....	1,536	.....	Sd 2-10 ft

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-65, Cont.														
29abb	C. Smith	12	..	Dv	....	7	6-23-64	S	Sd	Qos	.....	1,532	.....	Supplies 100 cattle.
29bbb	USBR AP 21	11	..	Dr	1960	5.8	7-25-60	T	..	..	1,531-	1,542	.....	Sd 2-11 ft
31adb	W. Weber	22	32	B	....	20	6-23-64	S	Gv	Qg	.....	1,533	755	P 40 gpm, 2 ft Dd after 10 min.
31adc1	do.	42	24	B	1944	22	6-23-64	D	Tl,Sh	Qg,Kp	1,498e	1,539	2,520	P dry after 300 gallons, Tsa, Fe.
31adc2	do.	36	30	B	1962	11	6-23-64	S	Tl	Qg	.....	1,535	.....	Ds
31dac1	L. O. Harrum	104	4	Dr	1930	30	6-23-64	S	Sh	Kp	.....	1,535	.....	P dry at 2 gpm in 100 min, Tsa.
31dac2	do.	30	24	B	1959	15	6-23-64	D	Sd,Tl	Qg	.....	1,535	.....	Tm, P dry at 3 gpm
32cd	D. Weber	45	..	Dr	....	..	6-23-64	U	..	..	1,512e	1,546	.....	Destroyed
32cdc	do.	50	24	B	....	44	6-23-64	D	..	Qg	.....	1,545	.....	P dry in 20 min
32cdd1	do.	35	..	Du	....	..	6-23-64	S	..	Qg	.....	1,535	.....	P dry
32cdd2	do.	120	..	Dr	....	..	6-23-64	U	Sh	Kp	1,419+	1,539	.....	Tsa
33aaa	USBR GWI 18	45	..	Dr	1951	..	6-15-51	T	..	..	1,490-	1,535	.....	L
34b	H. Throlson	80	..	Dr	....	..	8-28-64	T	..	..	1,453e	1,533	.....	18 ft of W Sd, destroyed.
34bcc	do.	18	2	Dv	1950	8	6-23-64	D	Sd	Qos	.....	1,533	.....	
35bbb	USBR GWI 16	30	..	Dr	1951	..	6-14-51	T	..	..	1,505-	1,535	.....	L
35ccc1	H. Cleveland	11.9	30	Du	1932	6.9	10-20-50	D,O	Sd	Qos	.....	1,533	.....	
35ccc2	do.	14.6	36	B	"old"	9.0	7-15-65	S	Sd	Qos	.....	1,533	630	
36baa	Test hole 2305	124	1¼	Dr	1964	..	8-26-64	T	Sd	Qos	1,467	1,536	.....	L, Cd 30 ft, plugged.
36ddd	USBR 6N-6E	35	3	Dr	1951	13.5	10-29-53	T,O	Sd	Qos	1,495-	1,530	.....	L, destroyed
150-66														
1cba	F. Borgeson	48.4	36	Du	1915	37.9	8-11-64	U	Sd,Tl	Qg	1,467-	1,515	2,570	FoD, Vh, Fe, use cistern.
1daa	Maria Modin	8	36	Du	1918	..	8-11-64	S	Gv,Tl	Qg	.....	1,530	.....	Pdo
2dca1	R. A. Anderson	40	36	B	1948	25	8-11-64	S	Sd	Qg	1,475-	1,515	.....	P dry
2dca2	do.	130	6	Dr	1950	30	8-11-64	S	Sh	Kp	1,373+	1,503	8,590	Rs, Tsa, haul D W
4bbb	Test hole Sh 5	42	..	Dr	1963	13.9	10-21-63	T	..	..	1,439	1,439	.....	L, Sh

4bca	G. Bjugstad	17	72	Du	....	3	8-12-64	S	Sd	Qos	.....	1,430	.....	Pdo
4cbb	Test hole Sh 3	42	..	Dr	1963	3.7	10-17-63	T	..	..	1,392	1,420	.....	L, Sh
4cca	Estella Warsing	17	36	Du	1964	13	8-11-64	D	Sd	Qos	.....	1,462	.....	Rs
4ccc	May Abrahamson	22	30	Du	....	18	8-12-64	D	..	Qos	.....	1,471	969	
4ccd	Test hole Sh 2	21	..	Dr	1963	11.3	10-21-63	T	..	..	1,454	1,472	.....	L, Sh
5ada	Test hole Sh 4	84	..	Dr	1963	5.2	10-21-63	T	..	..	1,364	1,430	.....	L, Sh
5adc	L. Hjerpe	18	36	Du	1906	16	8-11-64	D	..	Qos	.....	1,428	.....	P dry
5cab	Test hole Sh 18	105	..	Dr	1963	4.8	10-25-63	T	..	..	1,345	1,420	.....	L, Sh
5cbd	Sheyenne Sand & Gravel Co.	16	1½	Dv	1963	14	.....	D	Gv	Qos	.....	1,440	926	C, Sh
5ccc	C. Daugherty	28	1¼	Du-Dv	1961	20	8-12-64	D	..	Qos	.....	1,493	.....	
5cdb	Test hole Sh 6	52	..	Dr	1963	Dry	10-21-63	T	..	..	1,443	1,482	.....	L, Sh
5cdd	D. Howard	11.4	36-30	Du	....	9.5	8-12-64	U	..	Qos	.....	1,490	.....	
5ddb	Test hole Sh 19	21	..	Dr	1963	5.2	10-25-63	T	..	..	1,443	1,455	.....	L, Sh
6aab	V. Flink	20.3	30	Du	....	11.9	8-12-64	D	..	Qos	.....	1,444	.....	
6cdb	R. Benson	180	4	Dr	1960	..	8-12-64	S	Sh	Kp	1,304+	1,484	4,860	Tsa
6cdd1	do.	25	36	Du	1959	..	8-12-64	D	Sd	Qos	.....	1,492	.....	Pdo
6cdd2	do.	36	36	Du	....	10	8-12-64	S	Sd	Qos	1,456-	1,492	.....	Pdo, Tm, W yellowish.
7cbb	T. Rue	23.5	40	Du	1932	10.0	8-12-64	S	Tl	Qg	.....	1,541	.....	Tm, haul D W
7daa	A. Hendrickson	30	30	Du	....	20	8-12-64	U	Sd	Qg	.....	1,532	.....	Haul D W
8aaa	USBR 9	24	4	Dr	1956	12.3	10-15-64	T,O	Sd	Qos	1,448	1,469	.....	L, C, Sh, Sdu to 16.7 ft.
8acb	Test hole Sh 9	42	..	Dr	1963	19.6	10-21-63	T	..	..	1,452	1,488	.....	L, Sh
8acc	Test hole Sh 10	42	..	Dr	1963	9.5	10-21-63	T	..	..	1,453	1,477	.....	L, Sh
8ada	Test hole Sh 8	31	..	Dr	1963	17.6	10-21-63	T	Sd	Qos	1,459	1,480	.....	L, Sh
8adc	Test hole Sh 11	31	..	Dr	1964	..	10-21-63	T	..	..	1,458	1,478	.....	L, Sh
8bbd	Test hole Sh 16	63	..	Dr	1963	21.6	10-25-63	T	..	..	1,445	1,487	.....	L, Sh
8daa	H. R. Aslakson	12	30	Du	....	10	8-12-64	U	Sd	Qos	.....	1,481	.....	Pdo
8dcb	do.	73	24	B	1933	..	8-12-64	U	Tl	Qg	1,444-	1,517	.....	FoS, Ri, also 2 Du wells.
9aaa	Thelma Lindstrom	..	..	Sp	....	..	8-11-64	U	..	Qg	.....	1,454	.....	Supplies Warsing reservoir.
9aba	Test hole Sh 1	21	..	Dr	1963	12.0	10-21-63	T	..	..	1,453	1,470	.....	L, Sh
9adc	Thelma Lindstrom	22	4	Du-Dv	1951	..	8-11-64	D	Sd	Qos	.....	1,482	.....	Similar S well
9bbb1	Test hole Sh 17	42	4	Dr	1963	11.2	10-15-64	T,O	Sd,Gv	Qos	1,448	1,466	.....	L, C, Sh, P 30 gpm with 5.2 ft Dd in 12 hr.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-66, Cont.														
9bbb2	Test hole Sh 7	21	1¼	Dr	1963	14.5	10-21-63	T	Sd,Gv	Qos	1,452	1,470	801	L, C, Sh
9bdd	Mrs. L. S. Rude	12+	24-1¼	Du-Dv	1925	10.5	10-15-64	D,O	..	Qos	.....	1,487	.....	Garden W
9caa	Test hole Sh 12	21	..	Dr	1963	..	10-22-63	T	..	..	1,467	1,478	.....	L, Sh
9cab1	Village of Sheyenne	24.0	240	Du	....	10.9	4- 1-59	PS	Sd,Gv	Qos	1,456e	1,480	1,000	C, Sh, P 60 gpm, 4.1 ft Dd after 24 hr. 2 collecting galleries: 4 in diameter perforated tiles, extend 200 ft south of well.
9cab2	Stockyards well	12	1½	Du	....	7.6	10-18-49	S,O	..	Qos	.....	1,480	.....	Destroyed
9cdd	Test hole Sh 15	31	..	Dr	1963	..	10-22-63	T	..	..	1,463	1,485	.....	L, Sh
9dba	Test hole Sh 14	21	..	Dr	1963	8.8	10-25-63	T	..	..	1,470	1,478	.....	L, Sh
10adal	M. Throlson	100	..	Dr	1963	10	8-11-64	U	Tl	Qg	1,478-	1,578	9,470	C, hit W at 52 ft. Yellow clay 55-100 ft.
10ada2	do.	217	4	Dr	1931	..	8-11-64	S	Sh	Kp	1,361+	1,578	11,437	C, Tsa, Fe, not good for S.
10ada3	do.	50	30	Du	1945	25	8-11-64	U	Sd	Qg	.....	1,578	.....	P dry
11ada	Ellen Larson	16	24	Du	1910	15	8-11-64	U	Tl,Sd	Qg	.....	1,545	.....	FoD
12abb	M. Throlson	13.2	26	Du	....	11.4	8-11-64	U	Tl,Sd	Qg	.....	1,508	.....	
12abc	do.	125	6	Dr	1930	..	8-11-64	S	Sh	Kp	1,388+	1,513	4,630	Tsa
12bcb1	Ellen Larson	180	4	Dr	....	..	8-11-64	U	Gv	Qg	1,375-	1,555	.....	
12bcb2	do.	25.9	36	Du	....	19.8	8-11-64	S	..	Qg	....	1,557	....	P dry, Tsa
14abb	E. T. Enderson	42	30	Du	1905	38	8-13-64	D,S	Tl	Qg	.....	1,622	.....	Pdo
14cab	A. Garnaas	28	36	B	1926	25	8-11-64	D,S	Sd	Qg	.....	1,608	.....	Pdo
15cab	A. G. Johnson	28.4	36	B	1920	24.4	10-21-63	D,S	Sd	Qg	.....	1,598	2,196	C, Sh
17adc1	A. Lillevig	35.5	30	Du	1910	15.2	10-22-63	D,S	Sd	Qg	.....	1,498	.....	Pdo, Fe
17adc2	do.	114	4	Dr	1950	18	10-22-63	U	Sh	Kp	1,405e	1,495	12,400	C, Tsa, FoS
17bdc	F. Landstrom	150	4	Dr	1925	..	8-11-64	S	Sh	Kp	1,375+	1,526	11,600	Tsa, haul D W

18bab	A. Benson	18	40	Du	....	11	8-12-64	S	Tl	Qg	.....	1,503	.....	Pdo, Tm
18bad	do.	10	44-40	Du	1959	4	8-12-64	D,S	Sd	Qg	.....	1,494	.....	Pdo, Rs
18cbb	Test hole 2285	52	..	Dr	1964	..	7-28-64	T	..	..	1,466	1,498	.....	L
19cdd	P. Tveito	24	60	Du	1928	..	8-12-64	D,S	Sd	Qg	.....	1,587	.....	P dry, similar D well 30 in diameter.
20ddd	I. Daugherty	26.0	36	Du	1948	23.3	10-22-63	D,S	Sd	Qg	.....	1,545	.....	Similar S well
21bab	J. M. Harvey	94	3	Du-Dr	1930	Flow	6- 9-65	S	Sh	Kp	1,407+	1,501	12,600	Head = 0.6 ft above land surface.
22bdb	A. Garnaas	8.5	24	Du	....	6.0	8-13-64	U	..	Qg	.....	1,547	.....	
24cadl	H. Ulness	28	36	Du	1900	..	5-20-65	D,S	..	Qg	.....	1,562	1,590	
24cad2	do.	30.0	36	Du	.....	22.9	5-20-65	U	..	Qg	.....	1,562	.....	FoS
25add	USBR AP 20	13	..	Dr	1960	6.5	7-22-60	T	..	..	1,529-	1,542	.....	Sd 3-13 ft
25baa	A. Messner	19.7	36	Du	....	17.6	5-20-65	D,S	..	Qos	.....	1,553	525	Supplies 75 cattle.
25bda	do.	22	2	Dv	1900	..	5-20-65	U	Gv	Qos	.....	1,551	.....	Reported dry - plugged?
26baa	B. Warren	75	36	Du	1938	60	5-20-65	D,S	Sd,Gv	Qg	1,513-	1,588	790	Deepened 5 ft about 1940, Fe.
26dcd	T. M. Olson	12	30	Du	1951	2	5-13-65	D,S	Sd	Qos	.....	1,547	500	T = 46°
27abdl	K. Strand	50	48	Du	1910	..	8-28-64	U	Gv	Qg	.....	1,630	.....	FoDS, caved in
27abd2	do.	45	4	Dr	1963	40	8-28-64	D,S	Gv	Qg	.....	1,630	.....	P 4½ gpm, use cistern for washing.
27ccc	J. E. Olson	175	6	Dr	1917	125	8-28-64	S	..	Qg	1,467-	1,642	.....	
29bdbl	O. Myhre	132	6	Dr	1900	52	5-13-65	U	Sh	Kp	1,401+	1,533	.....	Tsa
29bdb2	do.	15	84	Du	1920	10	5-13-65	S	..	Qg	.....	1,520	.....	Ri in 1930's
29dcd	I. Tuntland	80	6	Dr	....	..	5-13-65	D,S	Sd	Qg	.....	1,613	.....	
30dcb	E. Daugherty and M. Stenberg	34.8	36	Du	....	28.6	5-13-65	U	..	Qg	.....	1,641	880	T = 47°
31ccc	J. O. Myhre	54	36	Du	1948	24	5-13-65	D,S	Sd,Tl	Qg	1,514-	1,568	1,410	P dry at 6 gpm in ½ day, Fe.
31dda	Test hole 2308	126	..	Dr	1964	..	9- 3-64	T	..	..	1,474	1,562	.....	L
32bcd	O. Mhyre	225	4	Dr	....	60	5-13-65	S	Sh	Kp	1,383+	1,608	7,000	Tsa, haul D W, 2 Du wells were inadequate, Tm, destroyed.
32cdcl	E. O. Myhre	22	36	Du	....	14	5-13-65	D	Gv	Qg	.....	1,565	.....	P dry

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-66, Cont.														
32cdc2	E. O. Myhre	22	30	Du	1955	14	5-13-65	S	Gv	Qg	.....	1,565	.....	P dry, 2 ft Gv aquifer.
32cdc3	do.	155	..	Dr	1962	11	8-62	T	..	..	1,413	1,565	.....	L
32cdc4	do.	27	4	Dr	1963	17	5-13-65	S	Sd,Gv	Qg	.....	1,562	1,520	P 6 gpm
33abb	J. E. Olson	26	..	Du	1907	..	8-28-64	D,S	Sd,Gv	Qg	.....	1,625	.....	Supplies 6,000 turkeys, 500 sheep, 30 cattle.
33bac	M. McCleod	26	..	Du	....	..	5-13-65	U	..	Qg	.....	1,613	.....	FoS, Vh, Haul W
33bcd	do.	19	48-6	Du-Dr	1934	16	5-13-65	U	..	Qg	.....	1,605	.....	FoS
35ada	T. M. Olson	140	6	Dr	1928	30	5-13-65	S	Sh	Kp	1,415+	1,555	6,100	Tsa, T = 45°. Moved house ½ mile north to fresh W.
36acc	USBR AP 19	18	..	Dr	1960	6.7	7-22-60	T	..	..	1,526-	1,544	.....	Soil and Sd 0-6 ft, Tl 6-18 ft.
150-67														
2cdd	G. Rosendahl	40	36	Du	....	28	6-17-64	D,S	..	Qg	.....	1,507	.....	Rs
2dad1	D. Ostby	33.7	30	Du	....	27.3	6-16-64	S	..	Qg	.....	1,522	.....	Tm, haul D W
2dad2	do.	60	4	Dr	1900	28.1	6-16-64	U	..	Qg(?)	.....	1,532	.....	FoDS
3bdd1	H. Olson	30	36	Du	1954	27	6-17-64	D,S	Sd	Qg	1,462-	1,492	1,000	2 houses
3bdd2	do.	30	36	Du	1954	27	6-17-64	U	Sd	Qg	.....	1,491	.....	Formerly supplied 80 cattle.
4dda	E. Erickson	33	30	Du	1928	31	6-17-64	S	Tl	Qg	.....	1,492	.....	Deepened from 27 ft, P dry after 2 buckets.
5bcc	L. Jordre	27.6	30	Du	1900	24.8	6-19-64	U	..	Qg	.....	1,521	.....	FoDS, Ri
8bcb	O. Stensby	28	48	Du	1914	14	6-19-64	S	Gv	Qg	.....	1,500	.....	Supplies 80 cattle, haul D W.
8bda1	do.	17	36	Du	1897	13	6-19-64	S	Gv	Qg	.....	1,491	.....	Supplies 80 cattle
8bda2	do.	23	36-30	Du	1950	15	6-19-64	D	Gv	Qg	.....	1,492	1,090	Pdo
9acc1	I. Olson	168	4	Dr	1925	39	6-17-64	S	Sh	Kp	1,378e	1,520	.....	Tsa, Fe
9acc2	do.	35	5	Dr	1962	20	6-17-64	D	Sd	Qg	.....	1,520	.....	Vh, Garden W

9bda	do.	25	5	Dr	1962	15	6-17-64	D	Sd	Qg	.....	1,518	.....	P 5 gpm, Vh, not used for drinking or washing.
10bba	I. Olson	..	..	Sp	....	..	6-17-64	D	..	..	.....	1,478	.....	Supplies 2 houses
11bba	State of North Dakota	11.0	30	Du	....	8.2	6-16-64	S	..	Qg	.....	1,445	.....	P dry after 400 gallons.
11dac	S. Aslakson	25	36	Du	....	23	6-17-64	D,S	Gv	Qos	.....	1,497	612	C.
12ddc1	C. Rue	12	24	Du	....	10	6-17-64	D	Sd	Qg	.....	1,501	.....	
12ddc2	do.	128	4	Dr	....	17	6-17-64	S	Sh	Kp	.....	1,501	.....	Tsa
13cca	B. K. Hendrickson	27	32	Du	1953	..	6-17-64	D	Gv	Qg	.....	1,525	.....	P dry in 20 min at 12½ gpm.
13ccd	do.	23	32	Du	....	13	6-17-64	S	Gv	Qg	.....	1,510	.....	Tm, Vh
14abb	N. Hungness	16	36	Du	1909	14	6-17-64	D,S	Sd	Qg	.....	1,495	.....	
16bb	Calvert Exploration Co., State No. 1	4,235	..	Dr	1953	..	3-64	Oil	..	..	.....	1,472	.....	L, NDGS Circ. 45, reached Pre-cambrian.
18add	Test hole 2286	42	..	Dr	1964	..	7-29-64	T	..	..	1,468	1,489	.....	L
18dcd	Mary Ellen Turcotte	23.9	48	Du	1916	13.6	6-19-64	U	..	Qg	.....	1,509	.....	FoS, Ri
19daa1	Martha Anderson	30	24	B	1933	27	6-19-64	D,S	Sd,Gv	Qg	.....	1,560	.....	P dry after 100 gallons.
19daa2	do.	212	4	Dr	1962	70	6-19-64	S	Sh	Kp	1,305e	1,560	.....	P 5 gpm, Tsa
20cbb	do.	20	24	B	....	16	6-19-64	S	Gv	Qg	.....	1,537	.....	P dry after 50 gallons in dry weather.
21aaa	O. Myhre	23	30	Du	....	..	6-17-64	S	..	Qg	.....	1,500	.....	Similar D well
21cab1	S. Hendrickson	26	36	Du	1936	17	6-17-64	S	Sd,Tl	Qg	.....	1,505	6,120	C, Pdo, Tm
21cab2	do.	23	30	Du	1952	21	6-17-64	D	Tl	Qg	.....	1,512	.....	Tm, Vh, not used for drinking or washing.
22adc	Anna Tuntland	24	36	Du	....	21	6-18-64	D,S	..	Qg	.....	1,575	.....	Pdo
23cba	A. Bymoen	24	24	Du	....	23	6-18-64	D	Gv	Qg	.....	1,588	3,010	P dry, Vh
24adb1	F. Rud	21	36	Du	1930	18	6-18-64	D	Sd,Gv	Qg	.....	1,538	.....	P dry in 1930's
24adb2	do.	31	60	Du	1931	29	6-18-64	S	Tl	Qg	.....	1,541	.....	P dry
24caa1	Hendrickson Bros.	26	30	Du	1890	20	6-18-64	S	Sd	Qg	.....	1,551	.....	FoD
24caa2	do.	46	2	Dr	1933	26	6-18-64	S	Tl	Qg	.....	1,558	.....	
24dad1	E. Noraker	24	42	Du	1909	18	6-18-64	S	Gv	Qg	.....	1,583	.....	P dry, Tm
24dad2	do.	16	30	Du	1918	..	6-18-64	D	Sd	Qg	.....	1,582	.....	P dry after 20 gallons.

Location number	Owner or name	Depth of well (feet)	Diameter or size (inches)	Type	Date completed	Depth to water below land surface (feet)	Date of measurement or report	Use	Aquifer	Geologic unit	Bedrock elevation	Surface elevation	Specific conductance	Remarks
150-67, Cont.														
26bca	P. Sund	150	..	Dr	1963	..	6-18-64	T	..	..	1,468e	1,598	.....	L
26bcd	do.	30	30	Du	....	25	6-18-64	D,S	Sd	Qg	.....	1,595	.....	Vh
27bbb1	R. E. Seastrand	178	4	Dr	1957	70	6-18-64	D	Sh	Kp	1,362e	1,532	.....	P dry after 100 gallons, Tsa, Fe.
27bbb2	do.	40	30	Du	....	10	6-18-64	S	Tl	Qg	.....	1,525	.....	Pdo, Tm
27bcc1	A. E. Seastrand	29	30	Du	....	20	6-18-64	D	Tl	Qg	.....	1,518	.....	Supplies 100 gallons per day in dry weather.
27bcc2	do.	90	..	Dr	1962	..	6-18-64	T	..	..	1,428-	1,518	.....	L, small amount of W.
28aac	R. E. Seastrand	20	30	Du	1903	14	6-18-64	S	Sd	Qg	.....	1,515	.....	P 16 gpm, dug into Sp.
29aac1	N. G. Anderson	35	42	Du	....	28	3-64	S	Gv	Qg	.....	1,545	.....	Haul D W
29aac2	do.	24	24	Du	1928	..	6-19-64	U	Tl	Qg	.....	1,540	.....	Reported unfit for drinking, Vh.
29aac3	do.	98	..	B	1935	..	6-19-64	U	..	..	1,445e	1,543	.....	Plugged
29cca	Clara Larson	190	6	Dr	....	..	6-19-64	U	Sh	Kp	1,435+	1,625	.....	FoD, Tsa
29ccd	do.	31	38	Du	....	27	6-19-64	D,S	Gv	Qg	.....	1,630	.....	P dry in 2 hr
31abc	A. L. Seagren	23	48	Du	1955	21	6-19-64	S	Sd	Qg	.....	1,578	.....	Vh, reported not good for D.
32bcd	Carrie Berge	41.8	30	Du	....	29.2	6-29-65	U	Tl	Qg	.....	1,602	.....	FoDS, Vh, W reported high in nitrate.
34bcc	H. Erickson	34	24-18	Du	1959	14	6-19-64	D	Sd	Qg	.....	1,615	.....	
34cbb	do.	22	60	Du	1920	19	6-19-64	S	Gv	Qg	.....	1,612	.....	P 3+ gpm, P dry in dry weather, Tm.
35aab	H. O. Hendrickson Estate	45	30	B	1932	35	6-19-64	D,S	Tl	Qg	.....	1,590	.....	Vh, not used for drinking.

TABLE 2.--Water-level records of observation wells

Depth to water in feet below land surface

Symbols:
(a) Well recently pumped.
(b) Adjoining well pumping or recently pumped.
(c) Measurement taken during aquifer test.

Foster County: 145-62-22baa

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1963		1964		1964		1965	
April 26	16.66	April 22	15.48	Oct. 14	11.44	June 17	10.14
Oct. 14	13.15	May 19	13.20	Nov. 19	11.93	July 14	10.59
1964		June 24	10.14	1965		Sept. 20	10.43
Jan. 2	14.1	July 13	10.08	March 30	15.74	Oct. 20	9.52
Feb. 13	15.45	Aug. 12	12.19	April 22	15.20		
March 12	15.72	Sept. 24	11.78	May 18	12.9		

145-62-24aaa

1964		1964		1965		1965	
July 10	21.14	Nov. 19	20.37	March 30	20.33	July 14	20.15
Aug. 12	21.22	Dec. 21	20.26	April 22	20.38	Aug. 12	Destroyed
Sept. 24	20.79	1965		May 18	20.40		
Oct. 14	20.58	Jan. 20	20.08	June 17	20.39		

145-63-29ddc

1963		1964		1965		1965	
April 16	26.54	June 24	22.78	Jan. 20	24.3	July 14	23.39
1964		July 13	22.71	Feb. 18	Snow	Sept. 20	23.31
Feb. 13	26.44	Aug. 13	23.31	March 30	26.03	Oct. 20	21.92
March 12	26.9	Sept. 24	23.44	April 22	33.9 [a]		
April 22	29.2	Oct. 14	23.34	May 18	24.0		
May 19	25.18	Nov. 19	23.58	June 17	24.74[a]		

145-64-19bcb

1962		1963		1964		1964	
Oct. 19	15.62	Oct. 14	18.40	March 12	18.86	July 14	14.76
1963		1964		April 22	17.16	Aug. 13	15.28
Jan. 18	16.85	Jan. 2	19.1	May 19	17.30	Sept. 24	16.08
Sept. 26	18.12	Feb. 13	19.21	June 24	13.71	Oct. 14	Sealed

145-64-21dba

1963		1964		1964		1965	
Sept. 5	5.19	April 22	5.0	Nov. 19	3.82	May 18	1.44
Sept. 26	5.4	May 19	4.00	Dec. 21	4.51	June 17	3.43
Oct. 14	5.5	June 24	2.87	1965		July 14	3.36
1964		July 14	3.08	Jan. 20	4.86	Aug. 12	2.16
Jan. 2	5.68	Aug. 11	3.50	Feb. 18	5.19	Sept. 20	2.16
Feb. 13	5.84	Sept. 24	3.75	March 30	5.35	Oct. 20	2.07
March 12	5.73	Oct. 14	3.58	April 22	3.04	Nov. 23	2.66

Depth to water in feet below land surface

145-64-22da

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1963		1964		1964		1965	
Sept. 5	7.53	March 12	7.11	Sept. 24	3.05	Feb. 18	4.27
Sept. 26	6.66	April 22	5.74	Oct. 14	3.19	March 30	4.65
Oct. 14	6.50	May 19	5.06	Nov. 19	3.54	April 22	2.08
1964		June 24	3.29	Dec. 21	3.78	May 18	Plugged
Jan. 2	6.75	July 14	3.53	1965		June 17	2.44
Feb. 13	7.12	Aug. 13	4.02	Jan. 20	3.47	July 14	Destroyed

145-65-25ddd

1950		1950		1950		1951	
May 18	17.9	July 26	11.3	Nov. 1	12.9	June 15	13.2
June 22	14.8	Sept. 13	13.0				

145-65-26aba2

1962		1964		1964		1965	
Oct. 17	13.8	Feb. 13	13.77	Sept. 24	13.57	June 17	13.49
1963		March 12	13.74	Oct. 14	13.45	July 14	13.37
Jan. 17	13.45	April 22	13.73	Nov. 19	13.40	Sept. 20	13.03
Sept. 24	13.7	May 19	13.80	1965		Oct. 20	12.89
Oct. 14	13.79	June 24	13.33	March 30	13.58	Nov. 23	12.83
1964		July 14	13.80	April 22	13.36		
Jan. 3	13.7	Aug. 13	13.68	May 18	13.37		

145-65-27adal

1962		1964		1965		1965	
Oct. 17	12.5	April 22	14.99	Feb. 18	12.80	Aug. 12	10.31
1963		May 16	13.80	March 30	15.34	Sept. 20	11.14
Jan. 18	13.78	June 24	10.46	April 22	14.48	Oct. 20	10.55
Sept. 24	14.1	July 14	8.64	May 18	12.99		Destroyed
Oct. 14	14.36	Aug. 13	10.87	June 17	11.57		
1964		Sept. 24	11.61	July 14	11.32		
Jan. 3	14.82	Oct. 14	11.58				
Feb. 13	15.77	Nov. 19	11.85				
March 12	15.92	Dec. 21	12.49				

145-65-34ccb

1962		1964		1964		1965	
Oct. 20	13.84	Feb. 13	15.64	Sept. 24	13.47	July 14	12.38
1963		March 12	15.88	Oct. 14	13.33	Sept. 20	12.92
Jan. 18	13.8	April 22	15.76	Nov. 19	13.40	Oct. 20	12.10
Sept. 24	14.3	May 19	15.25	1965		Nov. 23	11.77
Oct. 14	14.81	June 24	12.57	April 22	13.68		
1964		July 14	11.70	May 18	12.48		
Jan. 3	15.13	Aug. 13	12.91	June 17	12.07		

Depth to water in feet below land surface

145-66-5ccb1

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1962		1964		1964		1965	
Oct. 15	11.98	Feb. 14	Snow	Oct. 15	11.81	June 17	12.76
1963		March 12	14.67	Nov. 20	11.86	July 14	12.40
Jan. 18	12.17	April 22	14.89	1965		Aug. 13	12.02
Sept. 6	12.82	May 19	14.96	Jan. 20	12.04	Sept. 20	12.64
Oct. 15	13.26	June 26	13.81	March 30	12.77	Oct. 20	11.40
1964		July 30	12.2	April 22	12.92	Nov. 23	11.12
Jan. 3	14.09	Sept. 24	11.97	May 19	12.95		

145-66-6aaa

1962		1964		1964		1965	
Oct. 15	9.36	Feb. 14	11.99	Oct. 15	7.42	July 14	6.95
1963		March 12	12.16	Nov. 20	7.89	Aug. 13	5.92
Jan. 18	9.98	April 22	11.38	1965		Sept. 20	6.23
Sept. 24	12.2	May 19	11.22	Jan. 20	8.70	Oct. 20	5.34
Oct. 15	12.3	June 24	3.94	April 22	3.70	Nov. 23	5.67
1964		July 30	5.77	May 19	4.05		
Jan. 3	12.0	Sept. 24	8.52	June 17	5.29		

145-66-27ccc

1950		1950		1950		1951	
May 18	10.15	July 26	6.8	Nov. 1	8.2	June 15	7.8
June 22	6.4	Sept. 13	8.1				

145-66-31bbb

1962		1964		1964		1965	
Oct. 12	12.60	Feb. 13	14.14	Oct. 15	11.74	June 17	11.94
1963		March 12	14.15	Nov. 19	11.95	July 14	11.67
Jan. 18	13.10	April 22	14.40	Dec. 21	12.4	Aug. 13	11.32
Aug. 21	12.77	May 19	14.29	1965		Sept. 20	11.52
Sept. 16	12.83	June 24	12.82	Jan. 20	11.61	Oct. 20	11.59
Oct. 15	13.0	July 30	11.29	March 30	13.50	Nov. 23	10.65
1964		Aug. 13	11.56	April 22	13.19		
Jan. 3	13.83	Sept. 24	11.92	May 18	12.68		

145-66-32baa

1963		1964		1964		1965	
Sept. 6	23.9	May 19	24.34	Dec. 21	23.48	June 17	22.88
Oct. 15	24.09	June 24	23.81	1965		July 14	22.57
1964		July 30	23.13	Jan. 20	23.57	Aug. 13	22.88
Jan. 3	Snow	Aug. 1	23.15	Feb. 18	23.34	Sept. 20	22.99
Feb. 13	24.64	Sept. 24	23.27	March 30	23.78	Oct. 20	22.84
March 12	24.60	Oct. 15	23.26	April 22	23.51	Nov. 23	22.72
April 22	24.64	Nov. 19	23.30	May 18	23.11		

Depth to water in feet below land surface

145-66-36bcc

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1962		1964		1964		1965	
Oct. 12	12.0	Feb. 13	15.32	Sept. 24	12.90	May 18	12.68
1963		March 12	15.56	Oct. 14	12.89	June 17	12.09
Jan. 18	12.7	April 22	15.46	Nov. 19	12.89	July 14	12.15
Sept. 6	13.42	May 19	15.50	Dec. 21	13.35	Aug. 13	12.03
Oct. 14	13.96	June 24	13.56	1965		Sept. 20	12.38
1964		July 30	12.53	Feb. 18	14.17	Oct. 20	11.95
Jan. 3	14.83	Aug. 13	12.69	April 22	13.82	Nov. 23	11.18

145-67-13dcc

1963		1964		1964		1965	
Sept. 6	22.7	May 19	23.40	Dec. 21	20.98	July 14	19.86
Oct. 15	23.1	June 24	21.37	1965		Aug. 13	19.38
1964		July 30	20.39	Feb. 18	21.48	Sept. 20	19.77
Jan. 3	23.52	Aug. 13	20.61	March 30	21.76	Oct. 20	19.43
Feb. 13	23.78	Sept. 24	20.75	April 22	21.4	Nov. 23	19.39
March 12	23.9	Oct. 15	20.62	May 18	20.28		
April 22	23.93	Nov. 19	20.66	June 17	19.69		

145-67-16ccb

1963		1964		1964		1965	
Sept. 6	3.3	May 19	2.27	Dec. 21	1.99	July 14	0.97
Oct. 15	3.53	June 24	Flooded	1965		Aug. 13	.34
1964		July 30	1.52	Feb. 18	2.50	Sept. 20	.08 above
Jan. 3	Snow	Aug. 11	1.92	March 30	2.88	Oct. 20	.44 above
Feb. 13	Snow	Sept. 24	1.71	April 22	Flooded	Nov. 23	Frozen
March 12	4.0	Oct. 15	1.32	May 19	.73		
April 22	3.24	Nov. 19	1.51	June 17	.88		

Griggs County: 146-61-19ccc

1964		1964		1965		1965	
July 27	13.38	Nov. 19	12.61	Feb. 18	12.43	Aug. 12	11.76
Aug. 12	13.43	Nov. 24	12.57	March 30	12.63	Sept. 20	11.45
Aug. 18	13.40	Nov. 25	12.55	April 22	12.53	Oct. 20	11.19
Aug. 30	13.07	Dec. 21	12.49	April 30	12.60	Nov. 23	10.70
Sept. 22	13.06	1965		May 18	12.57	1966	
Sept. 24	13.05	Jan. 21	12.53	June 17	12.52	Jan. 11	10.60
Oct. 14	12.75	Feb. 11	12.43	July 13	11.20	Feb. 8	10.54

Foster County: 146-62-30ccc

1963		1964		1964		1965	
Sept. 5	13.04	May 19	13.58	Dec. 21	Snow	July 14	11.72
Oct. 14	13.3	June 24	12.42	1965		Aug. 12	11.28
1964		July 13	12.12	Feb. 18	12.40	Sept. 20	11.45
Jan. 2	13.4	Aug. 11	12.34	March 30	12.74	Oct. 20	10.66
Feb. 13	13.66	Sept. 24	11.75	April 22	12.78	Nov. 23	10.61
March 12	13.78	Oct. 14	11.47	May 18	12.44		
April 22	13.68	Nov. 19	11.43	June 17	11.84		

Depth to water in feet below land surface

146-62-36bbb

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1964		1964		1965		1965	
July 13	23.98	Nov. 19	22.60	April 22	23.03	Sept. 20	22.08
July 27	23.94	Dec. 21	22.47	May 18	23.14	Oct. 20	21.67
Aug. 12	23.95	1965		June 17	22.94	Nov. 23	21.24
Sept. 22	23.29	Feb. 18	22.58	July 13	22.70		
Oct. 14	22.96	March 30	22.92	Aug. 12	22.06		

146-63-13dad

1963		1964		1964		1964	
May 22	26.27	Jan. 2	27.40	March 12	26.74	June 24	Discontinued
Oct. 14	26.80	Feb. 13	26.61	May 19	26.83		

146-65-24bbb3

1951		1952		1953		1953	
June 15	12.2	June 26	14.8	April 21	15.8	Oct. 29	15.0
Aug. 21	13.9	Aug. 21	14.1	July 9	13.9		
Oct. 17	14.2	Oct. 5	14.7				

146-66-6aad

1961		1963		1964		1965	
Nov. 10	4.16	Dec. 2	4.45	June 25	3.49	June 17	3.29
1962		1964		July 24	4.22	July 16	3.36
May 25	3.63	March 6	Frozen	Aug. 13	4.32	Aug. 12	3.18
Nov. 28	3.68	April 10	Frozen	Sept. 23	3.84	Sept. 21	2.92
1963		April 23	4.00	Oct. 15	3.58	Oct. 21	2.87
March 29	Frozen	May 20	2.96	1965		Nov. 23	2.75
April 23	3.66	June 1	4.17[c]	Jan. 20	Frozen		
Aug. 6	4.80	June 5	4.19[c]	April 23	3.17		
Oct. 16	4.70	June 7	4.10[c]	May 19	3.22		

146-67-19aba

1963		1964		1964		1965	
Jan. 18	11.18	April 22	11.66	Nov. 20	8.95	July 14	9.67
Sept. 24	8.39	May 19	8.22	1965		Aug. 12	7.43
Oct. 15	10.72	June 24	5.93	Jan. 20	10.08	Sept. 21	8.34
1964		July 30	8.33	March 31	11.16	Oct. 20	7.55
Jan. 3	11.9	Aug. 17	8.98	April 23	11.55		
Feb. 14	12.68	Sept. 23	9.57	May 19	10.04		
March 12	12.68	Oct. 15	8.32	June 17	8.22		

Depth to water in feet below land surface

146-67-19abd

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1962		1964		1964		1965	
Oct. 3	8.84	March 12	13.72	Oct. 15	10.73	June 17	8.62
1963		April 22	14.0	Nov. 20	10.88	July 14	9.17
Jan. 18	11.07	May 19	13.80	1965		Aug. 12	8.81
Sept. 24	13.96[a]	June 24	12.0	Jan. 20	11.47	Sept. 21	9.04
Oct. 15	39.80[a]	July 30	10.03	March 31	11.73	Oct. 21	9.75
1964		Aug. 17	10.35	April 23	9.48		
Jan. 3	13.37	Sept. 23	11.03	May 19	8.54		

146-67-22baa

1962		1963		1964		1964	
Oct. 4	10.0	Sept. 24	10.49	Jan. 3	11.38	March 12	11.95
1963		Oct. 15	10.66	Feb. 14	11.76	April 22	Destroyed
Jan. 18	11.42						

147-62-10abb

1964		1964		1965		1965	
July 23	11.65	Dec. 21	11.42	April 30	10.8	Sept. 20	9.59
Aug. 12	12.53	1965		May 18	9.71	Oct. 20	9.24
Sept. 22	11.40	Jan.-		June 17	10.52	Nov. 23	9.10
Oct. 14	10.23	March	Snow	July 13	10.15		
Nov. 19	10.43	March 30	13.85	Aug. 12	10.62		

147-62-22ccd

1963		1964		1964		1965	
May 24	8.38	March 12	11.6	Dec. 21	6.13	June 17	5.04
Aug. 9	8.90	May 22	8.01	1965		July 13	4.92
Sept. 26	9.87	June 25	4.42	Feb. 18	9.06	Aug. 12	4.85
Oct. 16	10.05	Aug. 12	6.6	March 31	8.41	Sept. 20	3.66
1964		Sept. 22	5.96	April 22	Flooded	Oct. 20	3.22
Jan. 6	11.1	Nov. 19	5.07	May 18	5.04	Nov. 23	4.26

147-63-21dda

1963		1964		1964		1965	
May 30	20.87	May 22	22.45	Dec. 21	18.18	July 13	17.79
Oct. 16	21.22	June 25	21.62	1965		Aug. 12	17.7
1964		July 14	19.02	Feb. 18	Snow	Sept. 20	17.51
Jan. 6	20.31	Sept. 22	20.63	March 30	18.69	Oct. 20	17.53
Feb. 14	25.46	Oct. 14	17.43	May 18	18.76		
April 3	23.2	Nov. 19	17.62	June 23	18.16		

Depth to water in feet below land surface

147-64-2bbb

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1952		1952		1953	
June 15	10.8	April 15	12.9	Oct. 3	13.0	Oct. 29	13.2
Aug. 23	11.3	May 16	12.7	1953			
Oct. 17	11.9	June 26	12.7	April 21	13.4		
Nov. 20	11.8	Aug. 21	12.8	July 9	13.1		

147-64-8bbb

1951		1952		1952		1953	
June 12	8.0	April 15	10.6	Aug. 21	11.1	April 21	13.6
Aug. 21	10.3	May 15	11.3	Oct. 5	11.6	July 9	9.3
Nov. 20	10.1	June 26	8.9			Oct. 29	12.4

147-64-10add

See U.S. Geological Survey, 1952a, p. 312.
Records available: 1946-1950. Listed as 147-64-10ad. W. Graham.

147-64-25add

1964		1964		1965		1965	
July 10	2.85	Dec. 21	3.65	May 18	1.83	Oct. 20	1.65
Aug. 11	3.44	1965		June 17	2.47	Nov. 23	2.05
Sept. 22	3.53	Jan. 21	2.87	July 13	2.43		
Oct. 14	3.31	Feb. 18	3.73	Aug. 12	1.47		
Nov. 19	3.44	March 30	3.40	Sept. 20	1.36		

147-66-14aaa

1962		1964		1964		1965	
July 25	51.06	Feb. 14	51.45	Sept. 23	51.00	May 20	50.47
1963		March 13	51.35	Oct. 15	50.90	June 17	50.58
Jan. 17	49.65	April 10	51.33	Nov. 20	50.93	July 16	50.48
Sept. 5	51.44	May 20	51.28	1965		Aug. 12	50.30
Oct. 15	51.53	June 25	50.90	Jan. 20	50.83	Sept. 21	50.04
1964		July 24	50.94	March 31	50.68	Oct. 21	49.98
Jan. 3	51.34	Aug. 13	52.22	April 23	50.58		

147-66-29ddd

1964		1964		1965		1965	
July 10	14.30	Nov. 24	12.87	March 31	13.20	Sept. 21	12.49
July 24	14.13	Nov. 25	12.89	April 23	13.29	Oct. 21	12.18
Aug. 11	14.08	Dec. 22	12.64	April 30	13.32	Oct. 22	12.13
Sept. 23	13.56	1965		May 20	13.33	Nov. 23	11.73
Oct. 15	13.17	Jan. 21	12.66	June 17	13.56	1966	
Nov. 6	13.02	Feb. 12	12.8	July 16	13.39	Jan. 12	10.51
Nov. 20	12.97	Feb. 19	12.77	Aug. 12	12.94	Feb. 17	11.60

Depth to water in feet below land surface

147-67-10dda

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1963		1964		1965		1965	
Sept. 5	10.0	June 25	9.48	Jan. 20	8.96	Aug. 12	7.95
Oct. 15	10.1	July 24	9.32	Feb. 19	9.23	Sept. 21	7.54
1964		Aug. 13	9.44	March 31	8.41	Oct. 21	7.26
Jan. 3	10.22	Sept. 23	9.22	April 23	9.49	Nov. 24	7.08
Feb. 14	10.36	Oct. 15	8.85	May 19	9.16	1966	
March 13	10.37	Nov. 20	8.78	June 17	8.87	Jan. 12	7.46
April 10	10.48	Dec. 22	8.79	July 16	8.77	Feb. 17	7.96
May 20	10.27						

147-67-19cbc

1963		1964		1964		1965	
Sept. 5	15.0	April 2	15.41	Nov. 20	14.75	June 17	14.49
Sept. 24	15.11	April 10	15.29	Dec. 22	14.49	July 14	14.45
Oct. 15	15.20	May 20	15.26	1965		Aug. 12	13.96
1964		June 24	15.04	Feb. 19	13.57	Sept. 21	13.64
Jan. 3	Snow	Aug. 11	14.99	March 31	14.63	Oct. 21	13.61
Feb. 14	15.34	Sept. 23	14.80	April 23	14.70	Nov. 24	13.34
March 12	15.22	Oct. 15	14.65	May 19	14.48		

147-67-22ddd

1963		1964		1964		1965	
Sept. 5	23.57	April 10	24.05	Oct. 15	22.89	June 17	22.82
Oct. 15	23.79	May 20	24.01	Nov. 21	22.87	July 15	22.55
1964		June 25	23.65	1965		Aug. 12	22.09
Jan. 3	23.98	July 24	23.4	Jan. 20	22.73	Sept. 21	21.68
Feb. 14	24.04	Aug. 11	23.38	April 23	23.19	Oct. 21	21.65
March 12	23.89	Sept. 23	23.14	May 19	22.98	Nov. 24	21.28

147-67-25ddd

1964		1965		1965		1965	
March 6	29.7	Jan. 21	28.42	June 17	28.48	Nov. 23	27.68
May 20	29.56	Feb. 19	28.63	June 30	28.71	1966	
Sept. 23	28.93	March 11	28.66	July 16	28.43	Jan. 12	27.30
Oct. 15	28.65	March 31	28.65	Aug. 12	27.96	Feb. 17	27.45
Nov. 20	28.67	April 23	28.87	Sept. 21	27.68		
Dec. 22	28.45	May 19	28.62	Oct. 21	27.77		

147-67-30bcb1

1962		1964		1964		1965	
July 24	39.79	Feb. 14	24.7	Sept. 23	15.76	June 17	10.86
1963		March 12	23.94	Oct. 15	13.87	July 14	9.00
Jan. 17	33.05	April 10	24.16	Nov. 20	12.88	Aug. 12	6.65
Sept. 24	26.0	May 20	23.19	1965		Sept. 21	4.28
Oct. 15	25.9	June 24	20.19	March 31	12.78	Oct. 20	4.97
1964		July 29	18.93	April 23	12.88		
Jan. 3	Frozen	Aug. 17	18.02	May 19	12.58		

Depth to water in feet below land surface

Eddy County: 148-62-29daa

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1964		1964		1965		1965	
July 23	24.87	Dec. 21	24.53	April 30	24.67	Sept. 20	24.11
Aug. 12	24.79	1965		May 18	24.5	Oct. 20	23.90
Sept. 22	24.68	Jan. 21	24.69	June 17	24.29	Nov. 23	23.87
Oct. 14	24.46	Feb. 18	24.91	July 13	24.20		
Nov. 19	24.43	March 30	25.06	Aug. 12	24.08		

148-63-11ccb

1964		1964		1965		1965	
Aug. 10	3.08	Dec. 21	1.30	April 30	Frozen	July 13	1.85
Sept. 22	2.42	1965		May 18	Frozen	Aug. 11	1.77
Oct. 14	2.17	Jan. 21	Frozen	May 26	1.83	Sept. 20	1.93
Nov. 19	2.12	Feb. 18	Frozen	June 17	1.84	Oct. 20	1.58

148-64-5bab

1963		1964		1965		1965	
Aug. 21	12.98	May 21	14.28	Jan. 19	Snow	Aug. 12	9.30
Oct. 16	14.88	June 25	9.40	Feb. 19	Frozen	Sept. 21	10.38
1964		July 24	9.29	March 31	12.31	Oct. 21	9.36
Jan. 6	17.45	Aug. 12	10.37	April 23	11.11	Nov. 24	8.80
Feb. 14	16.65	Sept. 23	10.33	May 20	9.60		
March 13	16.76	Oct. 15	9.33	June 16	8.69		
April 3	16.45	Nov. 20	9.34	July 15	9.54		

148-64-29bbb

1951		1952		1952		1953	
June 12	7.3	April 22	11.1	Aug. 21	9.6	April 21	12.4
Aug. 23	9.4	May 15	10.3	Oct. 3	10.5	July 9	8.0
Nov. 20	Snow	June 26	10.1			Oct. 29	11.0

148-65-2aab

1951		1952		1952		1953	
June 14	1.0	April 15	2.3	Oct. 5	4.6	Oct. 29	4.2
Aug. 22	3.7	May 14	2.1	1953			
Oct. 17	3.4	June 26	3.0	April 21	4.4		
Nov. 20	3.4	Aug. 20	4.1	July 8	2.4		

148-65-13bbb

1951		1952		1952		1953	
June 14	4.0	April 22	6.2	Aug. 20	8.7	April 21	11.3
Aug. 22	8.1	May 15	6.6	Oct. 5	9.8	July 9	7.1
Nov. 20	7.8	June 26	7.3			Oct. 29	10.8

Depth to water in feet below land surface

147-66-31accl

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1961		1964		1964		1965	
Nov. 10	23.23	Feb. 14	23.47	Aug. 13	23.27	May 19	22.14
1962		March 6	23.48	Sept. 23	22.68	June 17	22.13
May 25	23.06	April 23	23.38	Oct. 15	22.32	July 16	22.29
Nov. 28	22.61	May 4	23.26	Nov. 20	22.33	Aug. 12	21.75
1963		May 19	23.10	Dec. 22	22.14	Sept. 21	21.48
March 29	22.91	June 1	23.22[c]	1965		Oct. 21	21.35
April 23	22.88	June 5	42.26[ac]	Jan. 20	22.17		
Aug. 6	24.0	June 9	24.0 [c]	Feb. 19	22.24		
Oct. 15	23.63	June 25	22.57	March 31	22.33		
Dec. 2	23.41	July 24	Pumping	April 23	22.37		

147-66-31acc2

1964		1964		1965		1965	
May 14	20.20	June 5	22.90	Sept. 21	18.68	Nov. 23	18.20
June 1	20.20	June 10	20.90	Oct. 21	18.46		

147-66-31ccc

1963		1964		1964		1965	
Sept. 5	18.72	June 1	18.18[c]	Nov. 20	17.61	July 16	17.29
Oct. 15	18.79	June 5	18.26[c]	1965		Aug. 12	16.93
1964		June 7	18.23[c]	Jan. 20	17.50	Sept. 21	16.78
Jan. 3	Snow	June 25	17.65	Feb. 19	17.43	Oct. 21	16.67
Feb. 14	18.62	July 24	17.98	March 31	17.56	Nov. 23	16.53
March 6	18.64	Aug. 13	18.23	April 23	17.40		
April 10	18.47	Sept. 23	18.05	May 19	17.21		
May 20	18.08	Oct. 15	17.63	June 17	17.22		

147-66-31dd

1961		1963		1964		1965	
Nov. 10	29.74	Dec. 2	30.05	June 25	29.01	May 19	28.71
1962		1964		July 24	30.15[ab]	June 16	28.82
May 25	29.35	Feb. 14	30.19	Aug. 13	29.99	July 16	28.95
Nov. 28	29.38	March 6	30.13	Sept. 23	29.52	Aug. 12	28.51
1963		April 23	29.88	Oct. 15	29.07	Sept. 21	28.25
March 29	29.47	May 20	29.15	Nov. 20	29.18	Oct. 21	28.20
April 23	29.22	June 1	29.78[c]	1965			
Aug. 6	31.50	June 6	30.05[bc]	March 31	28.89		
Oct. 15	30.33	June 7	29.72[c]	April 23	28.93		

147-66-33dad

1963		1964		1964		1965	
Sept. 5	0.72	April 10	1.16	Oct. 15	0.49	June 17	0.87
Oct. 15	.90	May 20	.72	Nov. 20	Frozen	July 16	.79
1964		June 25	.56	1965		Aug. 12	.41 above
Jan. 3	1.03	July 24	.82	Jan.-		Sept. 21	1.1 above
Feb. 14	Frozen	Aug. 12	.89	April	Frozen	Oct. 21	1.35 above
March 12	Frozen	Sept. 23	.71	May 20	.27 above		

Depth to water in feet below land surface

148-65-19daa

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1964		1965		1965		1965	
Sept. 23	45.13	Feb. 19	44.93	June 16	44.83	Oct. 21	43.78
Oct. 15	45.13	March 31	44.93	July 15	44.85	Nov. 24	43.81
Nov. 20	45.21	April 23	44.78	Aug. 12	44.49		
1965		May 20	44.66	Sept. 21	43.83		
Jan. 19	45.07						

148-65-22ddc

1963		1964		1965		1965	
Aug. 20	13.15	May 21	14.34	Jan. 19	11.06	Sept. 21	8.37
Oct. 16	15.05	June 25	8.28	March 31	11.99	Oct. 21	7.65
1964		July 24	9.14	April 23	10.66	Nov. 24	7.96
Jan. 6	15.5	Aug. 12	10.16	May 20	8.32		
Feb. 14	16.51	Sept. 23	10.40	June 16	8.53		
March 13	16.18	Oct. 15	9.15	July 15	9.40		
April 24	15.62	Nov. 20	9.91	Aug. 12	8.98		

148-65-26dcc

1963		1964		1964		1965	
Aug. 21	15.43	April 24	15.28	Oct. 15	12.55	June 16	10.82
Oct. 16	17.32	May 21	14.83	1965		July 15	11.44
1964		June 25	11.90	Jan. 19	14.0	Aug. 12	10.21
Jan. 6	18.53	July 24	11.41	March 31	14.46	Sept. 21	10.78
Feb. 14	Snow	Aug. 12	12.50	April 23	12.45	Oct. 21	9.32
March 13	18.85	Sept. 23	13.37	May 20	11.08		

148-66-3ddc

1964		1965		1965		1965	
Aug. 12	12.38	Feb. 19	11.91	May 20	11.51	Nov. 24	11.03
Sept. 23	12.21	March 31	11.94	June 17	11.73	1966	
Oct. 15	12.08	April 26	11.56[c]	July 15	11.68	Jan. 12	11.36
Nov. 24	12.07	April 27	11.58[c]	Aug. 12	11.17	Feb. 17	11.36
Dec. 22	12.05	April 28	11.55[c]	Sept. 21	10.97		
1965		April 29	11.54[c]	Oct. 21	10.99		
Jan. 20	12.09						

148-66-4aab

1953		1953		1954		1954	
June 29	3.6	Oct. 20	6.53	April 13	2.9	July 22	4.8
July 9	3.3	Oct. 23	6.69	May 19	4.2		
Sept. 23	6.3	Oct. 29	6.66				

148-66-10ddd1

See U.S. Geological Survey, 1952a, p. 312.
Records available: 1946-1949. Listed as 148-66-10dd. F. Duda.

Depth to water in feet below land surface

148-66-12aad

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1963		1964		1964		1965	
Aug. 14	7.48	April 24	6.87	Nov. 20	5.97	Aug. 12	4.44
Oct. 16	9.2	May 20	4.63	1965		Sept. 21	4.29
1964		June 25	2.69	March 31	7.5	Oct. 21	4.33
Jan. 7	9.8	July 24	5.33	May 20	3.85		
Feb. 14	10.3	Sept. 23	6.45	June 16	4.78		
March 13	9.8	Oct. 15	5.17	July 15	4.69		

148-66-16bbb

1953		1953		1954		1954	
June 29	6.05	Oct. 20	10.46	April 13	5.55	July 22	6.75
July 9	5.15	Oct. 23	10.49	May 19	6.25		
Sept. 23	9.95	Oct. 29	10.40				

148-66-20baa

1963		1964		1964		1965	
Aug. 14	6.59	April 23	8.37	Oct. 15	6.22	May 20	4.87
Oct. 16	7.55	May 20	7.15	Dec. 22	6.6	June 17	5.63
1964		June 25	5.22	1965		July 16	4.83
Jan. 3	8.08	July 24	6.23	Feb. 19	6.47	Aug. 12	4.58
Feb. 14	8.65	Aug. 17	7.20	March 31	8.17	Sept. 21	4.87
March 13	8.75	Sept. 23	7.03	April 28	6.58	Oct. 21	4.03

148-67-8baa

1963		1964		1964		1965	
Aug. 12	8.37	April 23	8.36	Oct. 15	8.18	May 20	6.16
Oct. 16	9.05	May 20	8.10	Nov. 20	8.20	June 16	6.85
1964		June 25	7.34	1965		July 16	6.78
Jan. 3	11.77	July 24	7.72	Jan. 20	8.41	Aug. 12	4.8
Feb. 14	9.59	Aug. 17	8.21	March 31	9.08	Sept.21	5.2
March 13	9.55	Sept. 23	8.42	April 28	6.26	Oct. 21	4.69

148-67-10cdd

1963		1964		1964		1965	
Aug. 13	6.77	April 23	6.08	Oct. 15	5.95	May 20	3.85
Oct. 16	7.06	May 20	5.60	Nov. 20	6.18	June 16	4.48
1964		June 25	4.47	1965		July 16	3.79
Jan. 3	6.45	July 24	5.5	Jan. 20	6.58	Aug. 12	3.27
Feb. 14	7.61	Aug. 17	6.05	March 31	Snow	Sept. 21	3.29
March 13	7.07	Sept. 23	6.23	April 28	Snow	Oct. 21	3.05

148-67-28ddb

See U.S. Geological Survey, 1942, 1943, 1944, 1947, 1948, 1949, 1951a, 1951b, 1952a, 1952b, 1957b.
Records available: 1940-1942, 1944, 1946-1950, 1955. Listed as 148-67-28da . Pfau Estate.

Depth to water in feet below land surface

149-62-8aba

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1964		1964		1965		1965	
May 6	14.76	Oct. 16	10.10	May 26	13.15	Nov. 24	12.68
June 25	9.12	1965		June 16	12.53		
Aug. 12	10.73	March 31	11.06	July 16	12.56		
Sept. 24	10.42	April 30	11.67	Aug. 12	12.17		

149-63-32abbl

See U.S. Geological Survey, 1952a, 1952b, 1954b.
Records available: 1946-1951. Listed as 149-63-32ab. S. Erman.

149-64-10dcc

1951		1952		1953		1954	
June 12	10.8	May 14	11.5	April 21	13.9	April 13	10.6
Aug. 23	11.4	June 26	11.7	July 9	12.9	July 27	11.4
Oct. 17	11.6	Aug. 20	12.9	Oct. 29	13.5	Sept. 29	11.8
Nov. 20	11.5	Oct. 5	13.1				
1952							
April 15	11.8						

149-64-18bbb

1951		1953		1964		1965	
June 14	6.2	April 21	8.7	Aug. 17	8.88	July 15	8.34
Aug. 23	7.2	July 8	8.0	Sept. 23	8.82	Aug. 12	8.04
Oct. 17	7.2	Sept. 23	8.5	Oct. 15	8.38	Oct. 21	8.02
Nov. 20	7.4	Oct. 29	8.5	Nov. 24	8.43	Nov. 24	8.15
1952		1954		1965		1966	
April 15	7.9	April 13	6.3	Jan. 19	8.74	Jan. 12	8.49
May 14	8.5	1964		March 31	9.14	Feb. 17	8.83
June 26	7.5	May 21	9.59	April 23	8.67		
Aug. 20	7.8	June 25	8.93	May 20	8.25		
Oct. 5	8.0	July 24	8.68	June 17	8.18		

149-64-19ccc

1951		1952		1953		1954	
June 14	2.0	May 14	2.7	July 8	2.4	May 19	3.5
Aug. 23	3.1	June 26	3.7	Aug. 23	5.2	July 27	4.3
Oct. 17	4.5	Aug. 20	5.1	Oct. 29	5.2	Sept. 28	3.8
Nov. 20	4.3	Oct. 5	5.4				
1952		1953					
April 15	2.5	April 21	5.4				

149-64-28ccc1

See U.S. Geological Survey, 1952a, 1952b, 1954b.
Records available: 1946-1951. Listed as 149-64-28cc. R. Rosenberg.

Depth to water in feet below land surface

149-64-31cbb1

Date	Water level	Date	Water level	Date	Water level	Date	Water level

See U.S. Geological Survey, 1952a, 1952b, 1954b.
Records available: 1946-1951. Listed as 149-64-31cb. E. Boyle.

149-64-32aaa

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1952		1953		1955	
June 14	6.5	June 26	7.9	Oct. 29	12.5	May 12	7.1
Aug. 23	6.8	Aug. 20	10.6	1954		July 19	6.2
Oct. 17	8.6	Oct. 5	11.8	April 13	4.2	Aug. 23	8.5
Nov. 20	9.0	1953		May 19	5.6	Sept.28	10.2
1952		April 21	15.9	July 27	6.9		
April 15	6.2	July 9	6.3	Sept. 28	7.1		
May 14	6.7	Sept. 24	11.4				

149-65-3aaa

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1952		1952		1953	
June 12	10.0	April 23	11.2	Oct. 5	12.1	Sept. 23	12.3
Aug. 23	10.8	May 14	11.3	1953		Oct. 29	12.4
Oct. 17	10.9	June 26	11.2	April 21	12.9		
Nov. 20	11.0	Aug. 20	11.7	July 8	11.3		

149-65-10dda

See U.S. Geological Survey, 1952a, 1952b, 1954b.
Records available: 1949-1951. Listed as 149-65-10dd. H. Pierson.

149-65-15aaa

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1952		1964		1965	
June 12	4.8	Oct. 5	7.0	Aug. 17	6.38	June 16	5.15
Aug. 23	6.1	1953		Sept. 23	6.12	July 15	5.45
Oct. 17	5.9	July 8	6.1	Oct. 15	5.68	Aug. 12	5.07
Nov. 20	6.0	Sept. 23	6.8	Nov. 24	5.78	Sept. 21	4.75
1952		Oct. 29	6.7	1965		Oct. 21	4.20
April 15	5.4	1964		Jan. 19	6.14	Nov. 24	4.37
May 14	6.2	May 20	6.54	March 31	6.44		
June 26	6.1	June 25	4.88	April 23	5.22		
Aug. 20	6.6	July 24	6.15	May 20	4.99		

149-65-18bbb

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1952		1952		1953	
June 12	4.3	April 15	4.6	Oct. 5	6.7	Oct. 29	6.3
Aug. 22	6.1	May 14	5.5	1953			
Oct. 17	5.8	June 26	5.9	April 21	6.9		
Nov. 20	5.9	Aug. 20	6.4	July 8	4.8		

149-65-27aaa

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1951		1951		1952	
June 12	6.0	Oct. 17	7.4	Nov. 20	7.5	April 15	7.2
Aug. 22	7.4						

Depth to water in feet below land surface

149-65-27ddd

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1951		1952		1952	
June 12	4.9	Oct. 17	6.7	April 15	6.9	Aug. 20	7.6
Aug. 22	6.7	Nov. 20	5.4	May 14	7.2		

149-65-34daa

1951		1952		1952		1953	
June 12	8.1	April 15	8.5	Oct. 5	9.6	July 8	8.4
Aug. 22	8.6	May 14	8.9	1953		Sept. 23	9.0
Oct. 17	8.9	Aug. 20	9.2	April 21	10.0	Oct. 29	9.1

149-65-35ccb1

See U.S. Geological Survey, 1952a, 1952b, 1954b.
Records available: 1946, 1949-1951. Listed as 149-65-35cb. J. Overdick.

149-66-9ccc

1951		1952		1964		1965	
June 12	3.5	Oct. 3	7.5	Aug. 17	6.70	May 20	4.17
Aug. 22	6.0	1953		Sept. 23	5.26	June 16	4.82
Oct. 17	5.9	April 9	8.4	Oct. 15	4.15	July 16	4.86
Nov. 19	6.2	July 8	3.1	Nov. 20	4.71	Aug. 12	4.46
1952		Oct. 29	6.9	1965		Sept. 21	3.82
April 15	5.4	1964		Jan. 19	Snow	Oct. 21	3.31
May 14	5.6	May 22	5.68	Feb. 19	7.07	Nov. 24	4.43
June 26	6.2	June 25	3.34	March 31	7.97		
Aug. 20	6.7	July 24	5.86	April 28	Snow		

149-66-31cad1

1965		1965		1965		1966	
April 28	25.48[c]	June 30	23.72	Oct. 21	22.55	Feb. 17	22.89
April 29	25.61[c]	July 16	23.53	Nov. 24	22.39		
April 30	25.41[c]	Aug. 12	22.55	1966			
June 25	23.82	Sept. 21	22.61	Jan. 12	22.40		

149-66-36aaa

1951		1952		1964		1965	
June 12	3.4	Oct. 5	6.8	Aug. 12	6.0	April 23	2.40
Aug. 22	6.6	1953		Sept. 23	5.45	May 28	2.18
Oct. 17	5.5	April 21	6.1	Oct. 15	3.97	June 16	5.16
Nov. 20	5.3	July 8	3.5	Nov. 20	4.44	July 15	3.79
1952		Oct. 29	5.8	Dec. 22	5.3	Aug. 12	3.07
April 15	1.6	1964		1965		Sept. 21	3.07
May 14	5.6	Jan. 7	6.7	Jan. 19	6.26	Oct. 21	2.42
June 26	5.6	June 25	2.43	Feb. 19	6.34	Nov. 24	3.46
Aug. 20	6.8	July 24	4.89	March 31	6.69		

Depth to water in feet below land surface

149-67-6ddd

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1964		1964		1965		1965	
April 23	21.63	Sept. 23	20.60	May 20	20.54	Oct. 21	18.58
May 20	21.54	Oct. 15	20.32	June 16	20.25	Nov. 24	18.09
June 25	21.03	1965		July 16	19.90		
July 24	20.74	March 31	21.09	Aug. 12	19.27		
Aug. 17	20.69	April 28	21.02	Sept. 21	18.87		

149-67-9ada

1963		1964		1965		1965	
Sept. 18	13.9	May 20	15.15	Jan. 19	13.88	Aug. 12	12.26
Oct. 16	14.02	June 25	13.97	Feb. 19	13.6	Sept. 21	11.16
1964		July 24	13.68	March 31	14.28	Oct. 21	10.59
Jan. 3	14.7	Aug. 17	13.68	April 28	14.26		
Feb. 14	14.8	Sept. 23	13.75	May 20	14.23		
March 13	15.03	Oct. 15	13.48	June 16	13.65		
April 23	15.03	Nov. 20	13.52	July 16	13.30		

149-67-17bbb

1964		1965		1965		1965	
Aug. 11	2.00	Jan. 19	Frozen	July 16	1.30	Nov. 24	Frozen
Sept. 23	2.03	April 28	Frozen	Aug. 12	1.03		
Oct. 15	1.79	May 20	1.48	Sept. 21	.48		
Nov. 20	1.74	June 16	1.52	Oct. 21	.27		

149-67-17ccb

1964		1965		1965		1965	
Aug. 5	25.02	Jan. 19	25.96	June 16	25.52	Nov. 24	24.09
Aug. 11	25.12	Feb. 19	26.57	July 16	25.37	1966	
Sept. 23	25.75	March 31	26.86	Aug. 12	24.75	Jan. 12	24.84
Oct. 15	25.18	April 28	26.51	Sept. 21	24.48	Feb. 17	25.84
Nov. 20	25.03	May 20	25.91	Oct. 21	24.14		

149-67-26ccc

1951		1952		1952		1953	
June 13	4.4	April 16	3.3	Oct. 1	7.6	Nov. 4	8.3
Aug. 24	7.5	May 15	5.2	1953			
Oct. 18	7.8	June 25	6.0	April 20	9.6		
Nov. 21	8.0	Aug. 20	6.3	July 8	4.3		

150-62-3aaa

1952		1952		1953		1953	
June 17	13.3	Aug. 7	4.4	Jan. 7	6.4	May 28	Plugged
June 26	3.9	Nov. 20	6.1	Feb. 25	6.9		
July 9	3.9			April 5	7.2		

Depth to water in feet below land surface

150-62-8bbb

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1952		1953		1955		1958	
June 17	6.6	Feb. 25	8.1	Feb. 3	7.8	June 26	7.8
June 26	6.7	April 5	8.2	July 21	7.6	1960	
July 9	6.5	May 28	7.7	Oct. 23	7.2	March 3	7.1
Aug. 7	7.1	July 7	6.7	1956			
Nov. 20	7.6	Aug. 4	6.9	Jan. 10	7.5		
1953		1954		March 5	7.8		
Jan. 7	7.8	July 22	7.1				

150-62-18aaa

1952		1953		1954		1955	
June 17	16.2	Feb. 25	17.2	March 23	17.2	Aug. 17	16.1
June 26	16.1	April 6	17.3	July 22	16.7	Sept. 26	16.4
July 10	16.3	May 28	17.3	1955		Oct. 23	16.5
Aug. 7	16.4	July 6	16.9	Feb. 3	17.2	Dec. 5	16.6
Nov. 18	17.0	Aug. 4	16.6	May 4	16.9	1956	
1953		Dec. 3	17.3	June 8	16.1	Jan. 9	17.0
Jan. 8	17.2			July 20	15.9		

150-62-22ddd

1952		1953		1954		1955	
June 16	9.4	Feb. 25	9.0	March 22	8.3	Sept. 26	8.0
June 26	8.1	March 3	9.3	July 21	7.7	Oct. 23	8.1
July 10	8.0	May 28	9.0	1955		Dec. 4	8.1
Aug. 7	8.4	July 6	8.0	May 4	8.0	1956	
Nov. 18	8.7	Aug. 4	7.8	June 8	7.5	Jan. 9	8.3
1953		Dec. 2	8.4	July 21	7.4	March 5	8.5
Jan. 7	8.9			Aug. 17	7.7		

150-63-1cdd

1954		1955		1955		1958	
Nov. 30	10.8	June 9	7.7	Dec. 4	9.4	June 26	9.5
Dec. 21	11.0	July 21	8.3	1956		1960	
1955		Aug. 18	8.6	Jan. 10	9.6	May 3	10.8
Feb. 3	11.3	Sept. 27	9.3	March 5	9.7		
May 5	9.2	Oct. 23	9.3				

150-63-2ddd

1952		1952		1952		1952	
June 17	11.4	July 9	11.1	Aug. 7	11.7	Nov. 20	12.4
June 26	11.4						

150-63-9abb2

1952		1953		1954		1955	
June 17	11.5	Feb. 25	12.6	March 23	12.9	Aug. 18	12.3
June 26	11.5	April 6	12.7	July 22	12.5	Sept. 26	12.1
July 16	11.6	May 28	12.9	1955		Oct. 23	12.1
Aug. 7	11.7	July 7	12.4	Feb. 3	12.6	Dec. 2	12.1
Nov. 18	12.2	Aug. 4	12.3	May 4	12.5	1956	
1953		Dec. 3	12.9	June 9	12.4	Jan. 9	12.5
Jan. 8	12.4			July 20	12.2	March 5	11.5

Depth to water in feet below land surface

150-63-13bbb

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1952		1955		1964		1965	
June 17	13.5	Feb. 3	13.8	Aug. 14	12.62	Sept. 21	12.22
June 26	13.0	July 21	12.6	Sept. 24	12.20	Oct. 21	11.27
July 9	12.7	Oct. 23	13.8	Oct. 15	11.13	Nov. 24	11.26
Aug. 7	13.1	1956		Nov. 24	11.49	1966	
Nov. 20	13.7	Jan. 10	14.1	1965		Jan. 11	11.92
1953		1960		Jan. 19	12.44	Feb. 17	12.46
Jan. 7	14.0	May 3	14.6	Feb. 19	12.7		
Feb. 25	14.0	1964		March 10	13.01		
April 5	14.3	March 13	15.3	April 30	9.71		
May 28	14.3	April 24	14.99	May 12	9.19		
July 7	13.0	May 21	14.84	June 16	9.90		
1954		June 25	12.00	July 16	11.08		
July 22	12.3	July 24	11.17	Aug. 12	11.52		

150-63-15ccb

See U.S. Geological Survey 1953, 1954a, 1955a, 1956a, 1957a, 1958, 1959a, 1960, 1961a, 1961b, 1962a, 1962b, 1963.
Records available: 1950-1963. Listed under "Sheyenne River near Warwick, North Dakota. . . . spring which enters below gage and just above control."

150-63-16bbb

1952		1953		1954		1955	
June 17	10.6	Feb. 25	11.4	March 23	11.2	Aug. 18	11.0
June 26	10.6	April 6	11.5	July 22	11.0	Sept. 26	11.0
July 10	10.7	May 28	11.6	1955		Oct. 23	11.3
Aug. 7	10.7	July 7	11.1	Feb. 3	11.4	Dec. 5	11.4
Nov. 18	11.1	Aug. 4	10.8	May 5	11.3	1956	
1953		Dec. 3	11.5	June 9	11.3	Jan. 9	11.5
Jan. 8	11.3			July 20	10.9	March 5	11.5 (Plugged)

150-65-26bbb

1951		1952		1952		1953	
Aug. 23	6.5	May 14	6.6	Oct. 5	7.9	July 8	7.2
Oct. 17	6.6	June 26	7.3	1953		Sept. 23	8.3
Nov. 20	6.6	Aug. 20	7.8	April 21	8.4	Oct. 29	8.3
1952							
April 15	6.9						

150-65-35cccl

See U.S. Geological Survey 1952a, 1952b, 1954b.
Records available: 1946-1951. Listed as 150-65-35ccc. O. Anderson.

Depth to water in feet below land surface

150-65-36ddd

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		1952		1952		1953	
June 14	11.4	April 15	12.0	Oct. 5	13.1	Sept. 23	13.5
Aug. 23	11.7	May 15	12.2	1953		Oct. 29	13.5
Oct. 17	12.0	June 26	12.4	April 21	13.6		
Nov. 20	12.0	Aug. 20	12.7	July 8	13.0		

150-66-8aaa

1956		1956		1958		1965	
Feb.	12.2	Dec. 27	11.0	Oct. 5	10.2	Jan. 19	Snow
March 20	12.9	1957		1959		Feb. 19	Snow
April 24	12.3	Jan. 31	11.0	Nov. 10	11.35	March 31	Snow
May 25	12.2	March 6	11.2	1964		April 23	Snow
June 7	11.3	April 9	11.3	March 13	12.4	May 20	12.60
June 13	11.6	May 24	11.5	April 23	12.05	June 16	12.67
June 21	11.8	July 2	11.6	May 20	12.10	July 16	12.55
July 6	11.6	Sept. 6	10.4	June 25	12.02	Aug. 12	12.3
July 26	11.1	Nov. 6	10.3	July 24	12.15	Sept. 21	11.83
Aug. 15	10.6	1958		Aug. 11	12.25	Oct. 21	11.44
Aug. 28	11.2	Feb. 11	10.6	Sept. 23	12.36	Nov. 24	11.19
Sept. 10	11.1	March 16	10.7	Oct. 15	12.32	1966	
Oct. 16	10.9	May 27	11.2	Nov. 20	12.48	Jan. 12	11.14
Dec. 4	10.9	Aug. 29	10.4			Feb. 17	11.22

150-66-9bbb1

1963		1964		1965		1965	
Oct. 21	14.5	July 24	10.95	Jan. 19	11.84	July 16	11.41
1964		Aug. 11	10.99	Feb. 19	11.53	Aug. 12	11.12
March 13	9.7	Sept. 23	11.22	March 31	11.62	Sept. 21	10.68
April 23	10.79	Oct. 15	11.20	April 23	11.45	Oct. 21	10.30
May 20	10.96	Nov. 20	11.30	May 20	11.44	Nov. 24	10.02
June 25	10.76			June 16	11.50		

150-66-9bdd

1964		1964		1965		1965	
April 23	10.18	Sept. 23	10.80	Feb. 19	10.8	July 16	10.73
May 20	10.26	Oct. 15	10.54	March 31	Snow	Aug. 12	10.60
June 25	9.90	Nov. 20	10.88	April 23	10.62	Sept. 21	10.59
July 24	10.39	1965		May 20	10.66	Oct. 21	10.23
Aug. 11	10.55	Jan. 19	Snow	June 16	10.69	Nov. 24	10.35

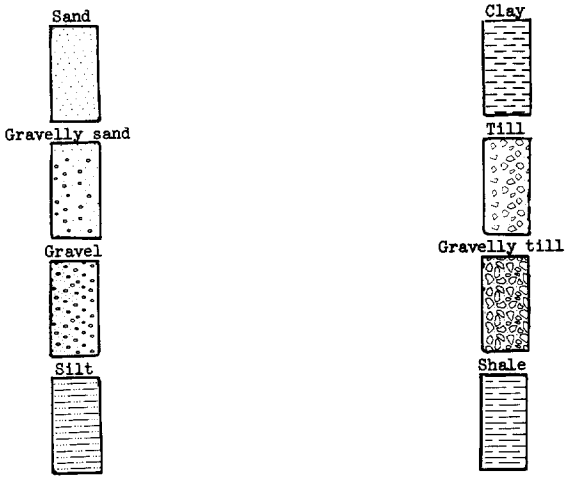
See U.S. Geological Survey 1937, 1939, 1940, 1942, 1943, 1944, 1946-1949, 1951a, 1951b, 1952a, 1952b, 1954b, 1954c, 1955b, 1956b, 1957b.
Records available: 1935-1955. Listed as 150-66-9cdl. L. S. Rude.

150-66-9cab2

See U.S. Geological Survey 1937-1940, 1942-1944, 1946-1949, 1951a, 1951b, 1952a, 1952b, 1954b.
Records available: 1935-1951. Listed as 150-66-9cbl. Stockyards.

TABLE 3.--Logs of test holes and wells

Explanation of lithologic symbols



Abbreviations:

Kp - Pierre Shale

Qal - Alluvium

Qob - Outwash and other glaciofluvial deposits, buried

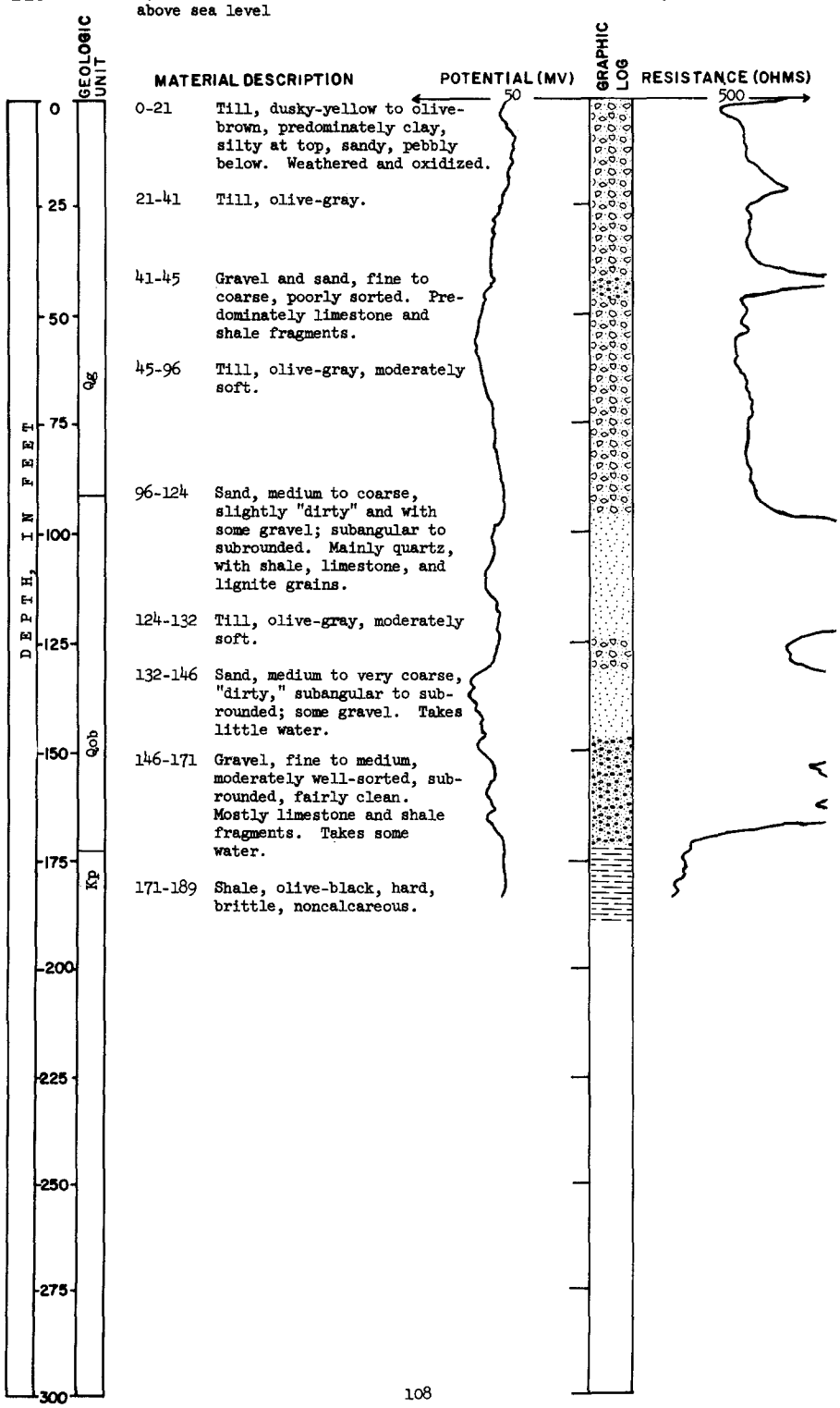
Qos - Outwash and other glaciofluvial deposits, surficial

Qg - Glacial drift, undifferentiated

Foster County TEST HOLE 2263

LOCATION: 145-62-24aaa DATE DRILLED: July 9, 1964

ELEVATION: 1,485 feet above sea level DEPTH: 189 feet



0-21 Till, dusky-yellow to olive-brown, predominately clay, silty at top, sandy, pebbly below. Weathered and oxidized.

21-41 Till, olive-gray.

41-45 Gravel and sand, fine to coarse, poorly sorted. Predominately limestone and shale fragments.

45-96 Till, olive-gray, moderately soft.

96-124 Sand, medium to coarse, slightly "dirty" and with some gravel; subangular to subrounded. Mainly quartz, with shale, limestone, and lignite grains.

124-132 Till, olive-gray, moderately soft.

132-146 Sand, medium to very coarse, "dirty," subangular to subrounded; some gravel. Takes little water.

146-171 Gravel, fine to medium, moderately well-sorted, subrounded, fairly clean. Mostly limestone and shale fragments. Takes some water.

171-189 Shale, olive-black, hard, brittle, noncalcareous.

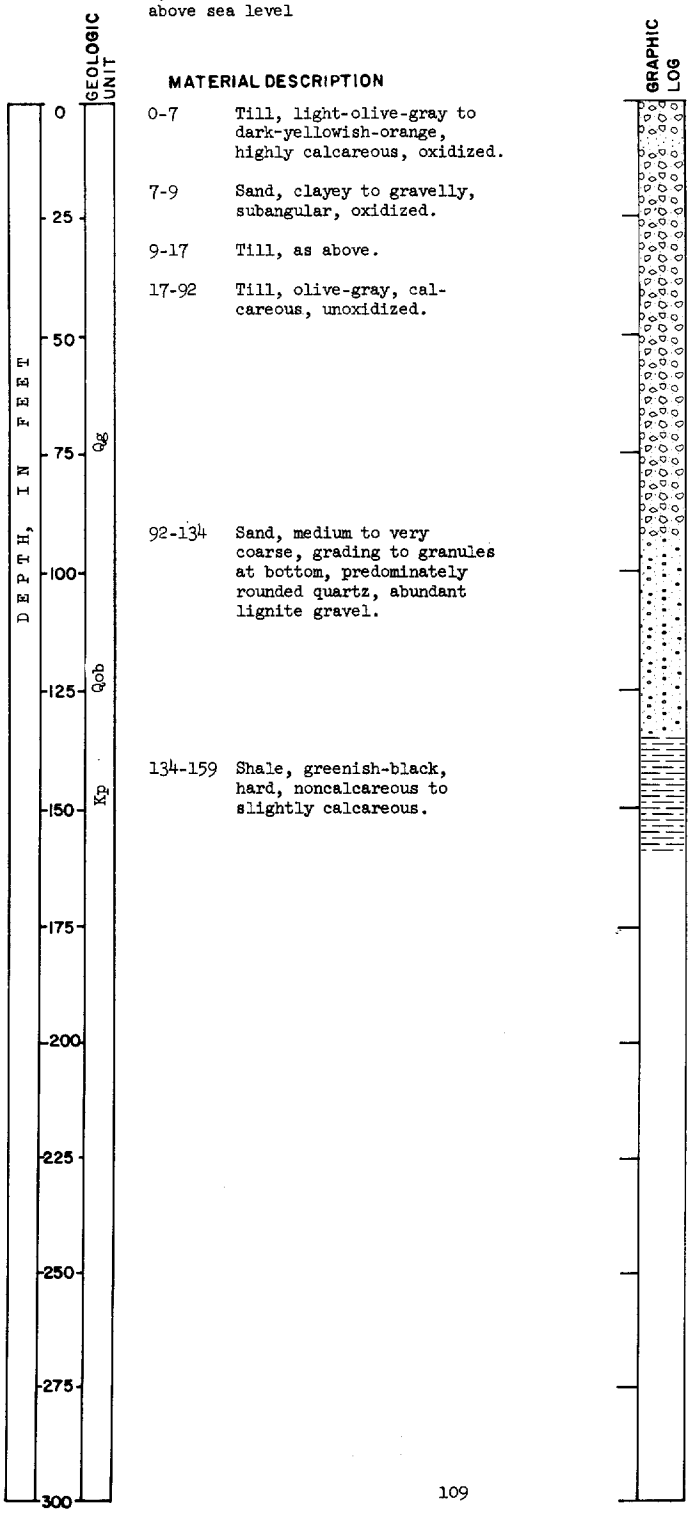
Foster County **TEST HOLE** 3050

LOCATION: 145-62-27bbb

DATE DRILLED: August 6, 1963

ELEVATION: 1,500 feet above sea level

DEPTH: 159 feet



MATERIAL DESCRIPTION

0-7	Till, light-olive-gray to dark-yellowish-orange, highly calcareous, oxidized.
7-9	Sand, clayey to gravelly, subangular, oxidized.
9-17	Till, as above.
17-92	Till, olive-gray, calcareous, unoxidized.
92-134	Sand, medium to very coarse, grading to granules at bottom, predominately rounded quartz, abundant lignite gravel.
134-159	Shale, greenish-black, hard, noncalcareous to slightly calcareous.

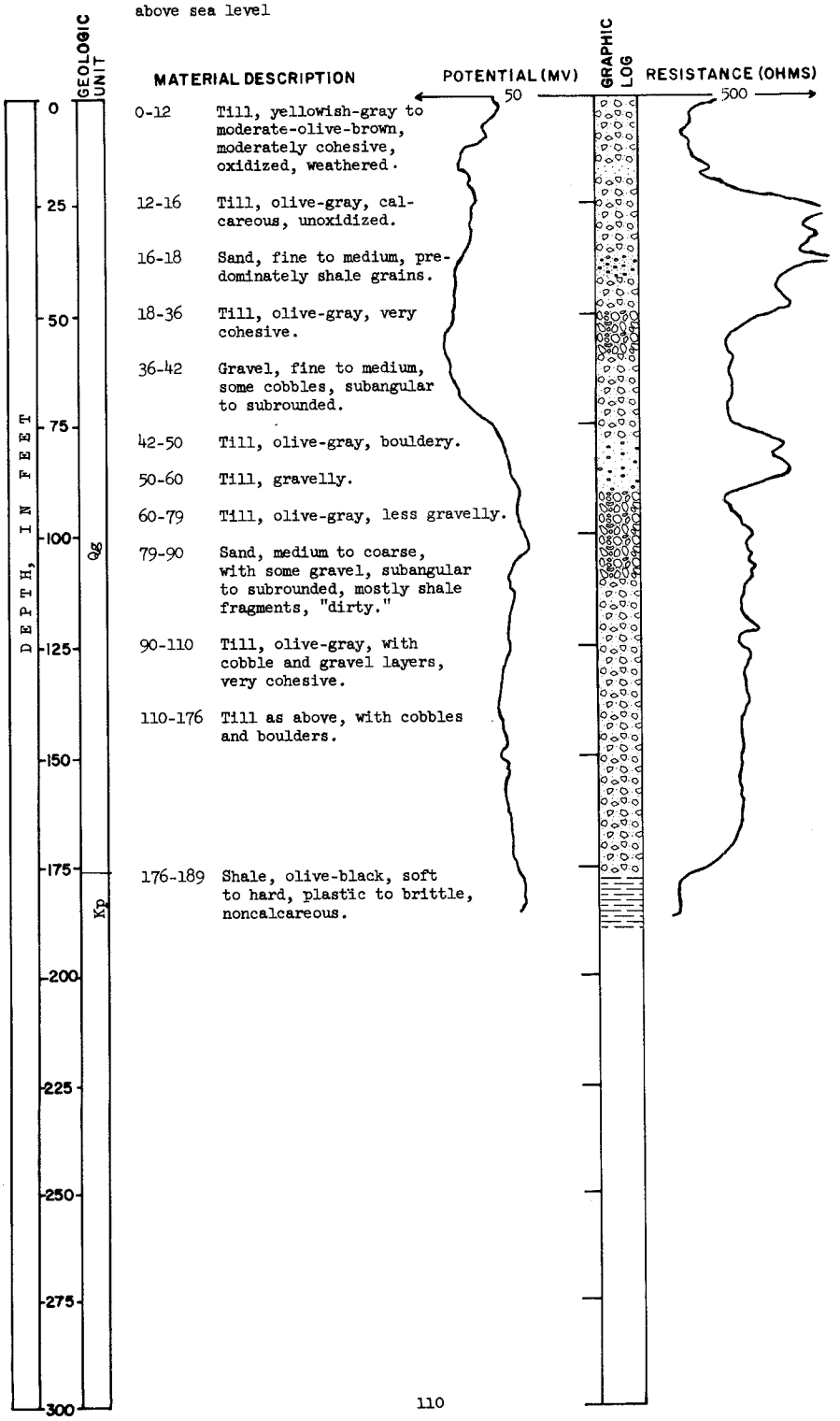
TEST HOLE 2262

LOCATION: Foster County 145-63-7ccc2

DATE DRILLED: July 8, 1964

ELEVATION: 1,530 feet above sea level

DEPTH: 189 feet



0-12 Till, yellowish-gray to moderate-olive-brown, moderately cohesive, oxidized, weathered.

12-16 Till, olive-gray, calcareous, unoxidized.

16-18 Sand, fine to medium, predominately shale grains.

18-36 Till, olive-gray, very cohesive.

36-42 Gravel, fine to medium, some cobbles, subangular to subrounded.

42-50 Till, olive-gray, bouldery.

50-60 Till, gravelly.

60-79 Till, olive-gray, less gravelly.

79-90 Sand, medium to coarse, with some gravel, subangular to subrounded, mostly shale fragments, "dirty."

90-110 Till, olive-gray, with cobble and gravel layers, very cohesive.

110-176 Till as above, with cobbles and boulders.

176-189 Shale, olive-black, soft to hard, plastic to brittle, noncalcareous.

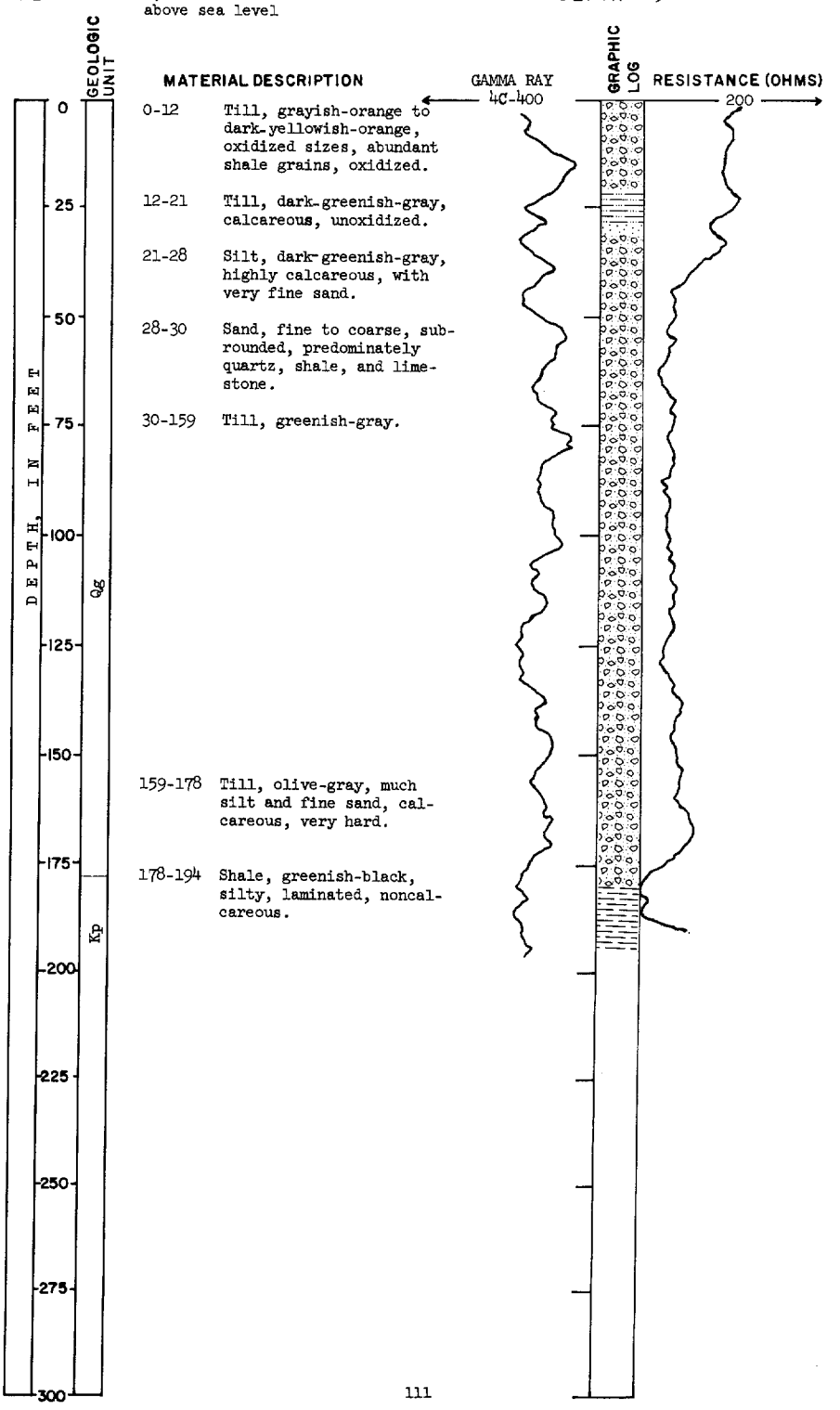
Foster County TEST HOLE 3048

LOCATION: 145-63-11bbb

DATE DRILLED: August 5, 1963

ELEVATION: 1,517 feet above sea level

DEPTH: 194 feet



0-12 Till, grayish-orange to dark-yellowish-orange, oxidized sizes, abundant shale grains, oxidized.

12-21 Till, dark-greenish-gray, calcareous, unoxidized.

21-28 Silt, dark-greenish-gray, highly calcareous, with very fine sand.

28-30 Sand, fine to coarse, sub-rounded, predominately quartz, shale, and lime-stone.

30-159 Till, greenish-gray.

159-178 Till, olive-gray, much silt and fine sand, cal-careous, very hard.

178-194 Shale, greenish-black, silty, laminated, noncal-careous.

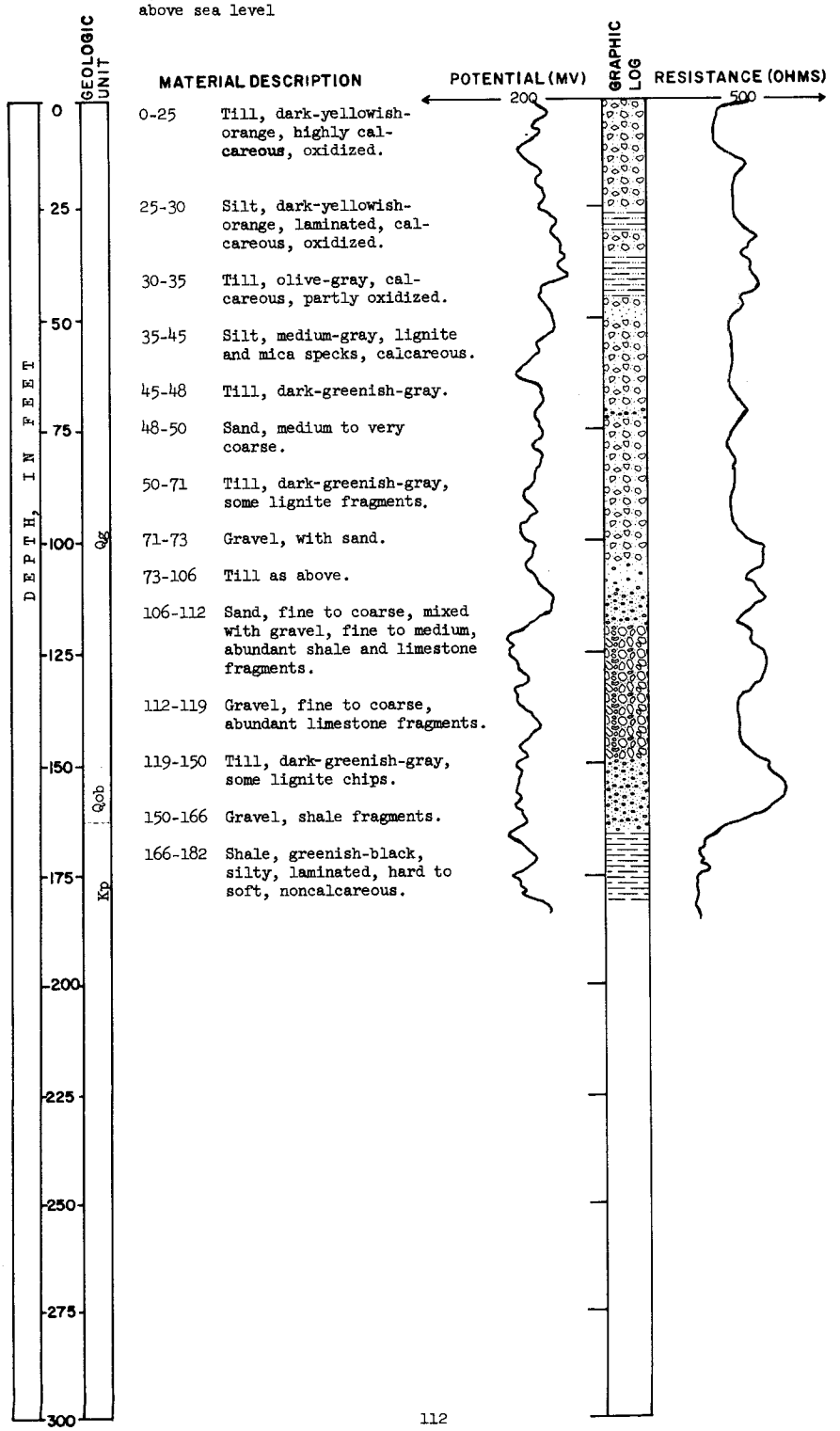
Foster County TEST HOLE 3047

LOCATION: 145-63-21cbc

DATE DRILLED: August 5, 1963

ELEVATION: 1,545 feet above sea level

DEPTH: 182 feet



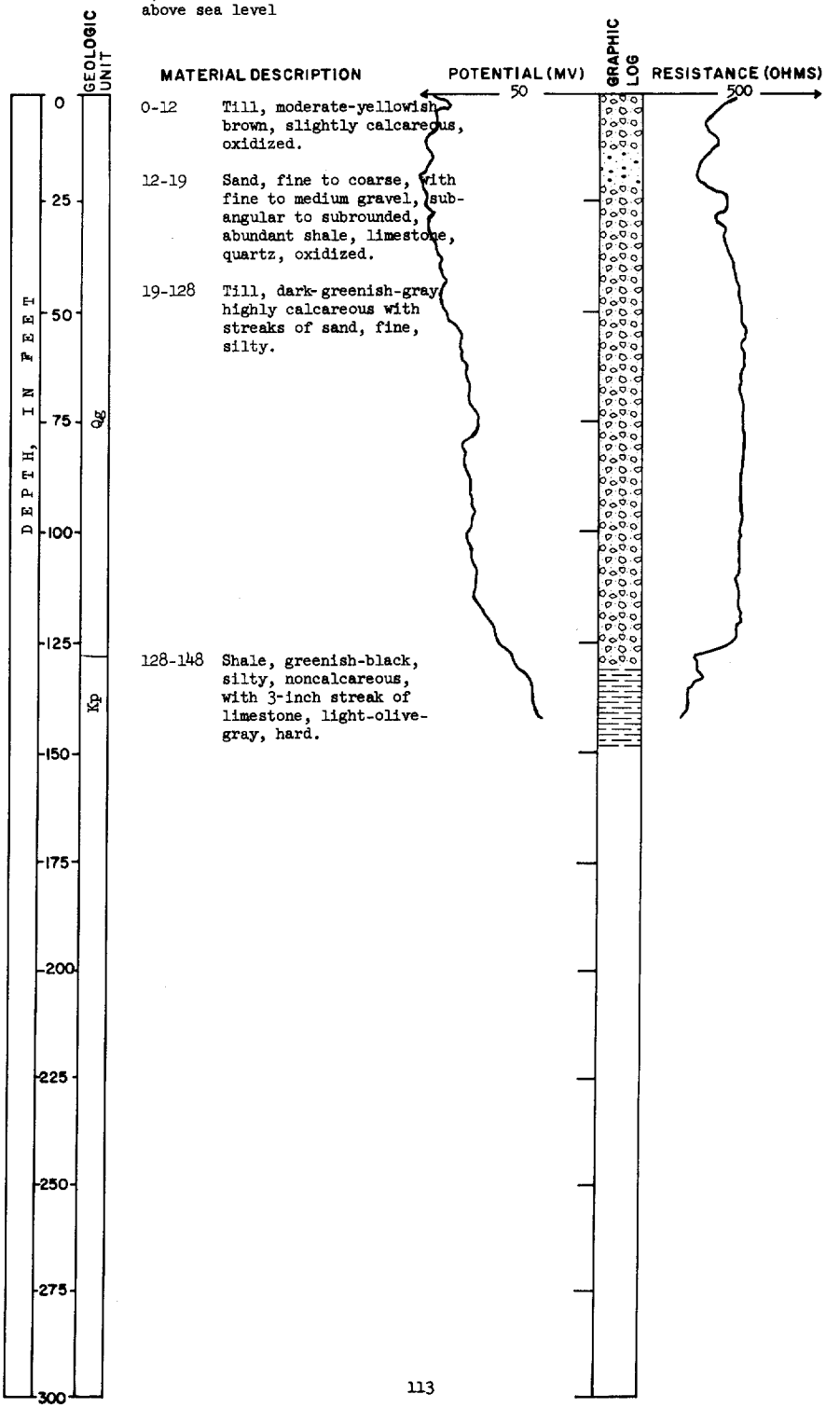
Foster County TEST HOLE 3049

LOCATION: 145-63-26aaa

DATE DRILLED: August 6, 1963

ELEVATION: 1,500 feet above sea level

DEPTH: 148 feet



145-64-4ccb2
A. Fandrich

Foster County

Elevation: 1,540 feet
above sea level

Date Drilled: 1960

Material	Thickness (feet)	Depth (feet)
Sand loam.	2	2
Yellow sand.	10	12
Yellow clay.	2	14
Yellow sea mud.	8	22
Blue sea mud.	3	25
Coarse water gravel.	5	30
Sea mud, more water below.	7	37

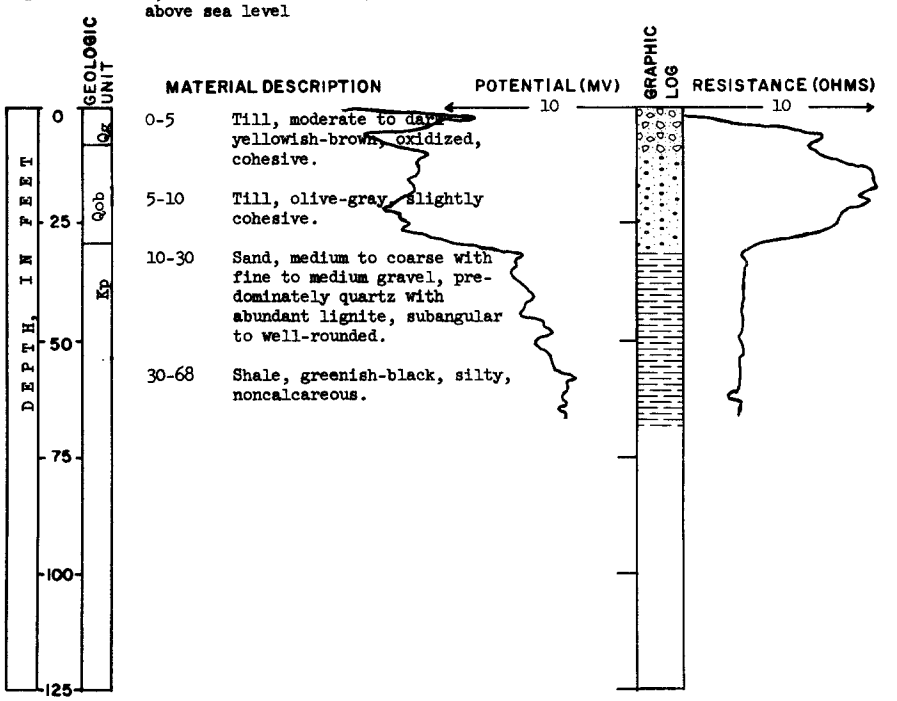
Foster County TEST HOLE 3043

LOCATION: 145-64-7aaa

DATE DRILLED: July 31, 1963

ELEVATION: 1,524 feet
above sea level

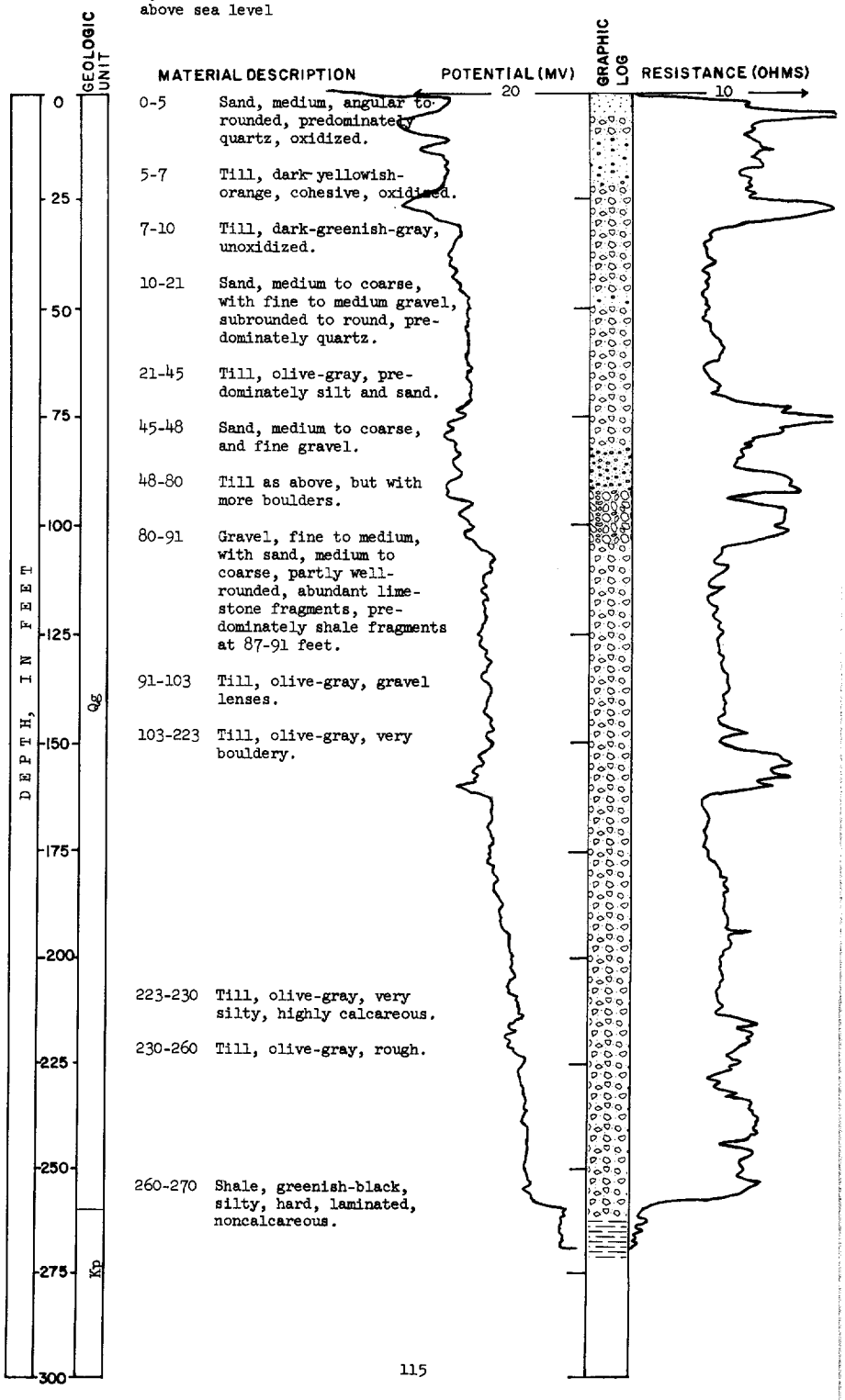
DEPTH: 68 feet



Foster County TEST HOLE 3046

LOCATION: 145-64-12ccc DATE DRILLED: August 1, 1963

ELEVATION: 1,520 feet above sea level DEPTH: 270 feet



0-5	Sand, medium, angular to rounded, predominately quartz, oxidized.
5-7	Till, dark-yellowish-orange, cohesive, oxidized.
7-10	Till, dark-greenish-gray, unoxidized.
10-21	Sand, medium to coarse, with fine to medium gravel, subrounded to round, predominately quartz.
21-45	Till, olive-gray, predominately silt and sand.
45-48	Sand, medium to coarse, and fine gravel.
48-80	Till as above, but with more boulders.
80-91	Gravel, fine to medium, with sand, medium to coarse, partly well-rounded, abundant limestone fragments, predominately shale fragments at 87-91 feet.
91-103	Till, olive-gray, gravel lenses.
103-223	Till, olive-gray, very bouldery.
223-230	Till, olive-gray, very silty, highly calcareous.
230-260	Till, olive-gray, rough.
260-270	Shale, greenish-black, silty, hard, laminated, noncalcareous.

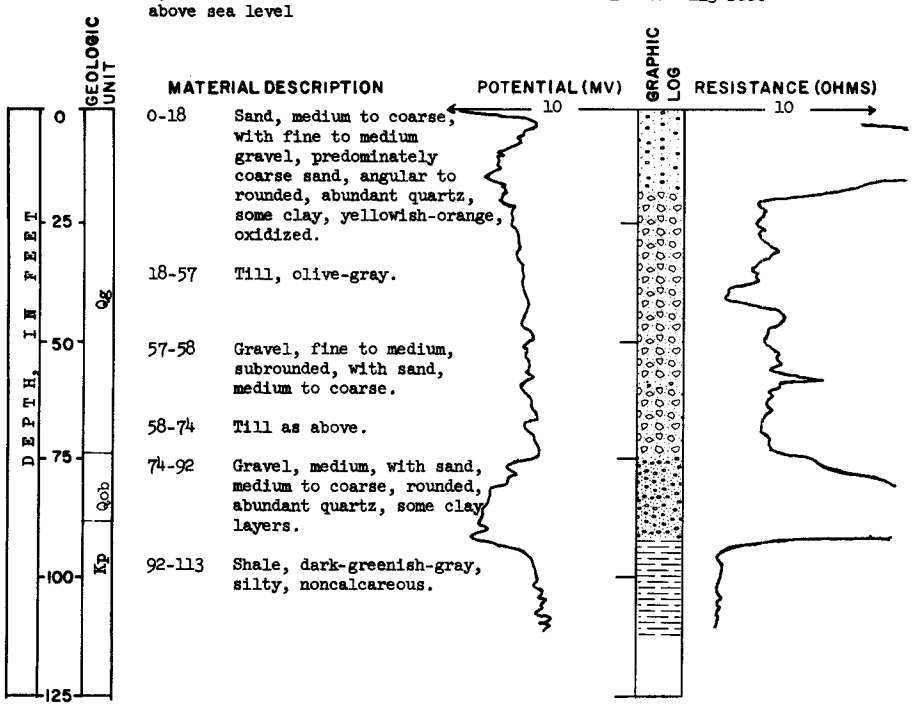
Foster County TEST HOLE 3044

LOCATION: 145-64-21bbb

DATE DRILLED: July 31, 1963

ELEVATION: 1,520 feet above sea level

DEPTH: 113 feet



0-18 Sand, medium to coarse, with fine to medium gravel, predominately coarse sand, angular to rounded, abundant quartz, some clay, yellowish-orange, oxidized.

18-57 Till, olive-gray.

57-58 Gravel, fine to medium, subrounded, with sand, medium to coarse.

58-74 Till as above.

74-92 Gravel, medium, with sand, medium to coarse, rounded, abundant quartz, some clay layers.

92-113 Shale, dark-greenish-gray, silty, noncalcareous.

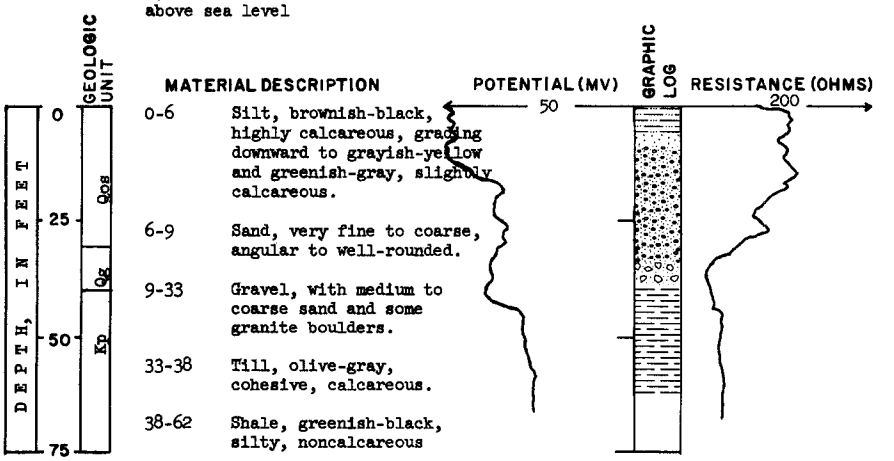
Foster County TEST HOLE 3071

LOCATION: 145-64-21dba

DATE DRILLED: August 28, 1963

ELEVATION: 1,450 feet above sea level

DEPTH: 62 feet



0-6 Silt, brownish-black, highly calcareous, grading downward to grayish-yellow and greenish-gray, slightly calcareous.

6-9 Sand, very fine to coarse, angular to well-rounded.

9-33 Gravel, with medium to coarse sand and some granite boulders.

33-38 Till, olive-gray, cohesive, calcareous.

38-62 Shale, greenish-black, silty, noncalcareous

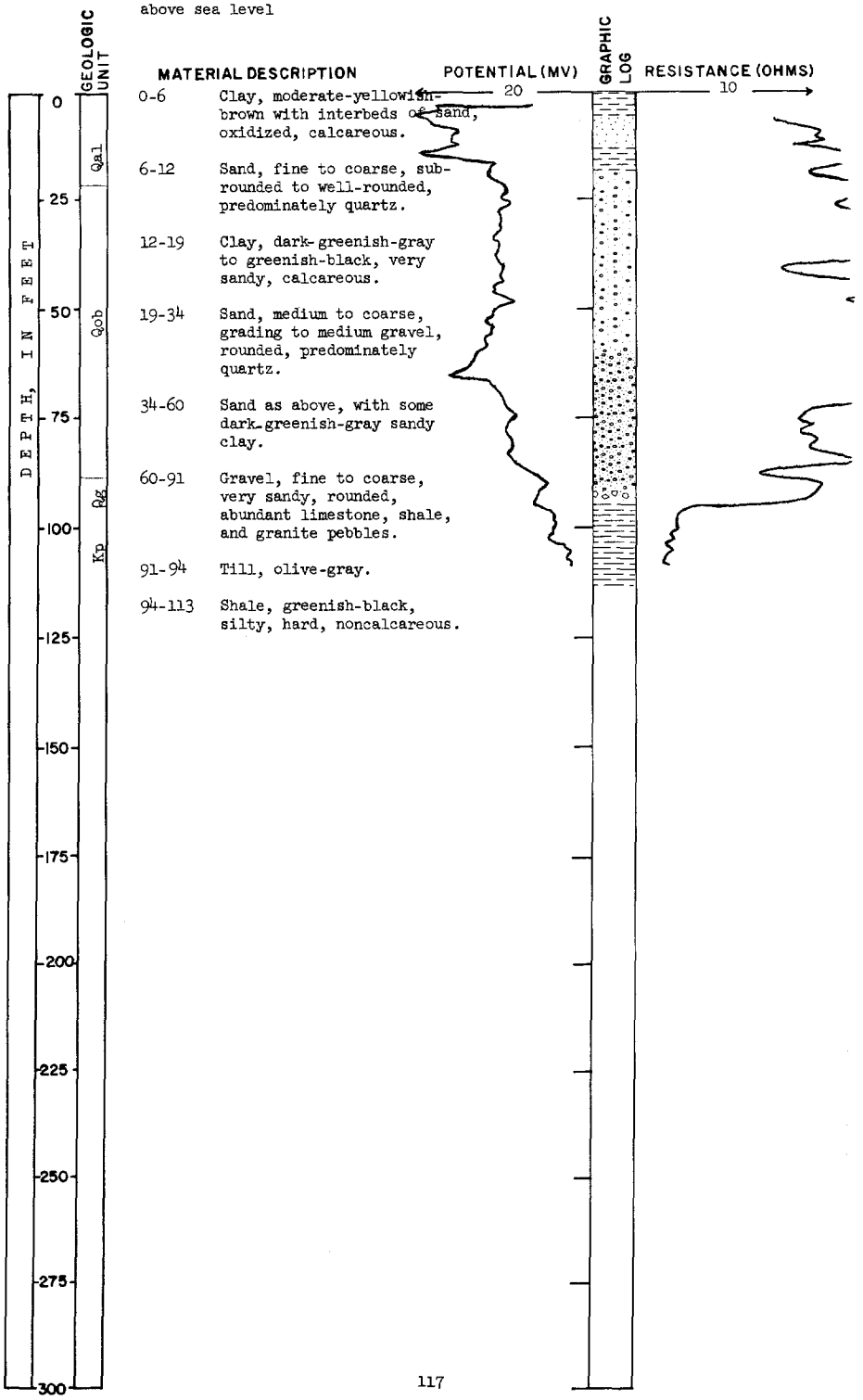
Foster County TEST HOLE 3045

LOCATION: 145-64-22da

DATE DRILLED: August 1, 1963

ELEVATION: 1,441 feet above sea level

DEPTH: 113 feet



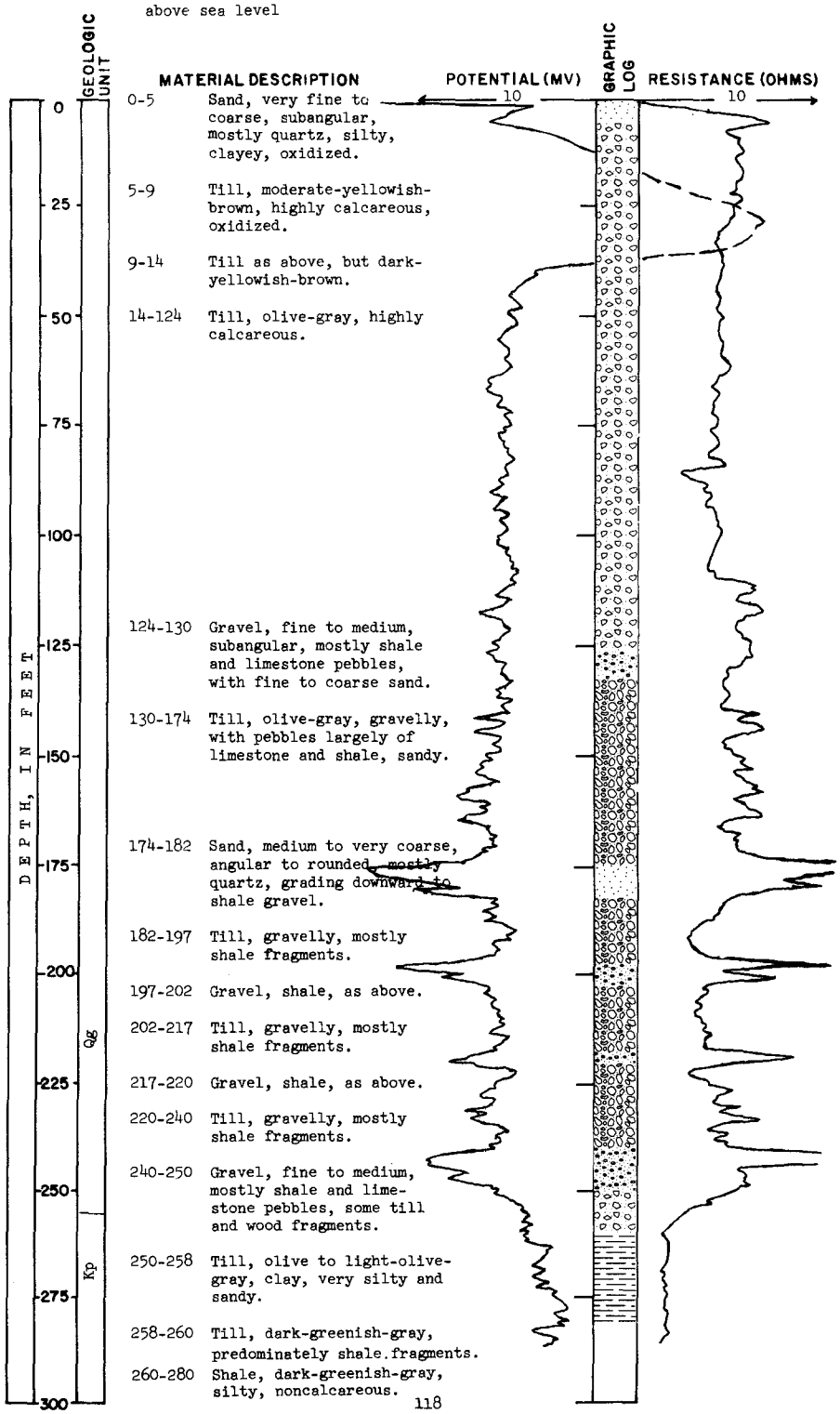
TEST HOLE 3042

LOCATION: Foster County 145-64-32bba

DATE DRILLED: July 30, 1963

ELEVATION: 1,508 feet above sea level

DEPTH: 285 feet



0-5 Sand, very fine to coarse, subangular, mostly quartz, silty, clayey, oxidized.

5-9 Till, moderate-yellowish-brown, highly calcareous, oxidized.

9-14 Till as above, but dark-yellowish-brown.

14-124 Till, olive-gray, highly calcareous.

124-130 Gravel, fine to medium, subangular, mostly shale and limestone pebbles, with fine to coarse sand.

130-174 Till, olive-gray, gravelly, with pebbles largely of limestone and shale, sandy.

174-182 Sand, medium to very coarse, angular to rounded, mostly quartz, grading downward to shale gravel.

182-197 Till, gravelly, mostly shale fragments.

197-202 Gravel, shale, as above.

202-217 Till, gravelly, mostly shale fragments.

217-220 Gravel, shale, as above.

220-240 Till, gravelly, mostly shale fragments.

240-250 Gravel, fine to medium, mostly shale and limestone pebbles, some till and wood fragments.

250-258 Till, olive to light-olive-gray, clay, very silty and sandy.

258-260 Till, dark-greenish-gray, predominately shale fragments.

260-280 Shale, dark-greenish-gray, silty, noncalcareous.

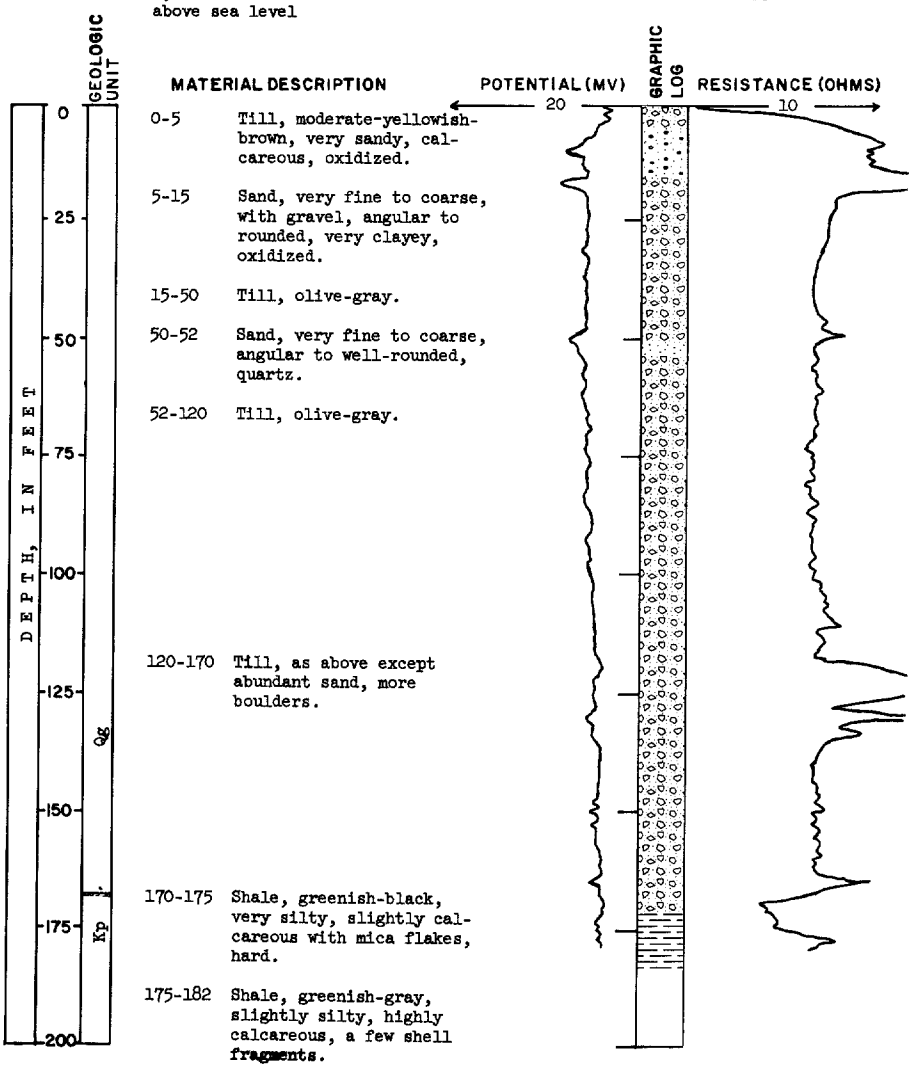
TEST HOLE 3041

LOCATION: Foster County 145-65-15dad

DATE DRILLED: July 30, 1963

ELEVATION: 1,526 feet above sea level

DEPTH: 182 feet



145-65-25ddd
U.S. Bureau of Reclamation
Jamestown-Pingree Hole 4

Foster County

Elevation: 1,540 feet above sea level

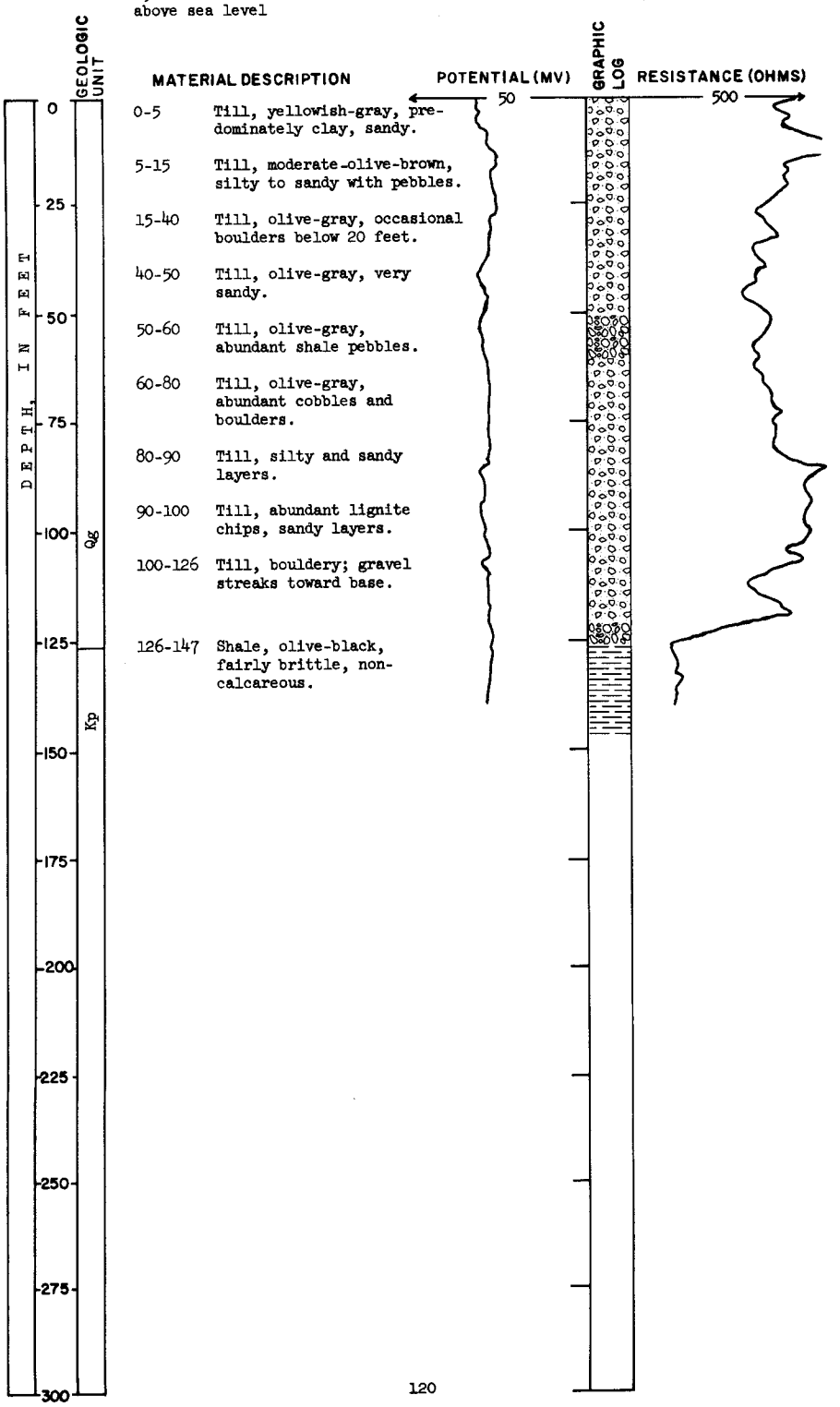
Date Drilled: 1950

Material	Thickness (feet)	Depth (feet)
Sandy loam.	4	4
Loamy sand.	3	7
Fine sandy loam.	3	10
Sandy clay loam.	3	13
Sandy loam.	3	16
Sandy clay loam.	1	17
Sandy clay plus gravel.	3	20
Clay plus gravel.	3.5	23.5

Foster County TEST HOLE 2257

LOCATION: 145-66-5ccb2 DATE DRILLED: July 6, 1964

ELEVATION: 1,600 feet above sea level DEPTH: 147 feet



	MATERIAL DESCRIPTION
0-5	Till, yellowish-gray, predominately clay, sandy.
5-15	Till, moderate-olive-brown, silty to sandy with pebbles.
15-40	Till, olive-gray, occasional boulders below 20 feet.
40-50	Till, olive-gray, very sandy.
50-60	Till, olive-gray, abundant shale pebbles.
60-80	Till, olive-gray, abundant cobbles and boulders.
80-90	Till, silty and sandy layers.
90-100	Till, abundant lignite chips, sandy layers.
100-126	Till, bouldery; gravel streaks toward base.
126-147	Shale, olive-black, fairly brittle, non-calcareous.

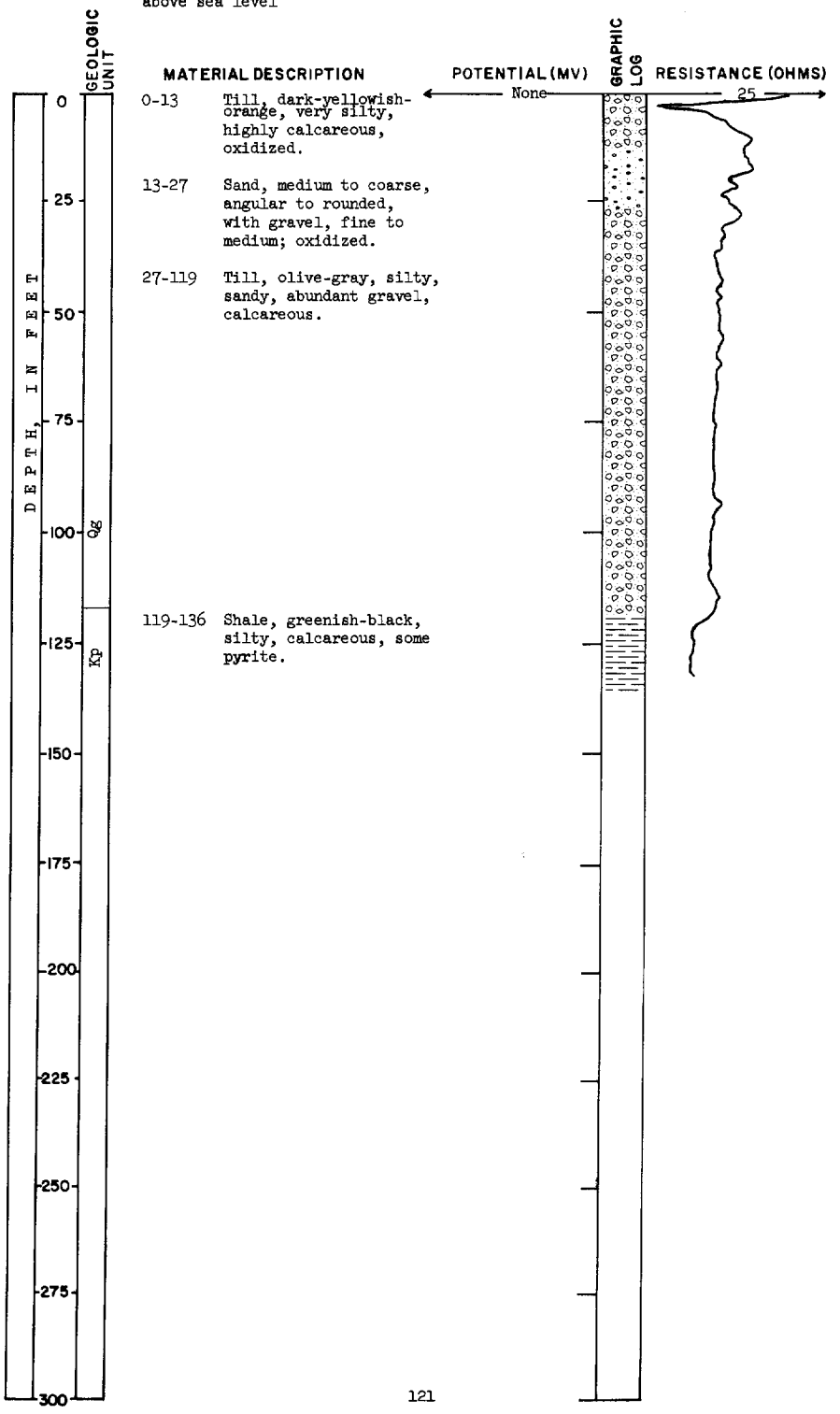
TEST HOLE 3040

LOCATION: Foster County 145-66-14ddd

DATE DRILLED: July 29, 1964

ELEVATION: 1,582 feet above sea level

DEPTH: 136 feet



145-66-27ccc
U.S. Bureau of Reclamation
Jamestown-Pingree Hole 1

Foster County

Elevation: 1,575 feet
above sea level

Date Drilled: 1950

Material	Thickness (feet)	Depth (feet)
Loamy sand.	1	1
Sand.	3	4
Fine sandy loam.	4	8
Sandy clay loam.	6	14
Sandy clay.	6	20
Fine sand.	4	24

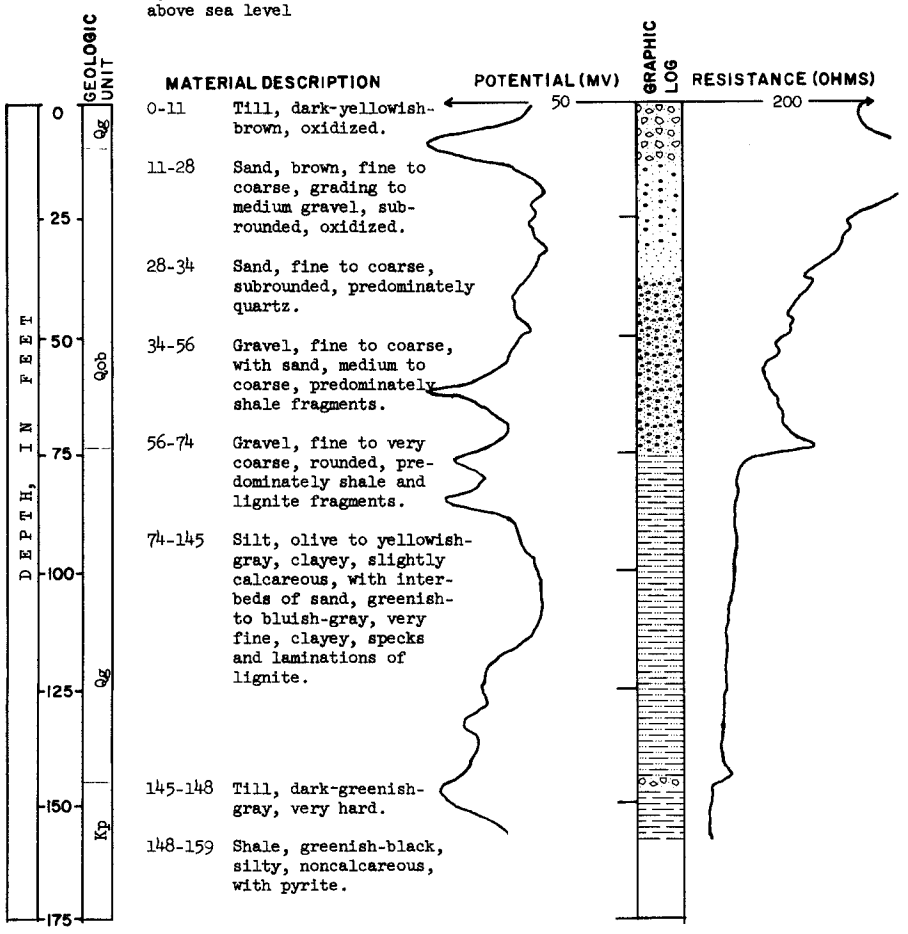
TEST HOLE 3067

LOCATION: Foster County 145-66-32baa

DATE DRILLED: August 21, 1963

ELEVATION: 1,575 feet above sea level

DEPTH: 159 feet



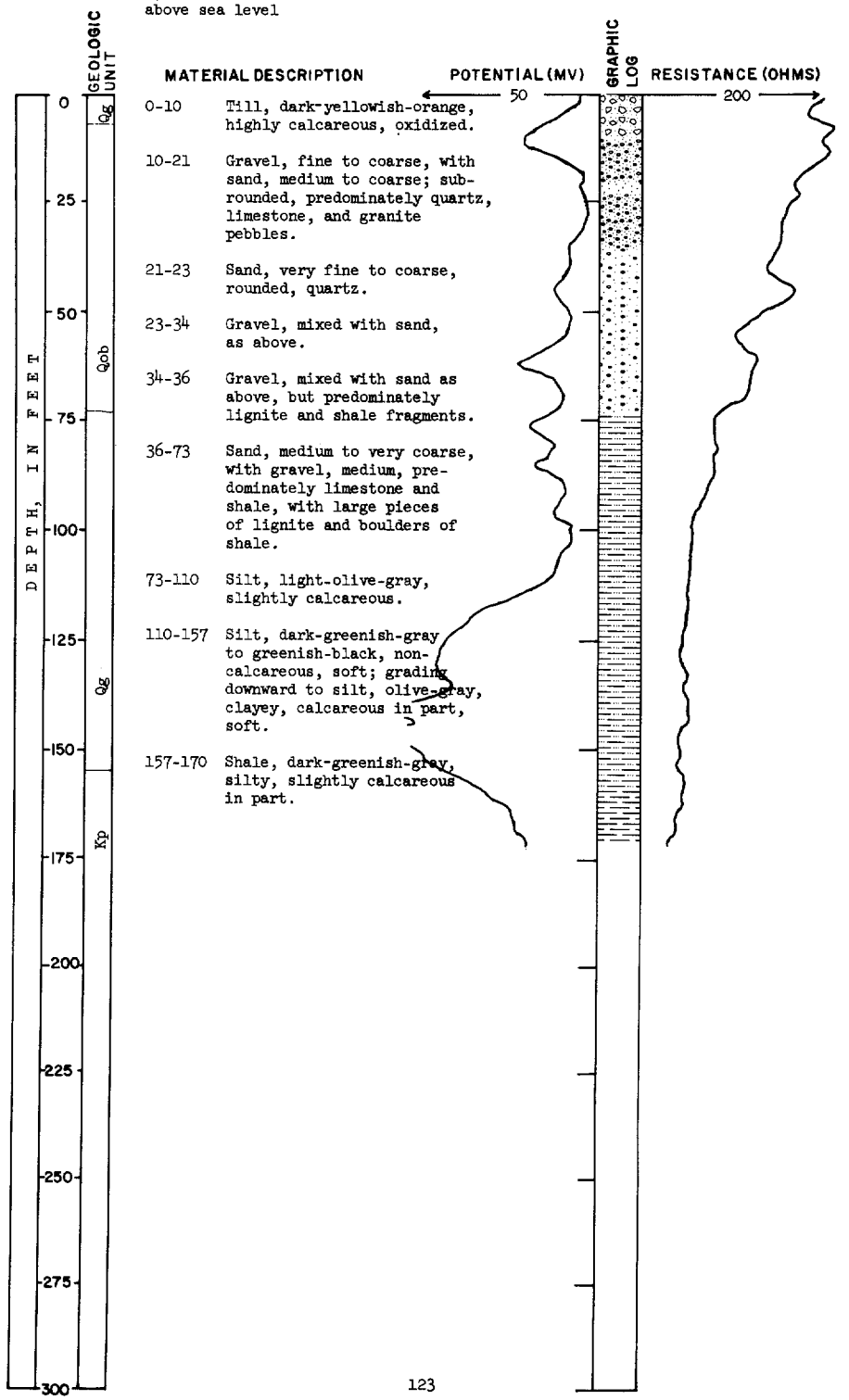
Foster County TEST HOLE 3068

LOCATION: 145-67-13dcc

DATE DRILLED: August 22, 1963

ELEVATION: 1,584 feet above sea level

DEPTH: 170 feet



0-10 Till, dark-yellowish-orange, highly calcareous, oxidized.

10-21 Gravel, fine to coarse, with sand, medium to coarse; sub-rounded, predominately quartz, limestone, and granite pebbles.

21-23 Sand, very fine to coarse, rounded, quartz.

23-34 Gravel, mixed with sand, as above.

34-36 Gravel, mixed with sand as above, but predominately lignite and shale fragments.

36-73 Sand, medium to very coarse, with gravel, medium, predominately limestone and shale, with large pieces of lignite and boulders of shale.

73-110 Silt, light-olive-gray, slightly calcareous.

110-157 Silt, dark-greenish-gray to greenish-black, non-calcareous, soft; grading downward to silt, olive-gray, clayey, calcareous in part, soft.

157-170 Shale, dark-greenish-gray, silty, slightly calcareous in part.

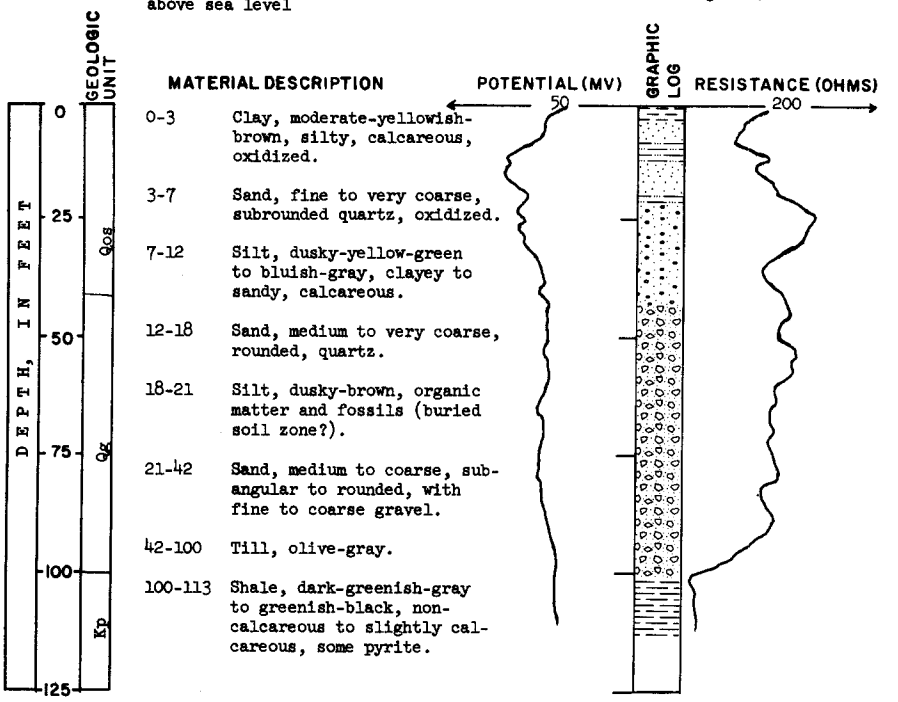
TEST HOLE 3069

LOCATION: Foster County 145-67-16ccb

DATE DRILLED: August 26, 1963

ELEVATION: 1,562 feet above sea level

DEPTH: 113 feet



145-67-23baa

Foster County

Test hole 2256

Elevation: 1,570 feet above sea level

Date Drilled: 1964

Material	Thickness (feet)	Depth (feet)
Till, yellowish-gray, soft.	10	10
Till as above, more pebbly, denser.	3	13
Shale, olive-black, hard, fissile, non-calcareous.	29	42

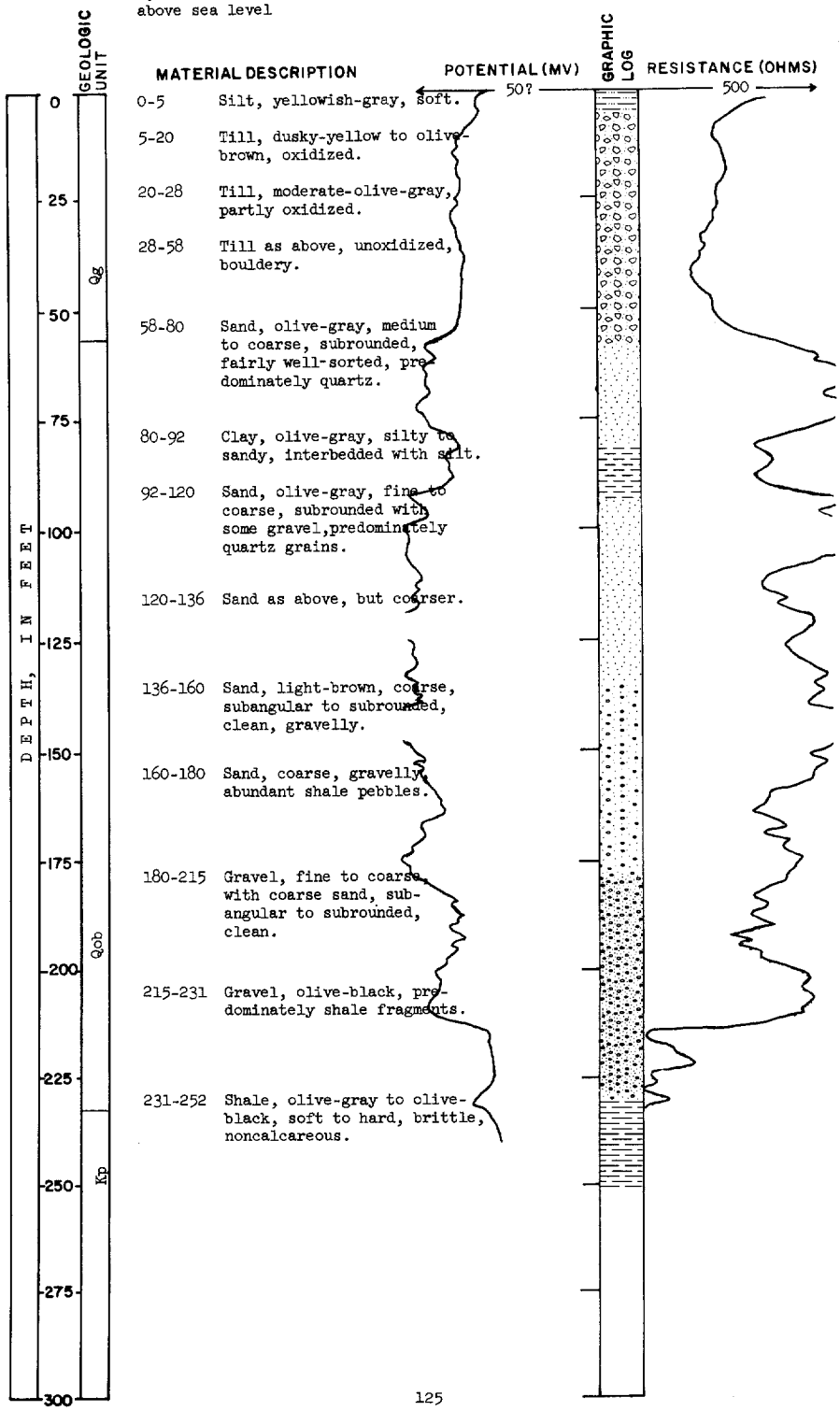
TEST HOLE 2264

LOCATION: Griggs County 146-61-19ccc

DATE DRILLED: July 9, 1964

ELEVATION: 1,474 feet above sea level

DEPTH: 252 feet



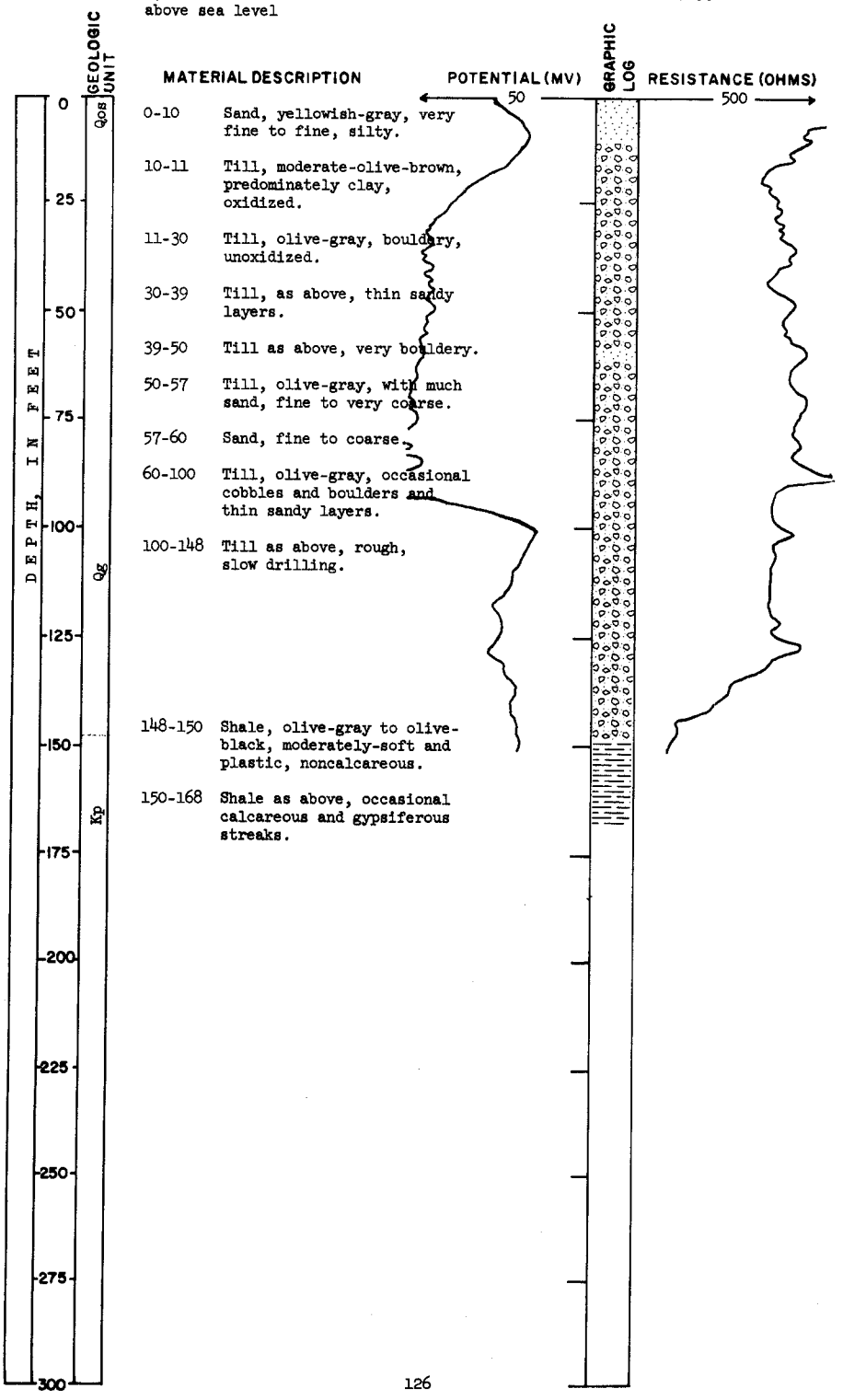
TEST HOLE 2266

LOCATION: Foster County 146-62-1daa

DATE DRILLED: July 13, 1964

ELEVATION: 1,477 feet above sea level

DEPTH: 168 feet



Foster County

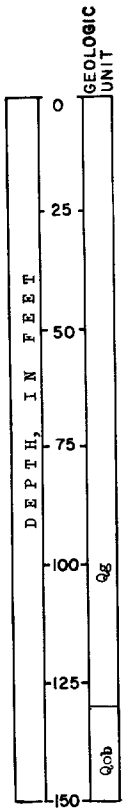
LOCATION: 146-62-7bbb
A. Johnson

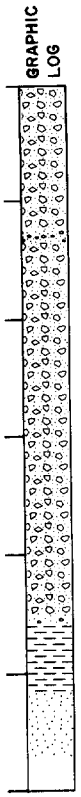
ELEVATION: 1,508 feet
above sea level

DATE DRILLED: 1942

DEPTH: 143 feet

Driller's log





	MATERIAL DESCRIPTION
0-30	Yellow clay.
30-32	Gravel.
32-55	Hard blue clay and rock.
55-111.5	Soft blue clay.
111.5-112.5	Sand and gravel.
112.5-129	Soft creeping white clay.
129-143	Sand.

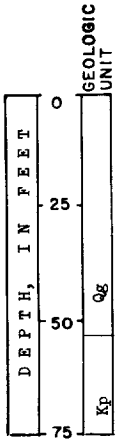
Foster County TEST HOLE 3054

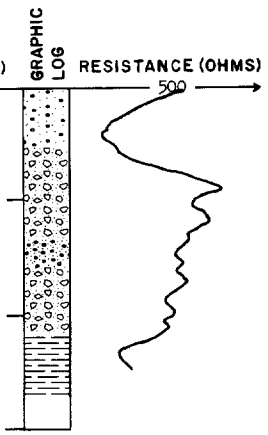
LOCATION: 146-62-9bbb

DATE DRILLED: August 9, 1963

ELEVATION: 1,496 feet
above sea level

DEPTH: 68 feet





	MATERIAL DESCRIPTION
0-12	Sand, fine to coarse, grading to gravel, medium, subrounded, clayey, oxidized.
12-20	Till, dark-yellowish-orange, predominately sandy, oxidized.
20-32	Till, olive-gray, predominately silty, abundant gravel and boulders.
32-38	Gravel, predominately medium, grading to sand, medium, subangular to rounded, and shale boulders and cobbles.
38-53	Till as above.
53-68	Shale, greenish-black, silty, slightly calcareous in spots with soapy, greenish-gray clay.

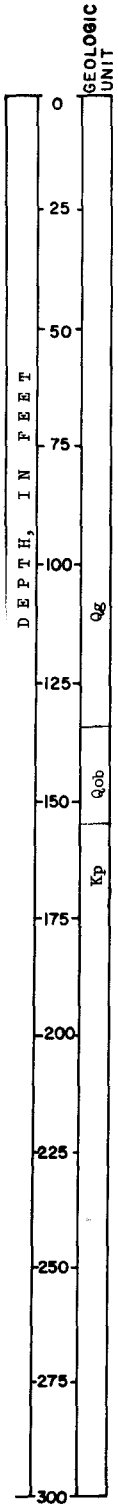
LOCATION: Foster County 146-62-17ddd **TEST HOLE** 1096

DATE DRILLED: April 26, 1956

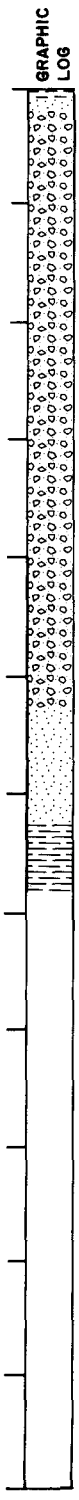
ELEVATION: 1,503 feet above sea level

DEPTH: 170 feet

Driller's log



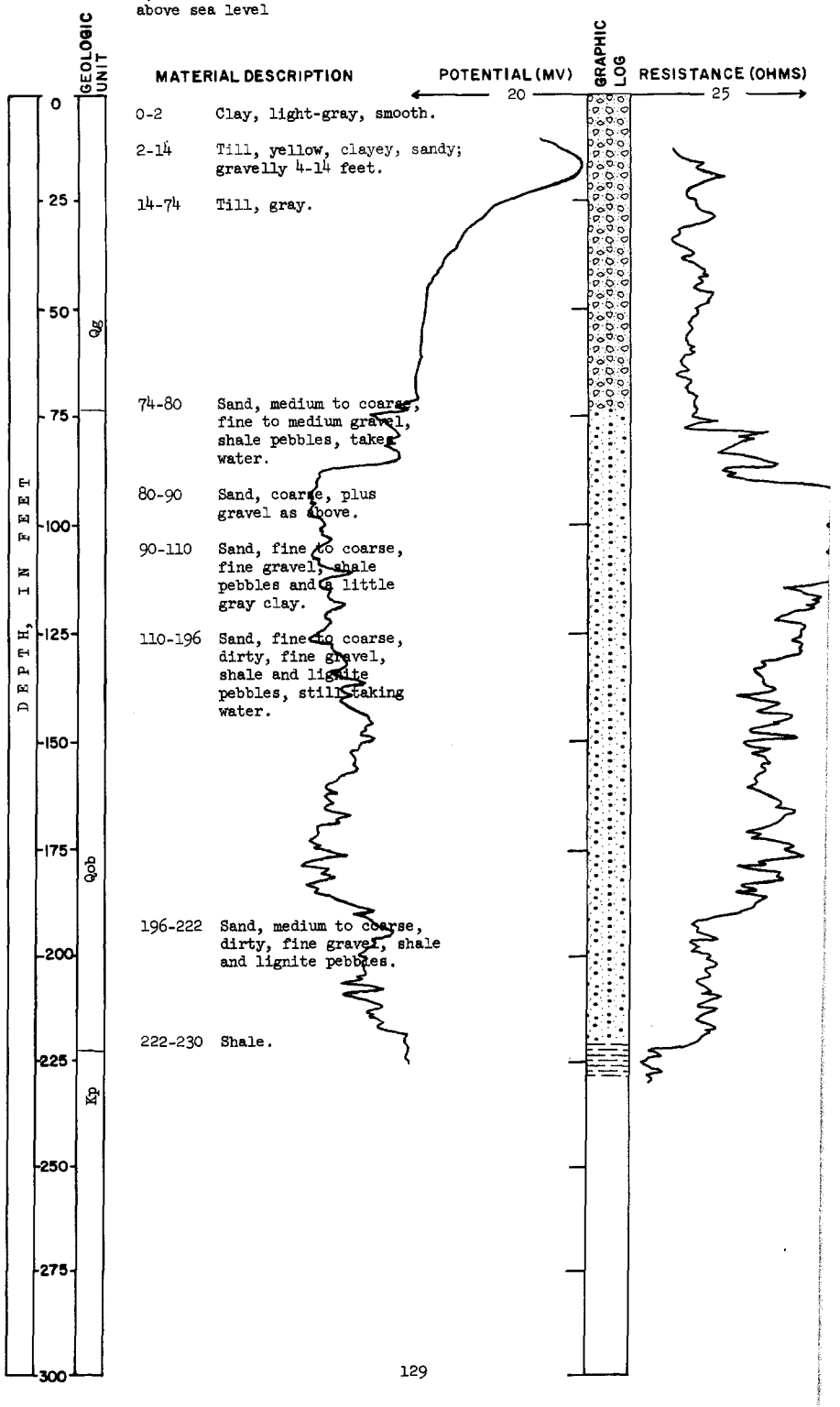
	MATERIAL DESCRIPTION
0-3	Yellow sandy clay.
3-6	Fine sand.
6-13	Yellow clay, fine and medium gravel with shale pebbles.
13-70	Till, gray.
70-74	Till, gray, hard.
74-132	Till, gray, no rocks, hole seems to swell in.
132-156	Sand, fine to coarse, shale pebbles, lignite, and a little gray clay.
156-170	Shale.



Foster County TEST HOLE 1097

LOCATION: 146-62-20bbb DATE DRILLED: April 28, 1956

ELEVATION: 1,502 feet above sea level DEPTH: 230 feet



Foster County TEST HOLE 1093

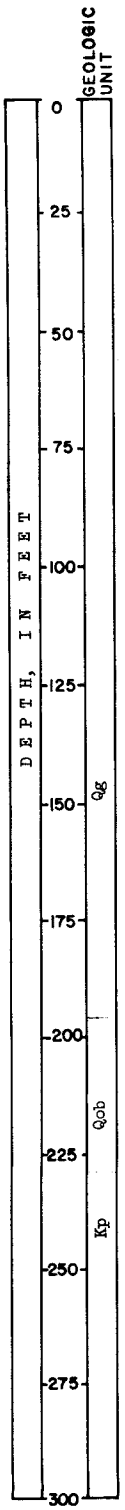
LOCATION: 146-62-22aaa

DATE DRILLED: April 20, 1956

ELEVATION: 1,485 feet above sea level

DEPTH: 235 feet

Driller's log



MATERIAL DESCRIPTION

0-16	Clay, yellow, a little sandy; gravelly 9-16 feet.
16-19	Sand, medium to coarse, a few shale pebbles and rocks.
19-37	Till, gray.
37-128	Till; gray, as above, had to ream out hole many times 40-50 feet, 70-80 feet.
128-158	Till; gray, soft.
158-195	Till, gray, hard, used much pressure at 162-186 feet.
195-214	Sand, fine to coarse, fine to medium gravel, a few shale and lignite pebbles and a little gray clay.
214-228	Clay, gray, smooth.
228-235	Shale.

TEST HOLE 1094

LOCATION: Foster County 146-62-22bbb

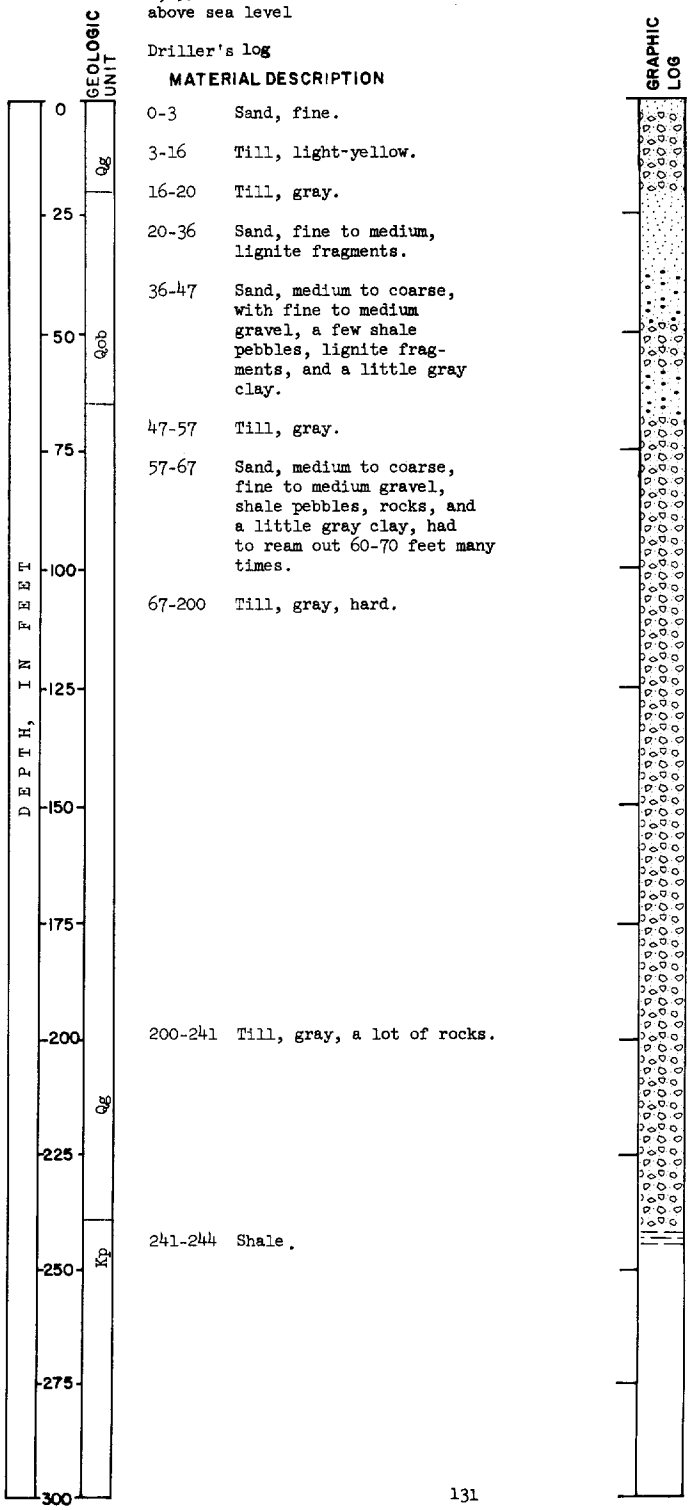
DATE DRILLED: April 23, 1956

ELEVATION: 1,495 feet above sea level

DEPTH: 244 feet

Driller's log

	MATERIAL DESCRIPTION
0-3	Sand, fine.
3-16	Till, light-yellow.
16-20	Till, gray.
20-36	Sand, fine to medium, lignite fragments.
36-47	Sand, medium to coarse, with fine to medium gravel, a few shale pebbles, lignite fragments, and a little gray clay.
47-57	Till, gray.
57-67	Sand, medium to coarse, fine to medium gravel, shale pebbles, rocks, and a little gray clay, had to ream out 60-70 feet many times.
67-200	Till, gray, hard.
200-241	Till, gray, a lot of rocks.
241-244	Shale.



Foster County TEST HOLE 1092

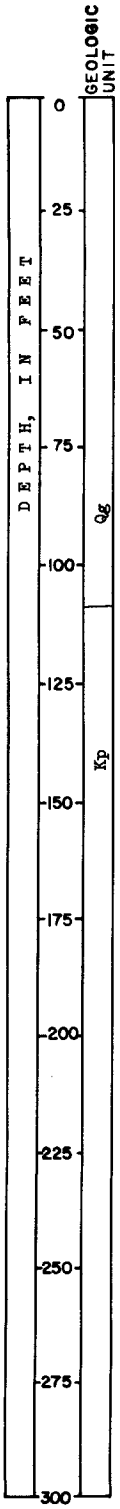
LOCATION: 146-62-24aaa

DATE DRILLED: April 20, 1956

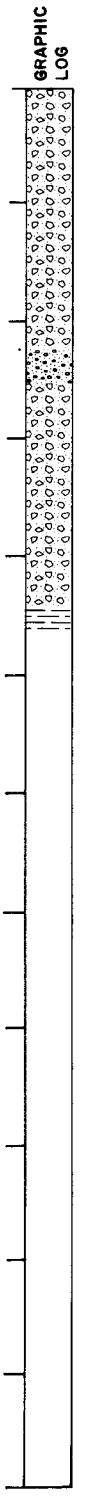
ELEVATION: 1,474 feet above sea level

DEPTH: 115 feet

Driller's log



MATERIAL DESCRIPTION	
0-13	Till, yellow.
13-16	Till, brown.
16-54	Till, bluish-gray, bouldery 21-37 feet.
54-61	Gravel, fine to medium, abundant shale pebbles, some medium to coarse sand.
61-85	Till, gray boulders at 76-79 feet.
85-110	Till, gray, hard.
110-115	Shale.



TEST HOLE 1095

LOCATION: Foster County
146-62-24bbb

DATE DRILLED: April 25, 1956

ELEVATION: 1,484 feet
above sea level

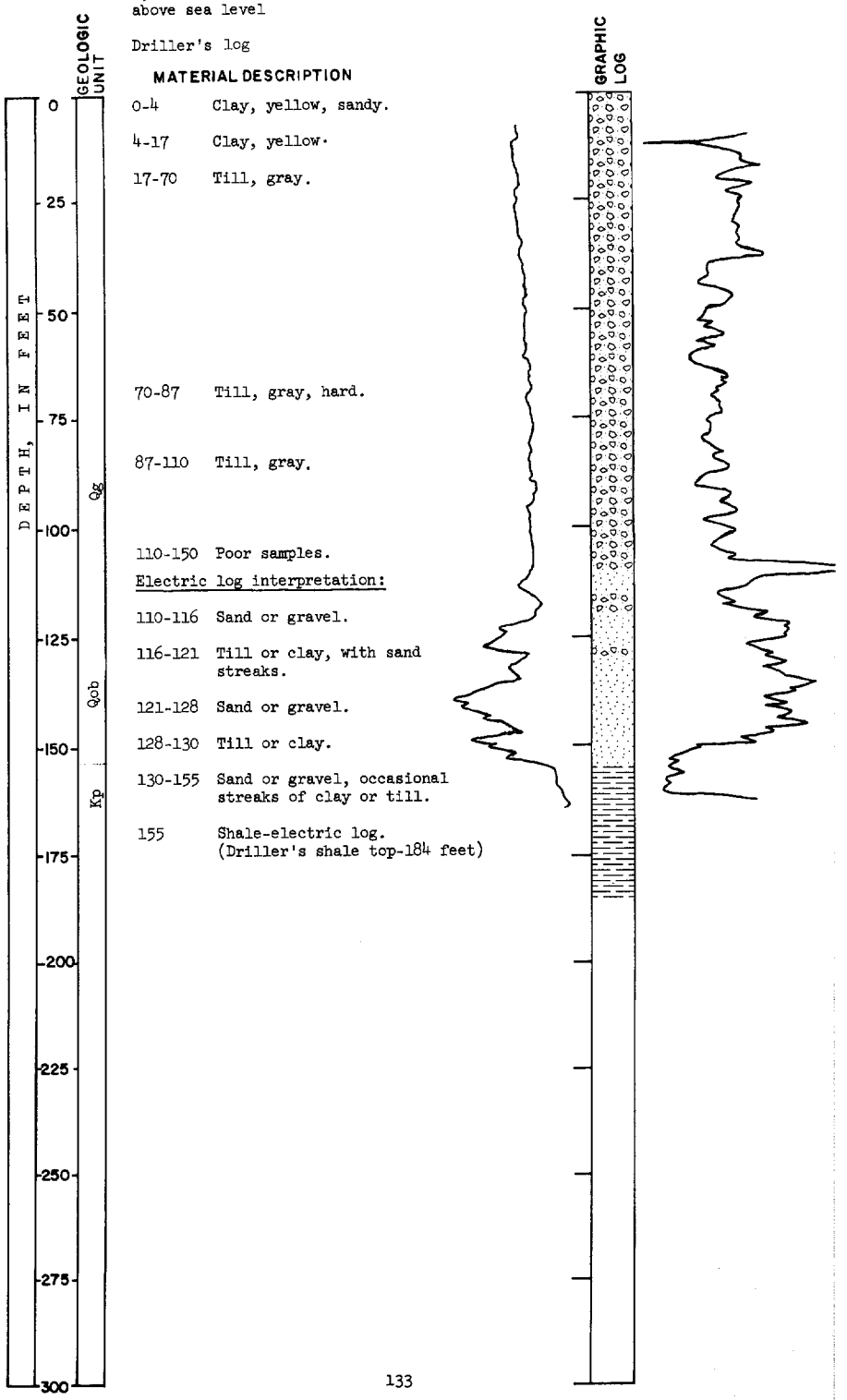
DEPTH: 190 feet

Driller's log

	MATERIAL DESCRIPTION
0-4	Clay, yellow, sandy.
4-17	Clay, yellow.
17-70	Till, gray.
70-87	Till, gray, hard.
87-110	Till, gray.
110-150	Poor samples.

Electric log interpretation:

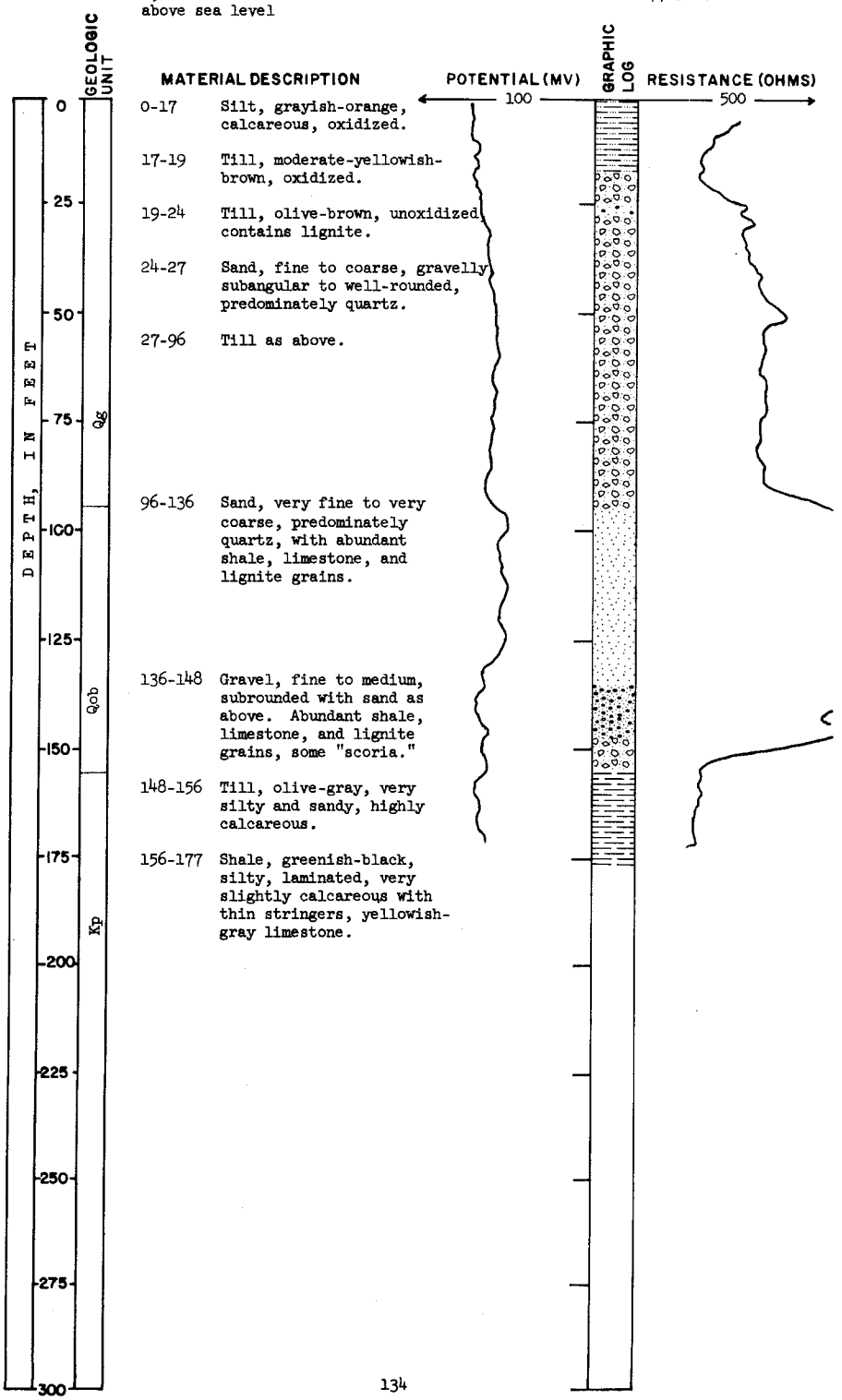
110-116	Sand or gravel.
116-121	Till or clay, with sand streaks.
121-128	Sand or gravel.
128-130	Till or clay.
130-155	Sand or gravel, occasional streaks of clay or till.
155	Shale-electric log. (Driller's shale top-184 feet)



Foster County **TEST HOLE** 3051

LOCATION: 146-62-30ccc **DATE DRILLED:** August 7, 1963

ELEVATION: 1,502 feet above sea level **DEPTH:** 177 feet



MATERIAL DESCRIPTION

0-17	Silt, grayish-orange, calcareous, oxidized.
17-19	Till, moderate-yellowish-brown, oxidized.
19-24	Till, olive-brown, unoxidized, contains lignite.
24-27	Sand, fine to coarse, gravelly subangular to well-rounded, predominately quartz.
27-96	Till as above.
96-136	Sand, very fine to very coarse, predominately quartz, with abundant shale, limestone, and lignite grains.
136-148	Gravel, fine to medium, subrounded with sand as above. Abundant shale, limestone, and lignite grains, some "scoria."
148-156	Till, olive-gray, very silty and sandy, highly calcareous.
156-177	Shale, greenish-black, silty, laminated, very slightly calcareous with thin stringers, yellowish-gray limestone.

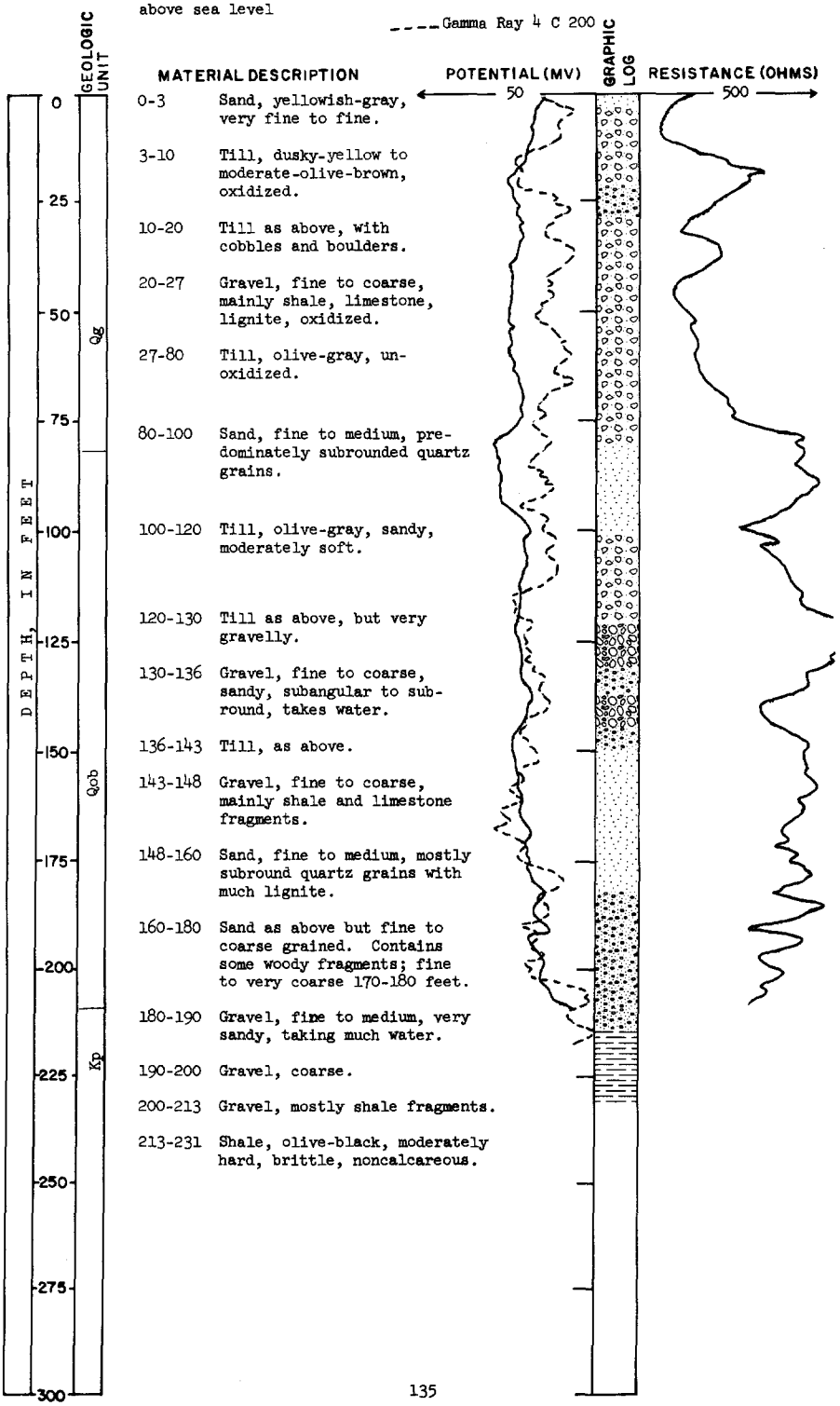
Foster County TEST HOLE 2265

LOCATION: 146-62-36bbb

DATE DRILLED: July 10, 1964

ELEVATION: 1,486 feet above sea level

DEPTH: 231 feet



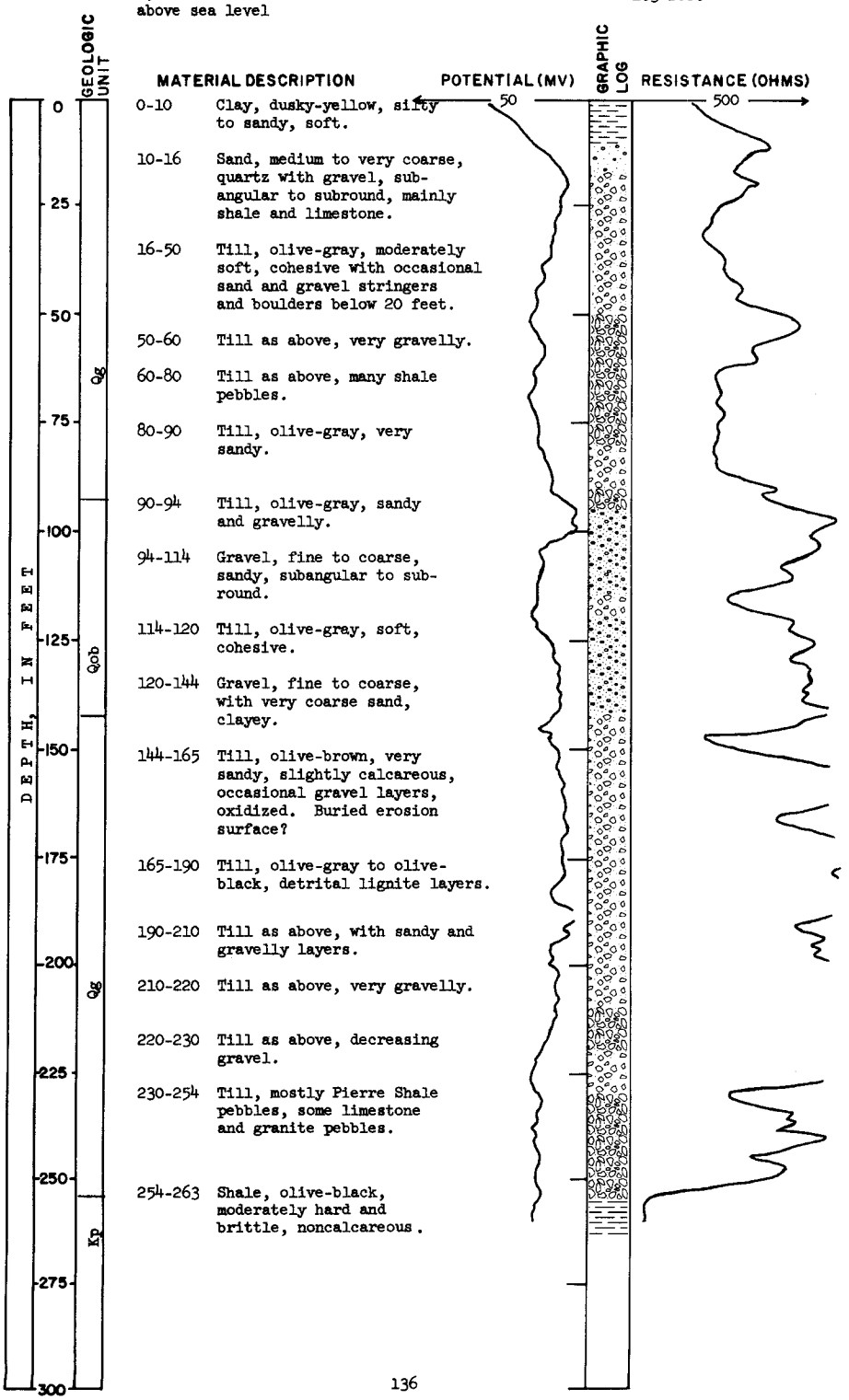
Foster County TEST HOLE 2269

LOCATION: 146-63-4aaa

DATE DRILLED: July 14, 1964

ELEVATION: 1,503 feet above sea level

DEPTH: 263 feet



0-10 Clay, dusky-yellow, silty to sandy, soft.

10-16 Sand, medium to very coarse, quartz with gravel, subangular to subround, mainly shale and limestone.

16-50 Till, olive-gray, moderately soft, cohesive with occasional sand and gravel stringers and boulders below 20 feet.

50-60 Till as above, very gravelly.

60-80 Till as above, many shale pebbles.

80-90 Till, olive-gray, very sandy.

90-94 Till, olive-gray, sandy and gravelly.

94-114 Gravel, fine to coarse, sandy, subangular to subround.

114-120 Till, olive-gray, soft, cohesive.

120-144 Gravel, fine to coarse, with very coarse sand, clayey.

144-165 Till, olive-brown, very sandy, slightly calcareous, occasional gravel layers, oxidized. Buried erosion surface?

165-190 Till, olive-gray to olive-black, detrital lignite layers.

190-210 Till as above, with sandy and gravelly layers.

210-220 Till as above, very gravelly.

220-230 Till as above, decreasing gravel.

230-254 Till, mostly Pierre Shale pebbles, some limestone and granite pebbles.

254-263 Shale, olive-black, moderately hard and brittle, noncalcareous.

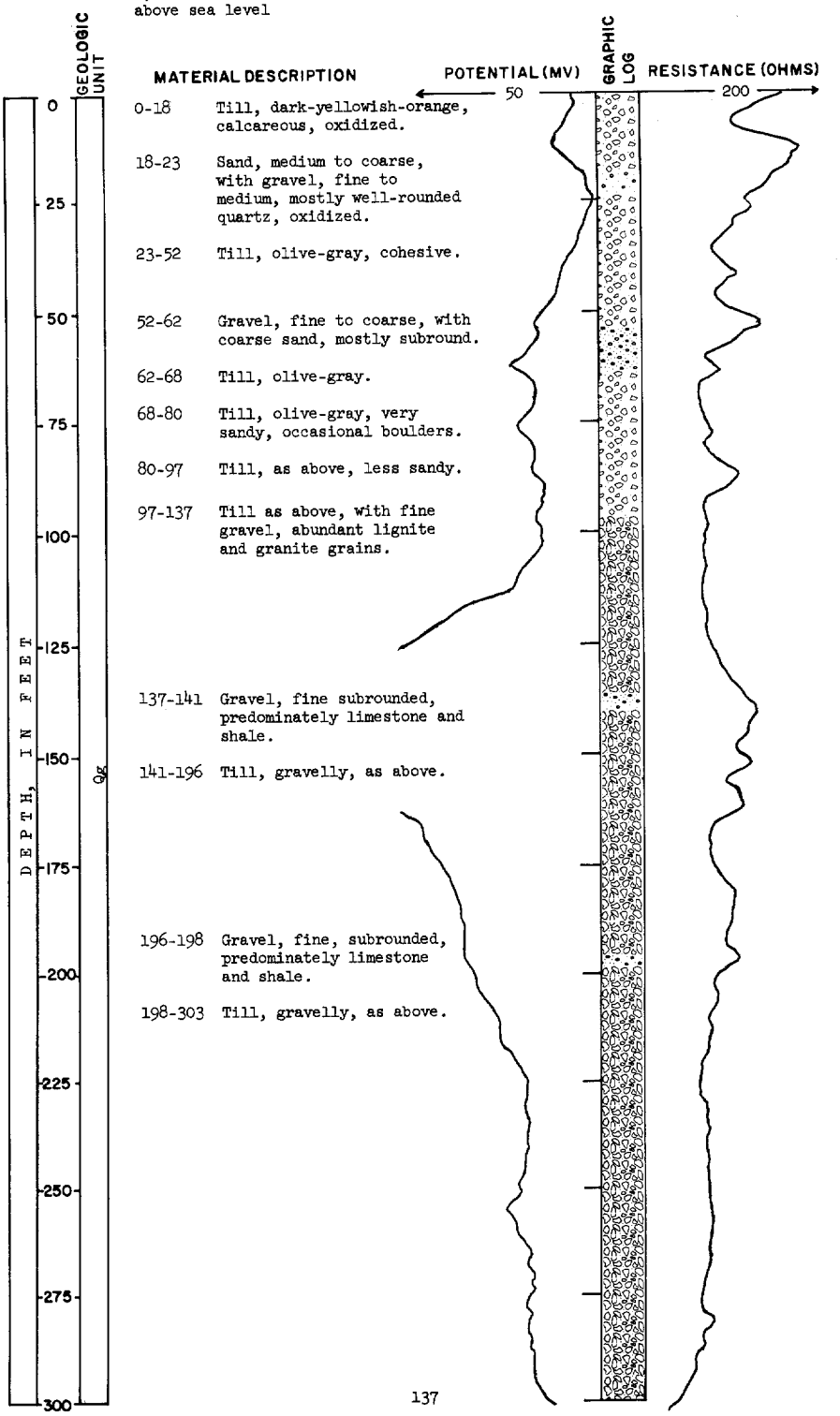
TEST HOLE 3072

LOCATION: Foster County 146-63-10bbb

DATE DRILLED: August 29, 1963

ELEVATION: 1,508 feet above sea level

DEPTH: 318 feet



0-18 Till, dark-yellowish-orange, calcareous, oxidized.

18-23 Sand, medium to coarse, with gravel, fine to medium, mostly well-rounded quartz, oxidized.

23-52 Till, olive-gray, cohesive.

52-62 Gravel, fine to coarse, with coarse sand, mostly subround.

62-68 Till, olive-gray.

68-80 Till, olive-gray, very sandy, occasional boulders.

80-97 Till, as above, less sandy.

97-137 Till as above, with fine gravel, abundant lignite and granite grains.

137-141 Gravel, fine subrounded, predominately limestone and shale.

141-196 Till, gravelly, as above.

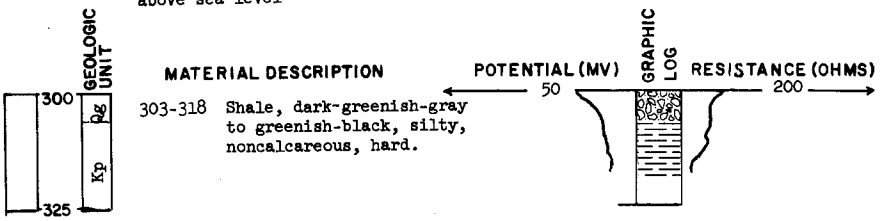
196-198 Gravel, fine, subrounded, predominately limestone and shale.

198-303 Till, gravelly, as above.

Foster County TEST HOLE 3072 (Continued)

LOCATION: 146-63-10bbb DATE DRILLED: August 29, 1963

ELEVATION: 1,508 feet above sea level DEPTH: 318 feet



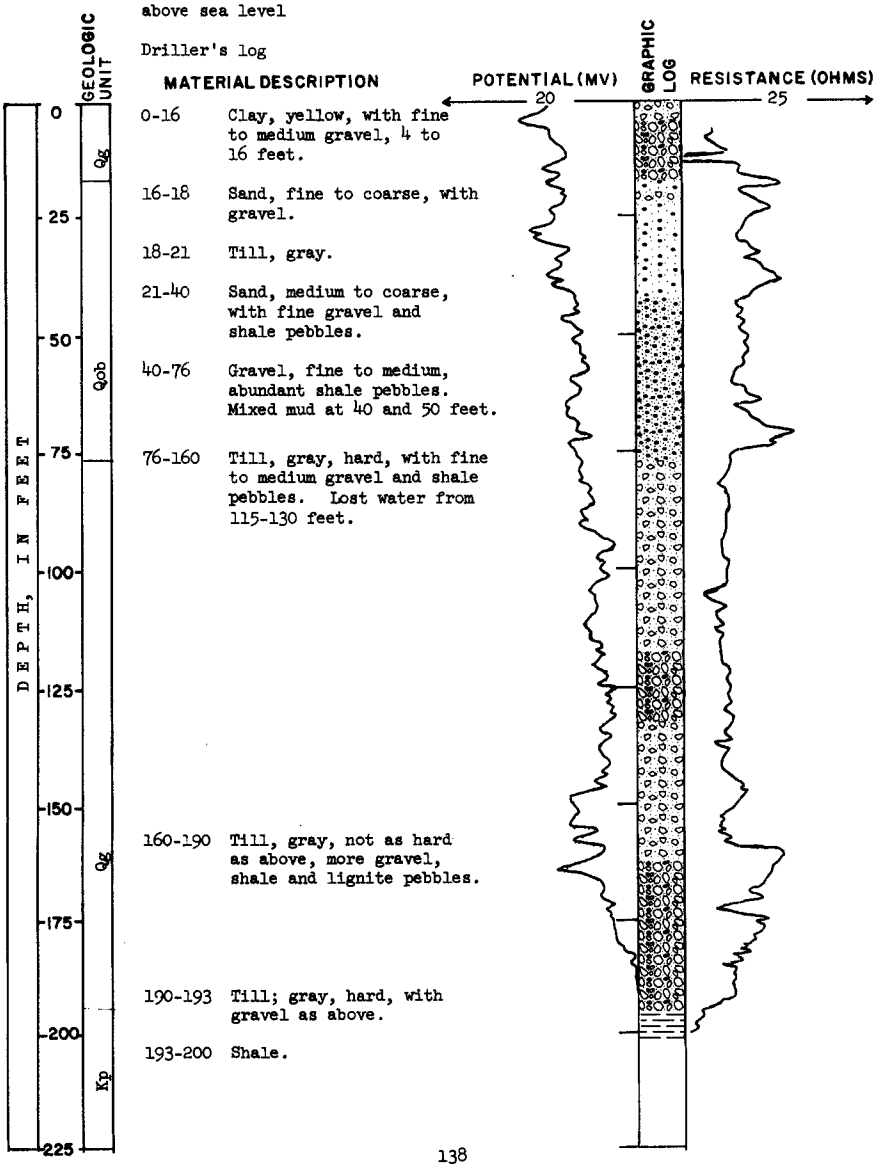
303-318 Shale, dark-greenish-gray to greenish-black, silty, noncalcareous, hard.

Foster County TEST HOLE 1098

LOCATION: 146-63-13ddd DATE DRILLED: April 30, 1956

ELEVATION: 1,505 feet above sea level DEPTH: 200 feet

Driller's log



0-16 Clay, yellow, with fine to medium gravel, 4 to 16 feet.

16-18 Sand, fine to coarse, with gravel.

18-21 Till, gray.

21-40 Sand, medium to coarse, with fine gravel and shale pebbles.

40-76 Gravel, fine to medium, abundant shale pebbles. Mixed mud at 40 and 50 feet.

76-160 Till, gray, hard, with fine to medium gravel and shale pebbles. Lost water from 115-130 feet.

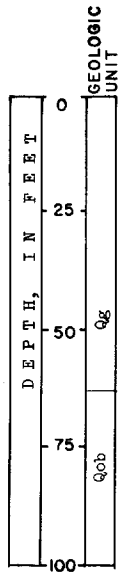
160-190 Till, gray, not as hard as above, more gravel, shale and lignite pebbles.

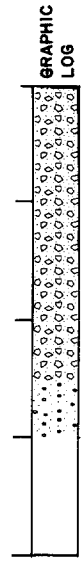
190-193 Till; gray, hard, with gravel as above.

193-200 Shale.

Foster County
LOCATION: 146-63-15bbd1
F. Strause
ELEVATION: 1,510 feet
above sea level

DATE DRILLED: 1940
DEPTH: 75 feet





Driller's log

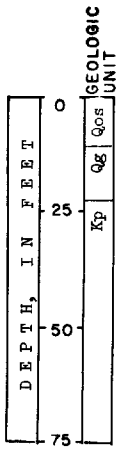
MATERIAL DESCRIPTION

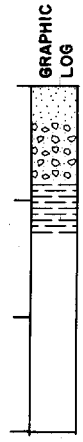
0-20	Yellow clay.
20-65	Blue clay and rocks (till).
65-75	Sand and coarse gravel.

TEST HOLE 2260

Foster County
LOCATION: 146-64-18ccd
ELEVATION: 1,513 feet
above sea level

DATE DRILLED: July 8, 1964
DEPTH: 32 feet





MATERIAL DESCRIPTION

0-3	Sand, yellowish-gray, very fine, and silt.
3-7	Sand, fine to coarse, subangular to subround, oxidized.
7-21	Till, olive-gray, cohesive.
21-32	Shale, olive-black, hard, brittle, noncalcareous

Foster County

LOCATION: 146-64-28cbb 3

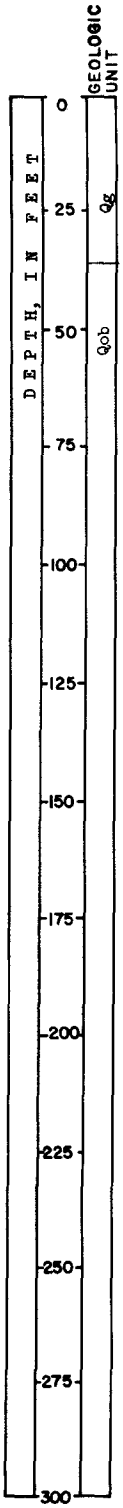
Othilda Thurlow

ELEVATION: 1,535 feet above sea level

DATE DRILLED: November 15, 1963

DEPTH: 83 feet

Driller's log



MATERIAL DESCRIPTION

0-20	Clay.
20-25	Sand.
25-39	Clay.
39-75	Fine sand.
75-83	Coarse sand.

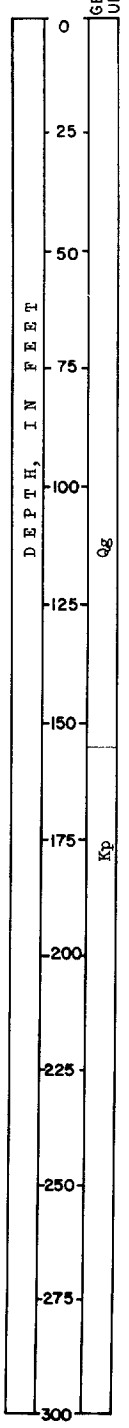
TEST HOLE 1471

LOCATION: Foster County 146-65-5ccc

DATE DRILLED: March 27, 1959

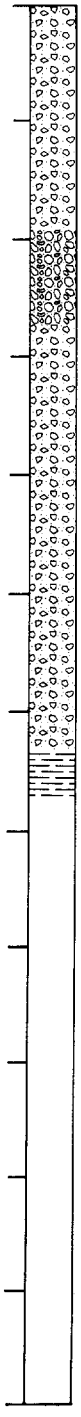
ELEVATION: 1,524 feet above sea level

DEPTH: 168 feet



MATERIAL DESCRIPTION

0-15	Till, yellow-buff, clayey, with some coarse sand and gravel, fine to medium, includes shale pebbles.
15-47	Till, light-gray to gray, sandy.
47-68	Till, as above but more sand and gravel, also lignite fragments.
68-110	Till as above, less sand and gravel.
110-158	Till, lighter color than above, sandier, less gravel.
158-167.75	Shale, blue-gray, brittle, also soft clay.



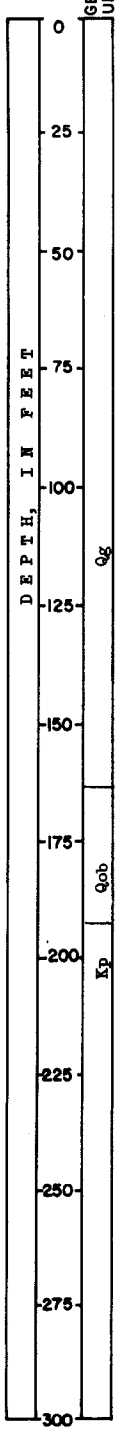
TEST HOLE 1472

LOCATION: Foster County 146-65-17ccc

DATE DRILLED: March 28, 1959

ELEVATION: 1,526 feet above sea level

DEPTH: 199 feet



MATERIAL DESCRIPTION

0-13	Till, light-yellow-brown, sandy to fine gravelly, oxidized, calcareous.
13-32	Till, brownish-gray to dark-brown.
32-73	Till, olive to dark olive-gray, gravelly, lignite fragments.
73-78	Till, olive-gray, fine to medium gravel.
78-84	Sand, fine, dirty.
84-168	Till, olive-gray, clayey, largely shale fragments.
168-191	Gravel, fine to coarse, subangular to subround, clayey, cemented.
191-199	Shale, clay, weathered.

146-65-24bbb$_3$
U.S. Bureau of Reclamation
Test hole 15S-6E

Foster County

Elevation: 1,535 feet
above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Silty loam.	2	2
Fine silty loam.	2	4
Sandy clay loam.	1	5
Clay loam.	3	8
Fine sandy loam.	6	14
Medium sand.	3	17
Silty clay loam.	1	18
Fine sand.	1	19

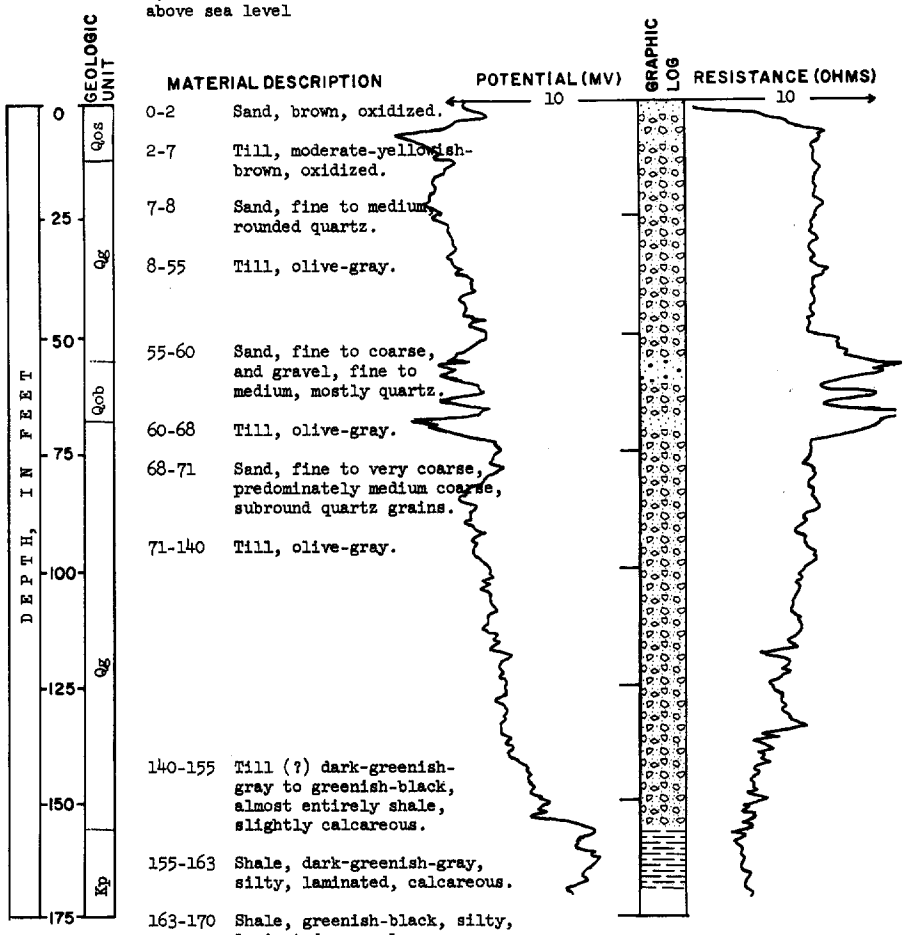
Foster County TEST HOLE 3058

LOCATION: 146-66-2bbb

DATE DRILLED: August 14, 1963

ELEVATION: 1,525 feet
above sea level

DEPTH: 170 feet



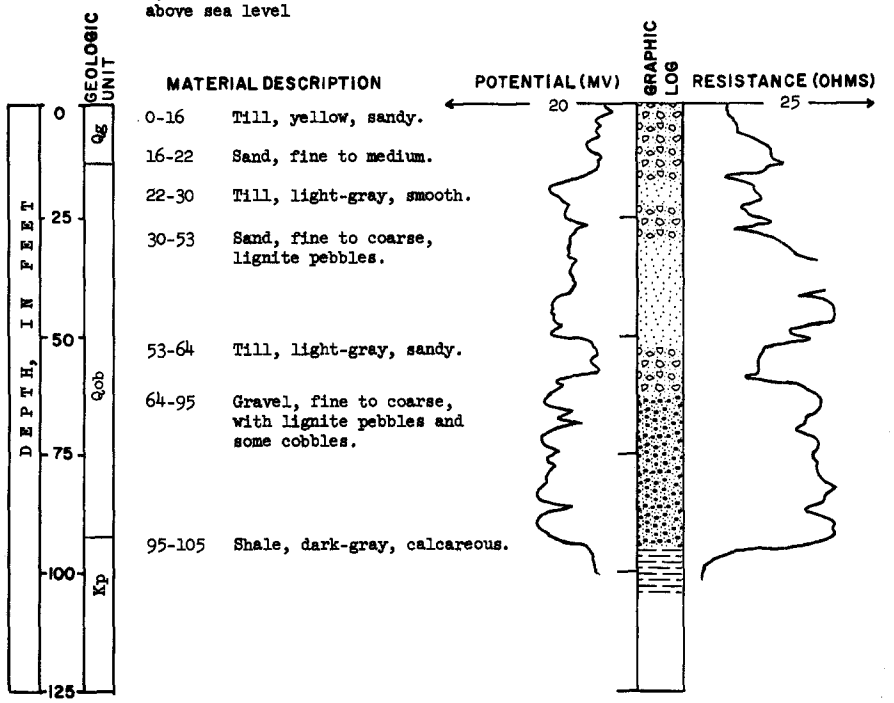
TEST HOLE 1270

LOCATION: Foster County 146-66-6adc

DATE DRILLED: December 16, 1957

ELEVATION: 1,570 feet above sea level

DEPTH: 105 feet



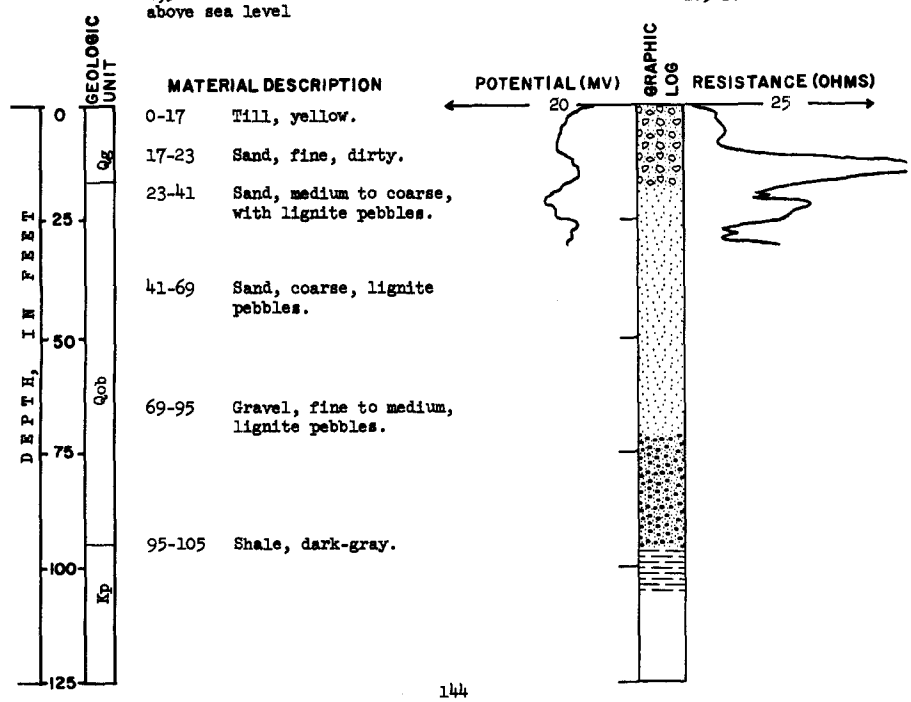
TEST HOLE 1271

LOCATION: Foster County 146-66-6ddd3

DATE DRILLED: December 20, 1957

ELEVATION: 1,562 feet above sea level

DEPTH: 105 feet



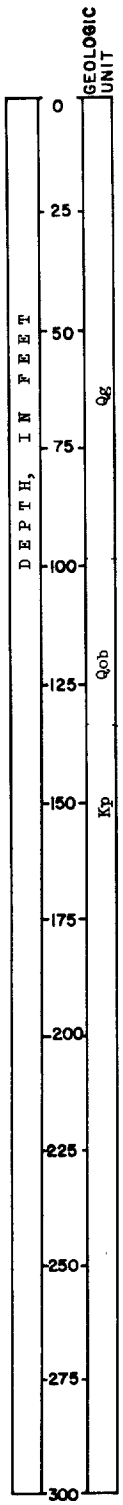
TEST HOLE 1470

LOCATION: Foster County
146-66-12bbb

DATE DRILLED: March 27, 1959

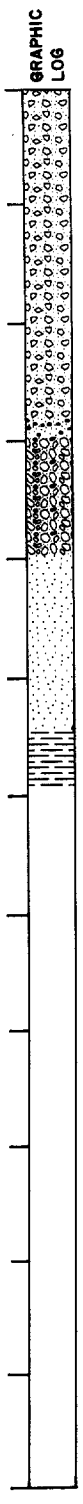
ELEVATION: 1,525 feet
above sea level

DEPTH: 147 feet



MATERIAL DESCRIPTION

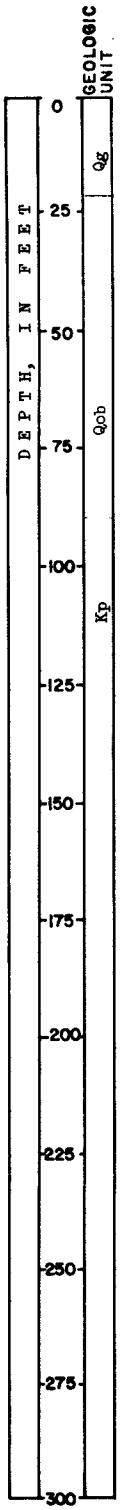
0-14	Till, mottled buff to orange-brown, highly oxidized.
14-70	Till, dark-olive-gray, slightly oxidized.
70-74	Gravel, fine, largely shale with lignite fragments, very dirty.
74-99	Till, gray, very gravelly, fine gravel, largely shale, with lignite fragments.
99-105	Sand, fine, largely shale grains with lignite fragments.
105-135	Sand, fine to coarse, as above.
135-147	Shale, gray, soft, and shale, blue, dense.



LOCATION: 146-66-18ada1
City of Carrington
ELEVATION: 1,571 feet
above sea level

DATE DRILLED: July 25, 1958
DEPTH: 94 feet

Driller's log



	MATERIAL DESCRIPTION
0-12	Clay, yellow.
12-22	Till, yellow, with boulders.
22-25	Gravel, lignite.
25-31	Sand, fine.
31-47	Gravel, lignite, with lenses of sand below 35 feet.
47-52	Sand, medium.
52-57	Sand, fine.
57-70	Gravel, lignite; with traces of fine sand.
70-74	Gravel, lignite.
74-88	Sand, medium.
88-91	Gravel, lignite; and sand.
91-94	Shale.

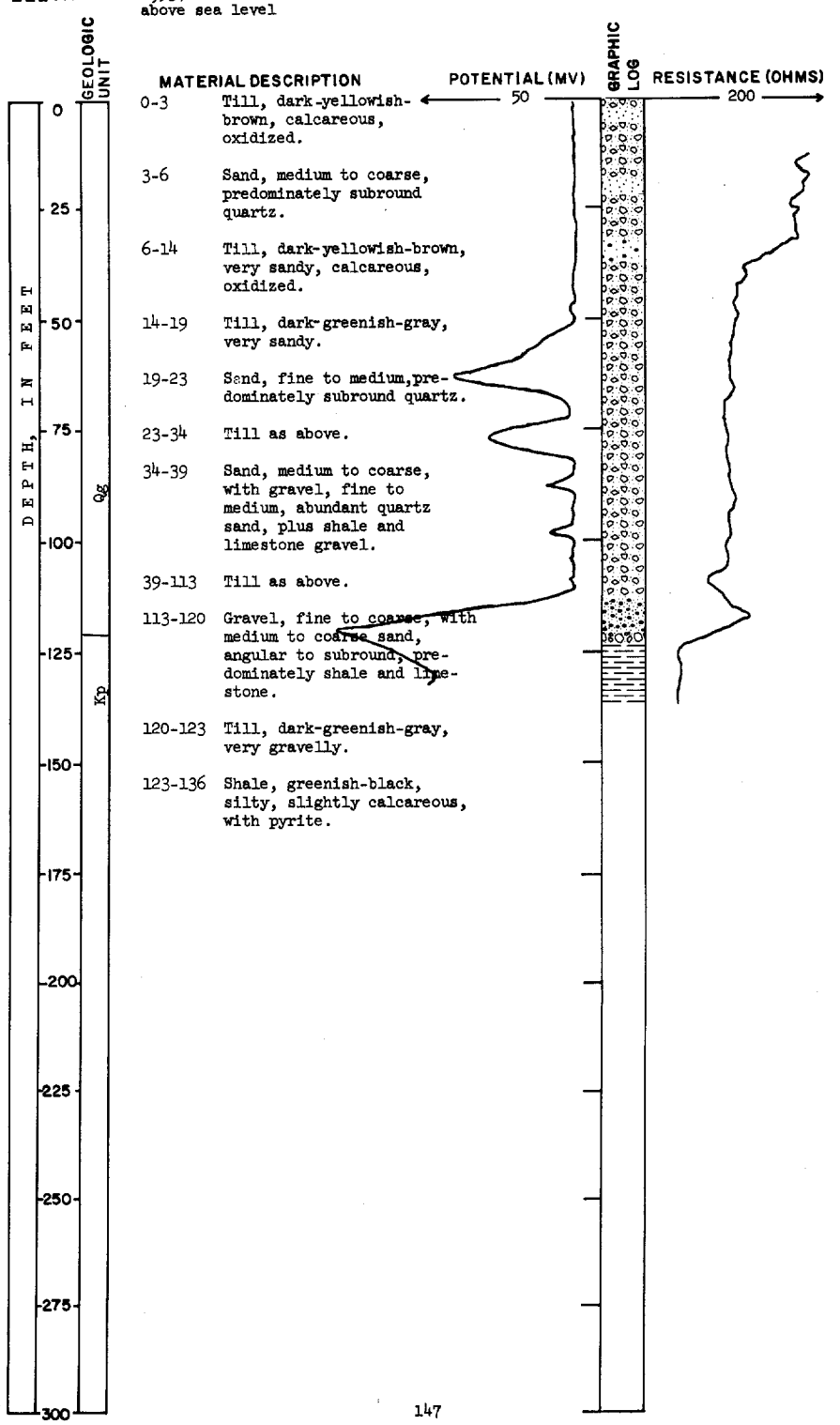
TEST HOLE 3070

LOCATION: Foster County 146-66-24bbb

DATE DRILLED: August 27, 1963

ELEVATION: 1,537 feet above sea level

DEPTH: 136 feet



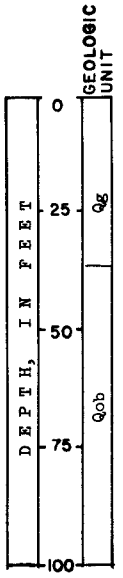
LOCATION: Foster County
146-67-1acc
Marie Harmon TH

ELEVATION: 1,568 feet
above sea level

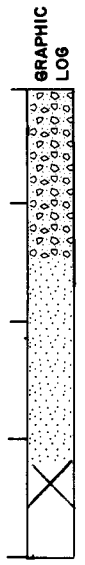
DATE DRILLED: 1953

DEPTH: 90 feet

Driller's log



MATERIAL DESCRIPTION	
1-3	Black dirt.
3-28	Clay.
28-35	Wet clay.
35-80	Sand, water-bearing.
80-90	No report.



146-67-3ddd
Test hole 1473

Foster County

Elevation: 1,580 feet
above sea level

Material	Thickness	Depth
Topsoil, black, sandy.	2	2
Till, yellow-buff, sandy, mottled and oxidized; gravel, fine to coarse; shale pebbles.	12	14
Till, sandy, light gray; gravel, fine to medium; shale pebbles.	9	23
Shale, brittle to fissile, blue-gray.	8.5	31.5

Foster County

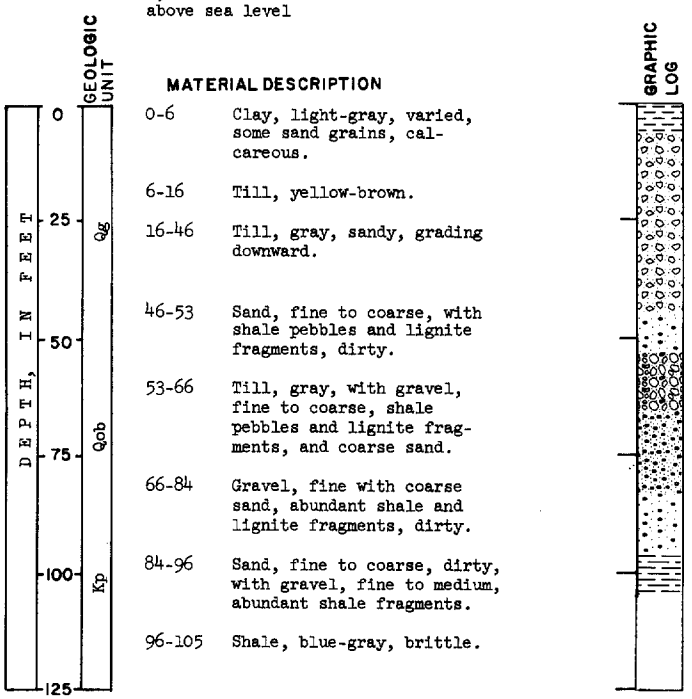
TEST HOLE 1474

LOCATION: 146-67-22aaa

DATE DRILLED: March 30, 1959

ELEVATION: 1,605 feet
above sea level

DEPTH: 105 feet



MATERIAL DESCRIPTION

0-6	Clay, light-gray, varied, some sand grains, calcareous.
6-16	Till, yellow-brown.
16-46	Till, gray, sandy, grading downward.
46-53	Sand, fine to coarse, with shale pebbles and lignite fragments, dirty.
53-66	Till, gray, with gravel, fine to coarse, shale pebbles and lignite fragments, and coarse sand.
66-84	Gravel, fine with coarse sand, abundant shale and lignite fragments, dirty.
84-96	Sand, fine to coarse, dirty, with gravel, fine to medium, abundant shale fragments.
96-105	Shale, blue-gray, brittle.

146-67-26bbb
Test hole 1475

Foster County

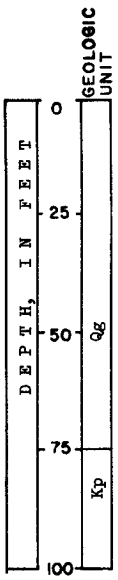
Elevation: 1,607 feet
above sea level

Material	Thickness	Depth
Till, yellow, sandy, oxidized.	16	16
Till, light-gray, gravelly.	6	22
Shale, blue-gray, brittle.	9.5	31.5

LOCATION: Foster County 146-67-33dcb
ELEVATION: LeRoy Butts 1,595 feet above sea level

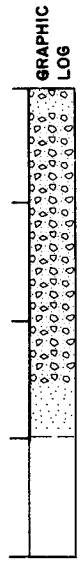
DATE DRILLED: 1960
DEPTH: 75 feet

Driller's log



MATERIAL DESCRIPTION

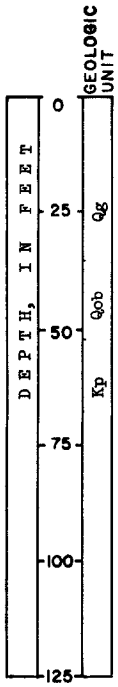
0-1	Black dirt.
1-3	Yellow clay.
3-5	Fine sand.
5-65	Blue clay.
65-75	Muddy sand.
75-	Shale.



TEST HOLE 2277

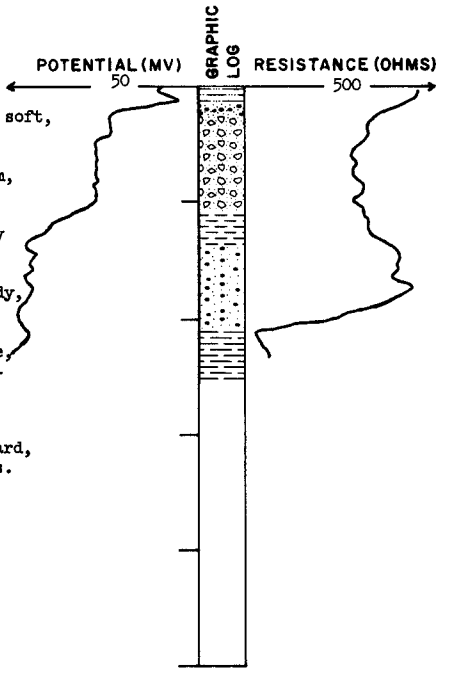
LOCATION: Foster County 147-62-10abb
ELEVATION: 1,504 feet above sea level

DATE DRILLED: July 22, 1964
DEPTH: 63 feet



MATERIAL DESCRIPTION

0-4	Silt, dusky-yellow to moderate-olive-brown, soft, calcareous.
4-7	Gravel, fine to medium, sandy, oxidized.
7-26	Till, olive-gray, very silty, unoxidized.
26-34	Clay, olive-gray, sandy, calcareous.
34-52	Sand, medium to coarse, with fine gravel, sub-angular to subround, taking water.
52-63	Shale, olive-black, hard, brittle, noncalcareous.



TEST HOLE 3052

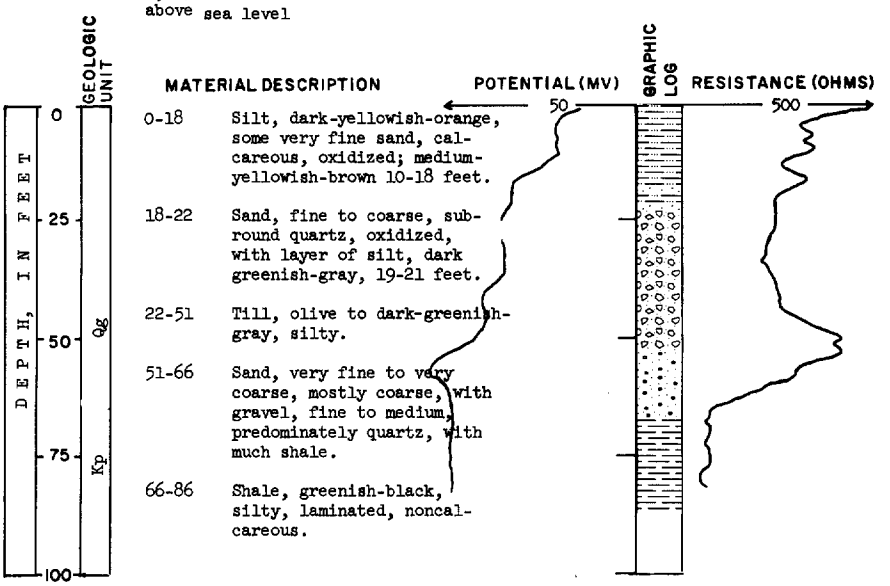
Foster County

LOCATION: 147-62-14abc

DATE DRILLED: August 8, 1963

ELEVATION: 1,515 feet above sea level

DEPTH: 86 feet



MATERIAL DESCRIPTION

0-18	Silt, dark-yellowish-orange, some very fine sand, calcareous, oxidized; medium-yellowish-brown 10-18 feet.
18-22	Sand, fine to coarse, subround quartz, oxidized, with layer of silt, dark greenish-gray, 19-21 feet.
22-51	Till, olive to dark-greenish-gray, silty.
51-66	Sand, very fine to very coarse, mostly coarse, with gravel, fine to medium, predominately quartz, with much shale.
66-86	Shale, greenish-black, silty, laminated, noncalcareous.

TEST HOLE 3053

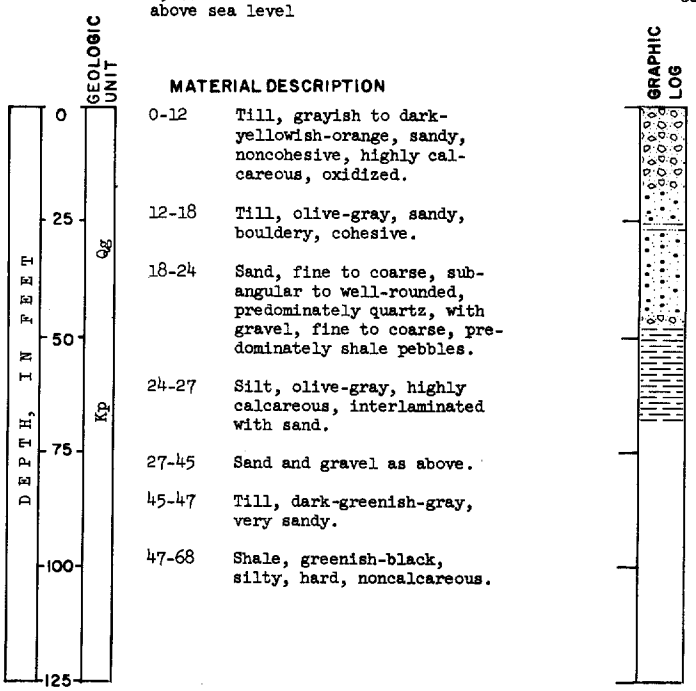
Foster County

LOCATION: 147-62-22ddd

DATE DRILLED: August 9, 1963

ELEVATION: 1,473 feet above sea level

DEPTH: 68 feet



MATERIAL DESCRIPTION

0-12	Till, grayish to dark-yellowish-orange, sandy, noncohesive, highly calcareous, oxidized.
12-18	Till, olive-gray, sandy, bouldery, cohesive.
18-24	Sand, fine to coarse, subangular to well-rounded, predominately quartz, with gravel, fine to coarse, predominately shale pebbles.
24-27	Silt, olive-gray, highly calcareous, interlaminated with sand.
27-45	Sand and gravel as above.
45-47	Till, dark-greenish-gray, very sandy.
47-68	Shale, greenish-black, silty, hard, noncalcareous.

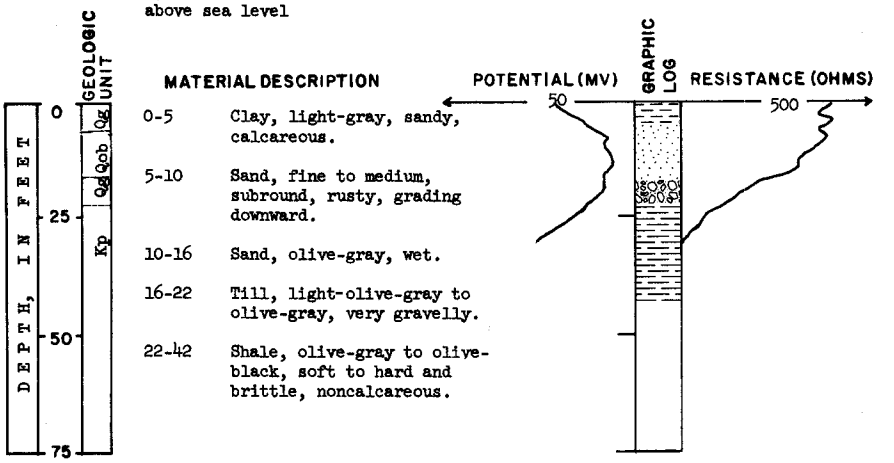
TEST HOLE 2267

LOCATION: Foster County 147-62-26add

DATE DRILLED: July 14, 1964

ELEVATION: 1,451 feet above sea level

DEPTH: 42 feet



0-5	Clay, light-gray, sandy, calcareous.
5-10	Sand, fine to medium, subround, rusty, grading downward.
10-16	Sand, olive-gray, wet.
16-22	Till, light-olive-gray to olive-gray, very gravelly.
22-42	Shale, olive-gray to olive-black, soft to hard and brittle, noncalcareous.

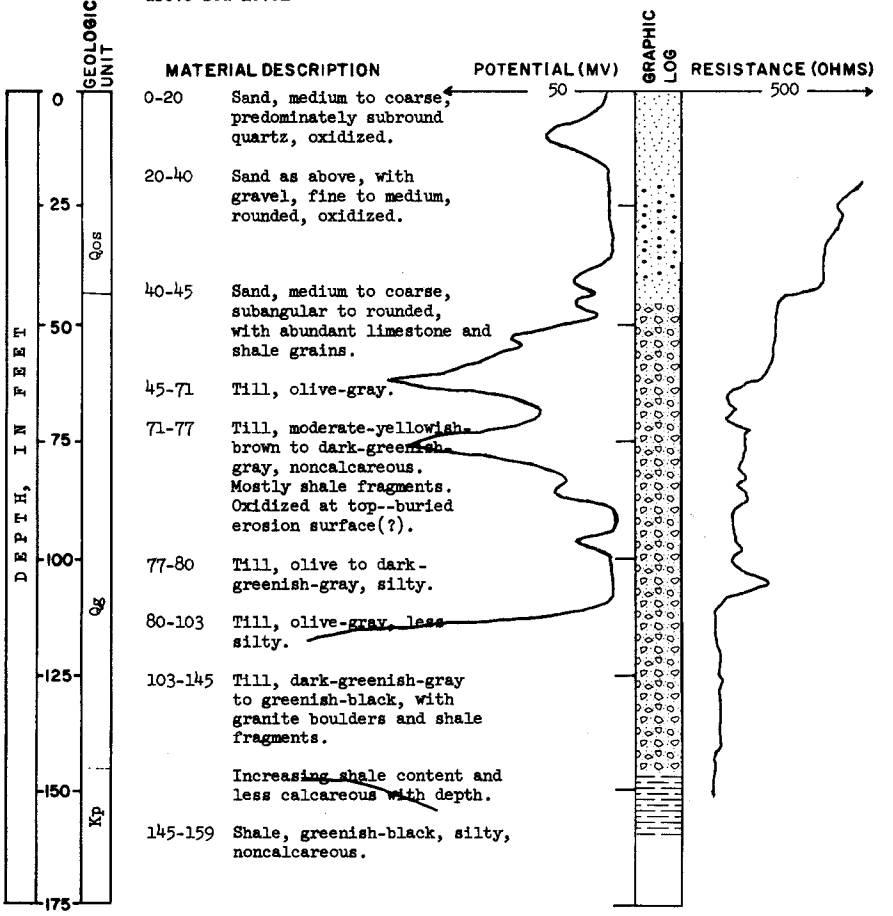
TEST HOLE 3074

LOCATION: Foster County 147-63-4ccc

DATE DRILLED: August 30, 1953

ELEVATION: 1,490 feet above sea level

DEPTH: 159 feet



0-20	Sand, medium to coarse, predominately subround quartz, oxidized.
20-40	Sand as above, with gravel, fine to medium, rounded, oxidized.
40-45	Sand, medium to coarse, subangular to rounded, with abundant limestone and shale grains.
45-71	Till, olive-gray.
71-77	Till, moderate-yellowish-brown to dark-greenish-gray, noncalcareous. Mostly shale fragments. Oxidized at top--buried erosion surface(?).
77-80	Till, olive to dark-greenish-gray, silty.
80-103	Till, olive-gray, less silty.
103-145	Till, dark-greenish-gray to greenish-black, with granite boulders and shale fragments. Increasing shale content and less calcareous with depth.
145-159	Shale, greenish-black, silty, noncalcareous.

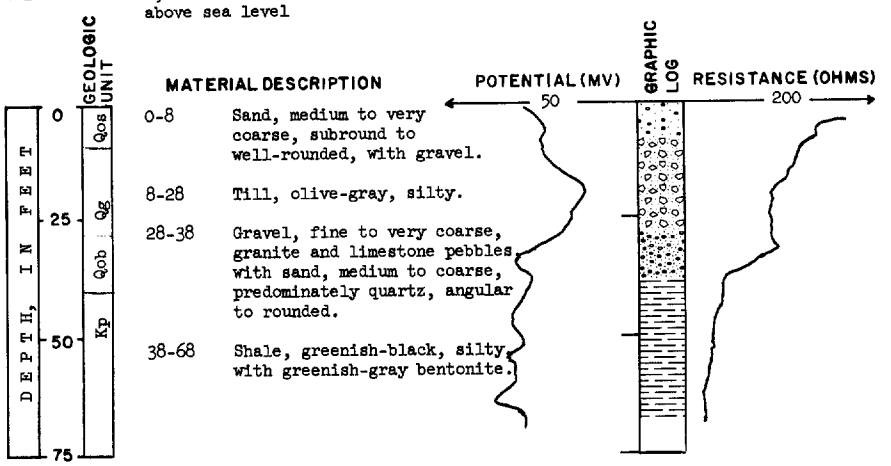
TEST HOLE 3073

LOCATION: Foster County 147-63-6cbc

DATE DRILLED: August 30, 1963

ELEVATION: 1,484 feet above sea level

DEPTH: 68 feet



0-8 Sand, medium to very coarse, subround to well-rounded, with gravel.

8-28 Till, olive-gray, silty.

28-38 Gravel, fine to very coarse, granite and limestone pebbles, with sand, medium to coarse, predominately quartz, angular to rounded.

38-68 Shale, greenish-black, silty, with greenish-gray bentonite.

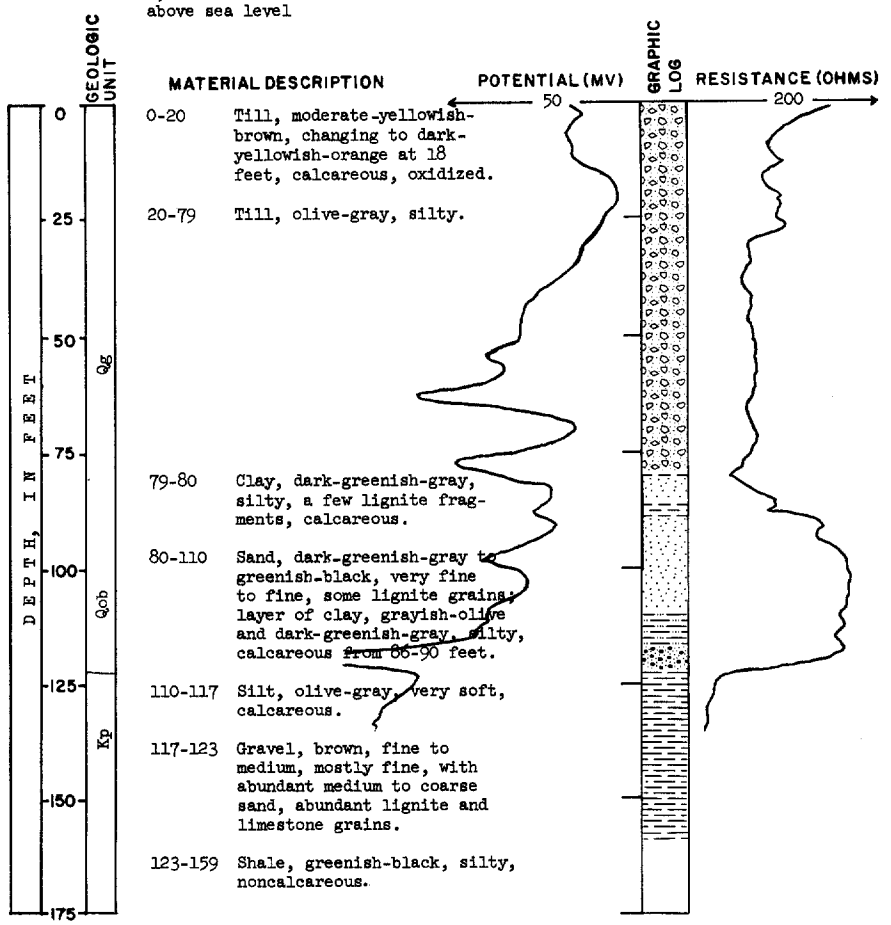
TEST HOLE 3057

LOCATION: Foster County 147-63-20ccc

DATE DRILLED: August 13, 1963

ELEVATION: 1,515 feet above sea level

DEPTH: 159 feet



0-20 Till, moderate-yellowish-brown, changing to dark-yellowish-orange at 18 feet, calcareous, oxidized.

20-79 Till, olive-gray, silty.

79-80 Clay, dark-greenish-gray, silty, a few lignite fragments, calcareous.

80-110 Sand, dark-greenish-gray to greenish-black, very fine to fine, some lignite grains; layer of clay, grayish-olive and dark-greenish-gray, silty, calcareous from 86-90 feet.

110-117 Silt, olive-gray, very soft, calcareous.

117-123 Gravel, brown, fine to medium, mostly fine, with abundant medium to coarse sand, abundant lignite and limestone grains.

123-159 Shale, greenish-black, silty, noncalcareous.

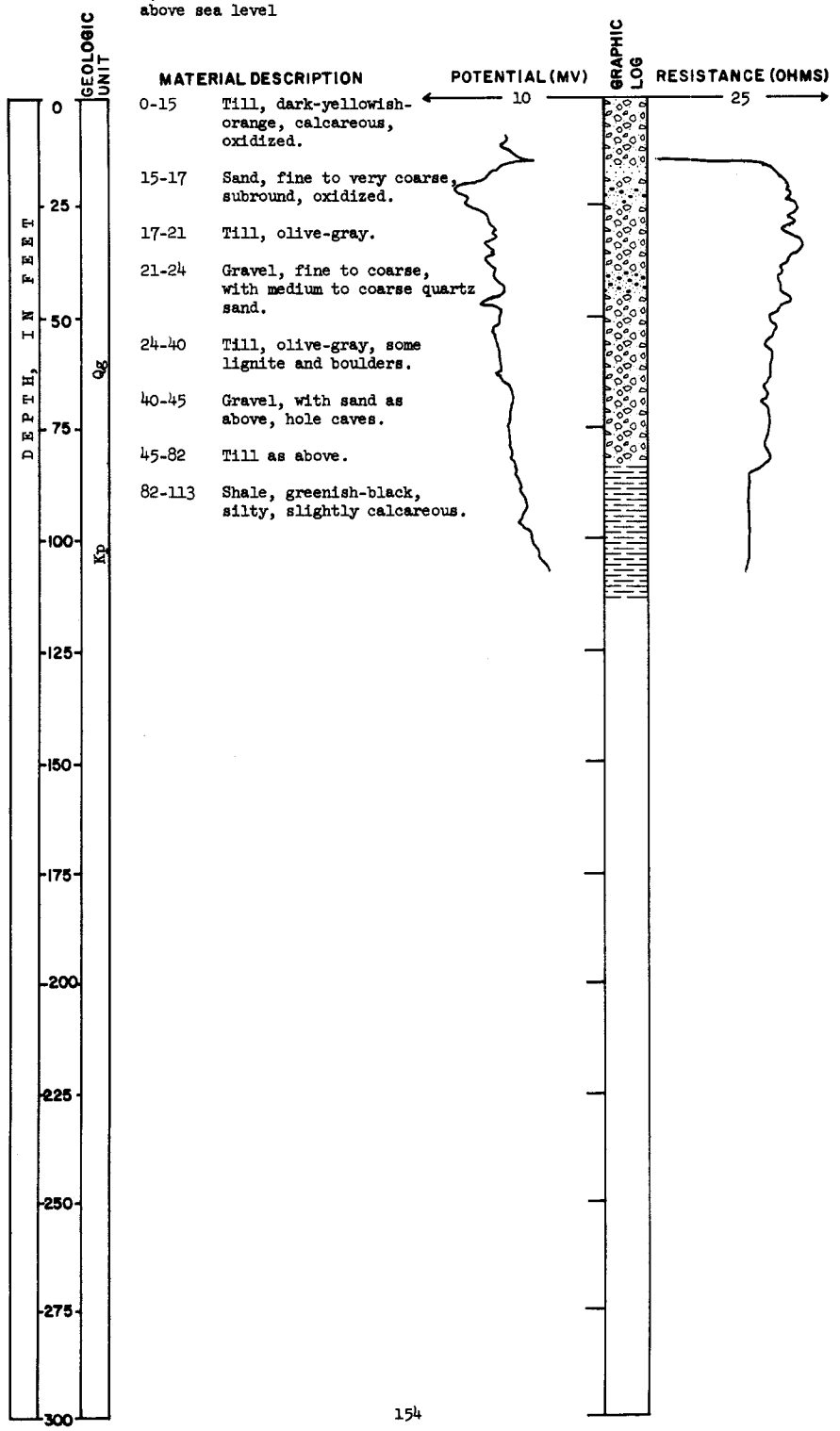
Foster County TEST HOLE 3056

LOCATION: 147-63-25bbb

DATE DRILLED: August 12, 1963

ELEVATION: 1,513 feet above sea level

DEPTH: 113 feet



	MATERIAL DESCRIPTION
0-15	Till, dark-yellowish-orange, calcareous, oxidized.
15-17	Sand, fine to very coarse, subround, oxidized.
17-21	Till, olive-gray.
21-24	Gravel, fine to coarse, with medium to coarse quartz sand.
24-40	Till, olive-gray, some lignite and boulders.
40-45	Gravel, with sand as above, hole caves.
45-82	Till as above.
82-113	Shale, greenish-black, silty, slightly calcareous.

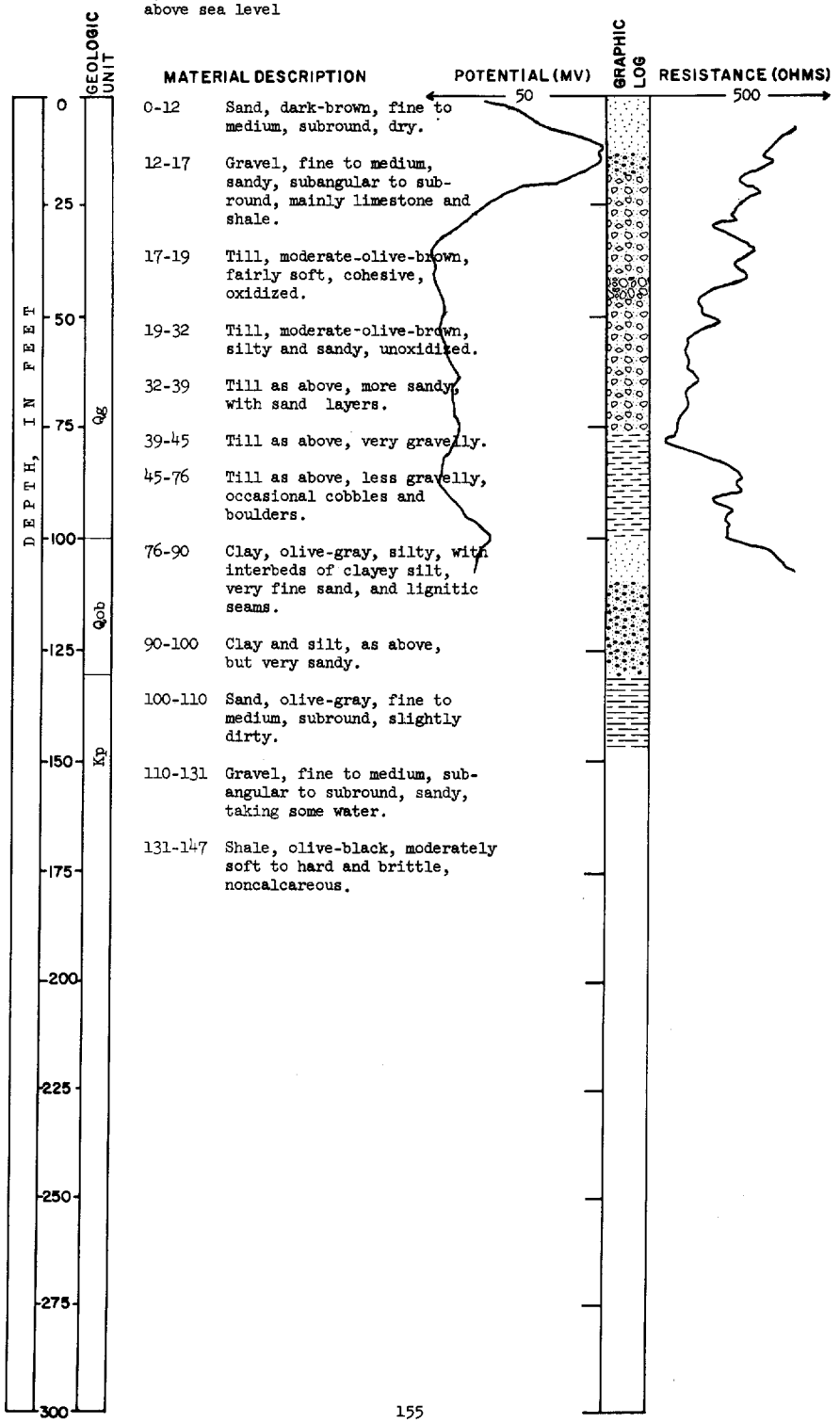
TEST HOLE 2268

LOCATION: Foster County 147-63-27ccd

DATE DRILLED: July 14, 1964

ELEVATION: 1,510 feet above sea level

DEPTH: 147 feet



	MATERIAL DESCRIPTION
0-12	Sand, dark-brown, fine to medium, subround, dry.
12-17	Gravel, fine to medium, sandy, subangular to subround, mainly limestone and shale.
17-19	Till, moderate-olive-brown, fairly soft, cohesive, oxidized.
19-32	Till, moderate-olive-brown, silty and sandy, unoxidized.
32-39	Till as above, more sandy, with sand layers.
39-45	Till as above, very gravelly.
45-76	Till as above, less gravelly, occasional cobbles and boulders.
76-90	Clay, olive-gray, silty, with interbeds of clayey silt, very fine sand, and lignitic seams.
90-100	Clay and silt, as above, but very sandy.
100-110	Sand, olive-gray, fine to medium, subround, slightly dirty.
110-131	Gravel, fine to medium, subangular to subround, sandy, taking some water.
131-147	Shale, olive-black, moderately soft to hard and brittle, noncalcareous.

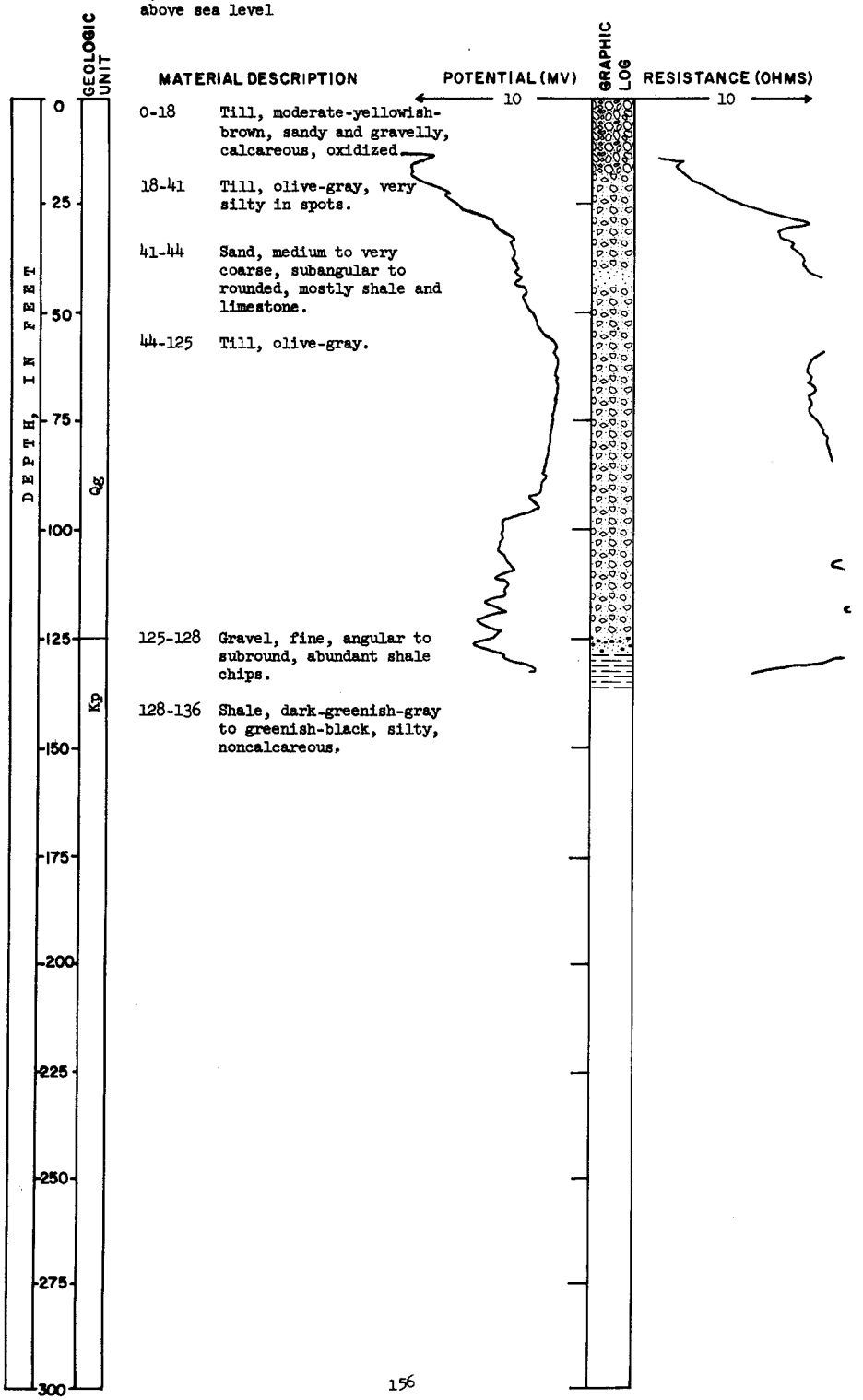
Foster County TEST HOLE 3055

LOCATION: 147-63-35ddd

DATE DRILLED: August 12, 1963

ELEVATION: 1,502 feet above sea level

DEPTH: 136 feet



147-64- 2bbb
U.S. Bureau of Reclamation
Foster County Test hole 6S-11E

Elevation: 1,518 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Fine sandy loam.	2	2
Clay loam.	3	5
Loam and silty clay.	4	9
Silt.	4	13
Fine sand.	4	17

147-64- 8bbb
U.S. Bureau of Reclamation
Foster County Test hole 7S-8E

Elevation: 1,517 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Silty loam.	1	1
Clay loam.	3	4
Silty clay loam.	1	5
Medium clay.	4	9
Fine sandy loam.	5	14
Sandy clay.	2	16
Heavy clay.	2	18

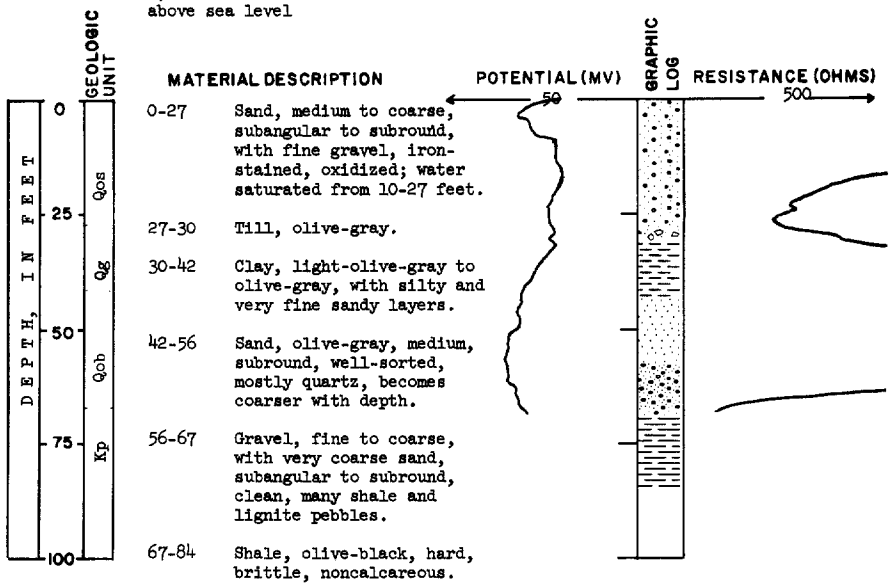
TEST HOLE 2261

LOCATION: Foster County 147-64-25add

DATE DRILLED: July 8, 1964

ELEVATION: 1,458 feet above sea level

DEPTH: 84 feet



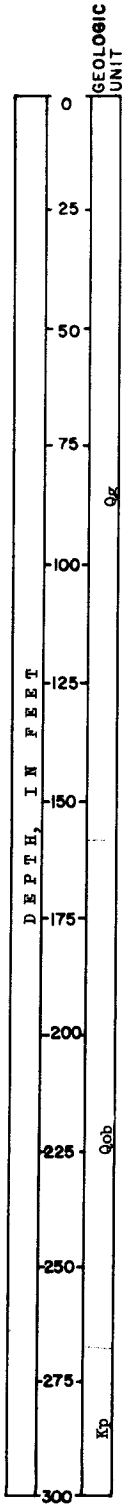
Foster County **TEST HOLE** B2

LOCATION: 147-65-2bcc

DATE DRILLED: September 18, 1947

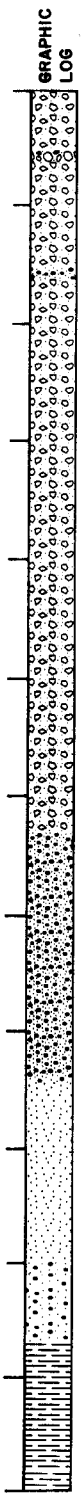
ELEVATION: 1,516 feet above sea level

DEPTH: 299 feet



MATERIAL DESCRIPTION

0-15	Till, yellow, clayey; sandy and gravelly 12-15 feet, oxidized.
15-37	Till, as above, but gray, unoxidized.
37-39	Gravel.
39-156	Till, gray, unoxidized.
156-210	Gravel, clayey and sandy.
210-250	Sand, coarse, clayey, some pebbles.
250-269	Sand as above, but cleaner, gravelly.
269-299	Shale, partly clay.



LOCATION: Foster County
147-65-3a

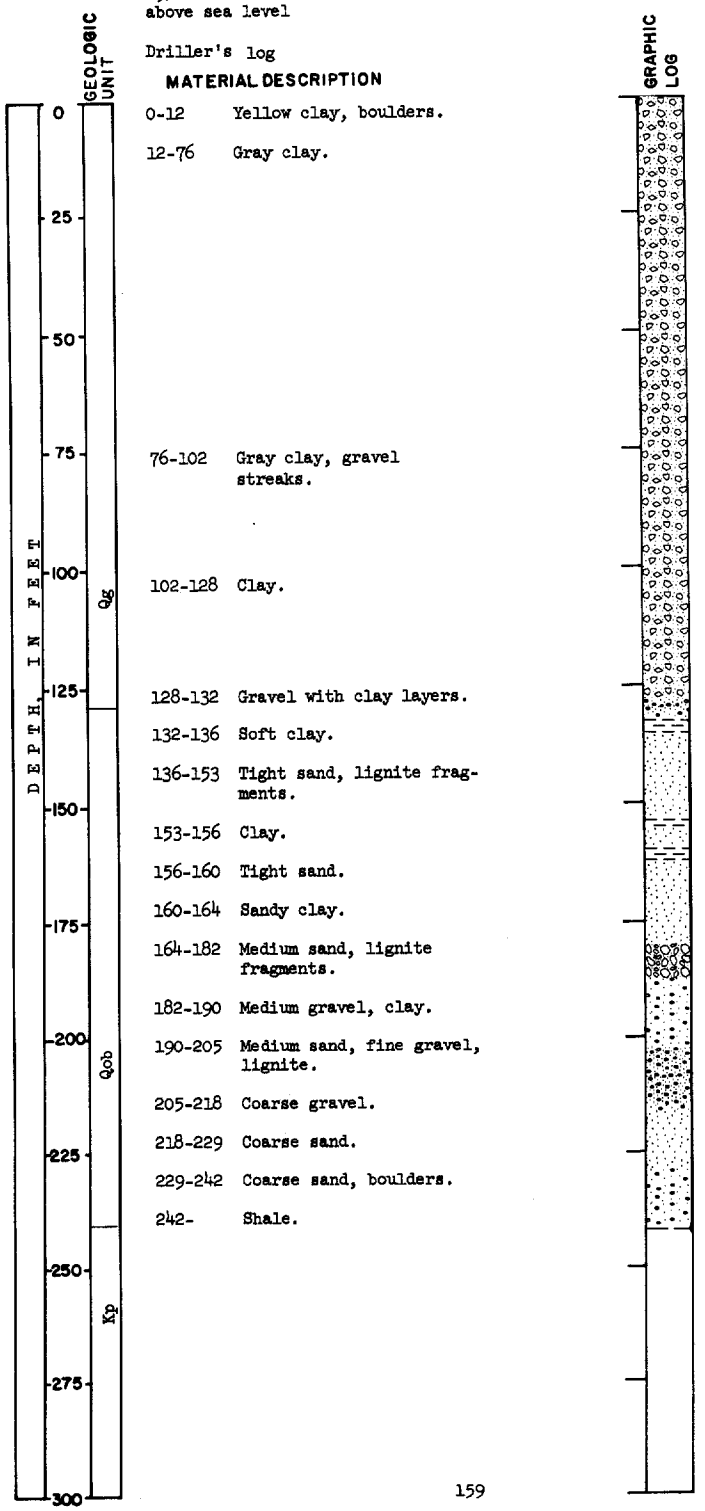
ELEVATION: C. Klein TH 1
1,521 feet
above sea level

DATE DRILLED: 1961

DEPTH: 242 feet

Driller's log

	MATERIAL DESCRIPTION
0-12	Yellow clay, boulders.
12-76	Gray clay.
76-102	Gray clay, gravel streaks.
102-128	Clay.
128-132	Gravel with clay layers.
132-136	Soft clay.
136-153	Tight sand, lignite fragments.
153-156	Clay.
156-160	Tight sand.
160-164	Sandy clay.
164-182	Medium sand, lignite fragments.
182-190	Medium gravel, clay.
190-205	Medium sand, fine gravel, lignite.
205-218	Coarse gravel.
218-229	Coarse sand.
229-242	Coarse sand, boulders.
242-	Shale.



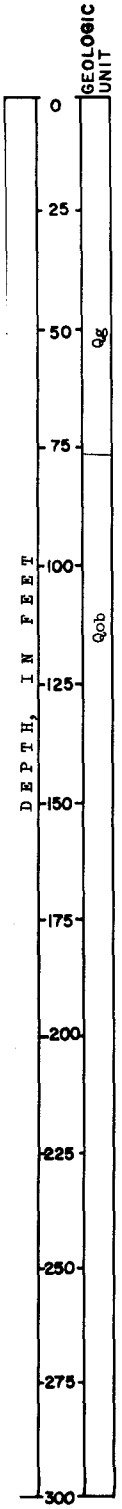
LOCATION: Foster County
147-65-3d
C. Klein, TH 3

ELEVATION: 1,519 feet
above sea level

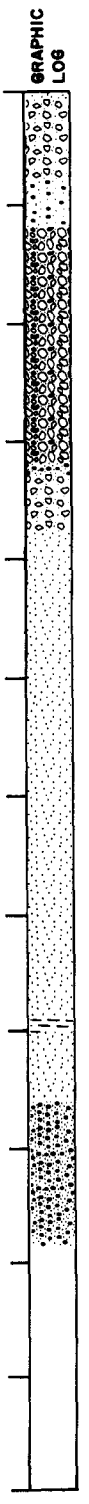
DATE DRILLED: December 1961

DEPTH: 246 feet

Driller's log



	MATERIAL DESCRIPTION
0-6	Sand, yellow clay.
6-18	Yellow clay, gravel streak.
18-27	Coarse sand, gravel.
27-76	Gray clay, gravel.
76-79	Gravel.
79-92	Gray clay.
92-150	Fine gray sand.
150-198	Medium sand.
198-200	Clay.
200-215	Medium to coarse sand, with lignite fragments 200-205 feet.
215-220	Coarse gravel.
220-230	Coarse sand, gravel.
230-240	Coarse sand, boulders.
240-246	Gravel, boulders.



Foster County

LOCATION: 147-65-11aaa

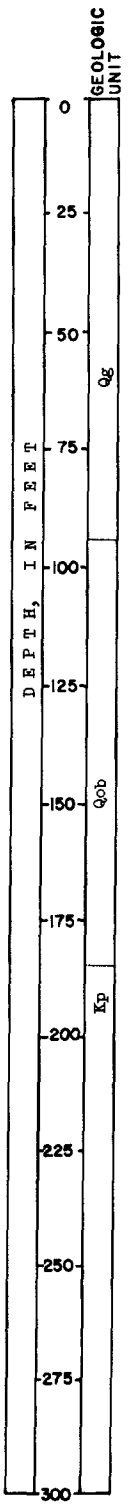
DATE DRILLED: May 26, 1962

ELEVATION: 1,517 feet above sea level

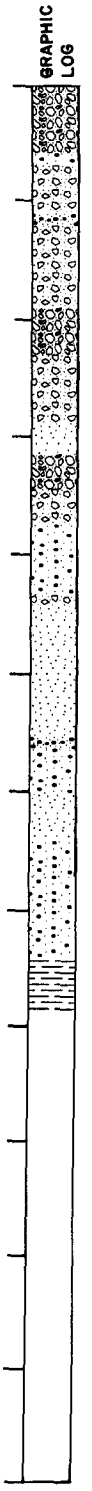
DEPTH: 196 feet

A. Utke

Driller's log



	MATERIAL DESCRIPTION
0-14	Yellow sandy clay, gravel.
14-16.	Medium blue sand, gravel.
16-27	Gray clay, rock ledges.
27-29	Medium gravel, shale chips.
29-47	Hard clay with rocks.
47-58	Clay, rock chips, some gravel.
58-72	Clay.
72-78	Medium sand.
78-86	Clay, shale chips, gravel.
86-89	Boulders.
89-94	Clay.
94-109	Medium sand, clay, gravel.
109-111	Clay.
111-138	Tight sand with lignite chips.
138-141	Shale chips, sand.
141-151	Medium sand, shale chips, gravel.
151-160	Medium sand, lignite fragments.
160-172	Medium sand, chips, fine gravel.
172-184	Fine sand, lignite and shale chips.
184-186	Medium sand, boulders.
186-196	Shale.



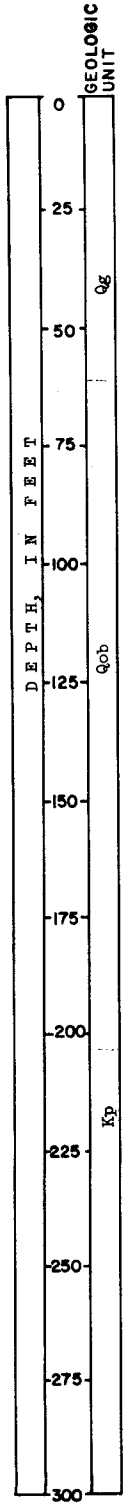
TEST HOLE B4

LOCATION: Foster County 147-65-11cbb

DATE DRILLED: September 26,1947

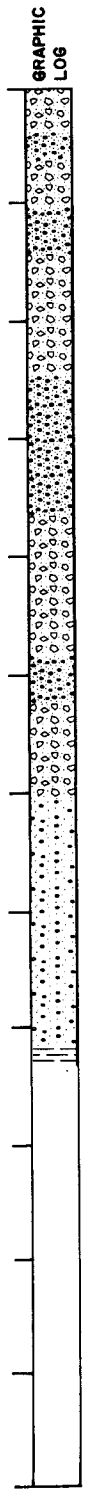
ELEVATION: 1,478 feet above sea level

DEPTH: 207 feet



MATERIAL DESCRIPTION

0-9	Clay, black and brown (till?).
9-15	Gravel, gray, clayey, sandy.
15-25	Till, gray, clayey.
25-35	Gravel, gray, clayey.
35-61	Till, gray, clayey.
61-70	Gravel, gray, fairly clean to sandy; very clean 65-70 feet.
70-85	Gravel, gray, dirty, much lignite and woody fragments.
85-90	Gravel, gray, clayey.
90-120	Till, gray, clayey.
120-130	Gravel, gray, sandy, dirty, abundant lignite and shale fragments.
130-150	Till, gray, clayey.
150-203	Sand and gravel, good aquifer.
203-207	Shale. Does not show in samples, from driller's log.



Foster County

LOCATION: 147-66-9baa2

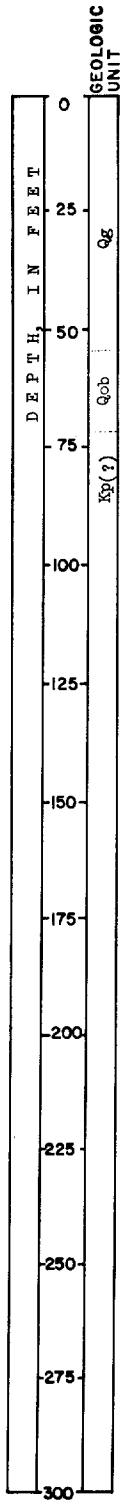
A. J. Mullenberg

ELEVATION: 1,541 feet above sea level

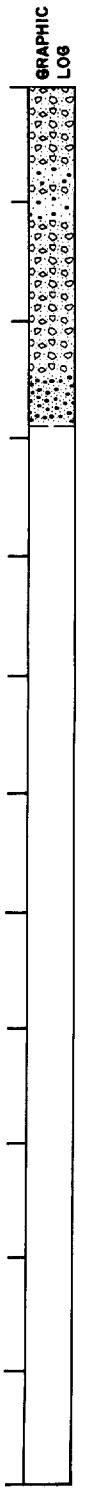
DATE DRILLED: October 20, 1962

DEPTH: 72 feet

Driller's log



	MATERIAL DESCRIPTION
0-9	Sandy yellow clay.
9-11	Yellow clay.
11-16	Clay.
16-20	Fine sand and medium gravel.
20-23	Clay.
23-28	Medium sand and some gravel.
28-62	Clay.
62-72	Medium to coarse gravel with slate chips and boulders.
72-	Clay (shale?).



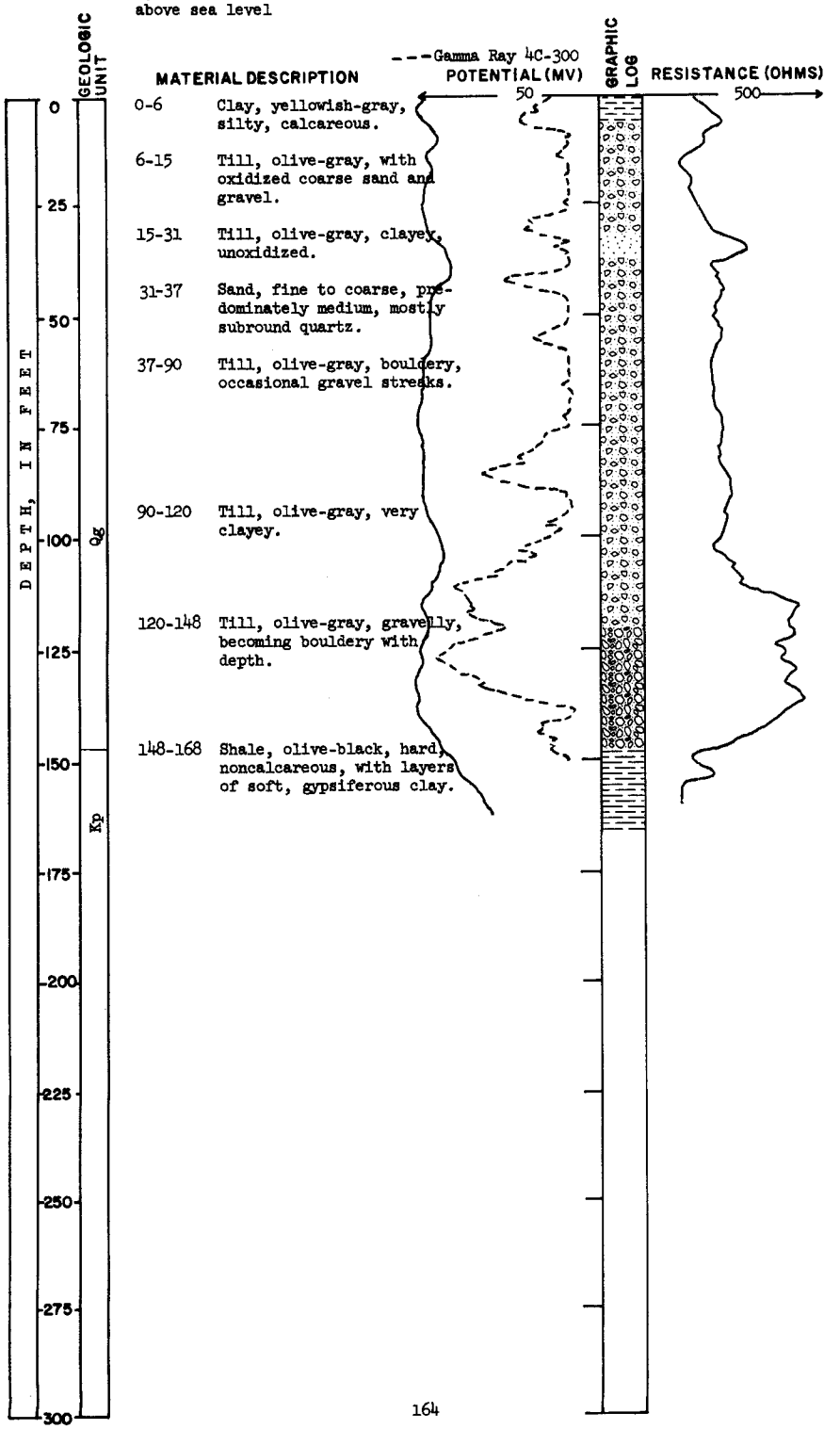
Foster County TEST HOLE 2259

LOCATION: 147-66-14ccc

DATE DRILLED: July 7, 1964

ELEVATION: 1,527 feet above sea level

DEPTH: 168 feet



TEST HOLE 1273

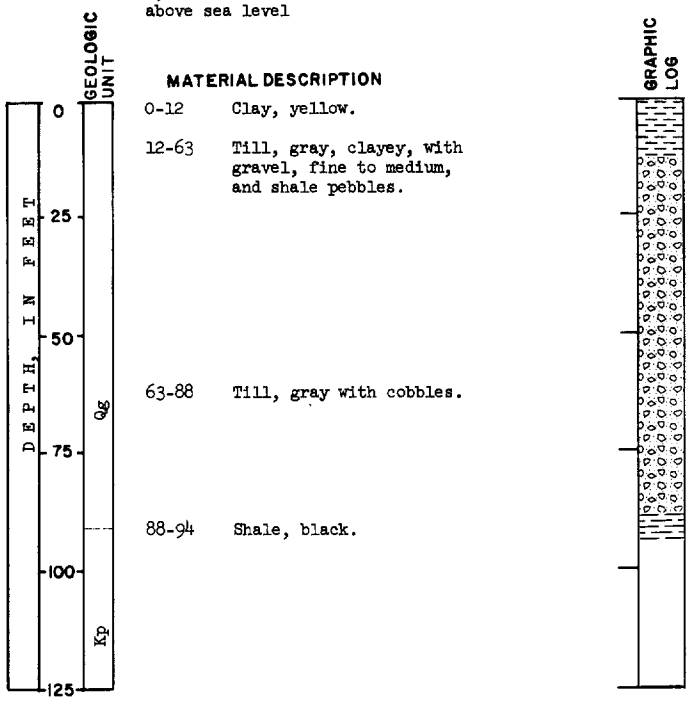
Foster County

LOCATION: 147-66-18aaa

DATE DRILLED: December 21, 1957

ELEVATION: 1,544 feet above sea level

DEPTH: 94 feet



MATERIAL DESCRIPTION

0-12	Clay, yellow.
12-63	Till, gray, clayey, with gravel, fine to medium, and shale pebbles.
63-88	Till, gray with cobbles.
88-94	Shale, black.

TEST HOLE 1272

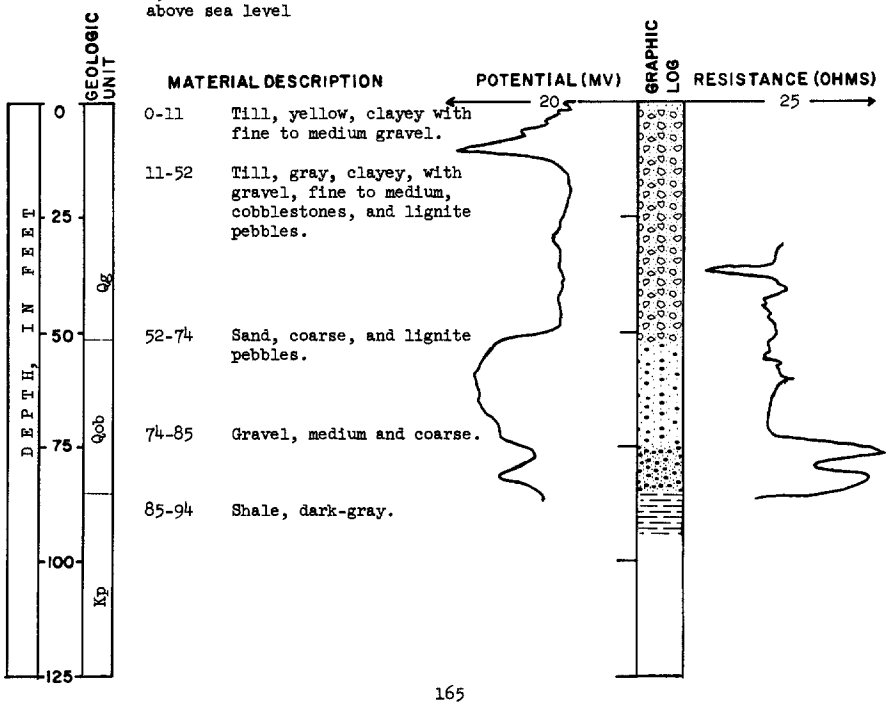
Foster County

LOCATION: 147-66-19aaa

DATE DRILLED: December 21, 1957

ELEVATION: 1,550 feet above sea level

DEPTH: 94 feet



MATERIAL DESCRIPTION

0-11	Till, yellow, clayey with fine to medium gravel.
11-52	Till, gray, clayey, with gravel, fine to medium, cobblestones, and lignite pebbles.
52-74	Sand, coarse, and lignite pebbles.
74-85	Gravel, medium and coarse.
85-94	Shale, dark-gray.

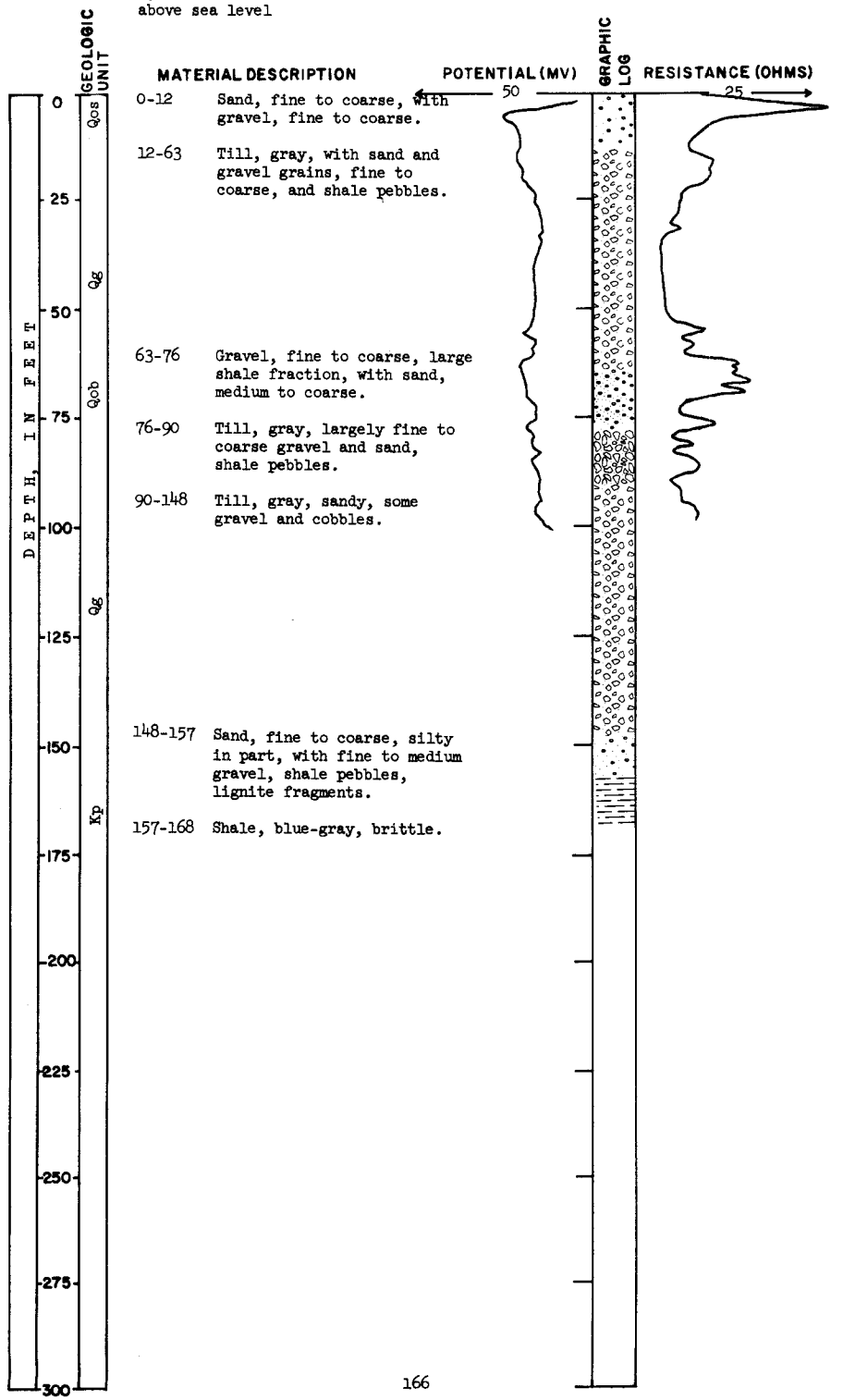
TEST HOLE 1469

LOCATION: Foster County 147-66-27ccd2

DATE DRILLED: March 26, 1959

ELEVATION: 1,530 feet above sea level

DEPTH: 168 feet



0-12 Sand, fine to coarse, with gravel, fine to coarse.

12-63 Till, gray, with sand and gravel grains, fine to coarse, and shale pebbles.

63-76 Gravel, fine to coarse, large shale fraction, with sand, medium to coarse.

76-90 Till, gray, largely fine to coarse gravel and sand, shale pebbles.

90-148 Till, gray, sandy, some gravel and cobbles.

148-157 Sand, fine to coarse, silty in part, with fine to medium gravel, shale pebbles, lignite fragments.

157-168 Shale, blue-gray, brittle.

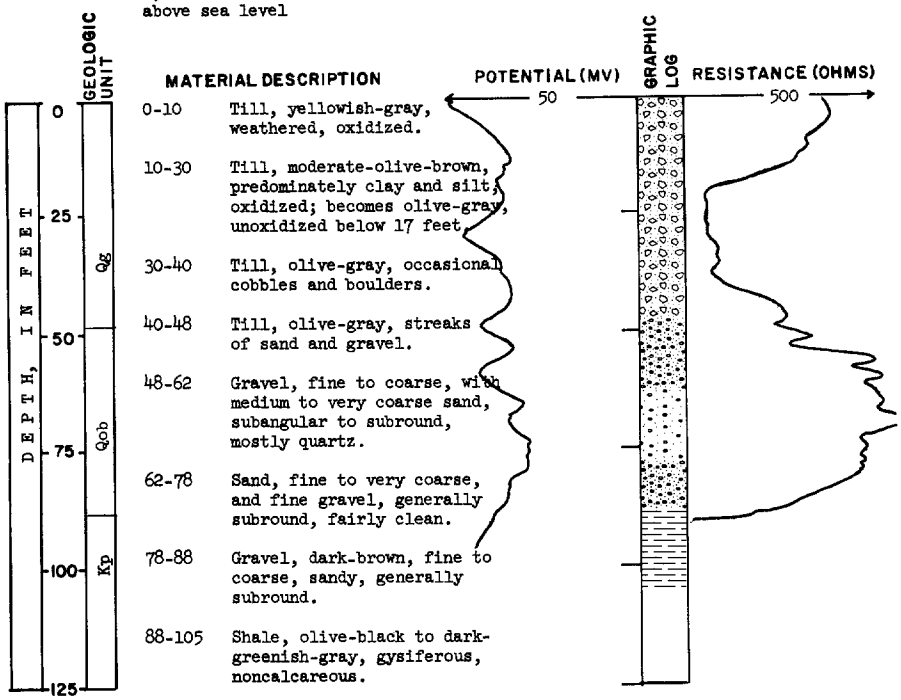
TEST HOLE 2258

LOCATION: Foster County 147-66-29ddd

DATE DRILLED: July 7, 1964

ELEVATION: 1,545 feet above sea level

DEPTH: 105 feet



0-10	Till, yellowish-gray, weathered, oxidized.
10-30	Till, moderate-olive-brown, predominately clay and silt, oxidized; becomes olive-gray, unoxidized below 17 feet.
30-40	Till, olive-gray, occasional cobbles and boulders.
40-48	Till, olive-gray, streaks of sand and gravel.
48-62	Gravel, fine to coarse, with medium to very coarse sand, subangular to subround, mostly quartz.
62-78	Sand, fine to very coarse, and fine gravel, generally subround, fairly clean.
78-88	Gravel, dark-brown, fine to coarse, sandy, generally subround.
88-105	Shale, olive-black to dark-greenish-gray, gysiferous, noncalcareous.

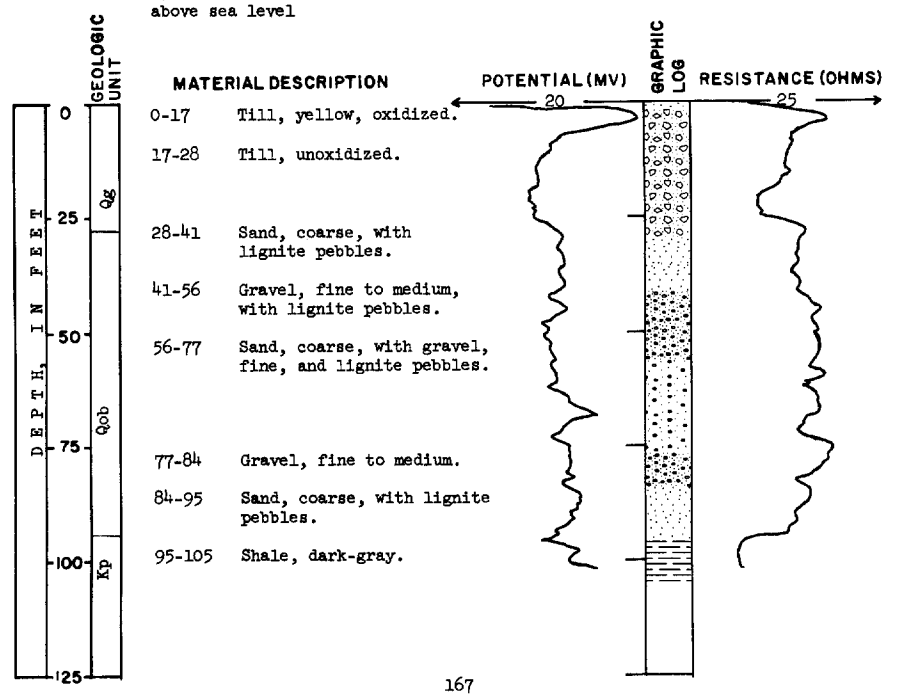
TEST HOLE 1268

LOCATION: Foster County 147-66-30aab

DATE DRILLED: December 14, 195

ELEVATION: 1,554 feet above sea level

DEPTH: 105 feet



0-17	Till, yellow, oxidized.
17-28	Till, unoxidized.
28-41	Sand, coarse, with lignite pebbles.
41-56	Gravel, fine to medium, with lignite pebbles.
56-77	Sand, coarse, with gravel, fine, and lignite pebbles.
77-84	Gravel, fine to medium.
84-95	Sand, coarse, with lignite pebbles.
95-105	Shale, dark-gray.

Foster County

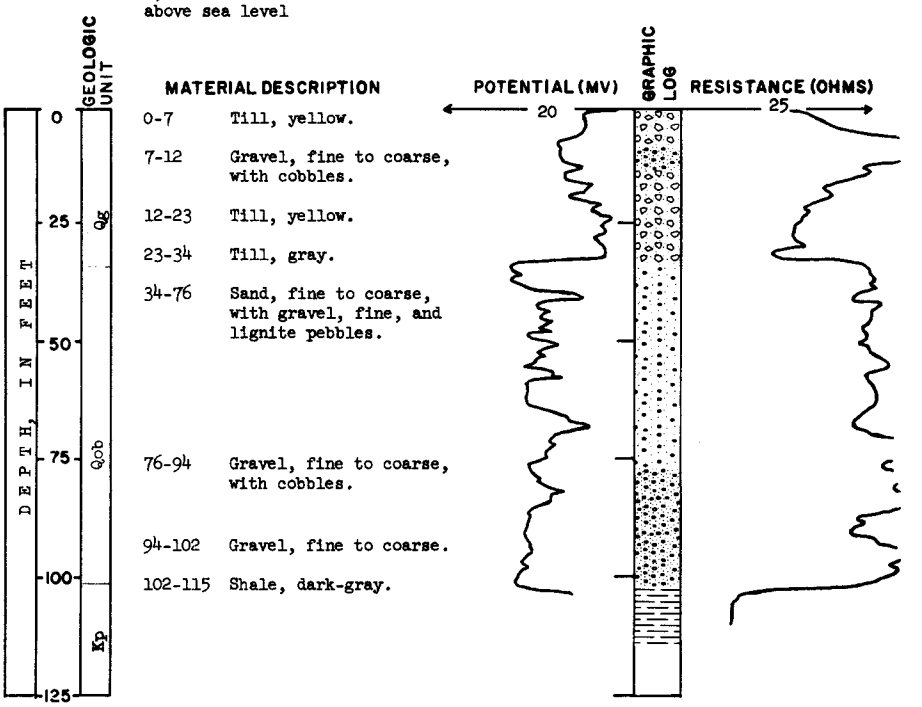
TEST HOLE 1267

LOCATION: 147-66-30dab

DATE DRILLED: December 13, 1957

ELEVATION: 1,563 feet above sea level

DEPTH: 115 feet



Foster County

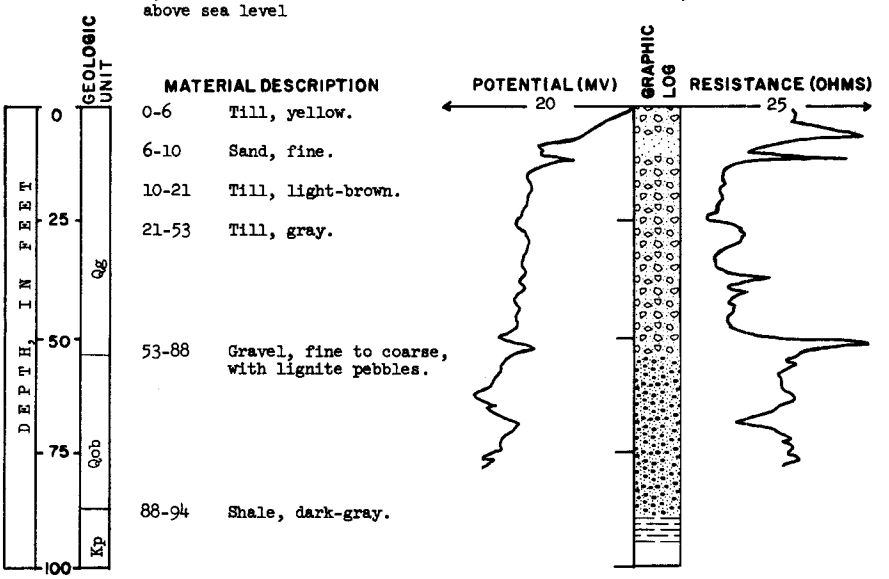
TEST HOLE 1266

LOCATION: 147-66-31aab

DATE DRILLED: December 12, 1957

ELEVATION: 1,553 feet above sea level

DEPTH: 94 feet

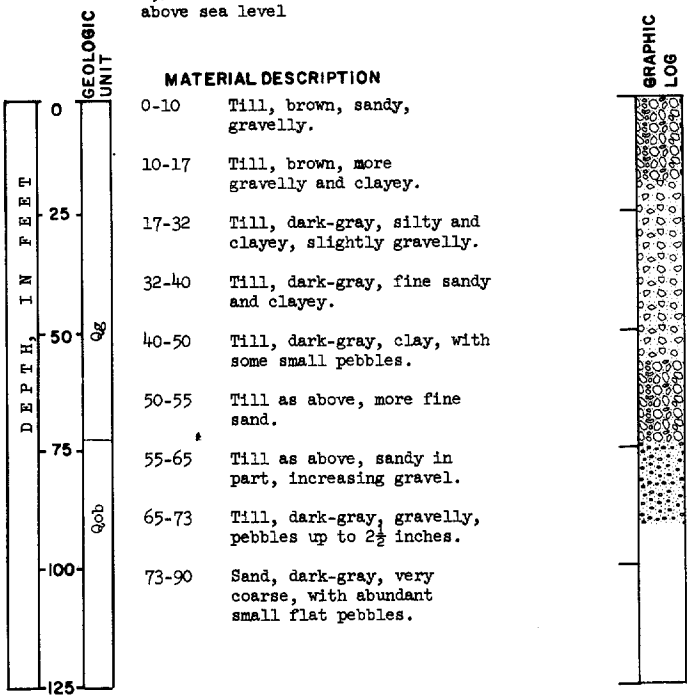


LOCATION: Foster County 147-66-31acc2
Carrington aquifer test 2

ELEVATION: 1,562 feet above sea level

DATE DRILLED: May 13, 1964

DEPTH: 90 feet



MATERIAL DESCRIPTION	
0-10	Till, brown, sandy, gravelly.
10-17	Till, brown, more gravelly and clayey.
17-32	Till, dark-gray, silty and clayey, slightly gravelly.
32-40	Till, dark-gray, fine sandy and clayey.
40-50	Till, dark-gray, clay, with some small pebbles.
50-55	Till as above, more fine sand.
55-65	Till as above, sandy in part, increasing gravel.
65-73	Till, dark-gray, gravelly, pebbles up to 2½ inches.
73-90	Sand, dark-gray, very coarse, with abundant small flat pebbles.

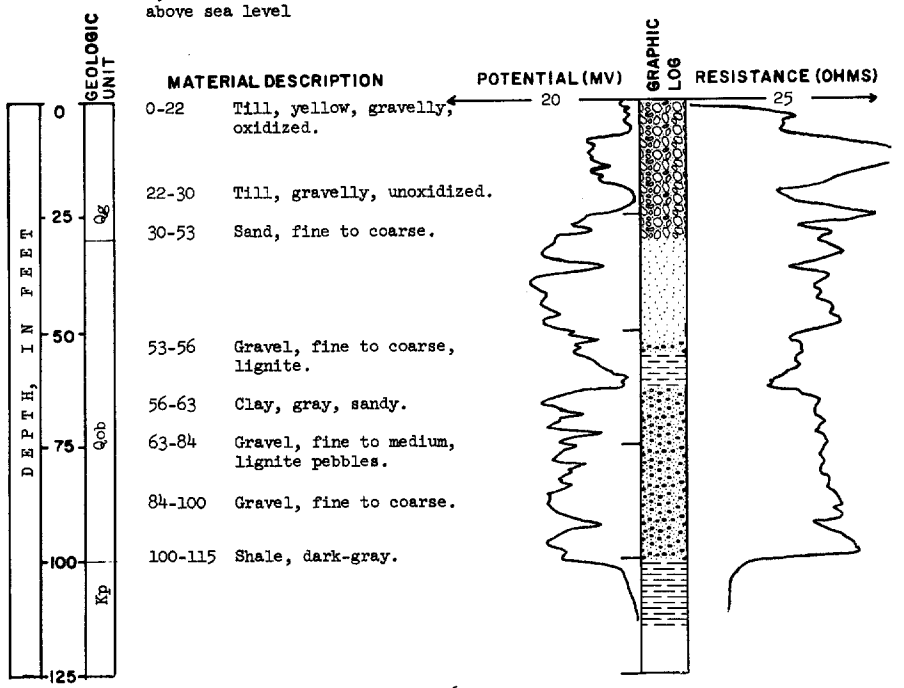
TEST HOLE 1262

LOCATION: Foster County 147-66-31bbb

ELEVATION: 1,572 feet above sea level

DATE DRILLED: December 4, 1957

DEPTH: 115 feet



MATERIAL DESCRIPTION	
0-22	Till, yellow, gravelly, oxidized.
22-30	Till, gravelly, unoxidized.
30-53	Sand, fine to coarse.
53-56	Gravel, fine to coarse, lignite.
56-63	Clay, gray, sandy.
63-84	Gravel, fine to medium, lignite pebbles.
84-100	Gravel, fine to coarse.
100-115	Shale, dark-gray.

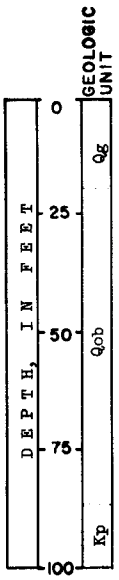
Foster County
LOCATION: 147-66-31cac Carrington Irrigation Branch Station 4

DATE DRILLED: May 13, 1965

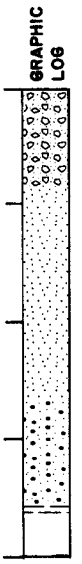
ELEVATION: 1,562 feet above sea level

DEPTH: 90 feet

Driller's log



MATERIAL DESCRIPTION	
0-19	Yellow till.
19-21	Gray till.
21-44	Sand, fine, with lignite fragments.
44-66	Sand, medium, with lignite fragments.
66-87	Sand and gravel.
87-90	Shale.



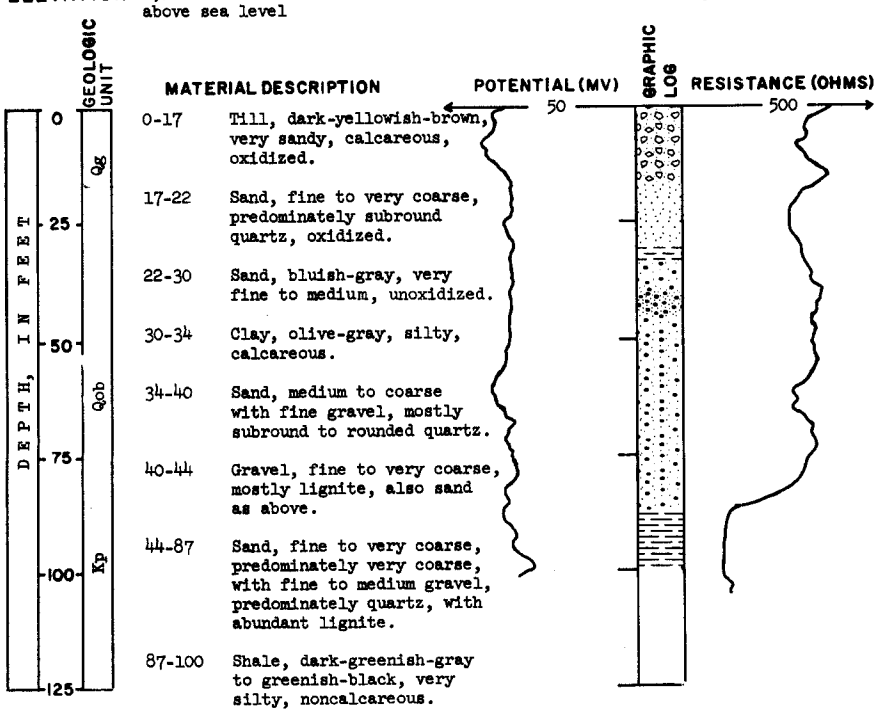
TEST HOLE 3060

Foster County
LOCATION: 147-66-31ccc

DATE DRILLED: August 16, 1963

ELEVATION: 1,561 feet above sea level

DEPTH: 103 feet

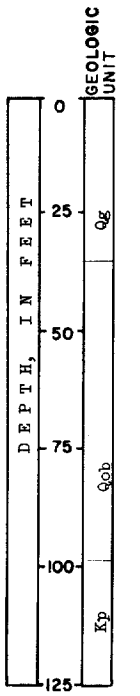


MATERIAL DESCRIPTION	
0-17	Till, dark-yellowish-brown, very sandy, calcareous, oxidized.
17-22	Sand, fine to very coarse, predominately subround quartz, oxidized.
22-30	Sand, bluish-gray, very fine to medium, unoxidized.
30-34	Clay, olive-gray, silty, calcareous.
34-40	Sand, medium to coarse with fine gravel, mostly subround to rounded quartz.
40-44	Gravel, fine to very coarse, mostly lignite, also sand as above.
44-87	Sand, fine to very coarse, predominately very coarse, with fine to medium gravel, predominately quartz, with abundant lignite.
87-100	Shale, dark-greenish-gray to greenish-black, very silty, noncalcareous.

Foster County **TEST HOLE 1265**

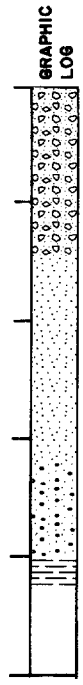
LOCATION: 147-66-31ddb **DATE DRILLED:** December 9, 1957

ELEVATION: 1,565 feet above sea level **DEPTH:** 105 feet



MATERIAL DESCRIPTION

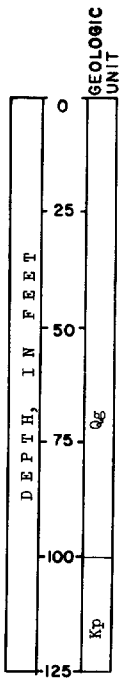
0-36	Till, yellow.
36-43	Sand, fine to medium, with lignite pebbles.
43-51	Sand, as above, with clay, gray, and lignite pebbles.
51-79	Sand, fine to coarse, with lignite pebbles.
79-98	Sand, fine to coarse, with lignite pebbles and fine gravel.
98-105	Shale, dark-gray.



Foster County **TEST HOLE 3066**

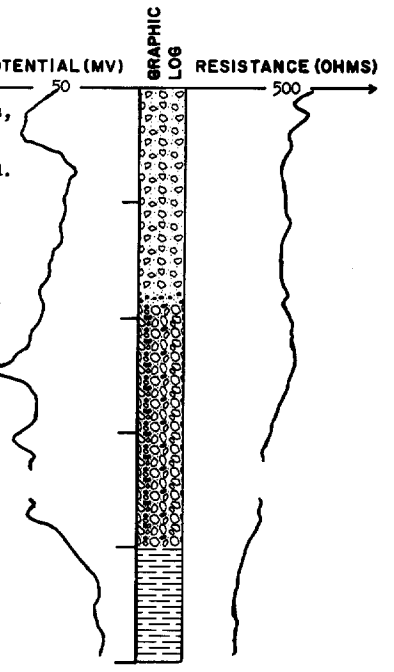
LOCATION: 147-66-33ccc **DATE DRILLED:** August 21, 1963

ELEVATION: 1,538 feet above sea level **DEPTH:** 125 feet



MATERIAL DESCRIPTION

0-10	Till, grayish to dark-yellowish-orange, calcareous, oxidized.
10-45	Till, olive-gray, unoxidized.
45-48	Gravel, fine to medium, with coarse sand, predominately rounded shale pebbles.
48-100	Till, olive-gray, gravelly.
100-125	Shale, greenish-black, silty, slightly calcareous, with pyrite and bentonite.



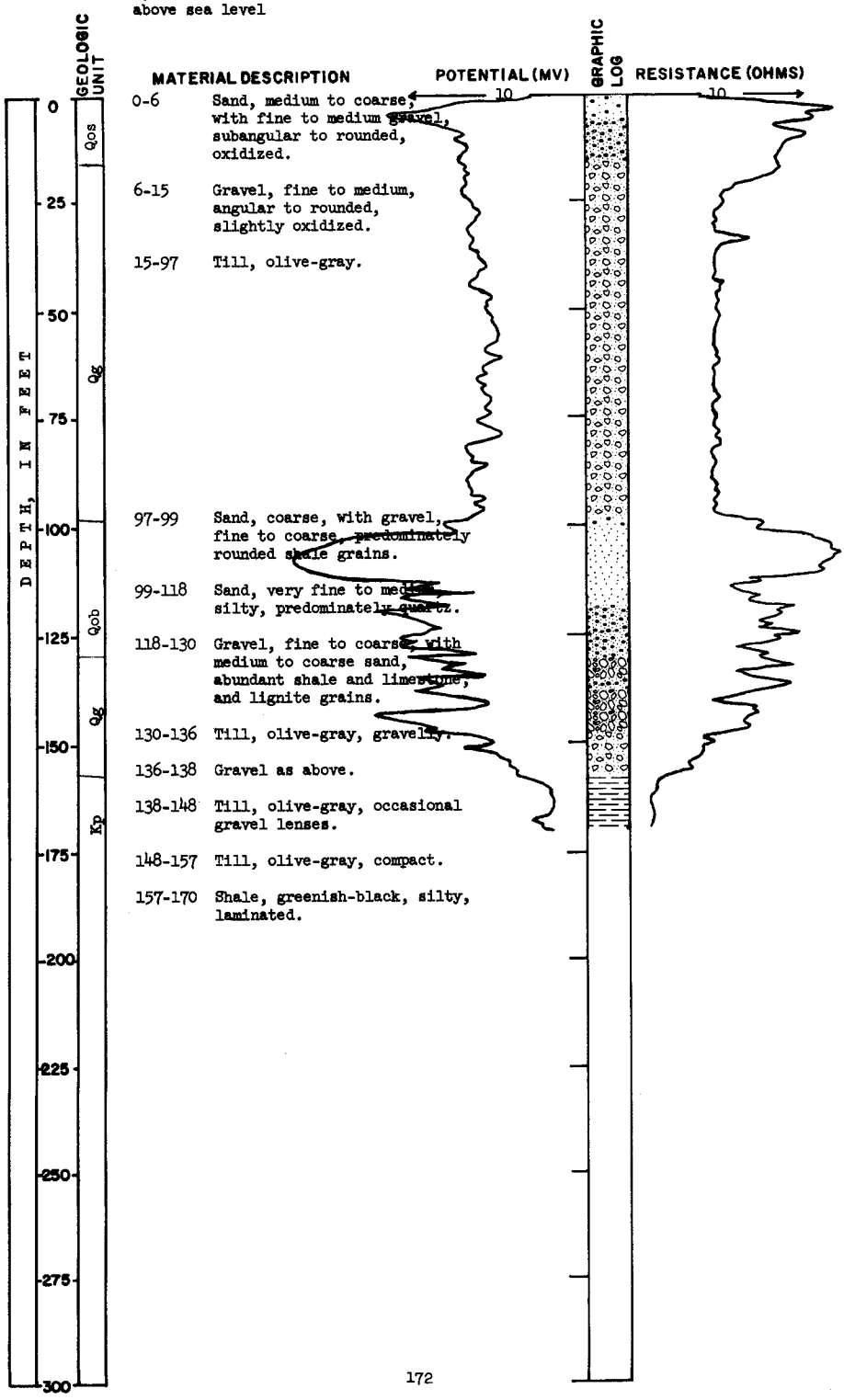
TEST HOLE 3059

LOCATION: Foster County 147-66-33dad

DATE DRILLED: August 15, 1963

ELEVATION: 1,531 feet above sea level

DEPTH: 170 feet



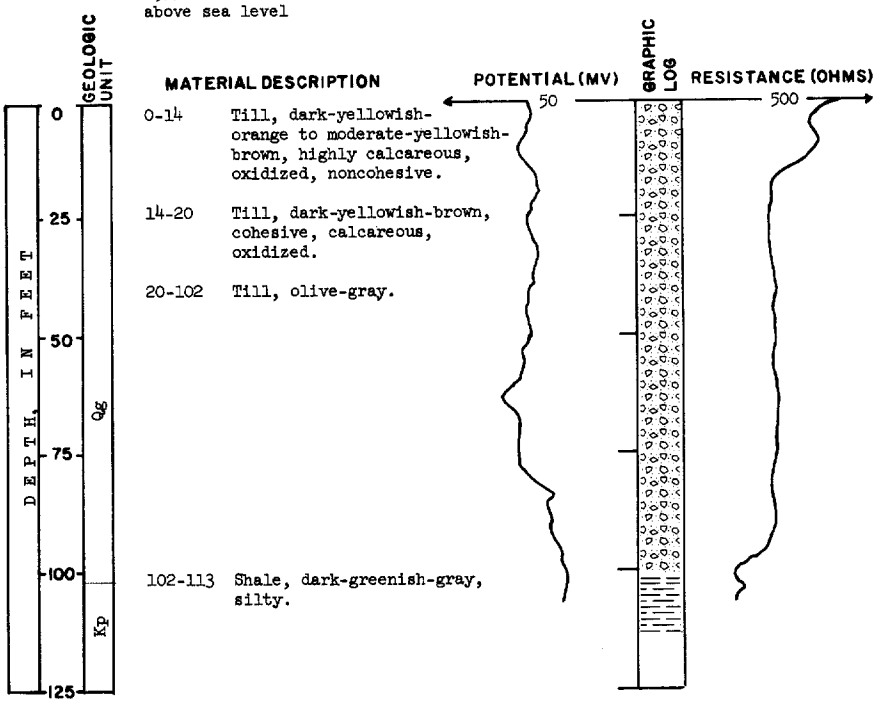
TEST HOLE 3064

LOCATION: Foster County 147-67-4bbb

DATE DRILLED: August 20, 1963

ELEVATION: 1,556 feet above sea level

DEPTH: 113 feet



	MATERIAL DESCRIPTION
0-14	Till, dark-yellowish-orange to moderate-yellowish-brown, highly calcareous, oxidized, noncohesive.
14-20	Till, dark-yellowish-brown, cohesive, calcareous, oxidized.
20-102	Till, olive-gray.
102-113	Shale, dark-greenish-gray, silty.

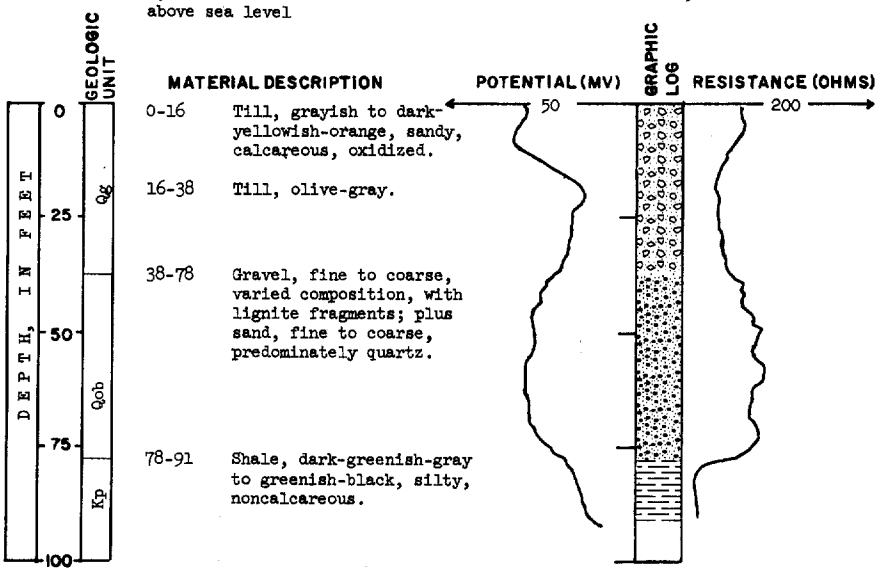
TEST HOLE 3065

LOCATION: Foster County 147-67-10dda

DATE DRILLED: August 20, 1963

ELEVATION: 1,551 feet above sea level

DEPTH: 91 feet

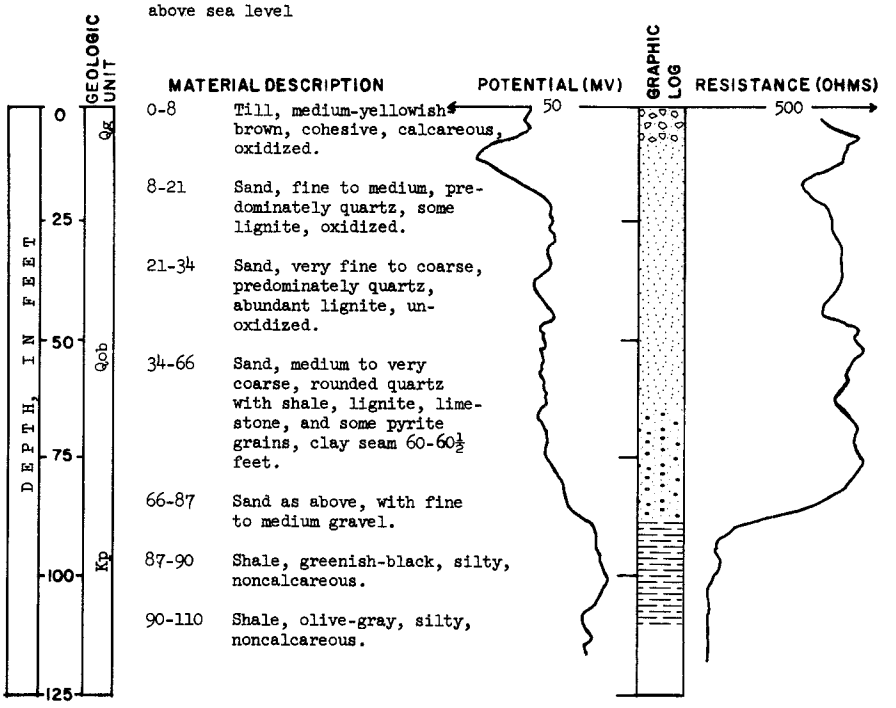


	MATERIAL DESCRIPTION
0-16	Till, grayish to dark-yellowish-orange, sandy, calcareous, oxidized.
16-38	Till, olive-gray.
38-78	Gravel, fine to coarse, varied composition, with lignite fragments; plus sand, fine to coarse, predominately quartz.
78-91	Shale, dark-greenish-gray to greenish-black, silty, noncalcareous.

Foster County **TEST HOLE** 3062

LOCATION: 147-67-19cbc **DATE DRILLED:** August 19, 1963

ELEVATION: 1,568 feet above sea level **DEPTH:** 110 feet



0-8 Till, medium-yellowish-brown, cohesive, calcareous, oxidized.

8-21 Sand, fine to medium, predominately quartz, some lignite, oxidized.

21-34 Sand, very fine to coarse, predominately quartz, abundant lignite, unoxidized.

34-66 Sand, medium to very coarse, rounded quartz with shale, lignite, limestone, and some pyrite grains, clay seam 60-60½ feet.

66-87 Sand as above, with fine to medium gravel.

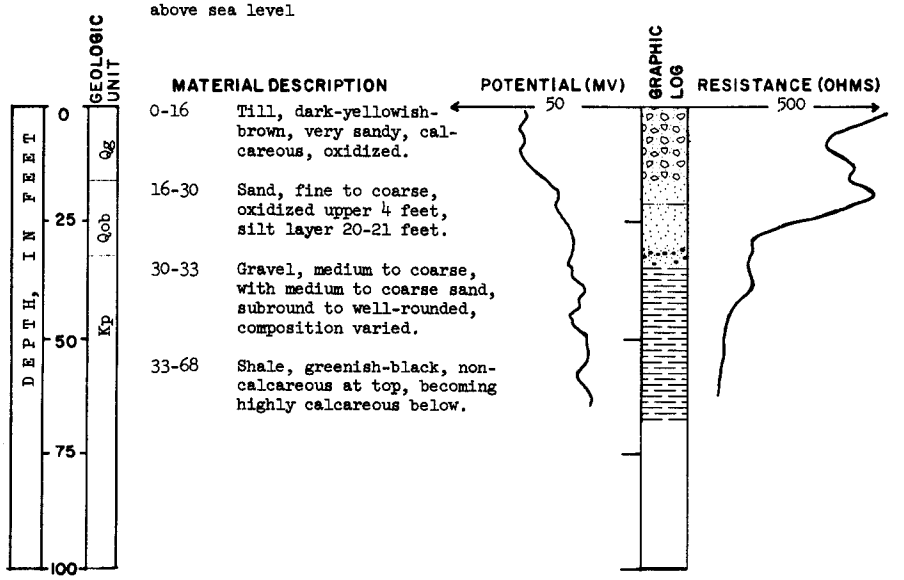
87-90 Shale, greenish-black, silty, noncalcareous.

90-110 Shale, olive-gray, silty, noncalcareous.

Foster County **TEST HOLE** 3063

LOCATION: 147-67-20aaa **DATE DRILLED:** August 19, 1963

ELEVATION: 1,573 feet above sea level **DEPTH:** 68 feet



0-16 Till, dark-yellowish-brown, very sandy, calcareous, oxidized.

16-30 Sand, fine to coarse, oxidized upper 4 feet, silt layer 20-21 feet.

30-33 Gravel, medium to coarse, with medium to coarse sand, subround to well-rounded, composition varied.

33-68 Shale, greenish-black, noncalcareous at top, becoming highly calcareous below.

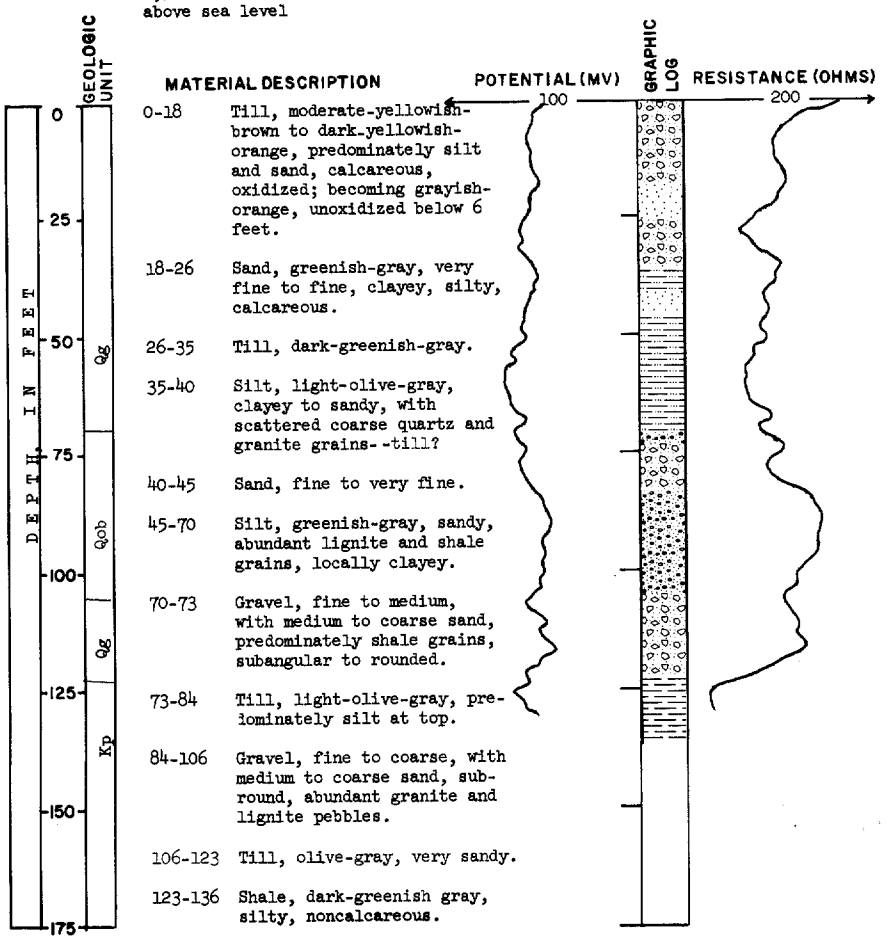
TEST HOLE 3061

LOCATION: Foster County 147-67-22ddd

DATE DRILLED: August 16, 1963

ELEVATION: 1,566 feet above sea level

DEPTH: 136 feet



	MATERIAL DESCRIPTION
0-18	Till, moderate-yellowish-brown to dark-yellowish-orange, predominately silt and sand, calcareous, oxidized; becoming grayish-orange, unoxidized below 6 feet.
18-26	Sand, greenish-gray, very fine to fine, clayey, silty, calcareous.
26-35	Till, dark-greenish-gray.
35-40	Silt, light-olive-gray, clayey to sandy, with scattered coarse quartz and granite grains--till?
40-45	Sand, fine to very fine.
45-70	Silt, greenish-gray, sandy, abundant lignite and shale grains, locally clayey.
70-73	Gravel, fine to medium, with medium to coarse sand, predominately shale grains, subangular to rounded.
73-84	Till, light-olive-gray, predominately silt at top.
84-106	Gravel, fine to coarse, with medium to coarse sand, subround, abundant granite and lignite pebbles.
106-123	Till, olive-gray, very sandy.
123-136	Shale, dark-greenish gray, silty, noncalcareous.

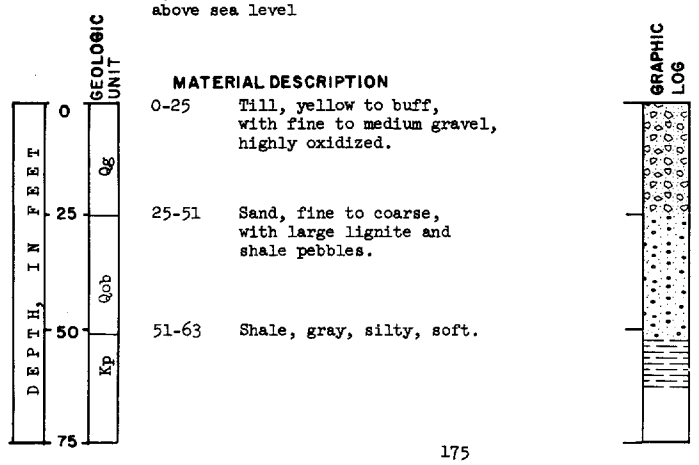
TEST HOLE 1467

LOCATION: Foster County 147-67-33bbb

DATE DRILLED: March 25, 1959

ELEVATION: 1,580 feet above sea level

DEPTH: 63 feet



	MATERIAL DESCRIPTION
0-25	Till, yellow to buff, with fine to medium gravel, highly oxidized.
25-51	Sand, fine to coarse, with large lignite and shale pebbles.
51-63	Shale, gray, silty, soft.

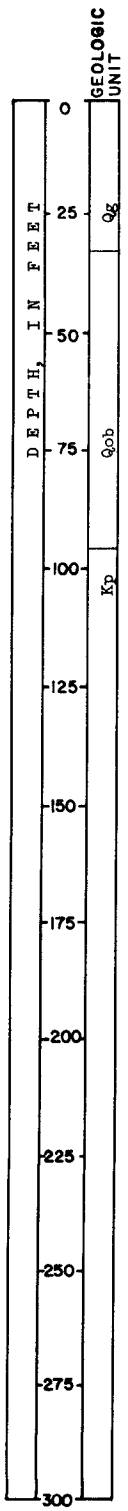
TEST HOLE 1466

LOCATION: Foster County 147-67-35bbb

DATE DRILLED: March 25, 1959

ELEVATION: 1,570 feet above sea level

DEPTH: 105 feet



MATERIAL DESCRIPTION

0-21	Till, yellow to buff, sandy.
21-33	Till, dark-gray, gravelly.
33-42	Sand, fine to coarse, trace of lignite and shale pebbles.
42-50	Till, light to dark-gray.
50-96	Sand, very fine to medium, clean, large lignite fraction.
96-105	Shale, gray, silty, soft, noncalcareous.

Eddy County

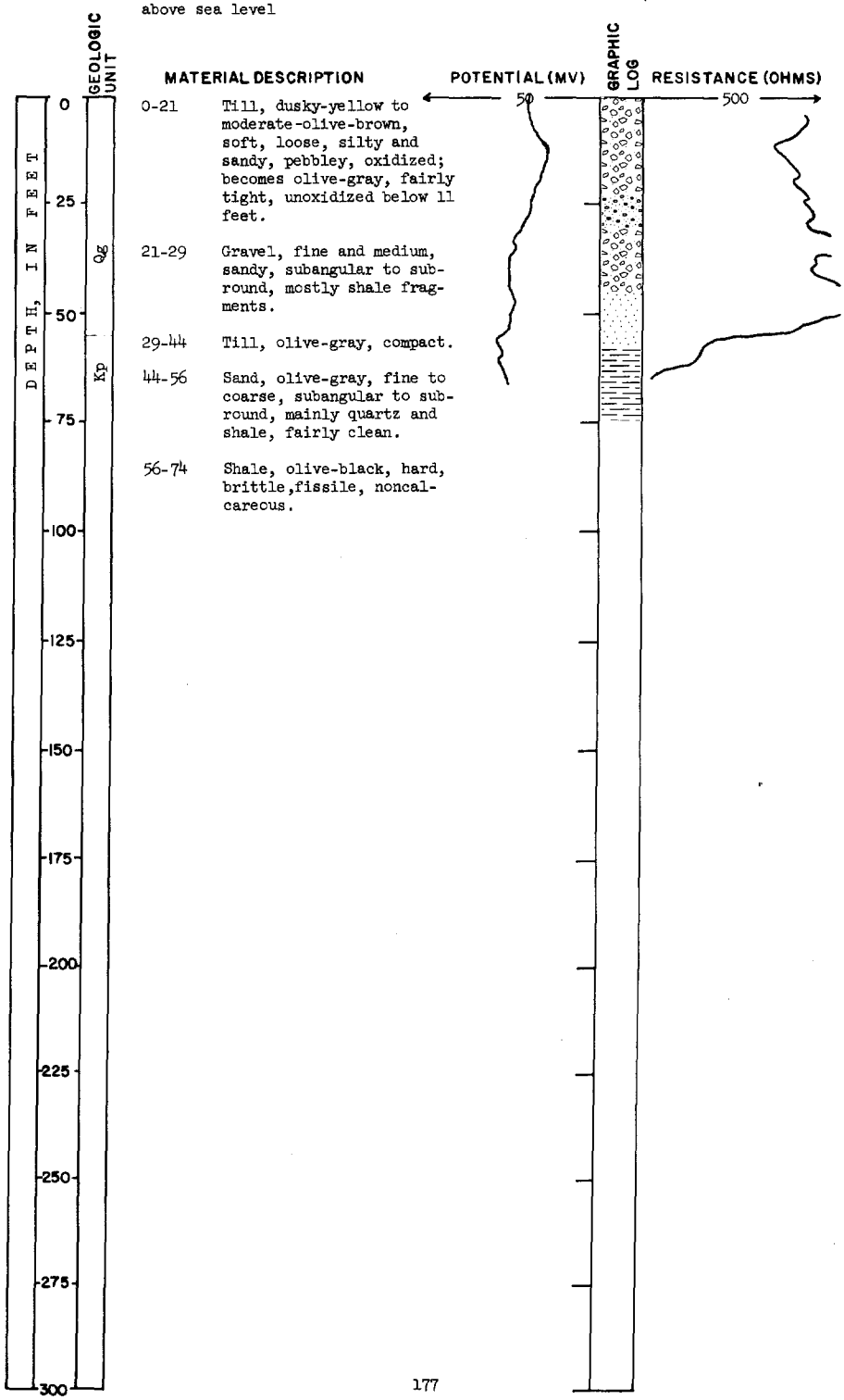
LOCATION: 148-62-4cdc

TEST HOLE 2273

DATE DRILLED: July 16, 1964

ELEVATION: 1,500 feet above sea level

DEPTH: 74 feet



0-21	Till, dusky-yellow to moderate-olive-brown, soft, loose, silty and sandy, pebbley, oxidized; becomes olive-gray, fairly tight, unoxidized below 11 feet.
21-29	Gravel, fine and medium, sandy, subangular to subround, mostly shale fragments.
29-44	Till, olive-gray, compact.
44-56	Sand, olive-gray, fine to coarse, subangular to subround, mainly quartz and shale, fairly clean.
56-74	Shale, olive-black, hard, brittle, fissile, noncalcareous.

Eddy County

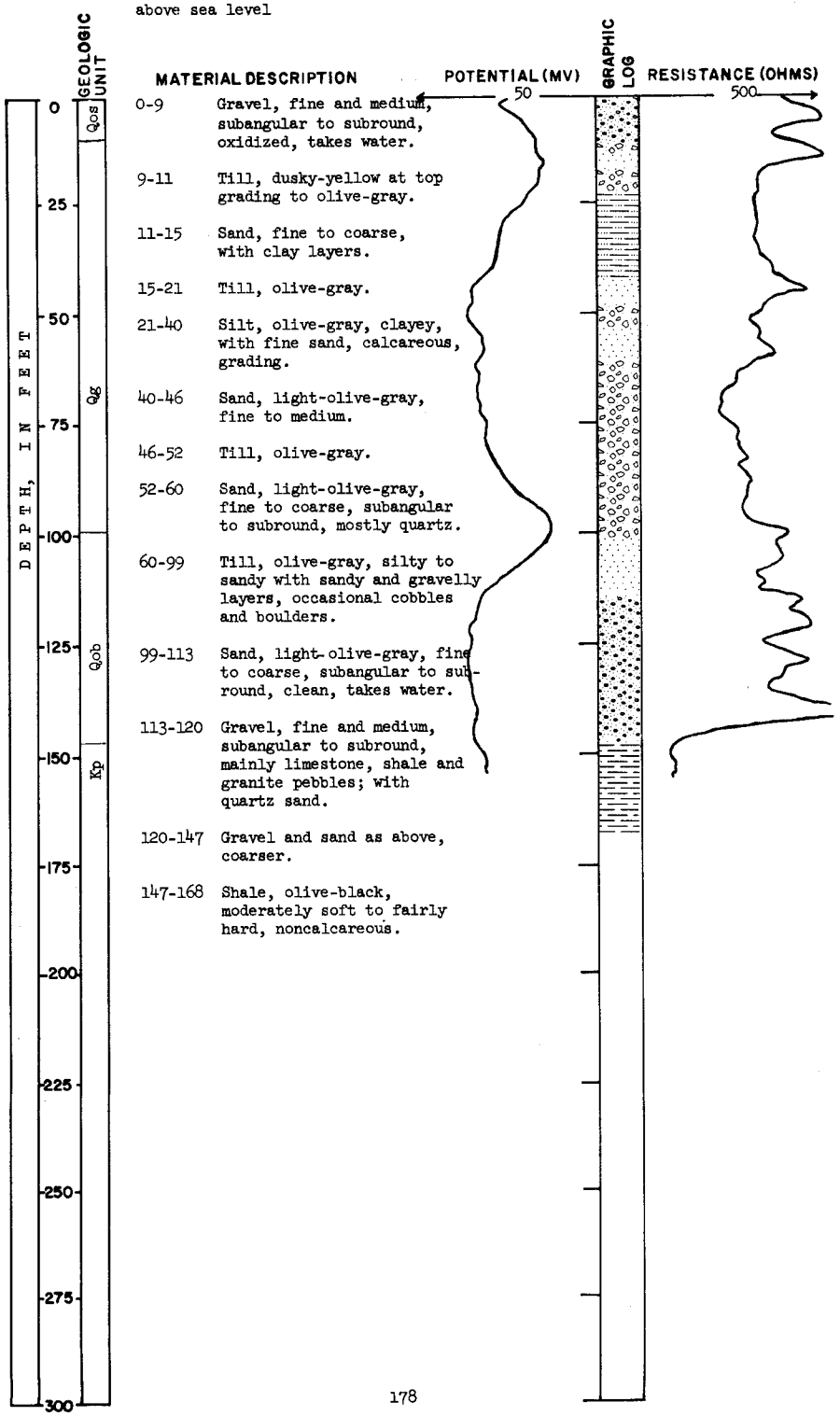
TEST HOLE 2274

LOCATION: 148-62-15cdd

DATE DRILLED: July 17, 1964

ELEVATION: 1,507 feet above sea level

DEPTH: 168 feet



Eddy County

LOCATION: 148-62-18acd2

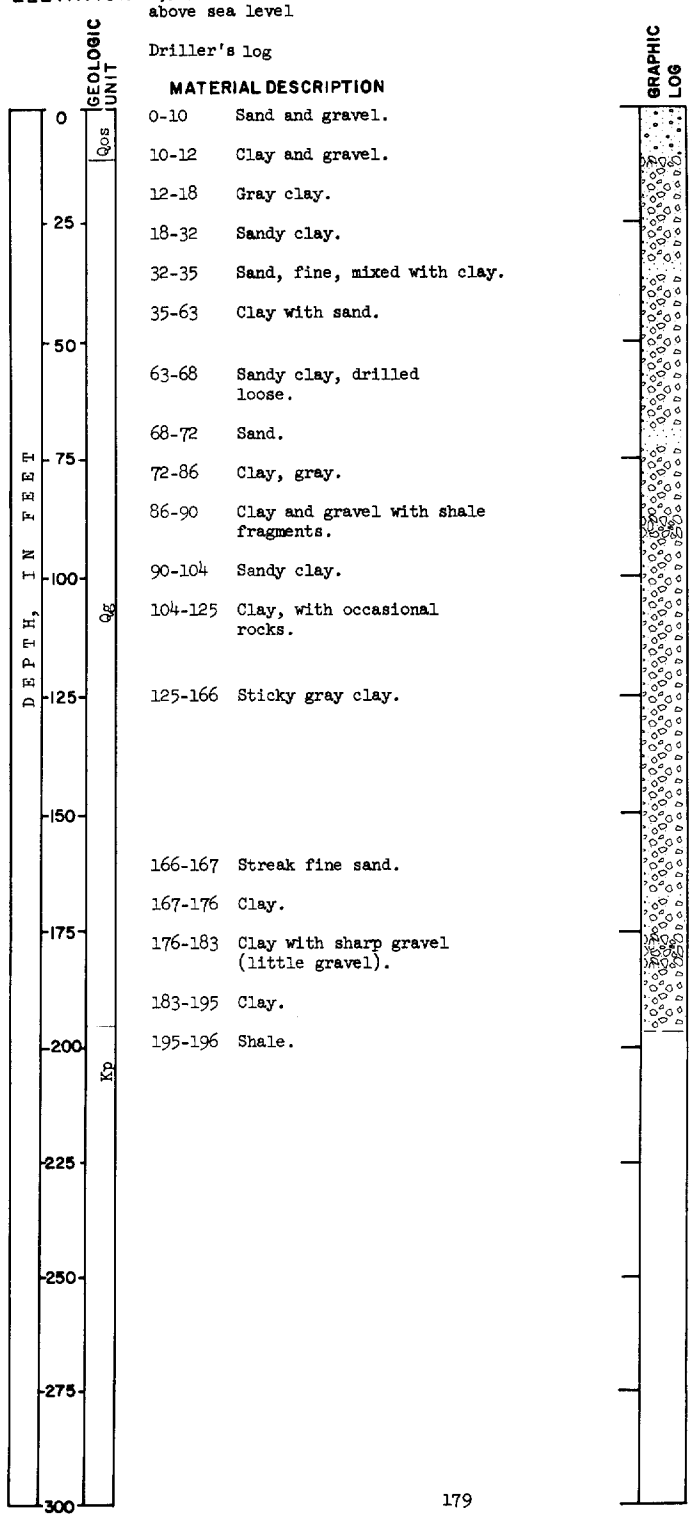
S. K. Haugland

ELEVATION: 1,545 feet above sea level

DATE DRILLED: May 1962

DEPTH: 196 feet

Driller's log



	MATERIAL DESCRIPTION
0-10	Sand and gravel.
10-12	Clay and gravel.
12-18	Gray clay.
18-32	Sandy clay.
32-35	Sand, fine, mixed with clay.
35-63	Clay with sand.
63-68	Sandy clay, drilled loose.
68-72	Sand.
72-86	Clay, gray.
86-90	Clay and gravel with shale fragments.
90-104	Sandy clay.
104-125	Clay, with occasional rocks.
125-166	Sticky gray clay.
166-167	Streak fine sand.
167-176	Clay.
176-183	Clay with sharp gravel (little gravel).
183-195	Clay.
195-196	Shale.

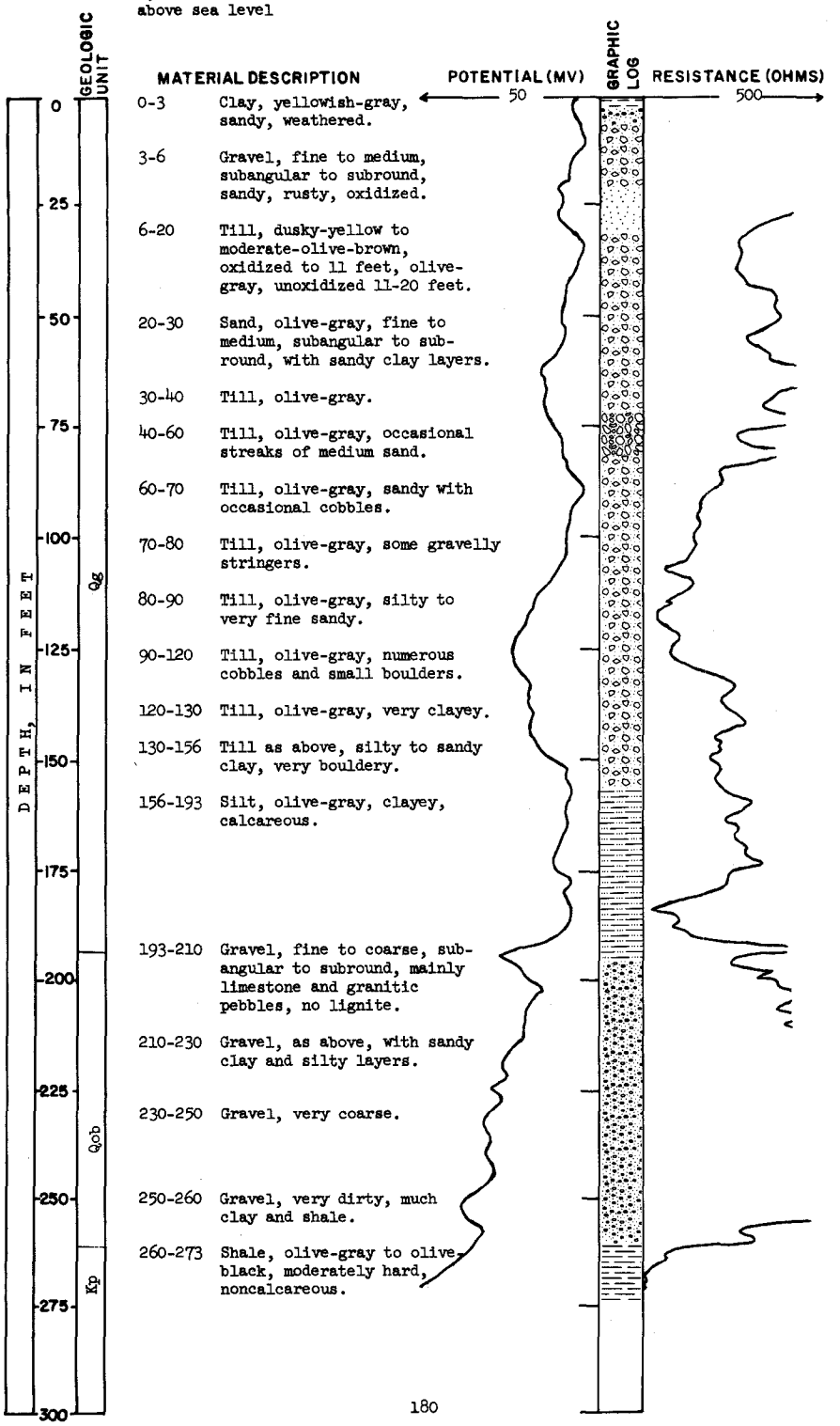
TEST HOLE 2275

LOCATION: Eddy County 148-62-25add

DATE DRILLED: July 20, 1964

ELEVATION: 1,525 feet above sea level

DEPTH: 273 feet



Eddy County

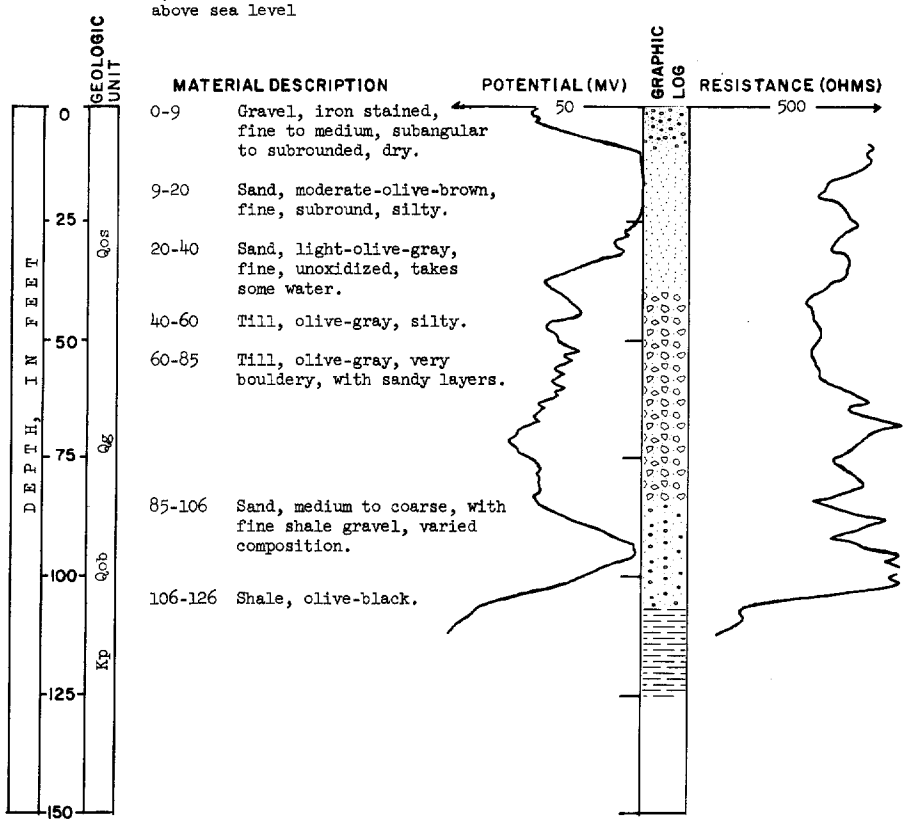
TEST HOLE 2276

LOCATION: 148-62-29daa

DATE DRILLED: July 22, 1964

ELEVATION: 1,540 feet above sea level

DEPTH: 126 feet



Eddy County

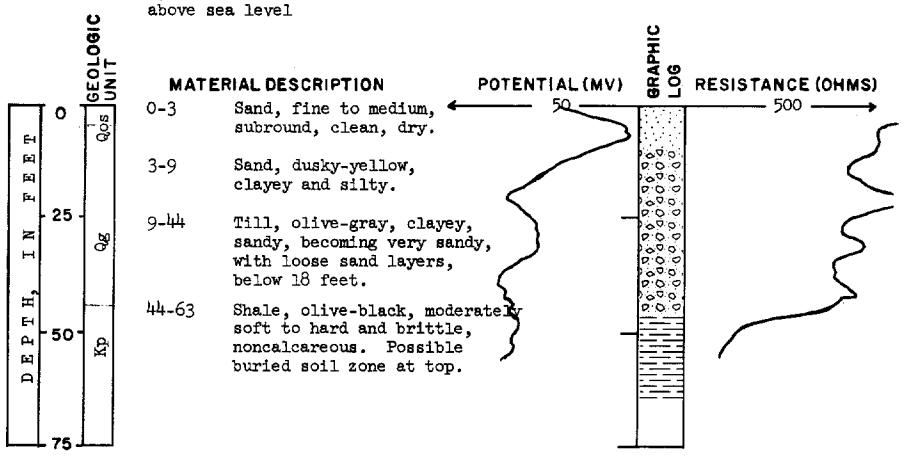
TEST HOLE 2270

LOCATION: 148-62-31dcd

DATE DRILLED: July 15, 1964

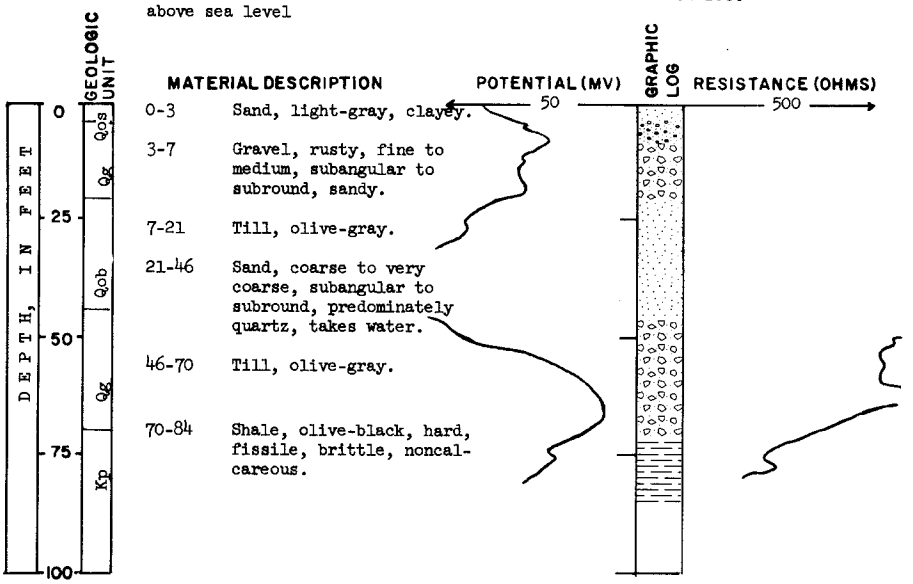
ELEVATION: 1,510 feet above sea level

DEPTH: 63 feet



TEST HOLE 2272

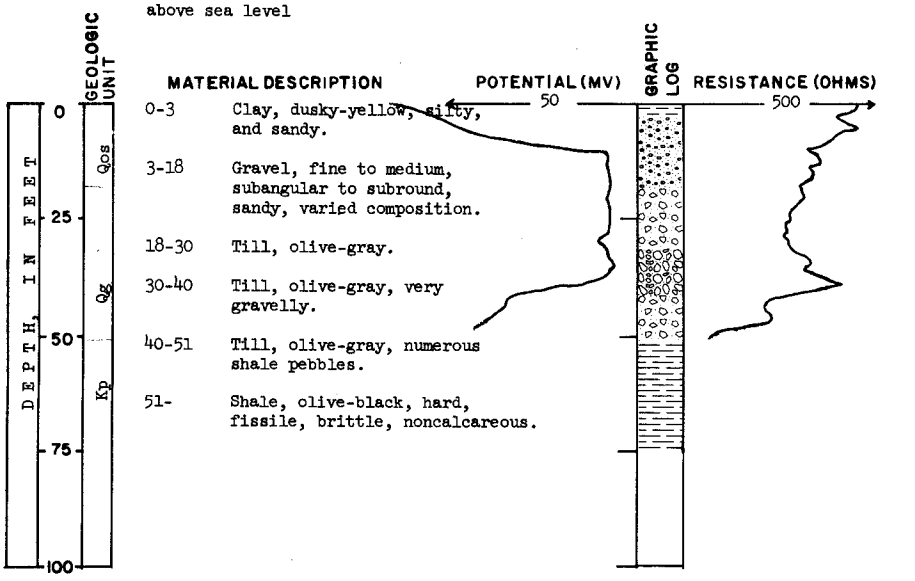
Eddy County
LOCATION: 148-63-11ccb
ELEVATION: 1,511 feet above sea level
DATE DRILLED: July 16, 1964
DEPTH: 84 feet



0-3	Sand, light-gray, clayey.
3-7	Gravel, rusty, fine to medium, subangular to subround, sandy.
7-21	Till, olive-gray.
21-46	Sand, coarse to very coarse, subangular to subround, predominately quartz, takes water.
46-70	Till, olive-gray.
70-84	Shale, olive-black, hard, fissile, brittle, noncalcareous.

TEST HOLE 2271

Eddy County
LOCATION: 148-63-34ada
ELEVATION: 1,520 feet above sea level
DATE DRILLED: July 16, 1964
DEPTH: 74 feet



0-3	Clay, dusky-yellow, silty, and sandy.
3-18	Gravel, fine to medium, subangular to subround, sandy, varied composition.
18-30	Till, olive-gray.
30-40	Till, olive-gray, very gravelly.
40-51	Till, olive-gray, numerous shale pebbles.
51-	Shale, olive-black, hard, fissile, brittle, noncalcareous.

Eddy County

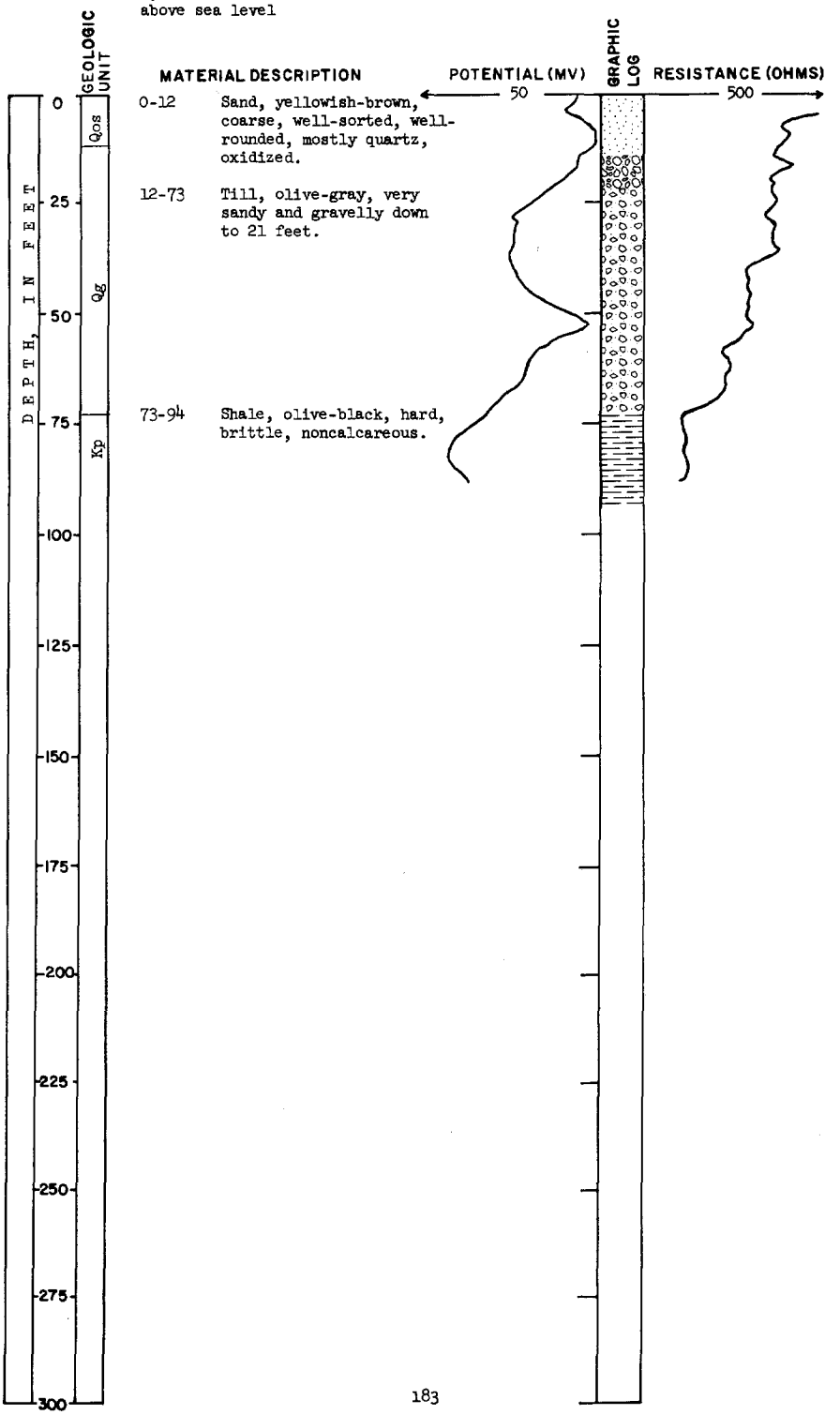
TEST HOLE 2299

LOCATION: 148-64-11cdc

DATE DRILLED: August 19, 1964

ELEVATION: 1,501 feet above sea level

DEPTH: 94 feet



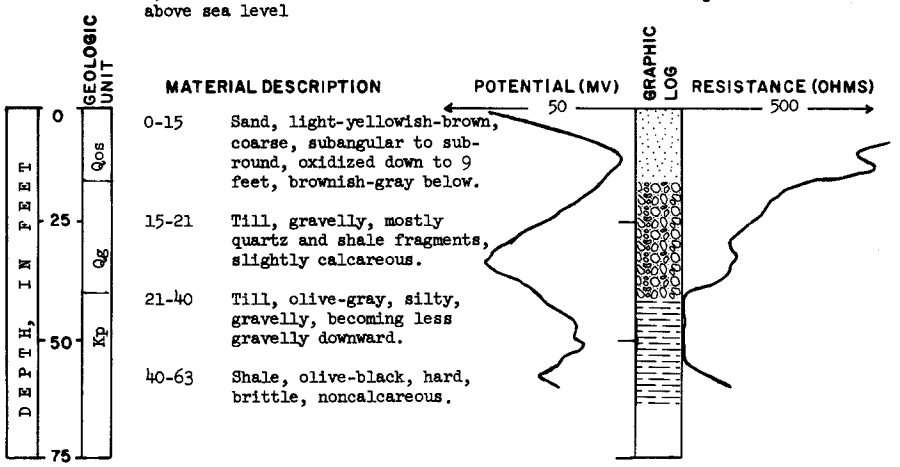
Eddy County TEST HOLE 2298

LOCATION: 148-64-18add

DATE DRILLED: August 19, 1964

ELEVATION: 1,513 feet above sea level

DEPTH: 63 feet



148-64-21ddd
U.S. Bureau of Reclamation
Test hole 10

Eddy County

Elevation: 1,501 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Clay, buff to gray, sandy.	2	2
Sand.	5	7
Sand, gray, medium to coarse, few pebbles up to ½ inch loose.	8	15
Sand, gray, fine, loose, clean.	3	18
Till, dark-gray, sandy, compact.	2	20

148-64-29bbb
U.S. Bureau of Reclamation
Test hole 4S-8E

Eddy County

Elevation: 1,515 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Silty clay loam.	3	3
Gray clay.	1	4
Sandy light clay.	3	7
Coarse sand.	2	9
Sandy clay.	3	12
Silty loam.	3	15
Heavy clay.	5	20

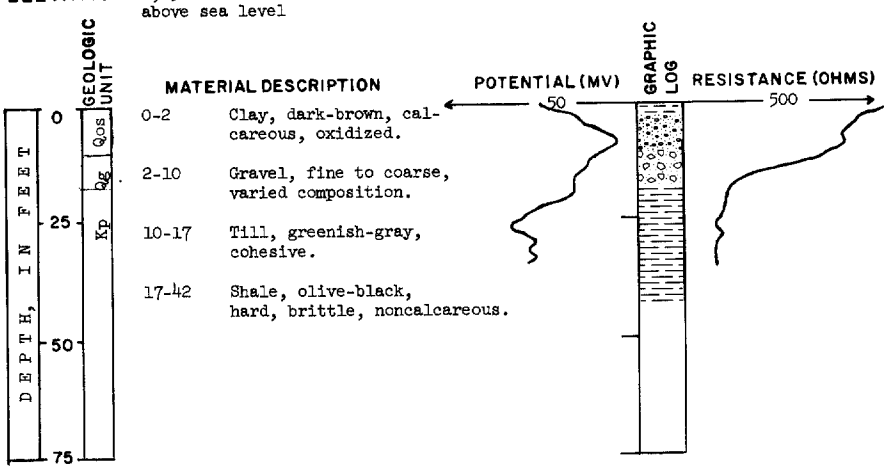
TEST HOLE 2297

LOCATION: Eddy County 148-64-34ada

DATE DRILLED: August 19, 1964

ELEVATION: 1,496 feet above sea level

DEPTH: 42 feet



148-65- 2aab
U.S. Bureau of Reclamation
Test hole OS-6E

Eddy County

Elevation: 1,512 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Clay.	2	2
Medium sand.	6	8
Shale.	12	20

148-65-13bbb
U.S. Bureau of Reclamation
Test hole 2S-6E

Eddy County

Elevation: 1,523 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Silty clay.	5	5
Silty fine sand.	4	9
Heavy clay -- (till).	11	20

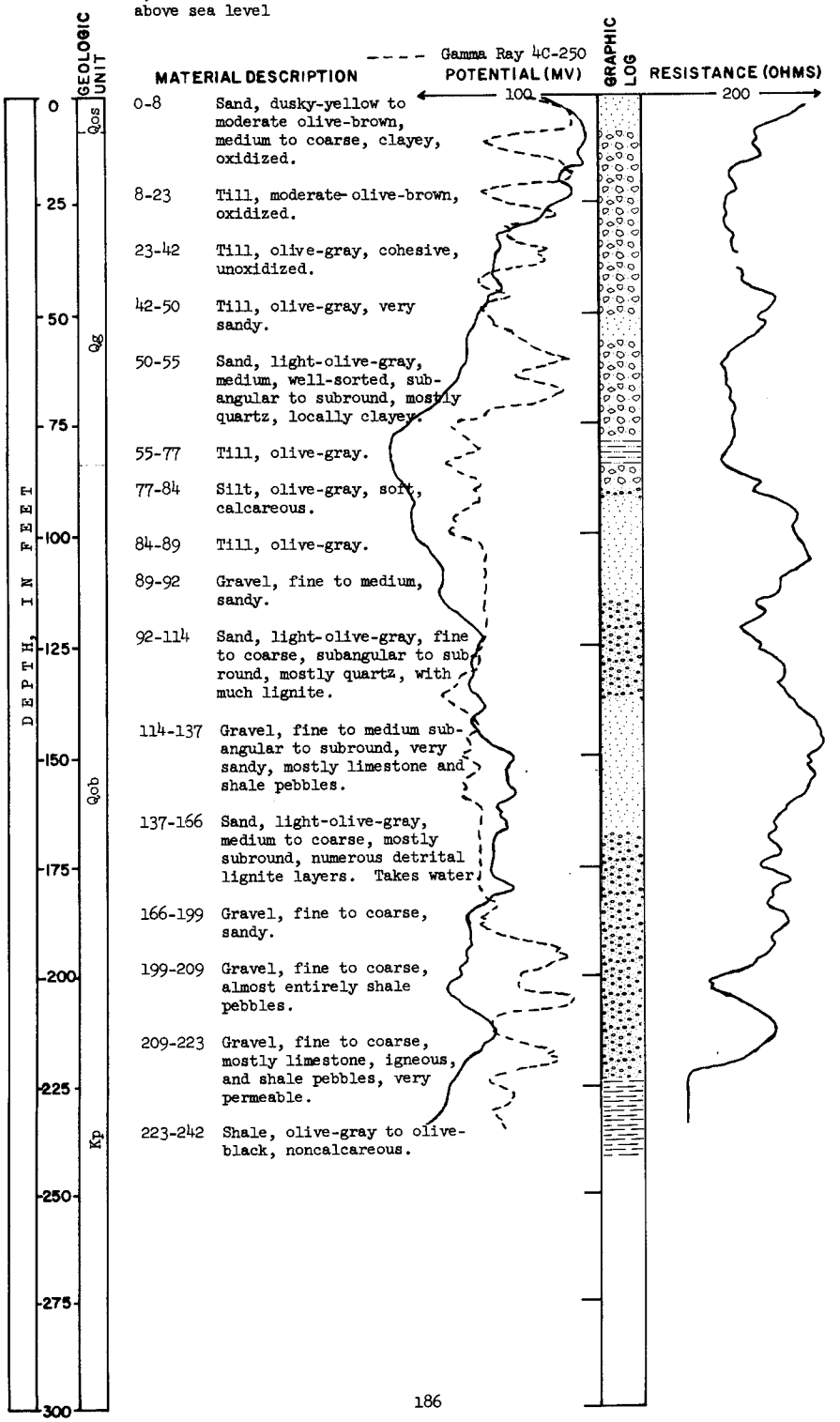
TEST HOLE 2295

LOCATION: Eddy County 148-65-19daa

DATE DRILLED: August 6, 1964

ELEVATION: 1,526 feet above sea level

DEPTH: 242 feet



Eddy County

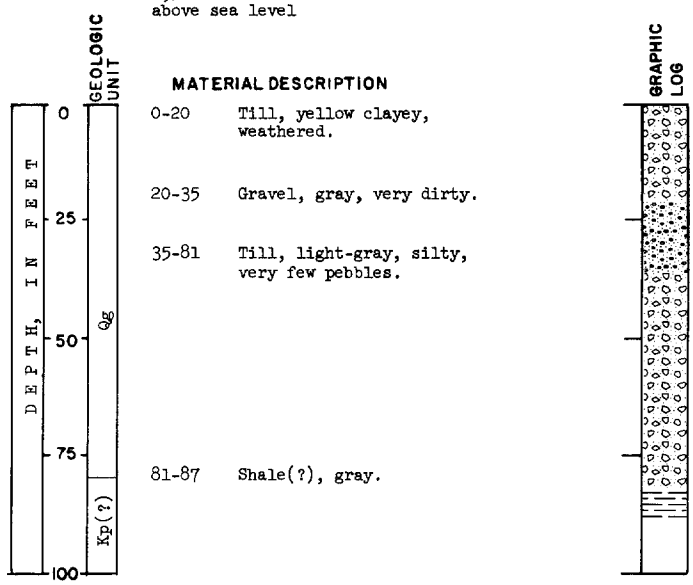
TEST HOLE B3

LOCATION: 148-65-26cbb

DATE DRILLED: September 25, 1947

ELEVATION: 1,518 feet above sea level

DEPTH: 87 feet



MATERIAL DESCRIPTION

0-20	Till, yellow clayey, weathered.
20-35	Gravel, gray, very dirty.
35-81	Till, light-gray, silty, very few pebbles.
81-87	Shale(?), gray.

Eddy County

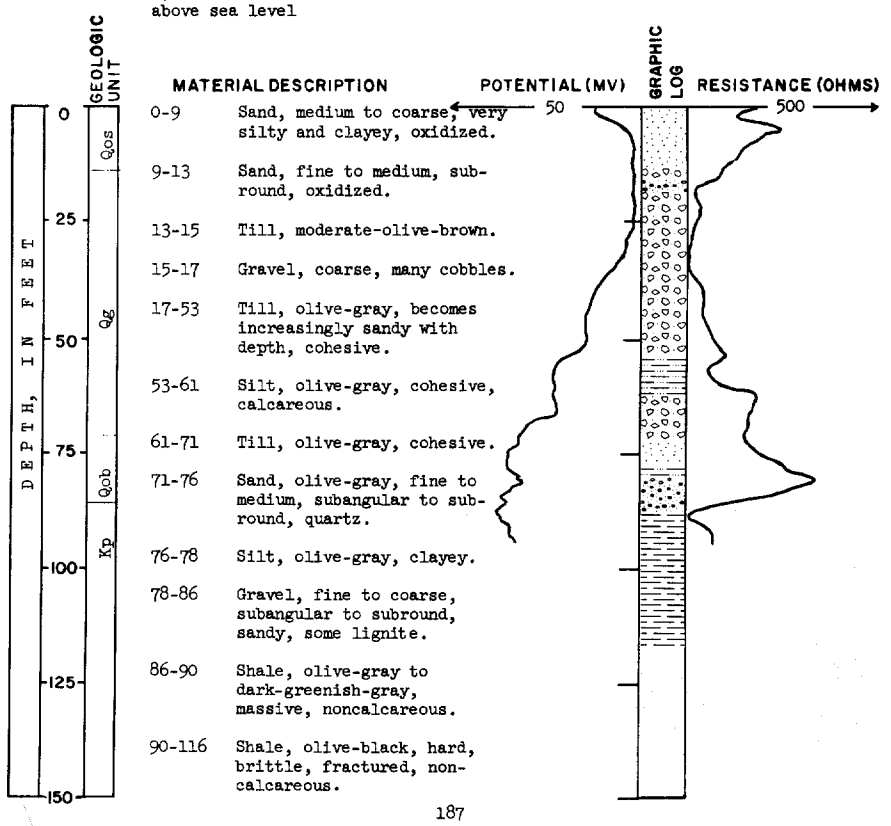
TEST HOLE 2296

LOCATION: 148-65-30ccc

DATE DRILLED: August 7, 1964

ELEVATION: 1,527 feet above sea level

DEPTH: 116 feet



MATERIAL DESCRIPTION

0-9	Sand, medium to coarse, very silty and clayey, oxidized.
9-13	Sand, fine to medium, sub-round, oxidized.
13-15	Till, moderate-olive-brown.
15-17	Gravel, coarse, many cobbles.
17-53	Till, olive-gray, becomes increasingly sandy with depth, cohesive.
53-61	Silt, olive-gray, cohesive, calcareous.
61-71	Till, olive-gray, cohesive.
71-76	Sand, olive-gray, fine to medium, subangular to sub-round, quartz.
76-78	Silt, olive-gray, clayey.
78-86	Gravel, fine to coarse, subangular to subround, sandy, some lignite.
86-90	Shale, olive-gray to dark-greenish-gray, massive, noncalcareous.
90-116	Shale, olive-black, hard, brittle, fractured, non-calcareous.

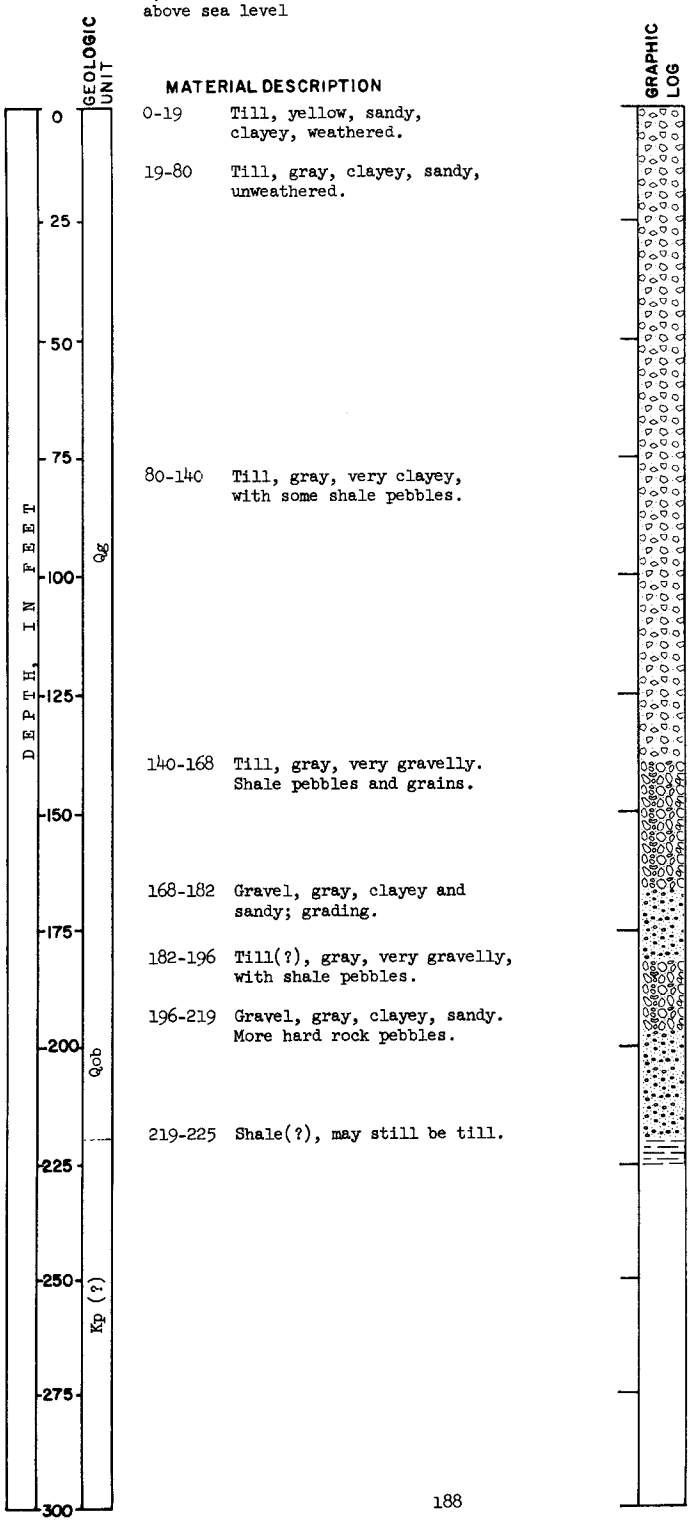
TEST HOLE B1

LOCATION: Eddy County
148-65-35cbb

DATE DRILLED: September 16, 1947

ELEVATION: 1,527 feet
above sea level

DEPTH: 225 feet



MATERIAL DESCRIPTION

0-19	Till, yellow, sandy, clayey, weathered.
19-80	Till, gray, clayey, sandy, unweathered.
80-140	Till, gray, very clayey, with some shale pebbles.
140-168	Till, gray, very gravelly. Shale pebbles and grains.
168-182	Gravel, gray, clayey and sandy; grading.
182-196	Till(?), gray, very gravelly, with shale pebbles.
196-219	Gravel, gray, clayey, sandy. More hard rock pebbles.
219-225	Shale(?), may still be till.

Eddy County

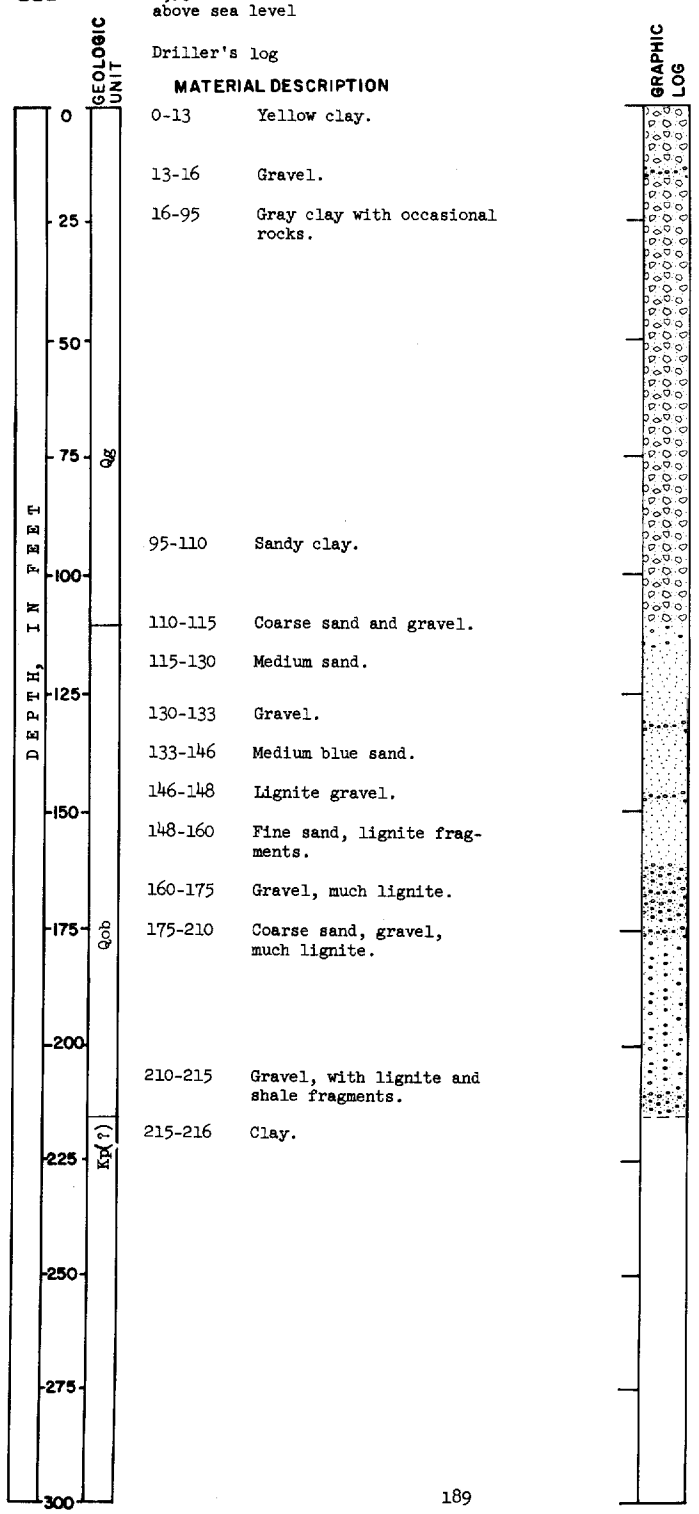
LOCATION: 148-65-35cdb
C. Klein TH 2

ELEVATION: 1,531 feet
above sea level

DATE DRILLED: December 1961

DEPTH: 216 feet

Driller's log



MATERIAL DESCRIPTION	
0-13	Yellow clay.
13-16	Gravel.
16-95	Gray clay with occasional rocks.
95-110	Sandy clay.
110-115	Coarse sand and gravel.
115-130	Medium sand.
130-133	Gravel.
133-146	Medium blue sand.
146-148	Lignite gravel.
148-160	Fine sand, lignite fragments.
160-175	Gravel, much lignite.
175-210	Coarse sand, gravel, much lignite.
210-215	Gravel, with lignite and shale fragments.
215-216	Clay.

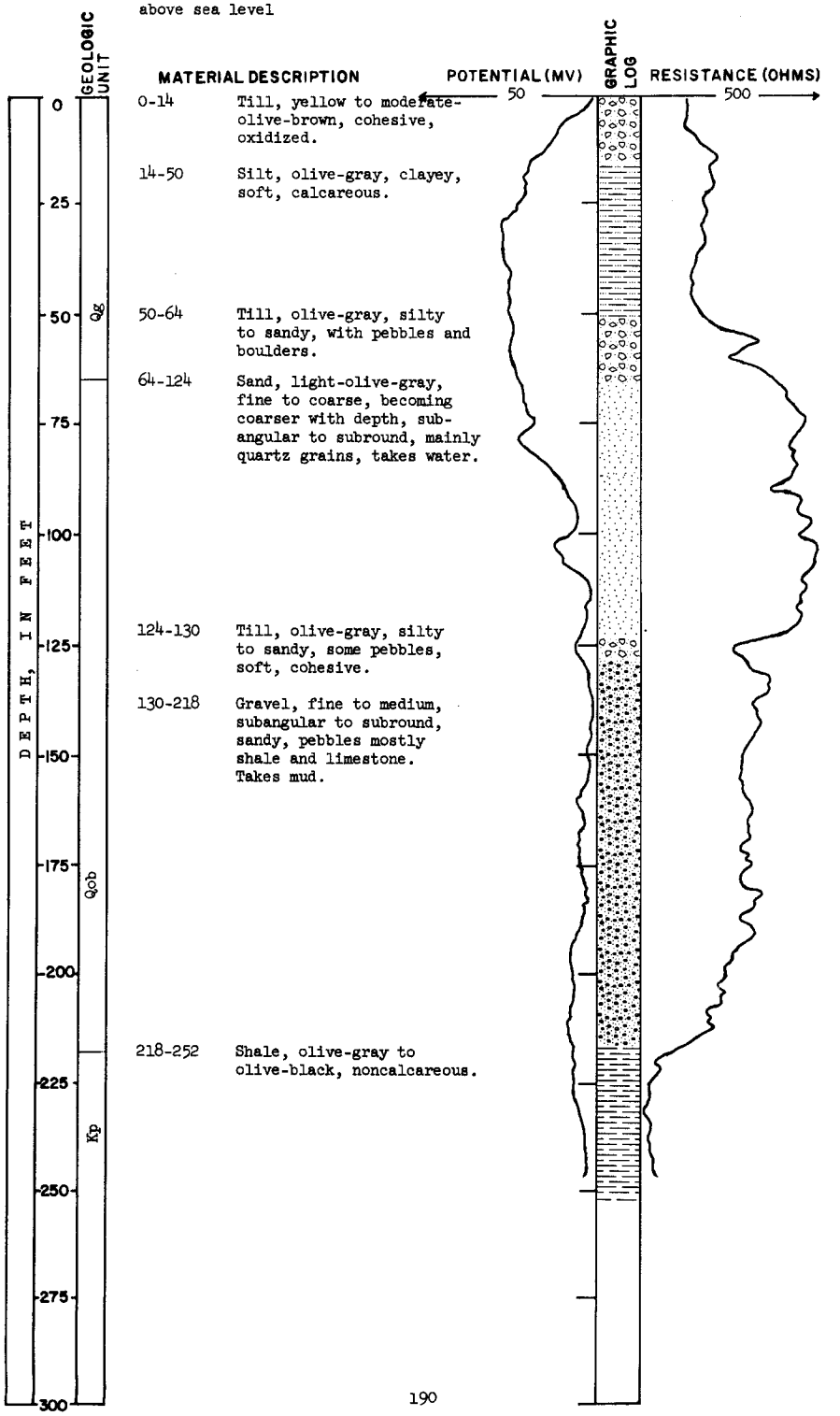
TEST HOLE 2294

LOCATION: Eddy County 148-66-3ddc

DATE DRILLED: August 6, 1964

ELEVATION: 1,493 feet above sea level

DEPTH: 252 feet



148-66- 4aab
U.S. Bureau of Reclamation
Test hole OS-1.7W

Eddy County

Date Drilled: 1953

Elevation: 1,520 feet
above sea level

Material	Thickness (feet)	Depth (feet)
Loam.	2	2
Sandy loam.	2	4
Loam - clay and gravel.	2	6
Loam - sandy clay.	2	8
Clay loam.	2	10
Silty clay loam.	14	24

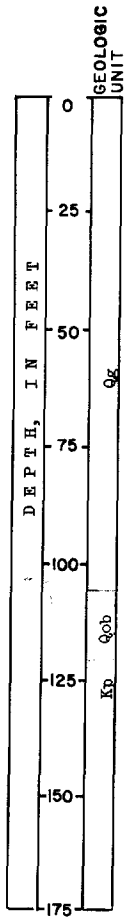
Eddy County **TEST HOLE** NR 1

LOCATION: 148-66-6bbc

DATE DRILLED: August 21, 1947

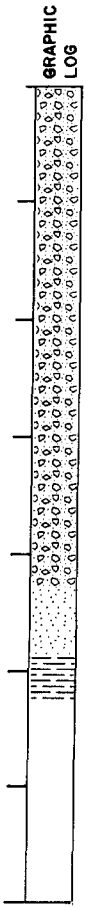
ELEVATION: 1,532 feet
above sea level

DEPTH: 130 feet



MATERIAL DESCRIPTION

0-15	Till, yellow, clayey, weathered.
15-105	Till, gray, clayey, unweathered.
105-120	Sand, gray, medium, clayey.
120-130	Shale.



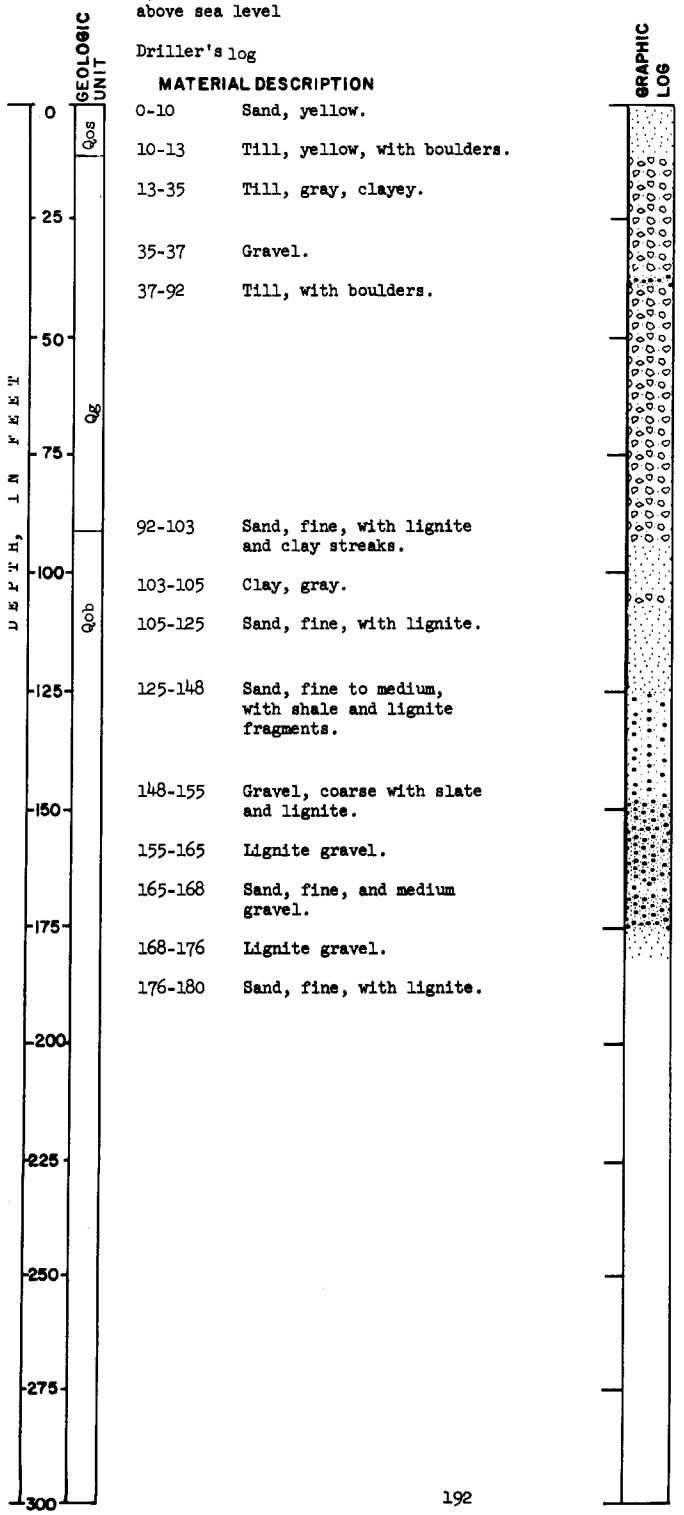
LOCATION: Eddy County
148-66-6bcc2
City of New Rockford TH

ELEVATION: 1,532 feet
above sea level

DATE DRILLED: March 22, 1963

DEPTH: 180 feet

Driller's log



	MATERIAL DESCRIPTION
0-10	Sand, yellow.
10-13	Till, yellow, with boulders.
13-35	Till, gray, clayey.
35-37	Gravel.
37-92	Till, with boulders.
92-103	Sand, fine, with lignite and clay streaks.
103-105	Clay, gray.
105-125	Sand, fine, with lignite.
125-148	Sand, fine to medium, with shale and lignite fragments.
148-155	Gravel, coarse with slate and lignite.
155-165	Lignite gravel.
165-168	Sand, fine, and medium gravel.
168-176	Lignite gravel.
176-180	Sand, fine, with lignite.

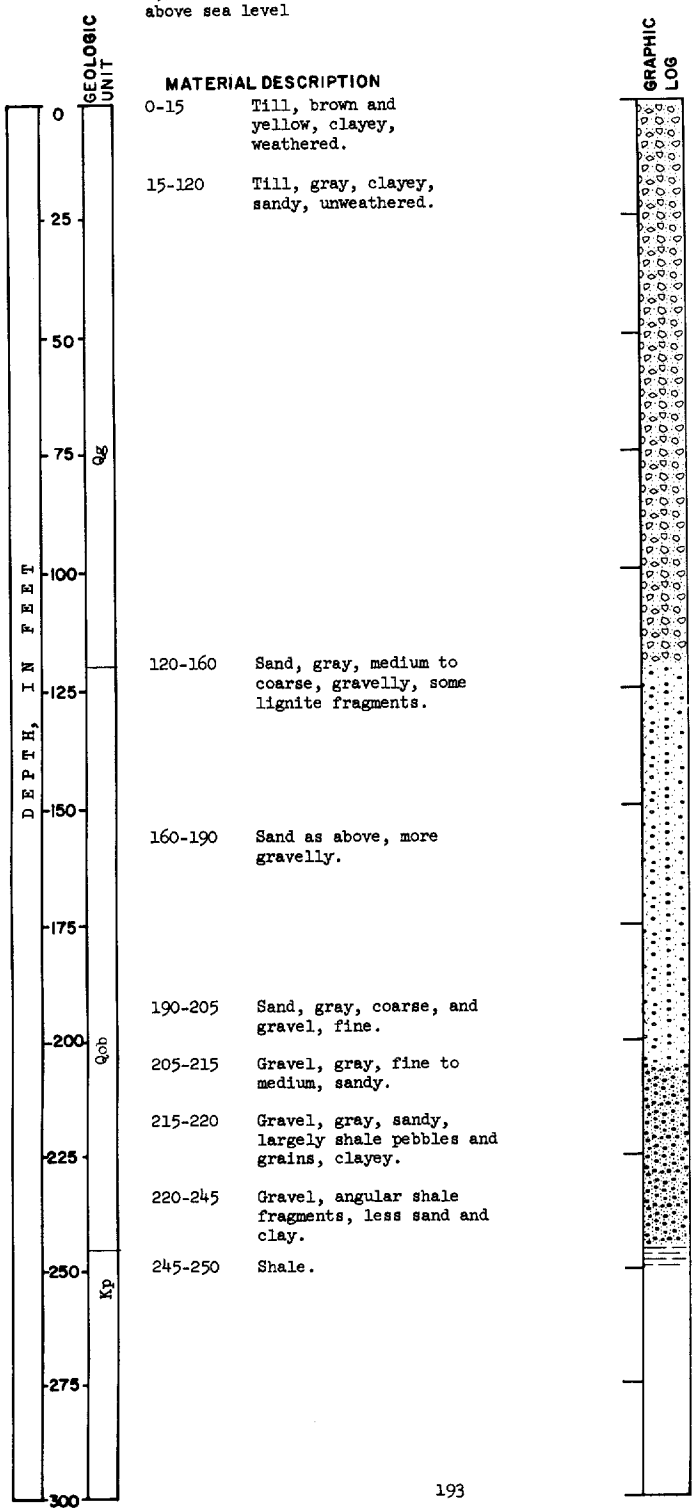
TEST HOLE NR 2

LOCATION: Eddy County 148-66-6ccb

DATE DRILLED: August 23, 1947

ELEVATION: 1,538 feet above sea level

DEPTH: 250 feet



	MATERIAL DESCRIPTION
0-15	Till, brown and yellow, clayey, weathered.
15-120	Till, gray, clayey, sandy, unweathered.
120-160	Sand, gray, medium to coarse, gravelly, some lignite fragments.
160-190	Sand as above, more gravelly.
190-205	Sand, gray, coarse, and gravel, fine.
205-215	Gravel, gray, fine to medium, sandy.
215-220	Gravel, gray, sandy, largely shale pebbles and grains, clayey.
220-245	Gravel, angular shale fragments, less sand and clay.
245-250	Shale.

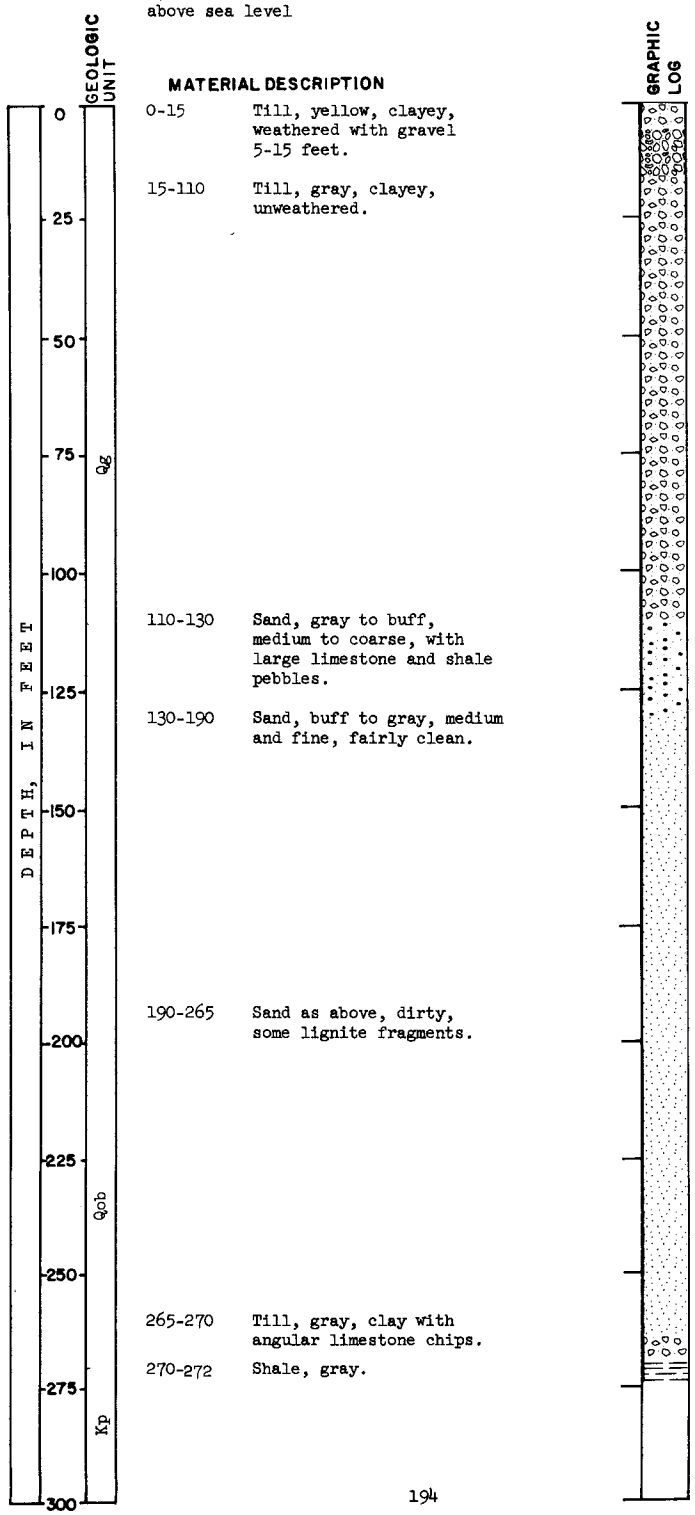
TEST HOLE NR 3

LOCATION: Eddy County
148-66-7bbc

DATE DRILLED: August 25, 1947

ELEVATION: 1,540 feet
above sea level

DEPTH: 272 feet



MATERIAL DESCRIPTION

0-15	Till, yellow, clayey, weathered with gravel 5-15 feet.
15-110	Till, gray, clayey, unweathered.
110-130	Sand, gray to buff, medium to coarse, with large limestone and shale pebbles.
130-190	Sand, buff to gray, medium and fine, fairly clean.
190-265	Sand as above, dirty, some lignite fragments.
265-270	Till, gray, clay with angular limestone chips.
270-272	Shale, gray.

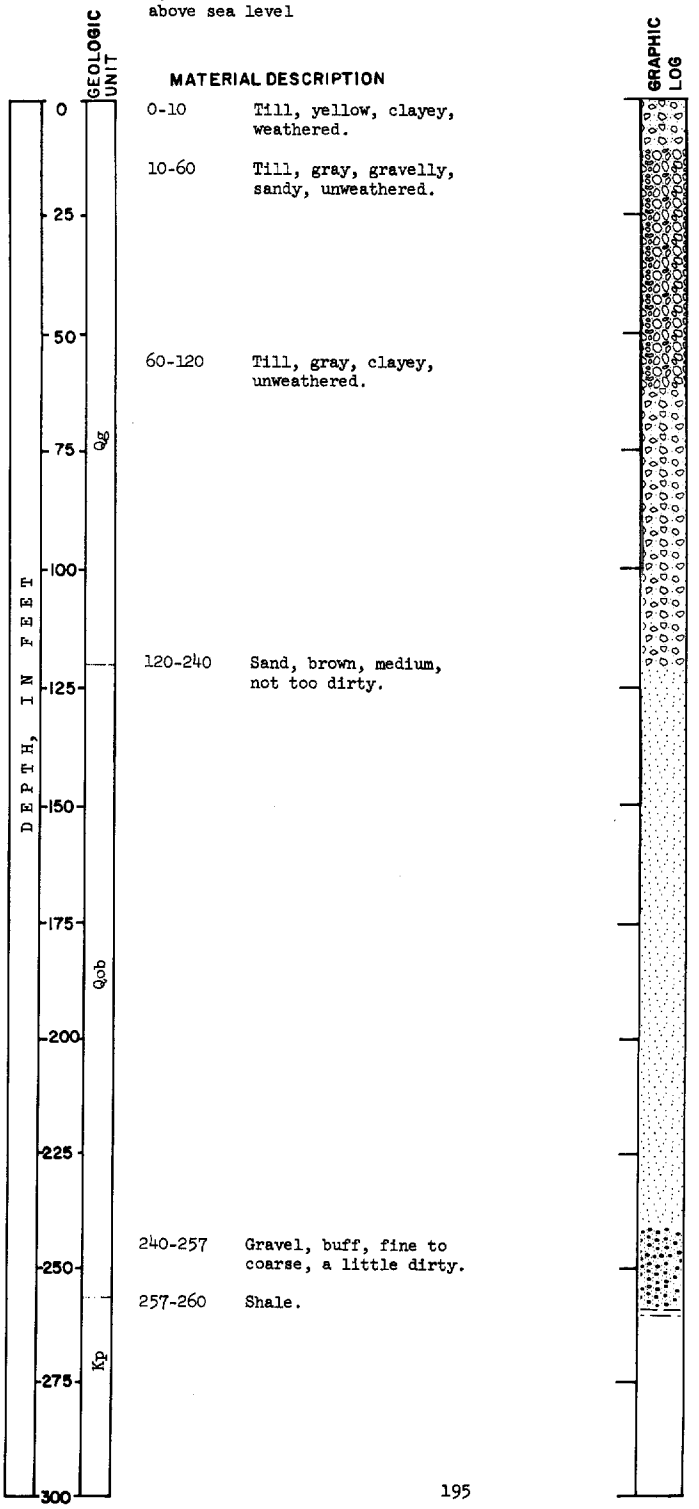
TEST HOLE NR 4

LOCATION: Eddy County
148-66-7cbc

DATE DRILLED: August 28, 1947

ELEVATION: 1,537 feet
above sea level

DEPTH: 260 feet



MATERIAL DESCRIPTION

0-10	Till, yellow, clayey, weathered.
10-60	Till, gray, gravelly, sandy, unweathered.
60-120	Till, gray, clayey, unweathered.
120-240	Sand, brown, medium, not too dirty.
240-257	Gravel, buff, fine to coarse, a little dirty.
257-260	Shale.

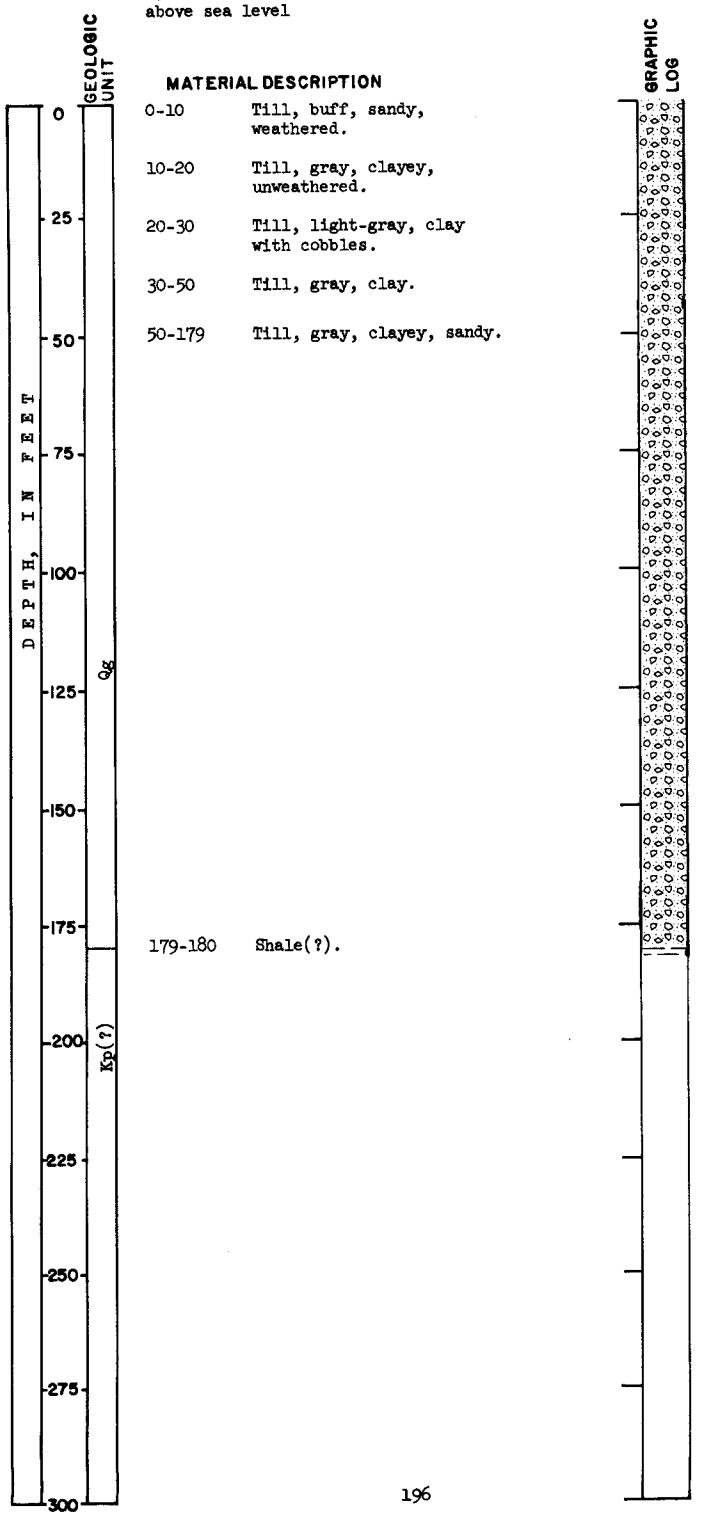
Eddy County TEST HOLE NR 5A

LOCATION: 148-66-18bbc

DATE DRILLED: September 2, 1947

ELEVATION: 1,530 feet above sea level

DEPTH: 180 feet



MATERIAL DESCRIPTION

0-10	Till, buff, sandy, weathered.
10-20	Till, gray, clayey, unweathered.
20-30	Till, light-gray, clay with cobbles.
30-50	Till, gray, clay.
50-179	Till, gray, clayey, sandy.
179-180	Shale(?).

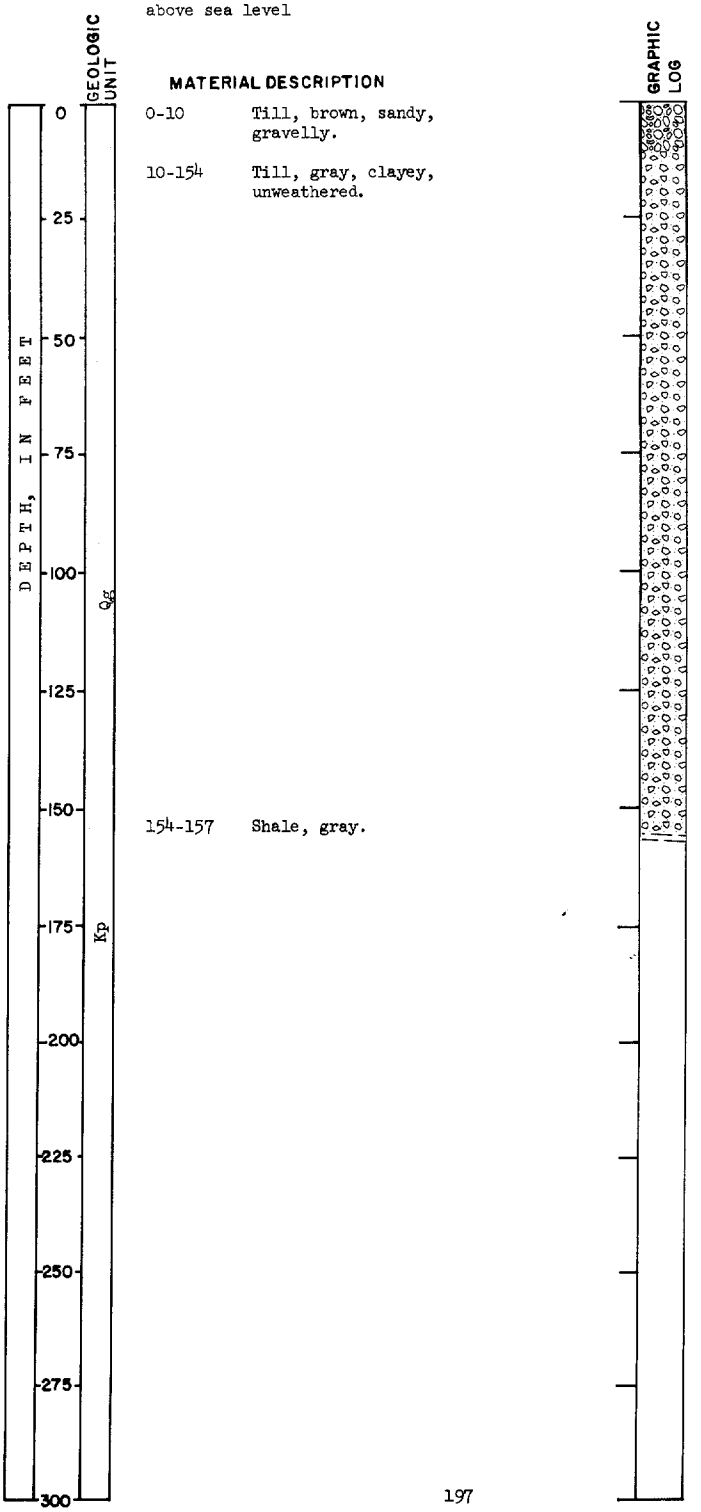
TEST HOLE NR 9A

LOCATION: Eddy County 148-66-29bcb

DATE DRILLED: September 9, 1947

ELEVATION: 1,527 feet above sea level

DEPTH: 157 feet



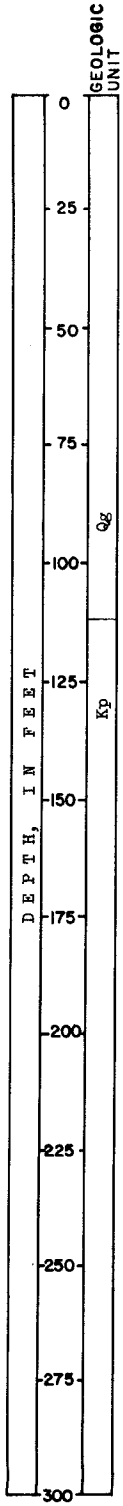
MATERIAL DESCRIPTION

0-10	Till, brown, sandy, gravelly.
10-154	Till, gray, clayey, unweathered.
154-157	Shale, gray.

Eddy County
LOCATION: 148-66-33ccb2
A. DeCrans
ELEVATION: 1,537 feet
above sea level

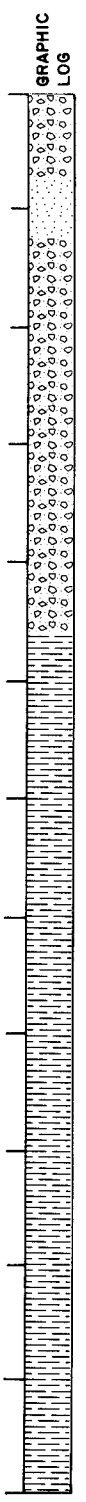
DATE DRILLED: June 21, 1962

DEPTH: 300 feet



MATERIAL DESCRIPTION

0-12	Yellow clay.
12-17	Large boulders.
17-30	Brown sand.
30-112	Gray clay with occasional rocks.
112-130	Shale.
130-152	Clay.
152-154	Shale.
154-166	Clay-shale ledge at 158 feet.
166-210	Shale.
210-300	Very hard shale.

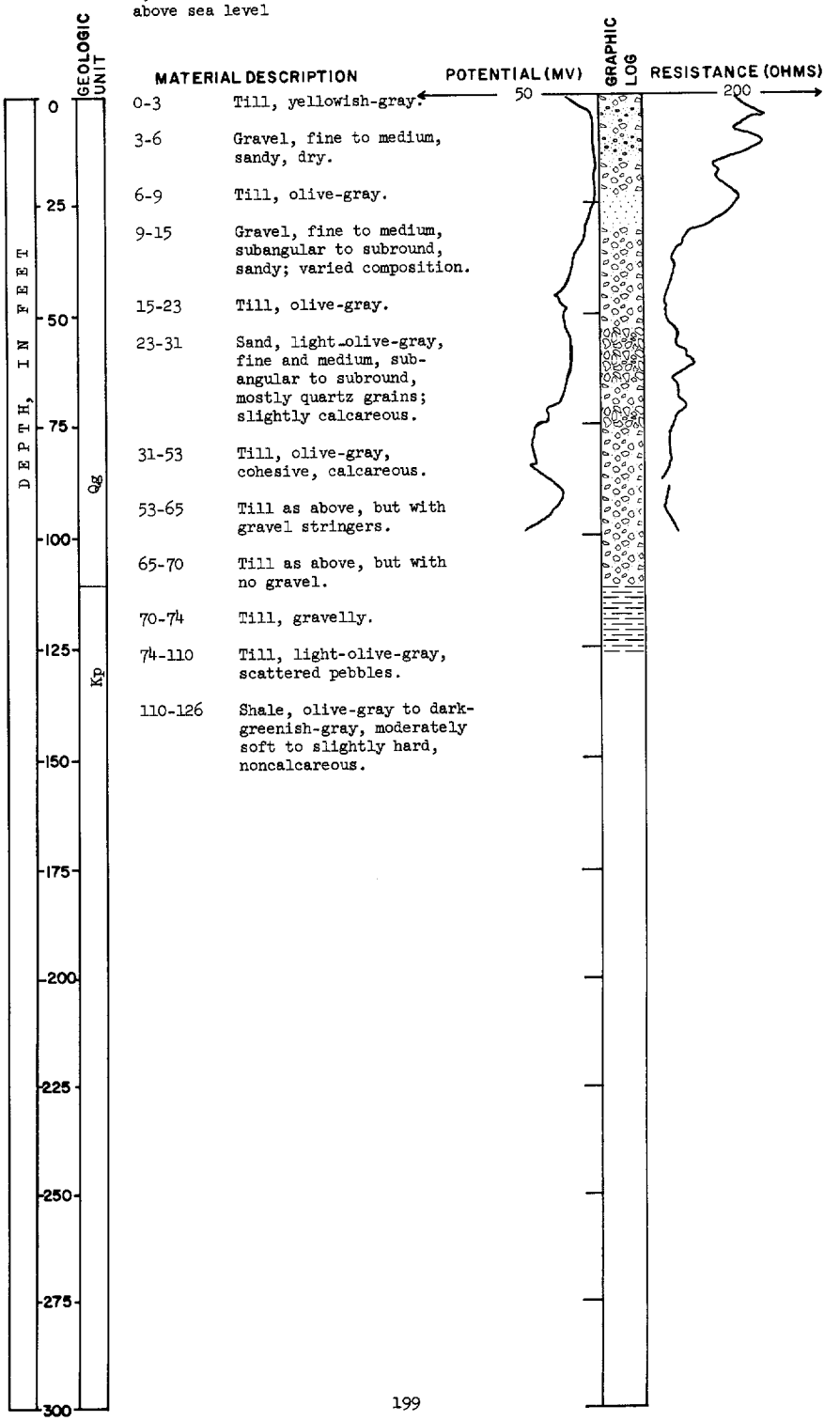


LOCATION: Eddy County 148-67-7aaa

ELEVATION: 1,545 feet above sea level

DATE DRILLED: August 3, 1964

DEPTH: 126 feet



	MATERIAL DESCRIPTION
0-3	Till, yellowish-gray.
3-6	Gravel, fine to medium, sandy, dry.
6-9	Till, olive-gray.
9-15	Gravel, fine to medium, subangular to subround, sandy; varied composition.
15-23	Till, olive-gray.
23-31	Sand, light-olive-gray, fine and medium, subangular to subround, mostly quartz grains; slightly calcareous.
31-53	Till, olive-gray, cohesive, calcareous.
53-65	Till as above, but with gravel stringers.
65-70	Till as above, but with no gravel.
70-74	Till, gravelly.
74-110	Till, light-olive-gray, scattered pebbles.
110-126	Shale, olive-gray to dark-greenish-gray, moderately soft to slightly hard, noncalcareous.

Eddy County

LOCATION: 148-67-10baa

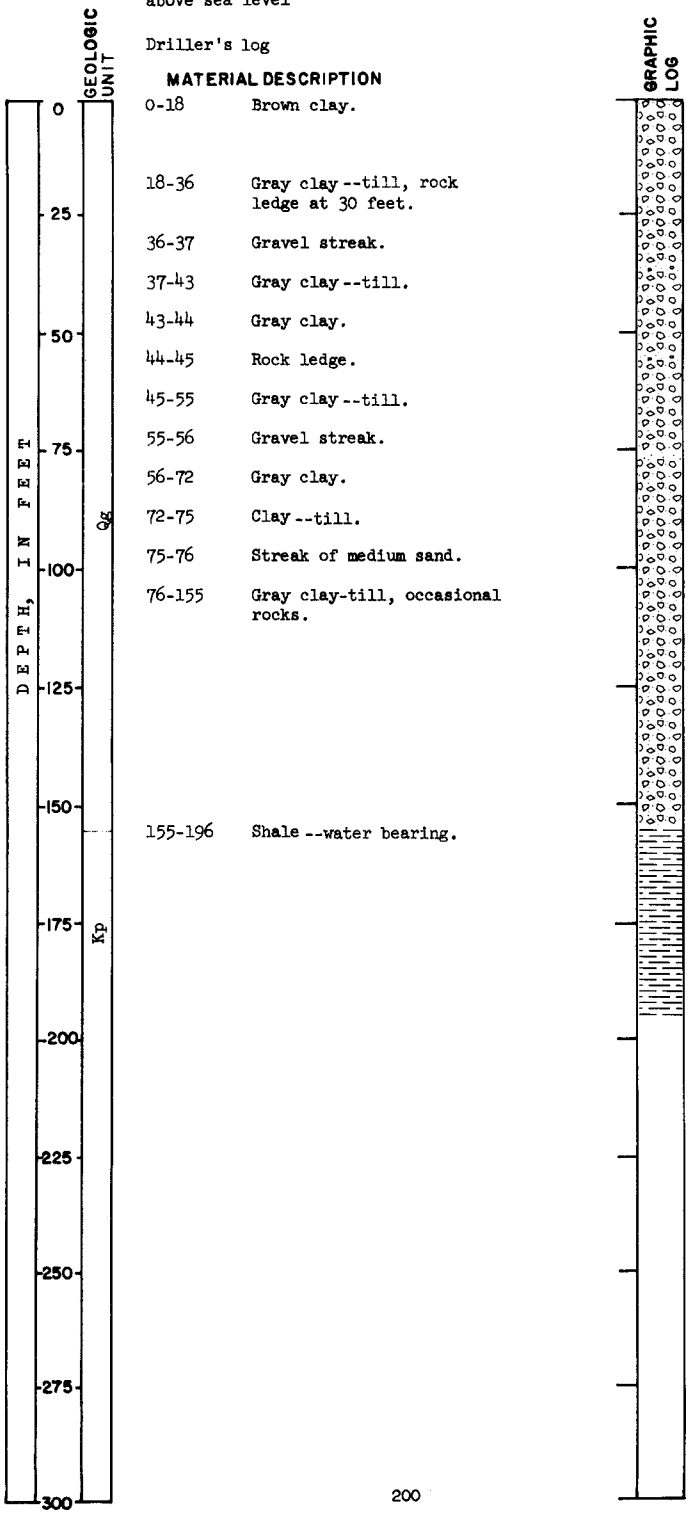
B. Whetham

ELEVATION: 1,543 feet above sea level

DATE DRILLED: November 1, 1962

DEPTH: 196 feet

Driller's log



	MATERIAL DESCRIPTION
0-18	Brown clay.
18-36	Gray clay--till, rock ledge at 30 feet.
36-37	Gravel streak.
37-43	Gray clay--till.
43-44	Gray clay.
44-45	Rock ledge.
45-55	Gray clay--till.
55-56	Gravel streak.
56-72	Gray clay.
72-75	Clay--till.
75-76	Streak of medium sand.
76-155	Gray clay-till, occasional rocks.
155-196	Shale--water bearing.

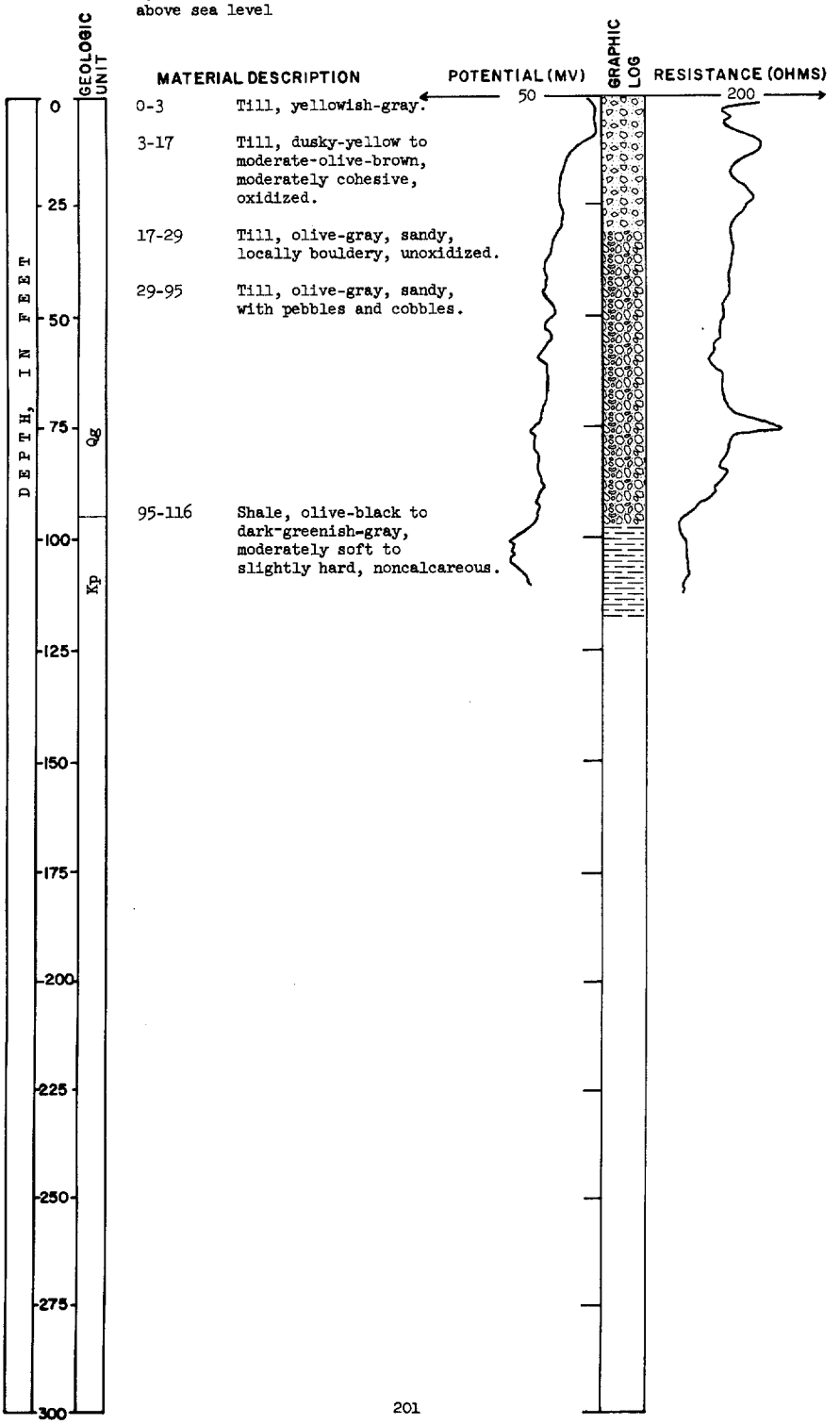
TEST HOLE 2290

LOCATION: Eddy County 148-67-26baa

DATE DRILLED: August 4, 1964

ELEVATION: 1,544 feet above sea level

DEPTH: 116 feet



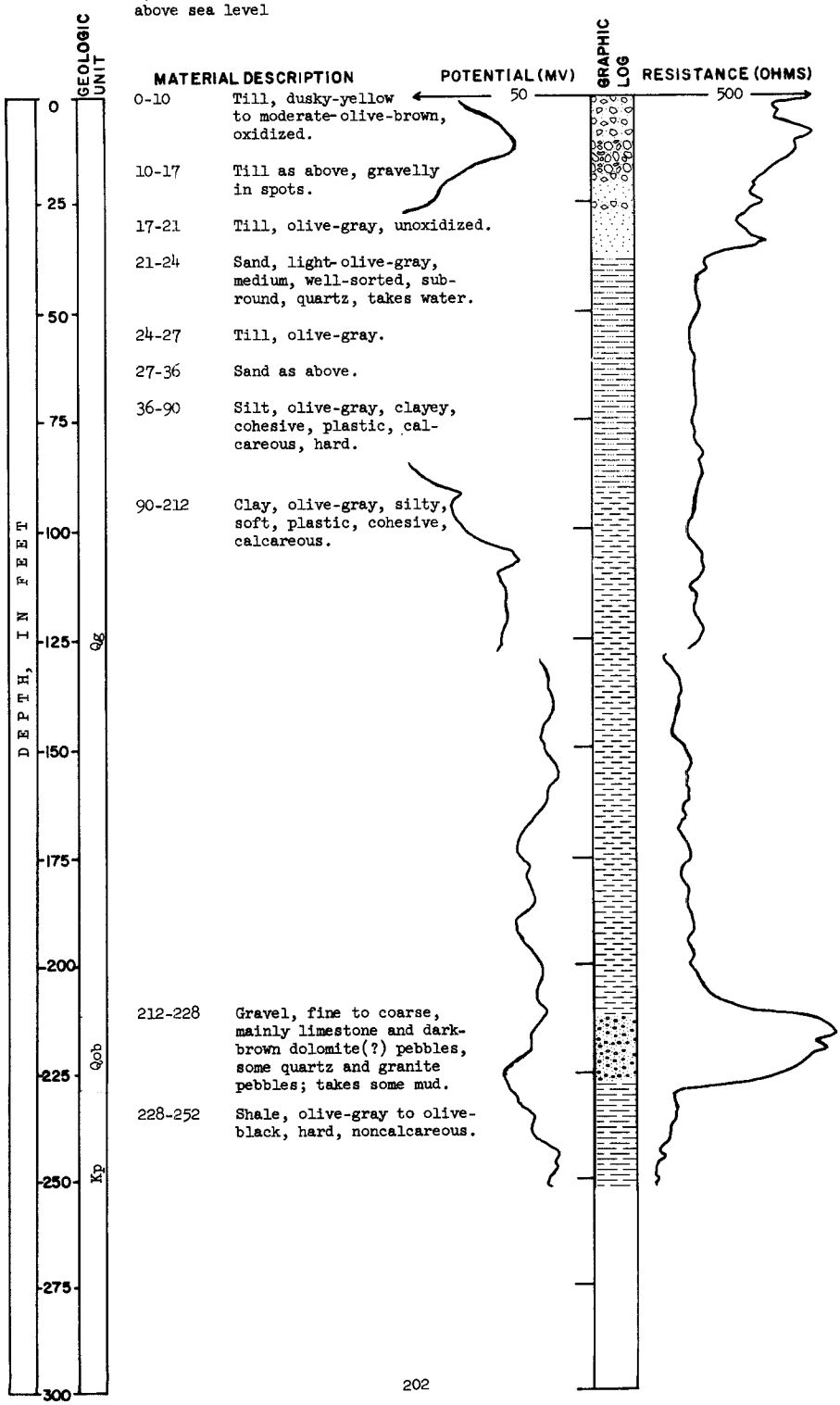
TEST HOLE 2278

LOCATION: Eddy County 149-62-1aaa

DATE DRILLED: July 22, 1964

ELEVATION: 1,471 feet above sea level

DEPTH: 252 feet



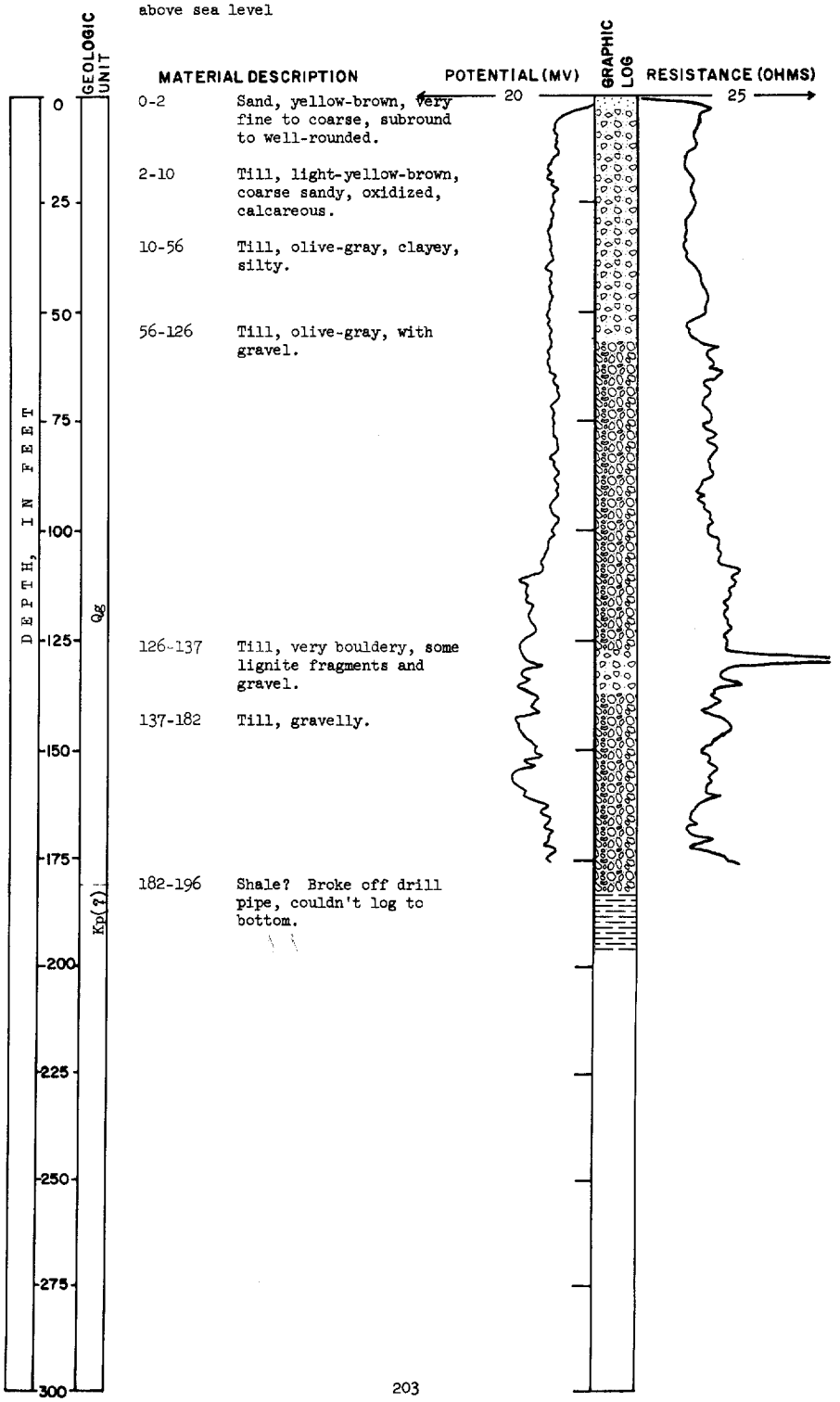
TEST HOLE 2302

LOCATION: Eddy County 149-63-11ccc

DATE DRILLED: August 20, 1964

ELEVATION: 1,488 feet above sea level

DEPTH: 199 feet



0-2	Sand, yellow-brown, very fine to coarse, subround to well-rounded.
2-10	Till, light-yellow-brown, coarse sandy, oxidized, calcareous.
10-56	Till, olive-gray, clayey, silty.
56-126	Till, olive-gray, with gravel.
126-137	Till, very bouldery, some lignite fragments and gravel.
137-182	Till, gravelly.
182-196	Shale? Broke off drill pipe, couldn't log to bottom.

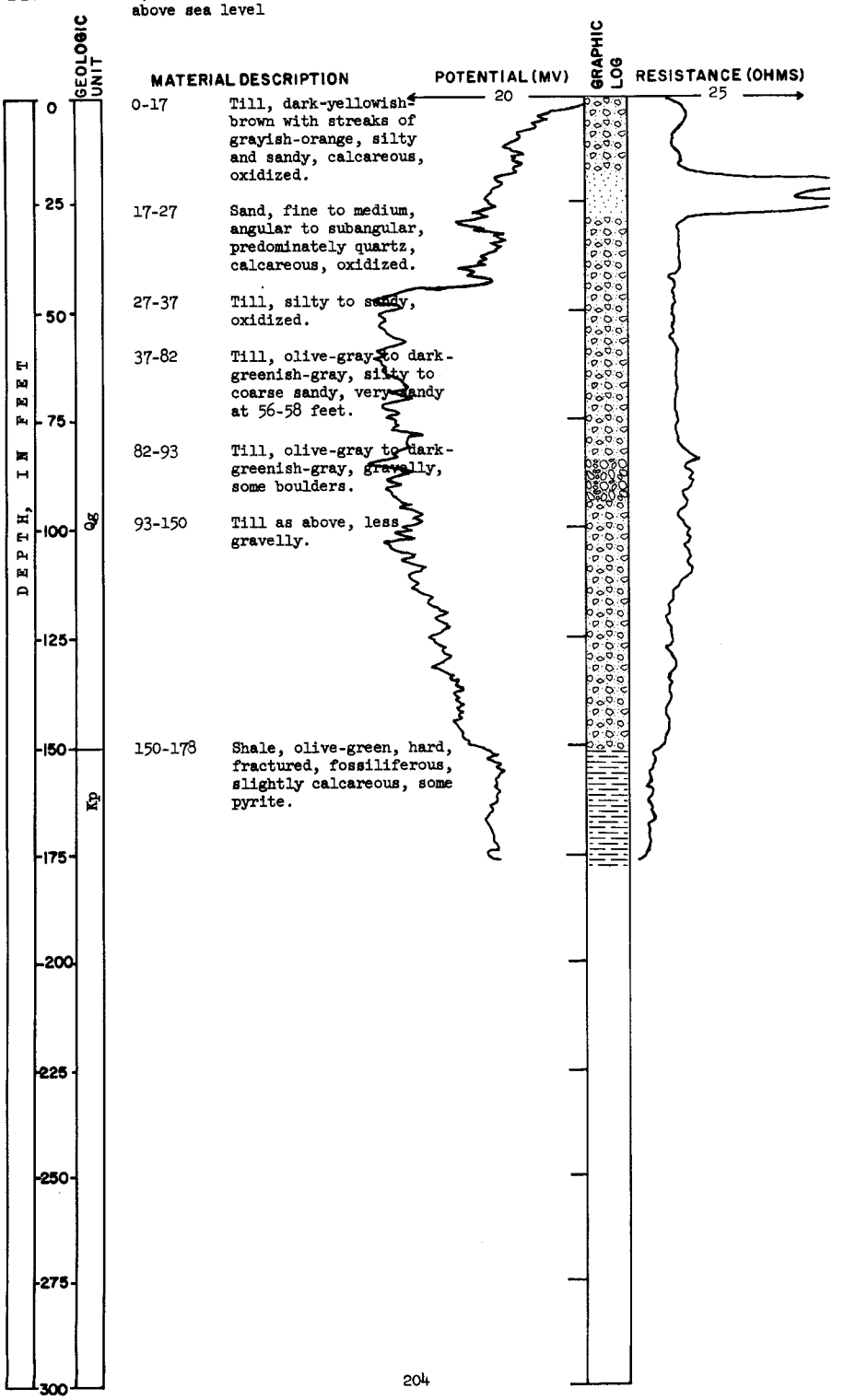
TEST HOLE 2303

LOCATION: Eddy County 149-63-34dbb

DATE DRILLED: August 26, 1964

ELEVATION: 1,550 feet above sea level

DEPTH: 178 feet

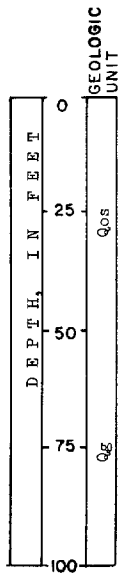


LOCATION: Eddy County 149-64-6ddd USBR TH 15

ELEVATION: 1,520 feet above sea level

DATE DRILLED: June 14, 1951

DEPTH: 45 feet



MATERIAL DESCRIPTION

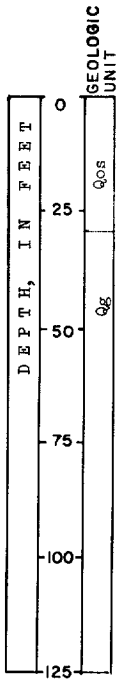
0-10	Sand, buff, very fine, varying proportions of silt and clay, few pebbles.
10-14	Sand, brown, fine, silty, iron-stained, gravelly.
14-18	Silt, gray, clayey, small proportion of sand.
18-30	Sand, gray-brown, fine, loose, clean.
30-39	Sand, gray, medium, clean, loose, well-sorted, iron-stained 30-33 feet.
39-42.5	Sand and gravel--gray, medium sand, medium gravel, small proportion of clay and firm shale particles.
42.5-45	Till, gray, plastic.

LOCATION: Eddy County 149-64-8ccc USBR TH 25

ELEVATION: 1,526 feet above sea level

DATE DRILLED: July 30, 1953

DEPTH: 40 feet



MATERIAL DESCRIPTION

0-5	Silt, light-gray, sandy, loose.
5-16	Sand, gray-brown, fine, silty.
16-20	Sand, gray, medium, fairly clean, a few clay balls and lignite fragments from 18-18.5 feet.
20-28.5	Sand, coarse, with 10% gravel.
28.5-40	Till, gray, clayey, silty to sandy, few small pebbles; slightly saturated.

149-64- 8ddd
U.S. Bureau of Reclamation
Test hole 14

Eddy County

Elevation: 1,513 feet
above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sand, gray-brown, fine to medium, silty, slightly clayey.	10	10
Sand, gray, medium, loose, clean, small proportion of fine gravel and shale particles.	14	24
Clay, gray, very sandy, slightly plastic.	1	25
Till, gray, clayey, silty, sandy, small proportion of fine gravel, compact, slightly plastic.	5	30

149-64-10dcc
U.S. Bureau of Reclamation
Test hole 4N-9½E

Eddy County

Elevation: 1,492 feet
above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Loam.	1	1
Sandy clay loam.	1	2
Medium sand and gravel.	2	4
Light sandy loam.	1	5
Gravelly sandy loam.	3	8
Sandy clay loam.	5	13
Heavy clay.	2	15
Fine sand.	1	16

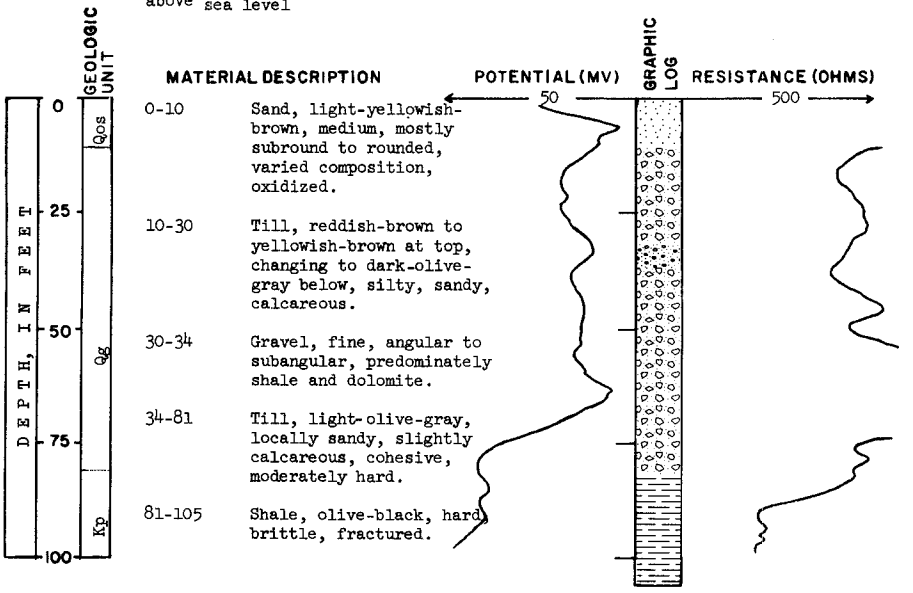
Eddy County **TEST HOLE** 2301

LOCATION: 149-64-13aaa

DATE DRILLED: August 19, 1964

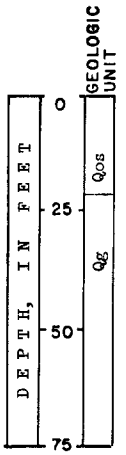
ELEVATION: 1,529 feet above sea level

DEPTH: 105 feet



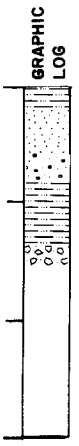
Eddy County
LOCATION: 149-64-18bbb
USBR TH 2
ELEVATION: 1,524 feet
above sea level

DATE DRILLED: 1951
DEPTH: 40 feet



MATERIAL DESCRIPTION

0-5	Silt, tan, clayey, few pebbles and few shale particles.
5-15	Sand, gray, clay binder, few shale pebbles.
15-21	Sand, gray, medium, gravelly, thin plastic clay seams throughout.
21-35	Silt, gray, sandy, moderately compact.
35-40	Till, gray, slightly plastic.



149-64-19ccc
U.S. Bureau of Reclamation
Eddy County — Test hole 3

Elevation: 1,519 feet above sea level — Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sandy clay.	2.5	2.5
Fine sand.	9.5	12
Clay.	3	15

149-64-20ddd2
U.S. Bureau of Reclamation
Eddy County — Test hole 26

Elevation: 1,517 feet above sea level — Date Drilled: 1953

Material	Thickness (feet)	Depth (feet)
Silt, brown, with much fine sand, loose.	5	5
Sand, brown, fine to medium, silty, 10% gravel, loose, fair to good permeability.	13.5	18.5
Till, gray, slightly plastic.	12.5	31
Shale, gray, clayey, silty.	1	32

149-64-21aaa
U.S. Bureau of Reclamation
Test hole 13

Eddy County

Elevation: 1,512 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sand, brown, fine to coarse, silty, shale particles, loose.	10	10
Sand, brown, fine to medium, clean, loose.	7	17
Sand, gray, medium to coarse, small proportion of fine gravel, shale, and lignite; loose.	4.5	21.5
Sand, gray, fine to medium, and medium gravel, a little lignite.	7.5	29
Silt, gray, clayey, sandy.	3	32
Till, gray, slightly plastic.	3	35

149-64-21bbb
U.S. Bureau of Reclamation
Test hole 22

Eddy County

Elevation: 1,517 feet above sea level

Date Drilled: 1953

Material	Thickness (feet)	Depth (feet)
Sand, brown, fine to medium, silty, loose, oxidized.	7	7
Sand, gray, medium, fairly clean except clayey streak at 14½ ft., few small pebbles, loose, good permeability.	13	20
Gravel, gray, fine to medium, sandy, loose, good permeability.	5	25
Till, gray, slightly plastic.	10	35

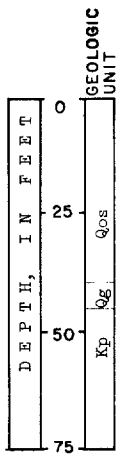
Eddy County

LOCATION: 149-64-22ddd
USBR TH 27

ELEVATION: 1,514 feet above sea level

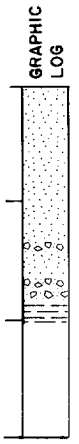
DATE DRILLED: August 4, 1953

DEPTH: 50 feet



MATERIAL DESCRIPTION

0-10	Sand, buff to tan, fine, silty, loose.
10-18	Sand, gray-brown, medium to coarse, small proportion of gravel, clean, loose, good permeability.
18-33	Sand, gray, fine to medium, clean, loose, good permeability.
33-34.5	Till, gray, silty, sandy.
34.5-40	Sand, gray, fine to medium, silty, trace of clay, 5-10% gravel, loose.
40-45(?)	Till, gray.
45(?)-50	Shale, gray, clayey, silty, stiff to hard.



TEST HOLE 2300

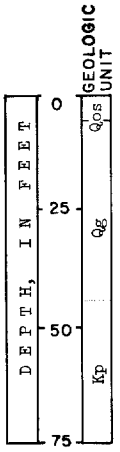
Eddy County

LOCATION: 149-64-24cbc

ELEVATION: 1,498 feet above sea level

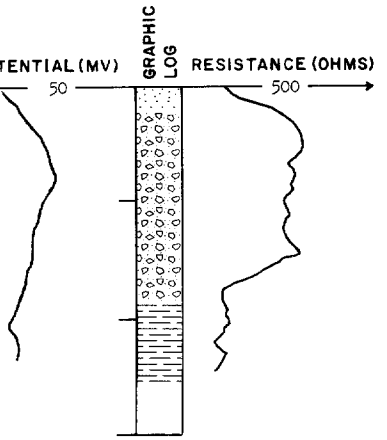
DATE DRILLED: August 19, 1964

DEPTH: 63 feet



MATERIAL DESCRIPTION

0-5	Sand, light-yellowish-brown, silty.
5-22	Till, olive-gray, very silty at top, somewhat sandy.
22-44	Till as above, but darker gray, less silty, some boulders.
44-63	Shale, olive-black, brittle, fractured.



149-64-27bbb
U.S. Bureau of Reclamation
Test hole 7

Eddy County

Elevation: 1,515 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sand, tan, fine, silty, slightly clayey.	9	9
Sand, brown, medium, clean, loose, iron-stained.	6	15
Sand, gray, medium, fairly clean, small proportion of medium gravel.	12	27
Till, gray, plastic.	3	30

149-64-32aaa
U.S. Bureau of Reclamation
Eddy County Test hole 1N-8E

Elevation: 1,524 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Loam.	1	1
Sandy loam.	1	2
Loamy sand.	1	3
Fine sand and shale fragments.	2	5
Sand and shale fragments.	2	7
Shale.	3	10
Unlogged.	3	13

149-64-34cdc
U.S. Bureau of Reclamation
Eddy County Test hole 8

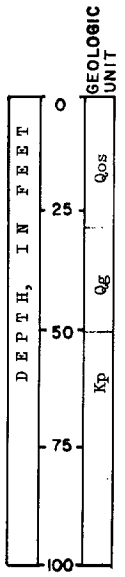
Elevation: 1,511 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Clay, buff, slightly plastic, sand.	2	2
Sand, brown, fine clayey, wet.	3	5
Sand, brown, medium, loose, clean.	6	11
Sand, gray, medium to coarse, loose, few small pebbles, clean.	4	15
Till; dark-gray, compact.	5	20

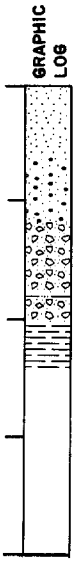
Eddy County
LOCATION: 149-65-2bbb
USBR GWI 21
ELEVATION: 1,533 feet
above sea level

DATE DRILLED: July 29, 1953
DEPTH: 60 feet



MATERIAL DESCRIPTION

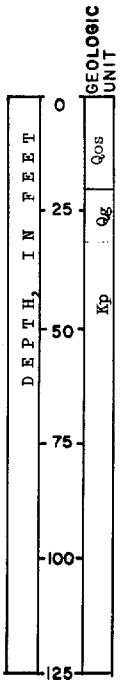
0-13	Sand, gray, fine, large proportion of silt, few small pebbles, dries with slight bind.
13-15	Sand, brown, fine to medium, silty, 10-20% gravel, loose.
15-29	Sand, gray, fine to coarse, with gravel, medium, trace of silt, loose, good permeability.
29-44	Till; gray, to hard, impervious, with streak of silt at 44-45 feet.
44-45	Silt, sandy.
45-50.5	Till, as above.
50.5-60	Shale, gray, clay, silty, stiff.



TEST HOLE 2306

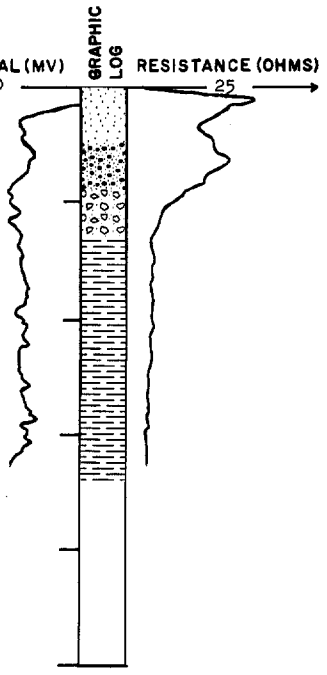
Eddy County
LOCATION: 149-65-9bbb
ELEVATION: 1,529 feet
above sea level

DATE DRILLED: August 26, 1964
DEPTH: 84 feet



MATERIAL DESCRIPTION

0-11	Sand, light-reddish-brown, very coarse, subangular to subround, varied composition, oxidized.
11-21	Gravel, fine to medium, some coarse sand, sub-angular to subround, varied composition, unoxidized.
21-32	Till, olive-gray, cohesive, highly calcareous.
32-68	Shale, dark-greenish-gray, weathered to clay, silty, slightly calcareous, silty, grading downward.
68-84	Shale, dark-greenish-gray to olive-black, laminated.



149-65-10bbb
U.S. Bureau of Reclamation
GWI 19

Eddy County

Elevation: 1,528 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sand, gray, fine, clayey, few small shale particles.	4.5	4.5
Sand, brown, medium, fairly clean, loose.	5	9.5
Sand, gray, medium to coarse, with small proportion fine gravel.	14.5	24
Till, gray, very plastic when saturated.	2	26

149-65-11bbb
U.S. Bureau of Reclamation
GWI 20

Eddy County

Elevation: 1,530 feet above sea level

Date Drilled: 1953

Material	Thickness (feet)	Depth (feet)
Sand, gray-brown, fine to medium, much silt, trace of clay, loose, low permeability.	10	10
Sand, gray, fine to coarse, 10% fine gravel, silty to fairly clean, loose, good permeability.	3.5	13.5
Till, gray, slightly plastic, impervious.	7.5	21
Sand, fine, silty.	1	22
Till, as above.	12.5	34.5
Shale, gray, silty, weathered to clay, stiff.	.5	35

TEST HOLE 2307

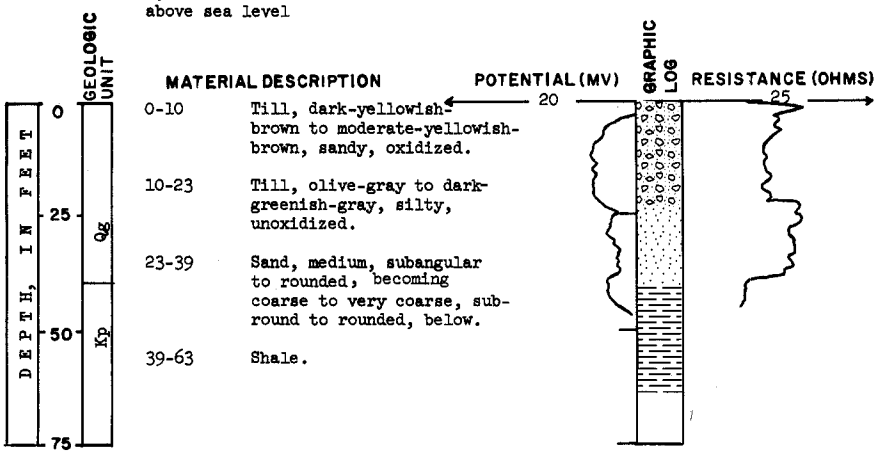
Eddy County

LOCATION: 149-65-18cbb

DATE DRILLED: August 27, 1964

ELEVATION: 1,530 feet above sea level

DEPTH: 63 feet



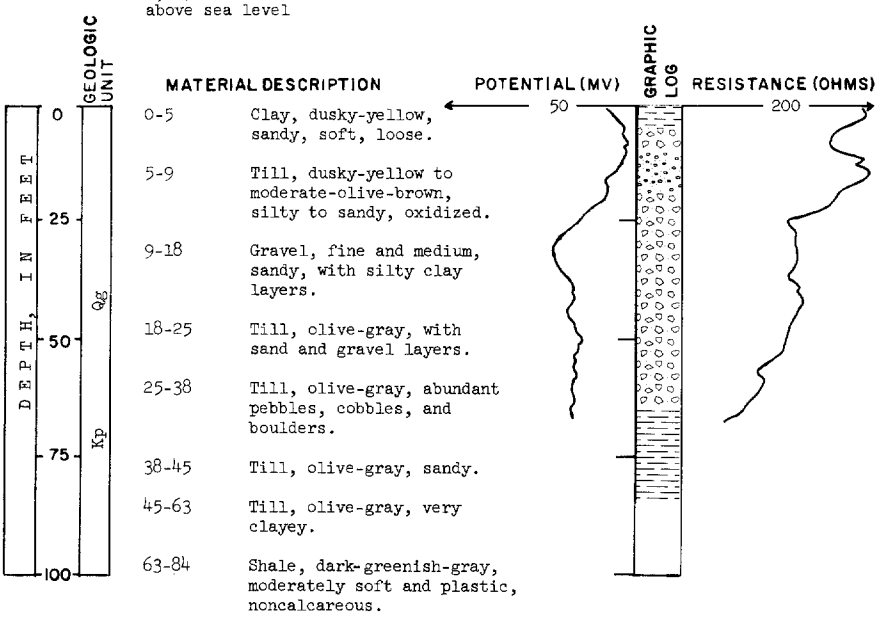
TEST HOLE 2292

LOCATION: Eddy County 149-66-4cdd

DATE DRILLED: August 5, 1964

ELEVATION: 1,549 feet above sea level

DEPTH: 84 feet



149-66- 9ccc

U.S. Bureau of Reclamation

Eddy County

Test hole 4N-4W

Elevation: 1,542 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Silty clay loam.	2	2
Sandy clay loam.	1	3
Sandy loam.	1	4
Fine sandy loam.	1	5
Sandy clay loam.	1	6
Sand.	1	7
Sandy clay loam.	2	9
Heavy clay.	3	12
Sand.	3	15
Sandy heavy clay.	6	21

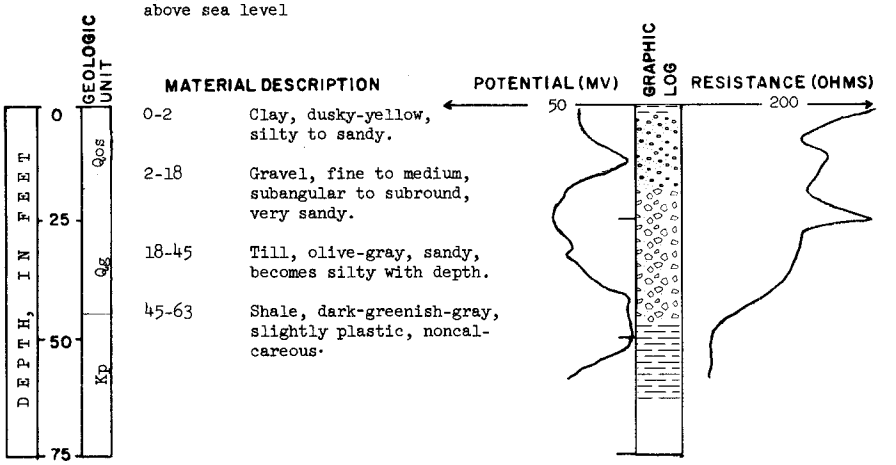
TEST HOLE 2293

LOCATION: Eddy County 149-66-21aaa

DATE DRILLED: August 5, 1964

ELEVATION: 1,536 feet above sea level

DEPTH: 63 feet



MATERIAL DESCRIPTION	
0-2	Clay, dusky-yellow, silty to sandy.
2-18	Gravel, fine to medium, subangular to subround, very sandy.
18-45	Till, olive-gray, sandy, becomes silty with depth.
45-63	Shale, dark-greenish-gray, slightly plastic, noncalcareous.

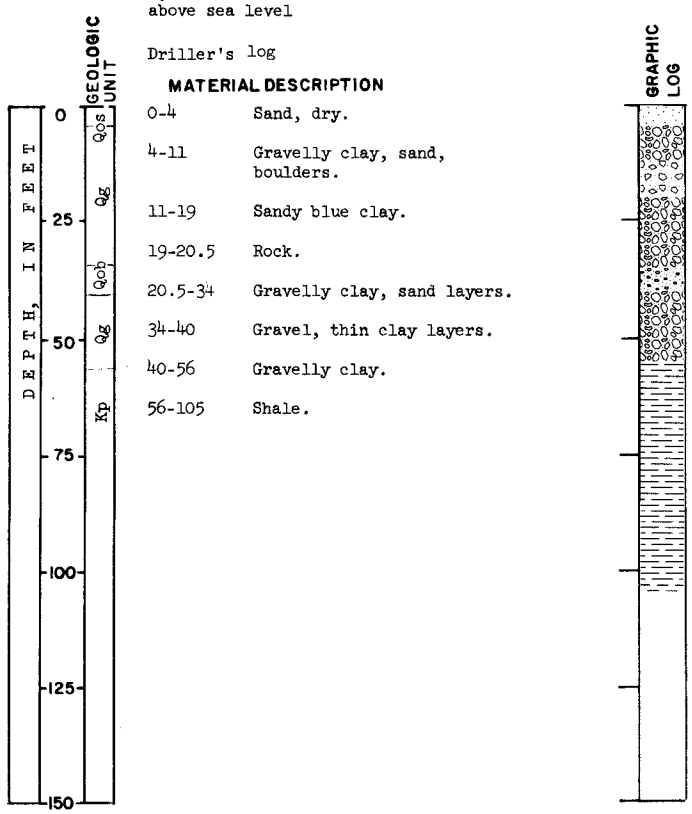
LOCATION: Eddy County 149-66-25dca Malcolm Thompson TH 1

DATE DRILLED: 1961

ELEVATION: 1,524 feet above sea level

DEPTH: 105 feet

Driller's log



MATERIAL DESCRIPTION	
0-4	Sand, dry.
4-11	Gravelly clay, sand, boulders.
11-19	Sandy blue clay.
19-20.5	Rock.
20.5-34	Gravelly clay, sand layers.
34-40	Gravel, thin clay layers.
40-56	Gravelly clay.
56-105	Shale.

Eddy County

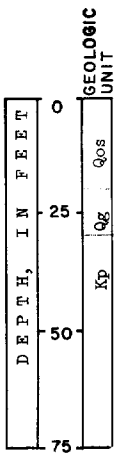
TEST HOLE NR 8

LOCATION: 149-66-29cad

DATE DRILLED: 1947

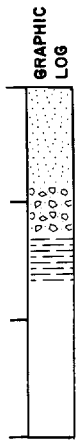
ELEVATION: 1,523 feet above sea level

DEPTH: 40 feet



MATERIAL DESCRIPTION

0-20	Sand, brown, silty.
20-30	Till, gray, clayey, unweathered.
30-40	Shale, light-gray.



Eddy County

LOCATION: 149-66-31cad 1

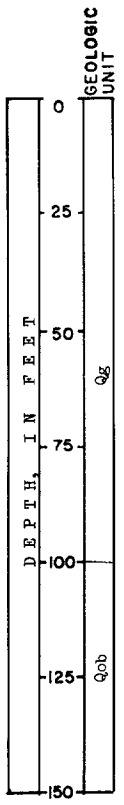
DATE DRILLED: 1918

City of New Rockford (formerly Great Northern Railway)

ELEVATION: 1,540 feet above sea level.

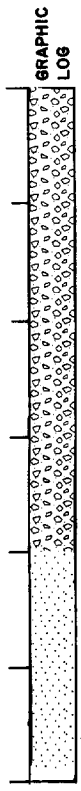
DEPTH: 146 feet

Driller's log



MATERIAL DESCRIPTION

0-20	Yellow clay.
20-23	Blue clay.
23-33	Boulders and blue clay.
33-50	Blue clay.
50-53	Boulders and blue clay (water-bearing).
53-70	Blue clay (hard).
70-100	Blue clay and boulders.
100-146	Sand, water-bearing.



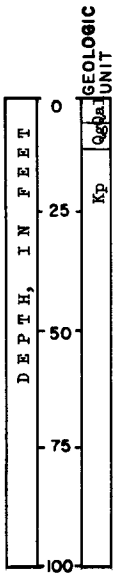
TEST HOLE NR 7

LOCATION: Eddy County 149-66-32bad

DATE DRILLED: 1947

ELEVATION: 1,520 feet above sea level

DEPTH: 40 feet



MATERIAL DESCRIPTION

0-5	Clay, gray, sandy.
5-10	Sand, brown, fine to medium, dirty.
10-40	Shale, gray.

149-66-36aaa
U.S. Bureau of Reclamation
Test hole N1-W0

Eddy County

Elevation: 1,525 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sandy clay loam.	1	1
Sandy light clay.	2	3
Light clay.	7	10
Heavy clay.	12	22

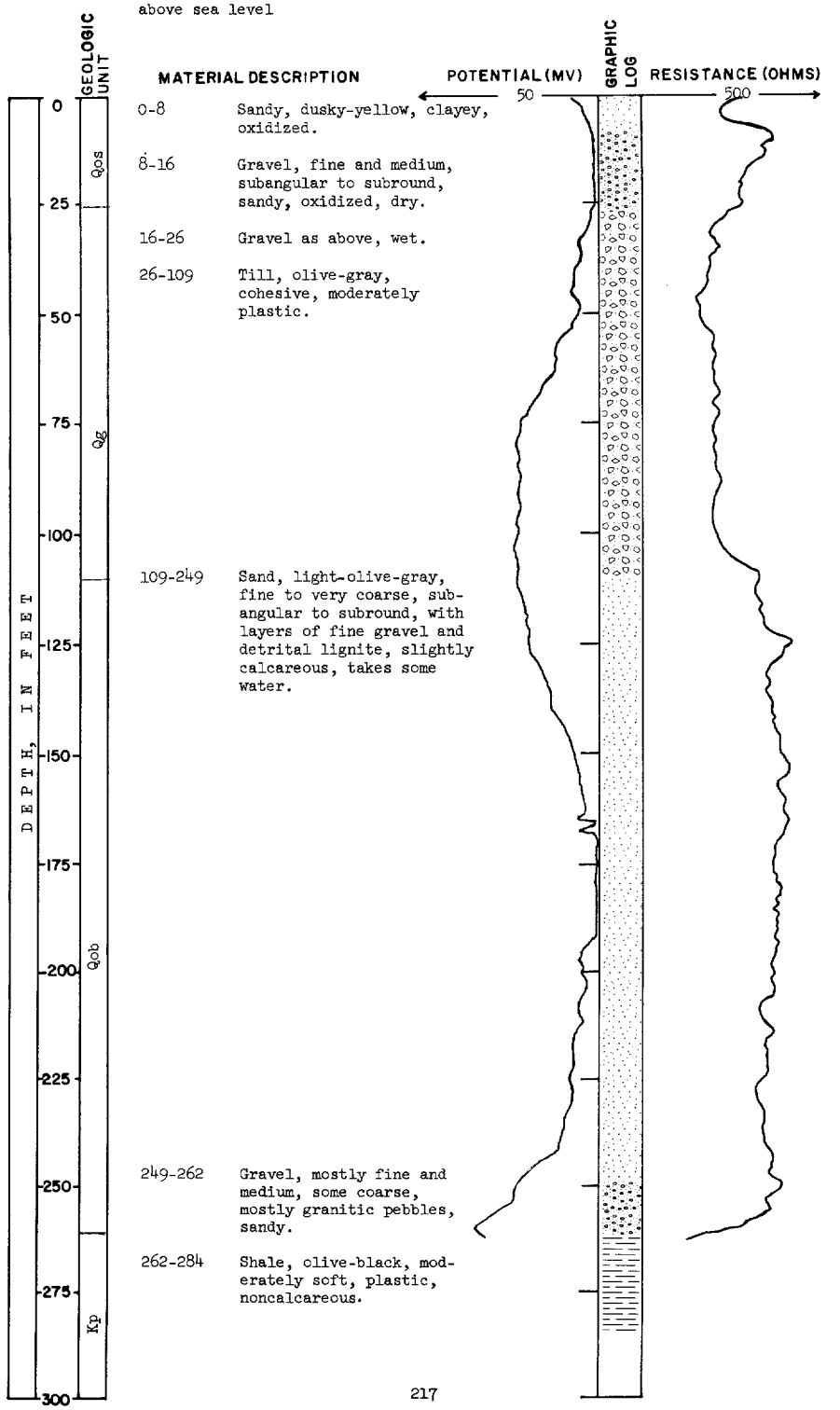
TEST HOLE 2291

LOCATION: Eddy County 149-67-17bbb

DATE DRILLED: August 4, 1964

ELEVATION: 1,540 feet above sea level

DEPTH: 284 feet



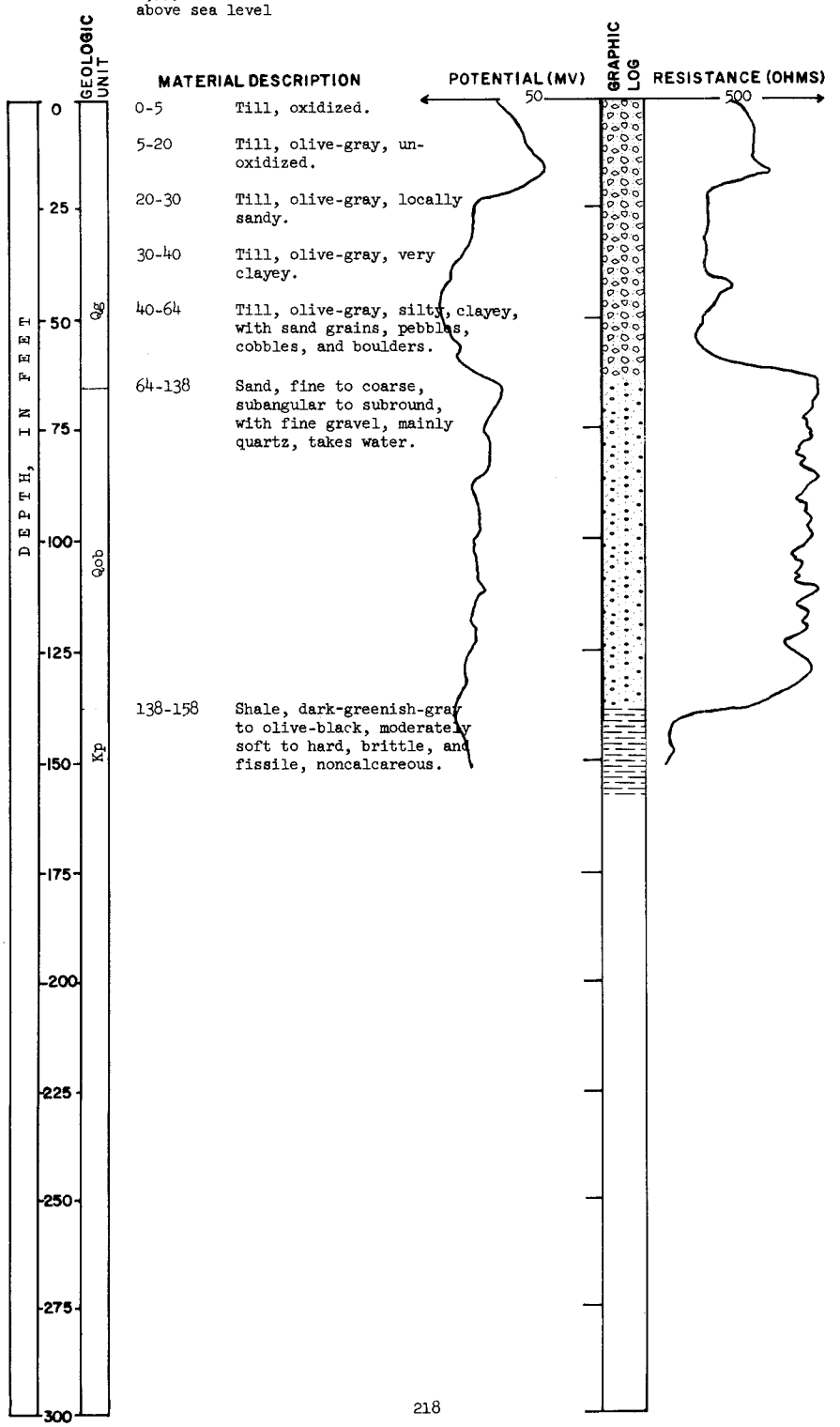
TEST HOLE 2287A

LOCATION: Eddy County 149-67-17ccb

DATE DRILLED: July 31, 1964

ELEVATION: 1,559 feet above sea level

DEPTH: 158 feet



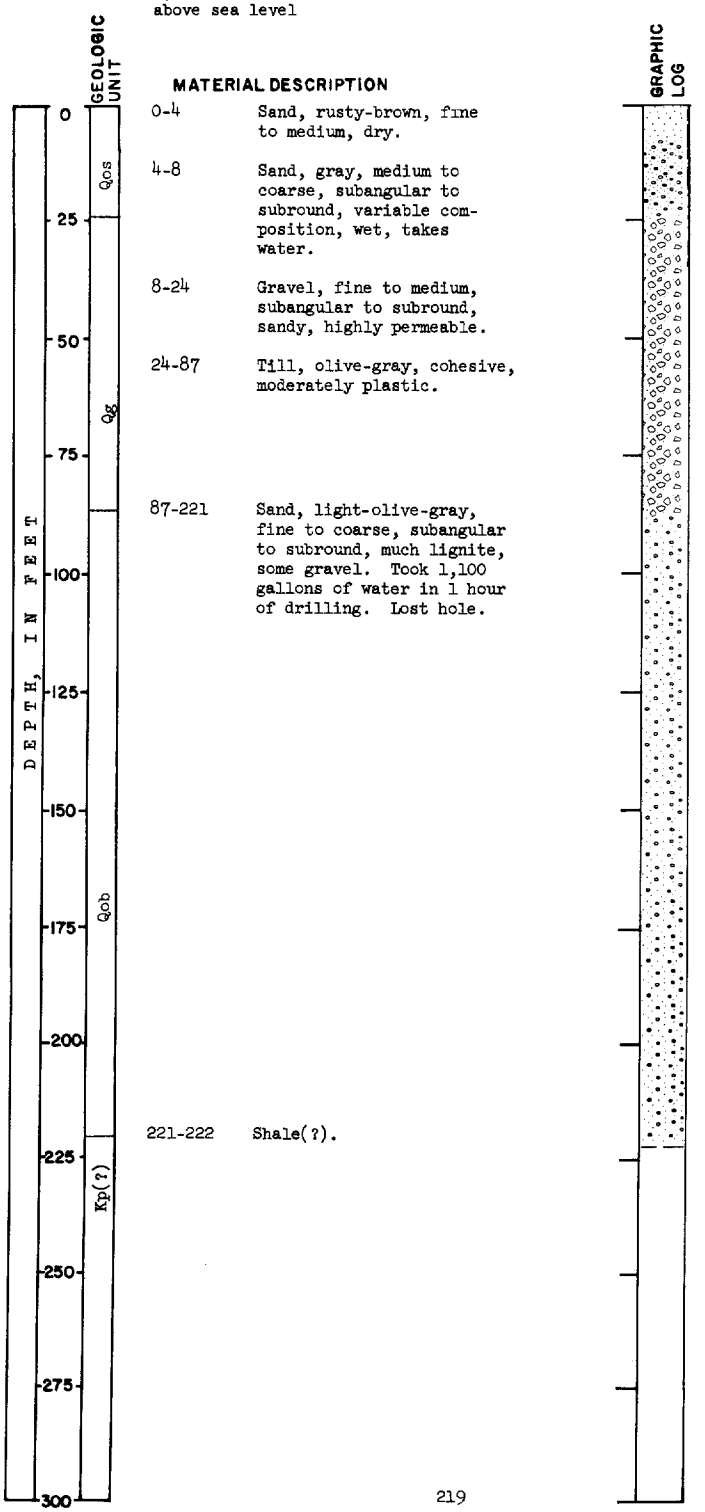
TEST HOLE 2287

LOCATION: Eddy County 149-67-18add

DATE DRILLED: July 29, 1964

ELEVATION: 1,520 feet above sea level

DEPTH: 222 feet



	MATERIAL DESCRIPTION
0-4	Sand, rusty-brown, fine to medium, dry.
4-8	Sand, gray, medium to coarse, subangular to subround, variable composition, wet, takes water.
8-24	Gravel, fine to medium, subangular to subround, sandy, highly permeable.
24-87	Till, olive-gray, cohesive, moderately plastic.
87-221	Sand, light-olive-gray, fine to coarse, subangular to subround, much lignite, some gravel. Took 1,100 gallons of water in 1 hour of drilling. Lost hole.
221-222	Shale(?).

149-67-22bcs
Leslie Shroyer Test Hole

Eddy County

Elevation: 1,532 feet above sea level

Date Drilled: 1963

Material	Thickness (feet)	Depth (feet)
Sand and gravel.	19	19
Blue clay (shale?).	3	22

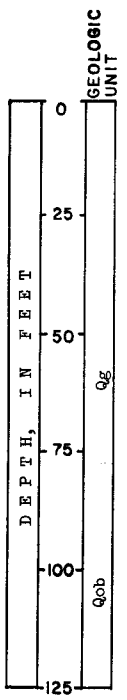
LOCATION: Eddy County 149-67-25ccc M. Whetham

ELEVATION: 1,532 feet above sea level

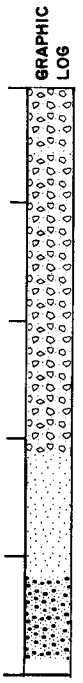
DATE DRILLED: November 1962

DEPTH: 120 feet

Driller's log



MATERIAL DESCRIPTION	
0-12	Gray clay.
12-13	Medium sand.
13-78	Gray clay.
78-85	Fine blue sand.
85-103	Medium sand.
103-120	Gravel, cobbles, coarse sand, with slate.



149-67-26ccc
U.S. Bureau of Reclamation
Test hole 1N-8W

Eddy County

Elevation: 1,546 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Silty loam.	1	1
Fine sandy loam.	1	2
Loamy fine sand.	1	3
Fine sand.	1	4
Sandy clay loam.	6	10
Heavy clay.	7	17
Sandy clay.	2	19
Fine sand.	2	21
Heavy clay.	2	23

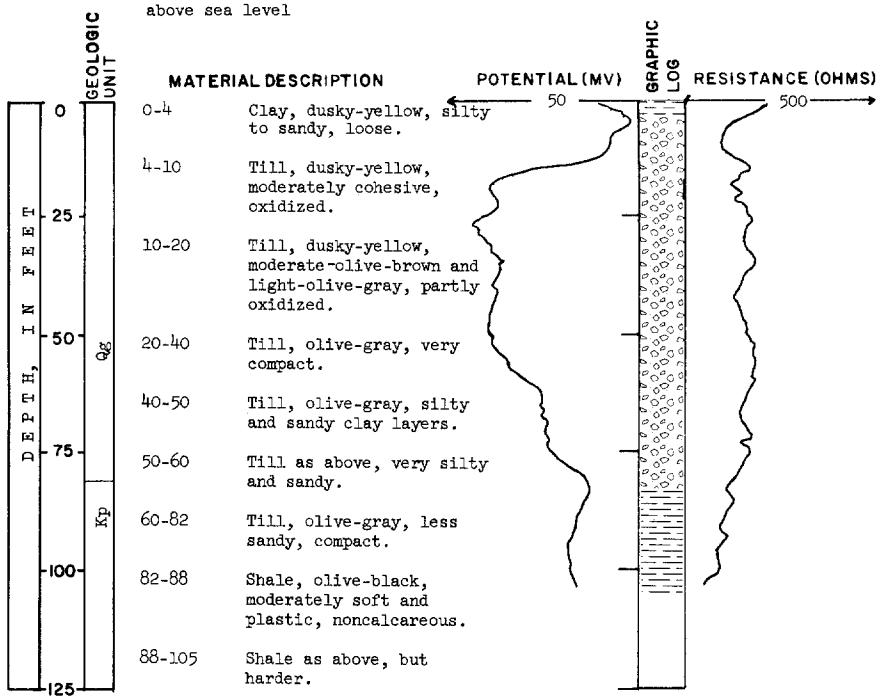
TEST HOLE 2288

LOCATION: Eddy County
149-67-30ccb

DATE DRILLED: August 3, 1964

ELEVATION: 1,565 feet above sea level

DEPTH: 105 feet



150-62-3aaa
U.S. Bureau of Reclamation
Test hole 416

Elevation: 1,467 feet above sea level

Date Drilled: 1952

Material	Thickness (feet)	Depth (feet)
Sandy clay loam.	1	1
Clay loam.	1	2
Sandy clay loam.	1	3
Loamy sand.	4	7
Sandy loam.	3	10
Sandy clay loam.	6	16
Sandy loam.	1	17
Loamy sand.	7	24

Eddy County

LOCATION: 150-62-3aba

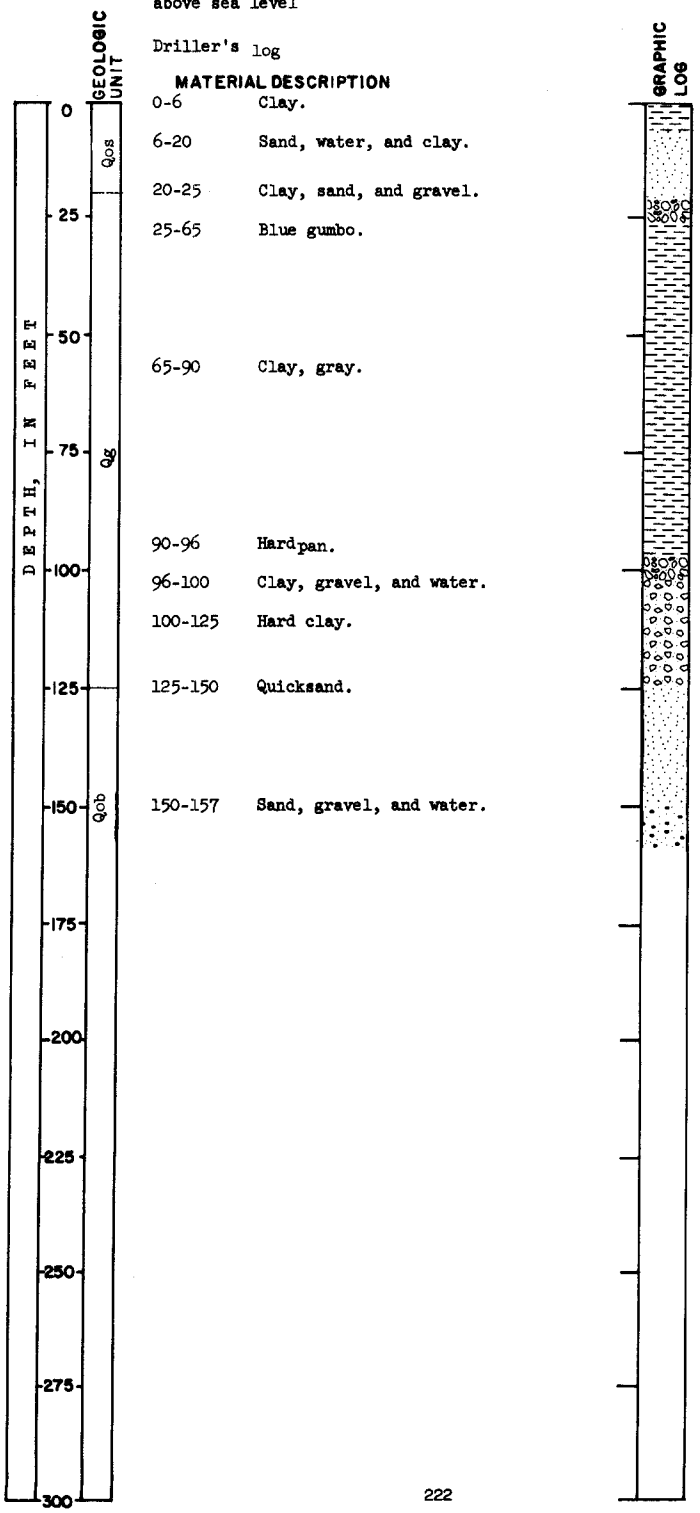
Great Northern Railway

ELEVATION: 1,471 feet above sea level

DATE DRILLED: July 18, 1958

DEPTH: 157 feet

Driller's log



MATERIAL DESCRIPTION	
0-6	Clay.
6-20	Sand, water, and clay.
20-25	Clay, sand, and gravel.
25-65	Blue gumbo.
65-90	Clay, gray.
90-96	Hardpan.
96-100	Clay, gravel, and water.
100-125	Hard clay.
125-150	Quicksand.
150-157	Sand, gravel, and water.

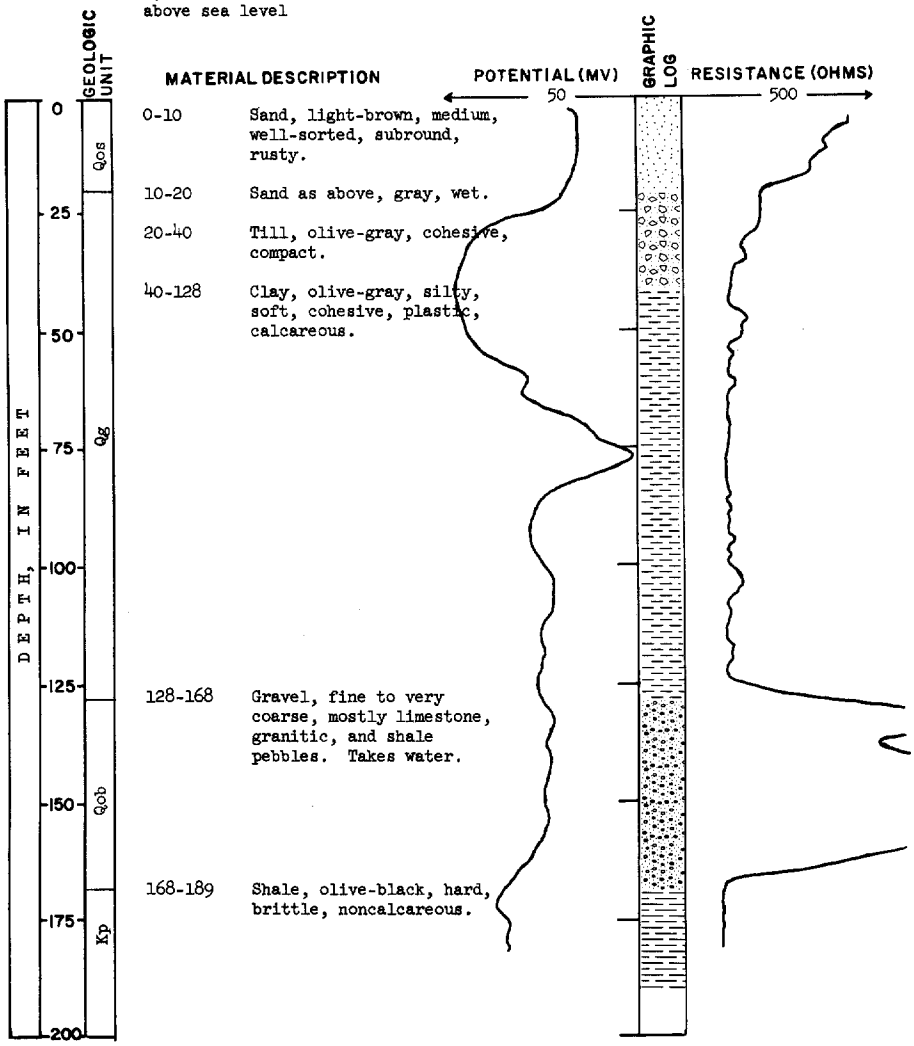
TEST HOLE 2279

LOCATION: Eddy County 150-62-15baa

DATE DRILLED: July 23, 1964

ELEVATION: 1,478 feet above sea level

DEPTH: 189 feet



150-62-22ddd

U.S. Bureau of Reclamation

Test hole 418

Eddy County

Elevation: 1,463 feet above sea level

Date Drilled: 1952

Material	Thickness (feet)	Depth (feet)
Loamy sand.	4	4
Sand.	3	7
Gravel.	3	10
Gravelly light clay.	1	11
Light clay, bottomed on shale.	2	13

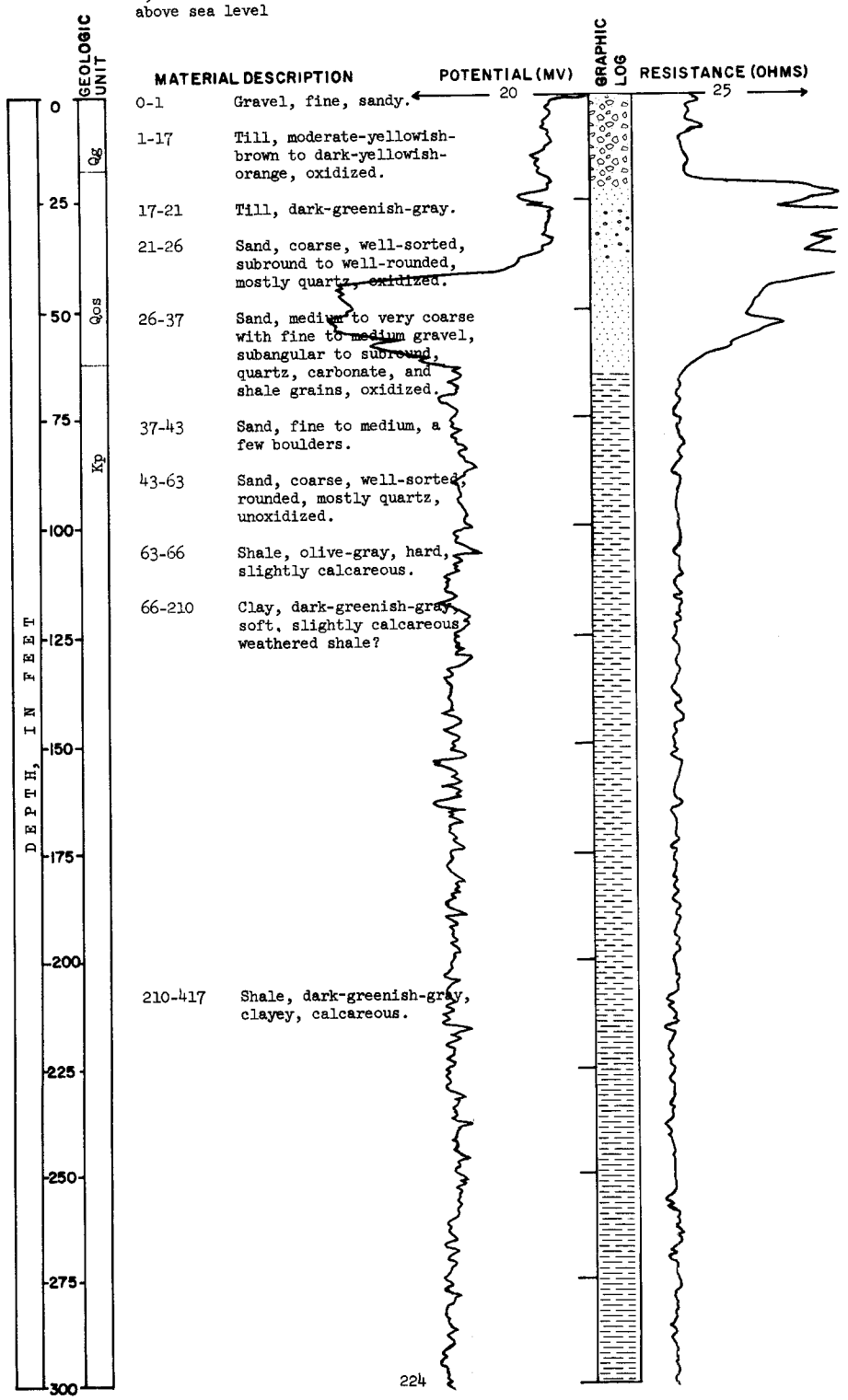
TEST HOLE 2304

LOCATION: Eddy County 150-62-27bcc

DATE DRILLED: August 25, 1964

ELEVATION: 1,460 feet above sea level

DEPTH: 472 feet



Eddy County

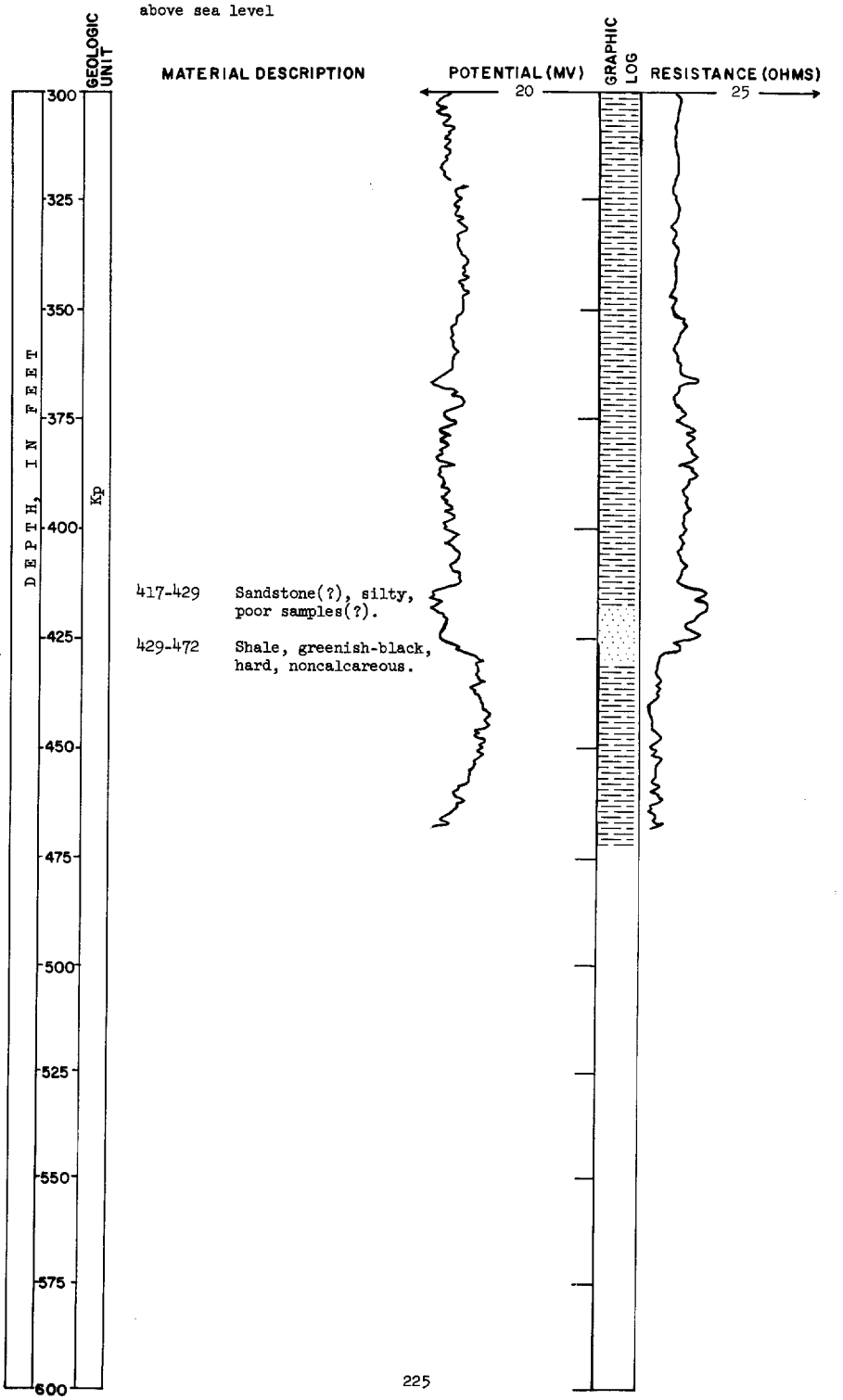
LOCATION: 150-62-27bcc

TEST HOLE 2304
(Continued)

DATE DRILLED: August 25, 1964

ELEVATION: 1,460 feet above sea level

DEPTH: 472 feet



417-429 Sandstone(?), silty, poor samples(?).

429-472 Shale, greenish-black, hard, noncalcareous.

Eddy County

LOCATION: 150-62-28cdc2

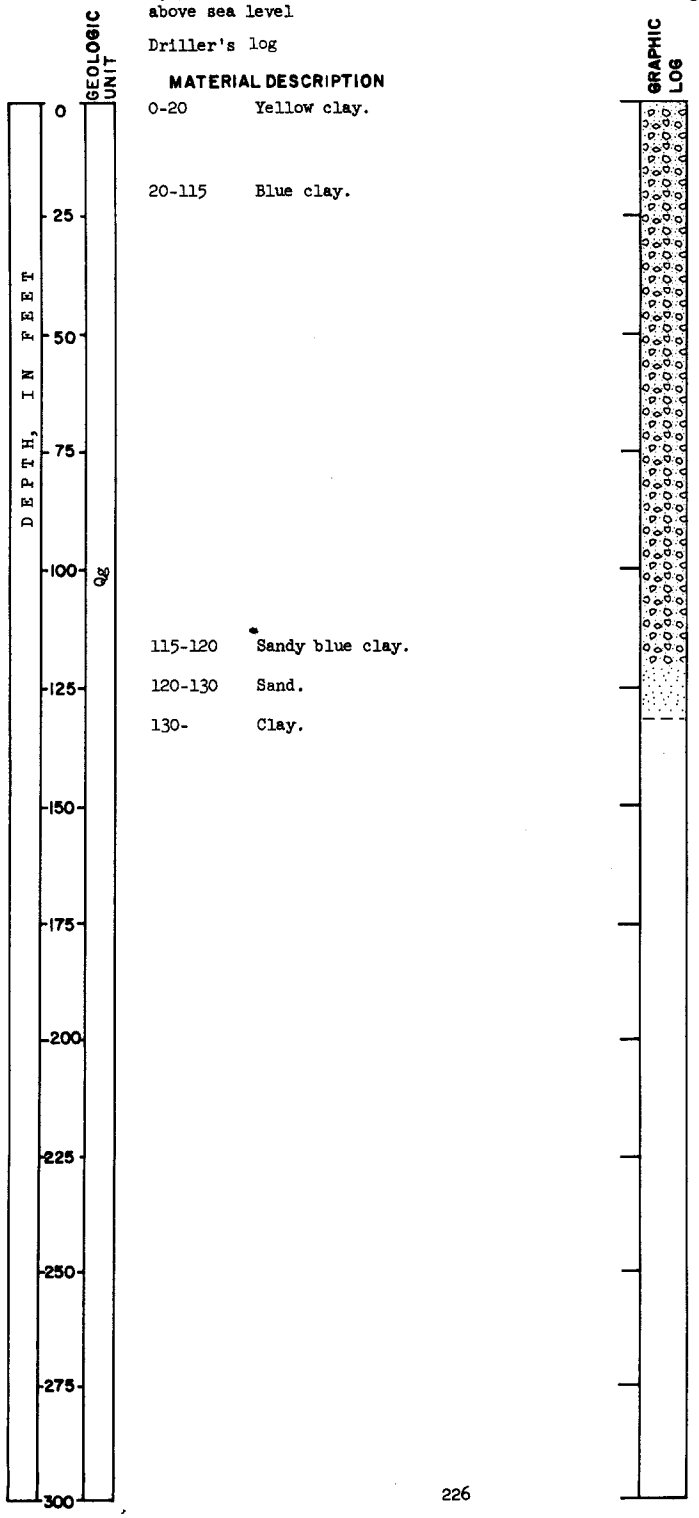
L. Tweed

ELEVATION: 1,493 feet above sea level

Driller's log

DATE DRILLED: 35 feet deep in 1955, deepened on Sept. 6, 1963

DEPTH: 130 feet



MATERIAL DESCRIPTION

0-20	Yellow clay.
20-115	Blue clay.
115-120	Sandy blue clay.
120-130	Sand.
130-	Clay.

150-63-13bbb
U.S. Bureau of Reclamation
Test hole 408

Eddy County

Elevation: 1,477 feet
above sea level

Date Drilled: 1952

Material	Thickness (feet)	Depth (feet)
Loamy sandy.	2	2
Clay loam.	4	6
Light clay.	1	7
Loamy sand.	7	14
Sand, caving.	3	17

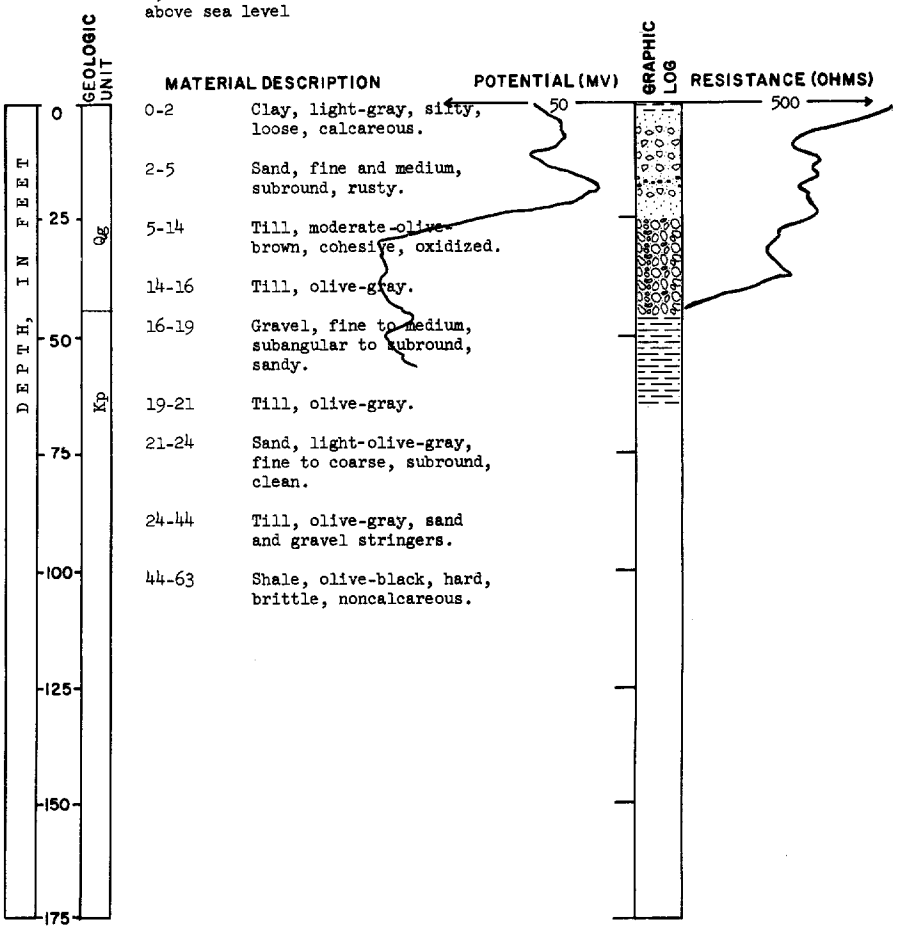
TEST HOLE 2280

LOCATION: Eddy County
150-63-19bbb

DATE DRILLED: July 23, 1964

ELEVATION: 1,508 feet
above sea level

DEPTH: 63 feet



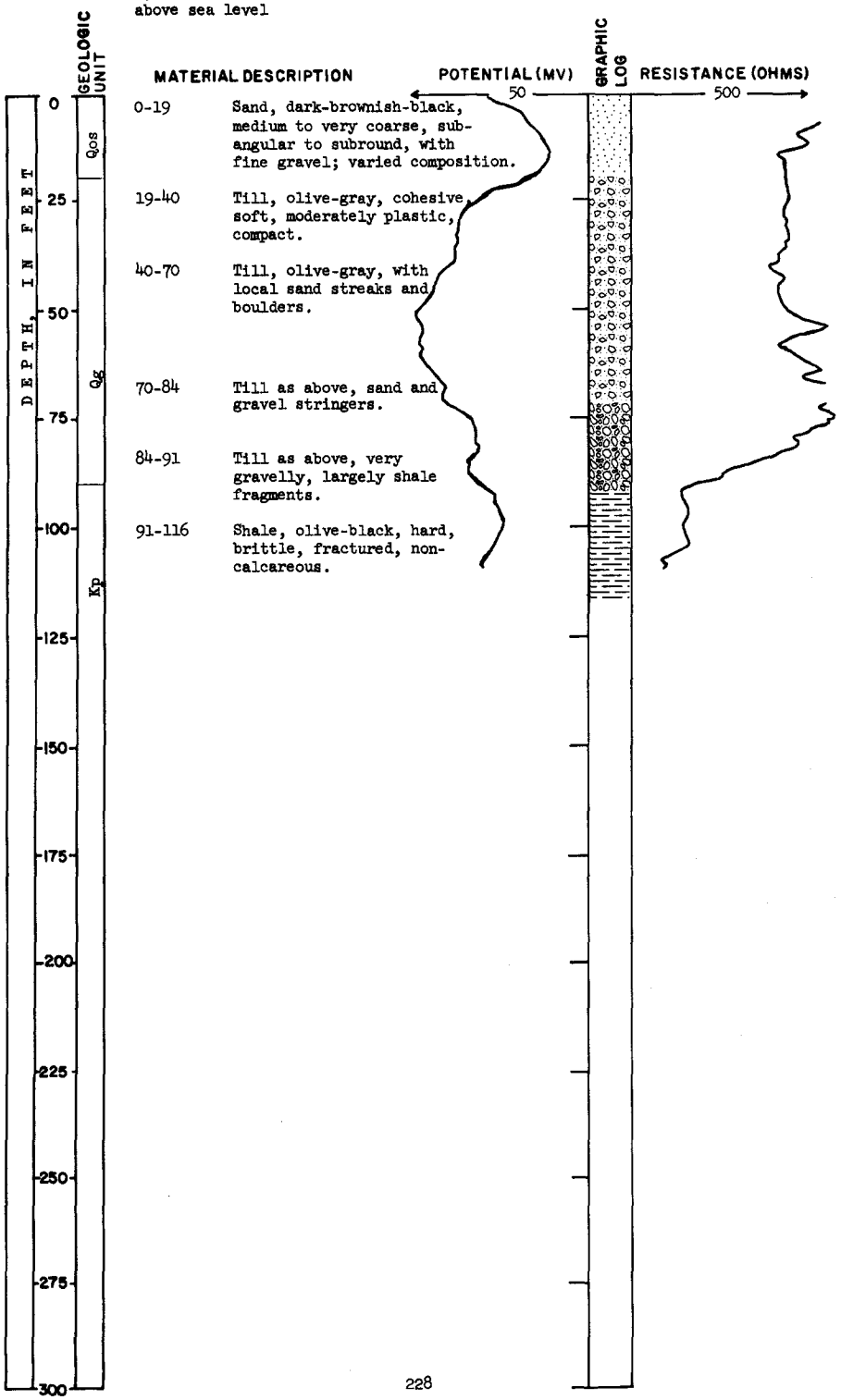
TEST HOLE 2282

LOCATION: Eddy County 150-64-9bbb

DATE DRILLED: July 24, 1964

ELEVATION: 1,537 feet above sea level

DEPTH: 116 feet

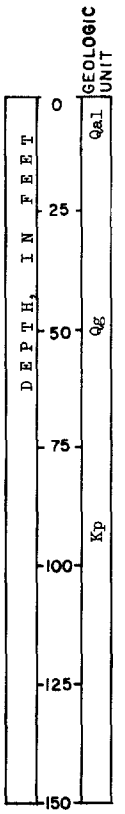


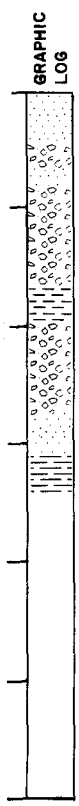
LOCATION: Eddy County
150-64-18abd
USBR Warwick Siphon DH 3

ELEVATION: 1,523 feet
above sea level

DATE DRILLED: December 22, 196

DEPTH: 84 feet





MATERIAL DESCRIPTION

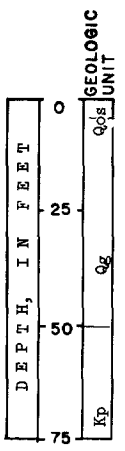
0-12	Sand, tan to brown, very fine, clean to trace of silt, dry to moist, pervious.
12-18	Till, brown, moist, stiff, moderately plastic, oxidized.
18-22	Sand, brown, fine, silty, trace of clay, thin indistinct laminae.
22-27	Till, brown, stiff, moist.
27-37	Till, mottled brown.
37-43	Till, gray.
43-49.5	Clay, gray, silty, stiff, moderately plastic, no laminations evident.
49.5-55	Till, gray, numerous boulders, moist, stiff.
55-63	Till, about 35% fine sand and occasional medium and coarse sand grains.
63-68	Till, gray.
68-76	Sand, gray, fine, silty, trace of clay and till.
76-84	Shale, dark-gray, dry to moist, firm to hard, flaky, weathered, fissile.

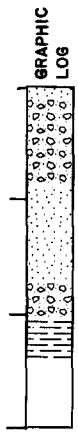
LOCATION: Eddy County
150-64-18bcd
USBR Warwick Siphon DH 1

ELEVATION: 1,502 feet
above sea level

DATE DRILLED: December 16, 1960

DEPTH: 59 feet



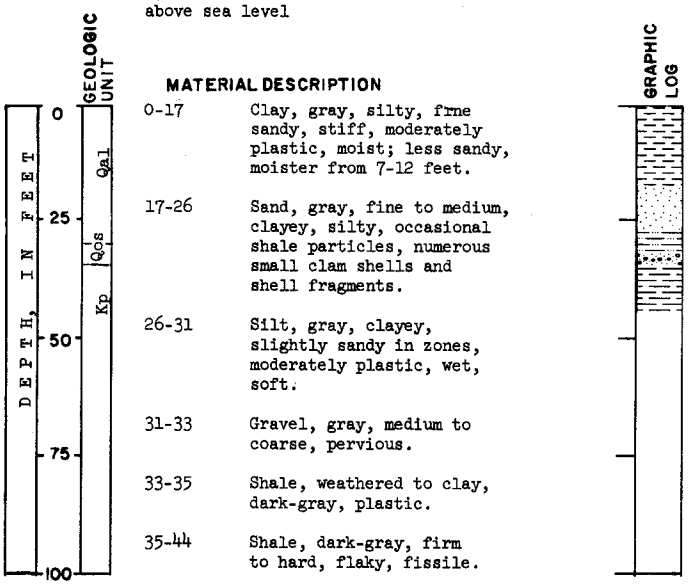


MATERIAL DESCRIPTION

0-3	Sand, black to dark-brown, fine to medium, organic, clayey.
3-23	Till, brown and gray, stiff, wet below 15 feet.
23-43	Sand, gray, fine, grading to silt, noncohesive, a few lenses of till, dry to moist.
43-50	Till, gray, stiff to firm, dry.
50-59	Shale, dark-gray, hard, fissile, weathered in upper portion, dry.

Eddy County
LOCATION: 150-64-18bda
USBR Warwick Siphon DH 2
ELEVATION: 1,406 feet
above sea level

DATE DRILLED: January 10, 1961
DEPTH: 44 feet



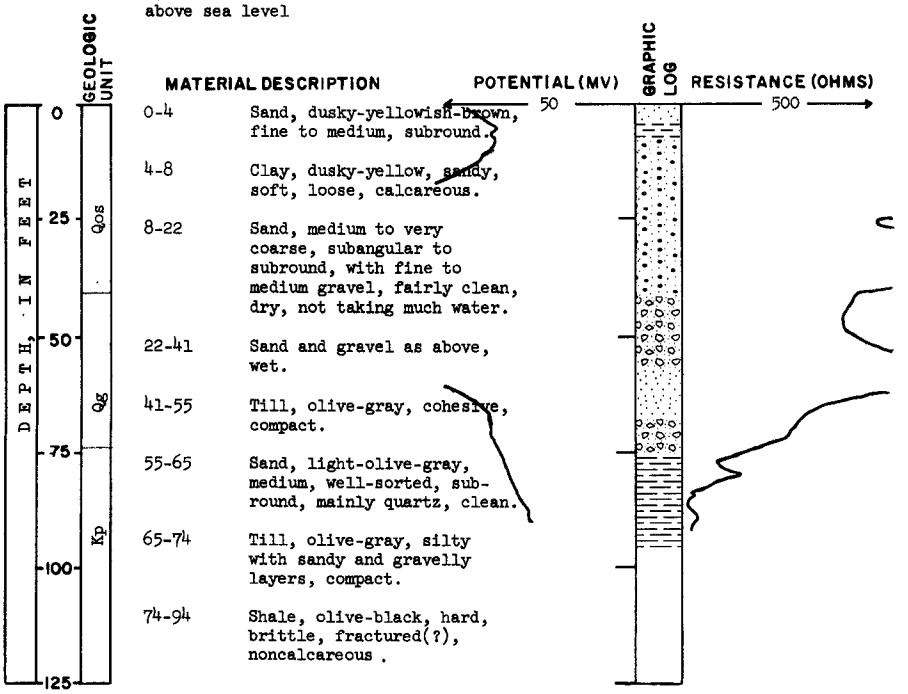
MATERIAL DESCRIPTION

0-17	Clay, gray, silty, fine sandy, stiff, moderately plastic, moist; less sandy, moister from 7-12 feet.
17-26	Sand, gray, fine to medium, clayey, silty, occasional shale particles, numerous small clam shells and shell fragments.
26-31	Silt, gray, clayey, slightly sandy in zones, moderately plastic, wet, soft.
31-33	Gravel, gray, medium to coarse, pervious.
33-35	Shale, weathered to clay, dark-gray, plastic.
35-44	Shale, dark-gray, firm to hard, flaky, fissile.

TEST HOLE 2281

Eddy County
LOCATION: 150-64-33bcc
ELEVATION: 1,530 feet
above sea level

DATE DRILLED: July 23, 1964
DEPTH: 94 feet



MATERIAL DESCRIPTION

0-4	Sand, dusky-yellowish-brown, fine to medium, subround.
4-8	Clay, dusky-yellow, sandy, soft, loose, calcareous.
8-22	Sand, medium to very coarse, subangular to subround, with fine to medium gravel, fairly clean, dry, not taking much water.
22-41	Sand and gravel as above, wet.
41-55	Till, olive-gray, cohesive, compact.
55-65	Sand, light-olive-gray, medium, well-sorted, sub-round, mainly quartz, clean.
65-74	Till, olive-gray, silty with sandy and gravelly layers, compact.
74-94	Shale, olive-black, hard, brittle, fractured(?), noncalcareous .

150-64-36ddd
U.S. Bureau of Reclamation
Eddy County GWI 1

Elevation: 1,530 feet above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sand, gray, very fine, varying proportions of silt and clay with pebbles and shale particles.	10	10
Sand, brown, fine to medium, with small proportion of silt and clay.	5	15
Sand, brown, medium, clean, loose.	16	31

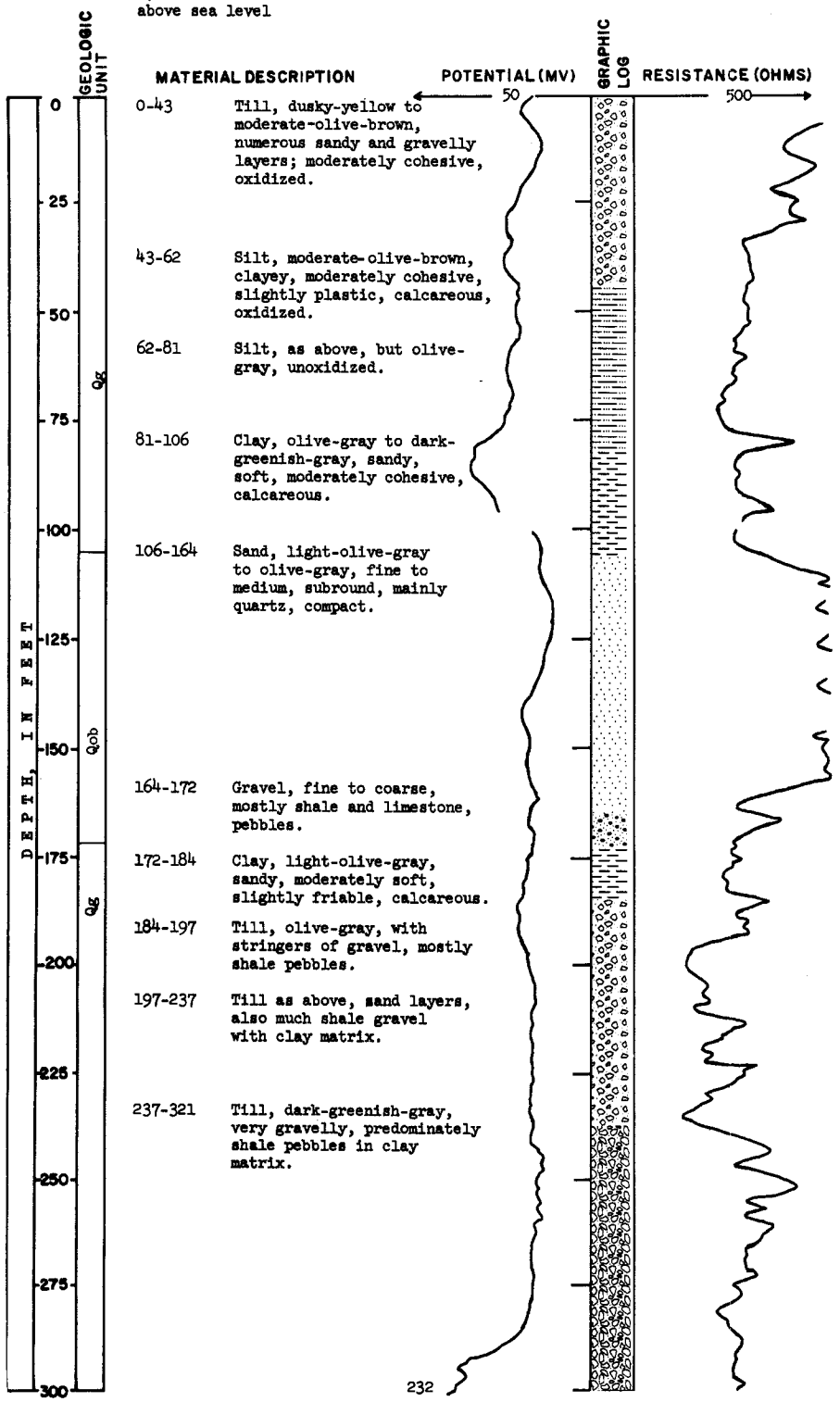
TEST HOLE 2284

LOCATION: Eddy County 150-65-5adc

DATE DRILLED: July 24, 1964

ELEVATION: 1,590 feet above sea level

DEPTH: 432 feet



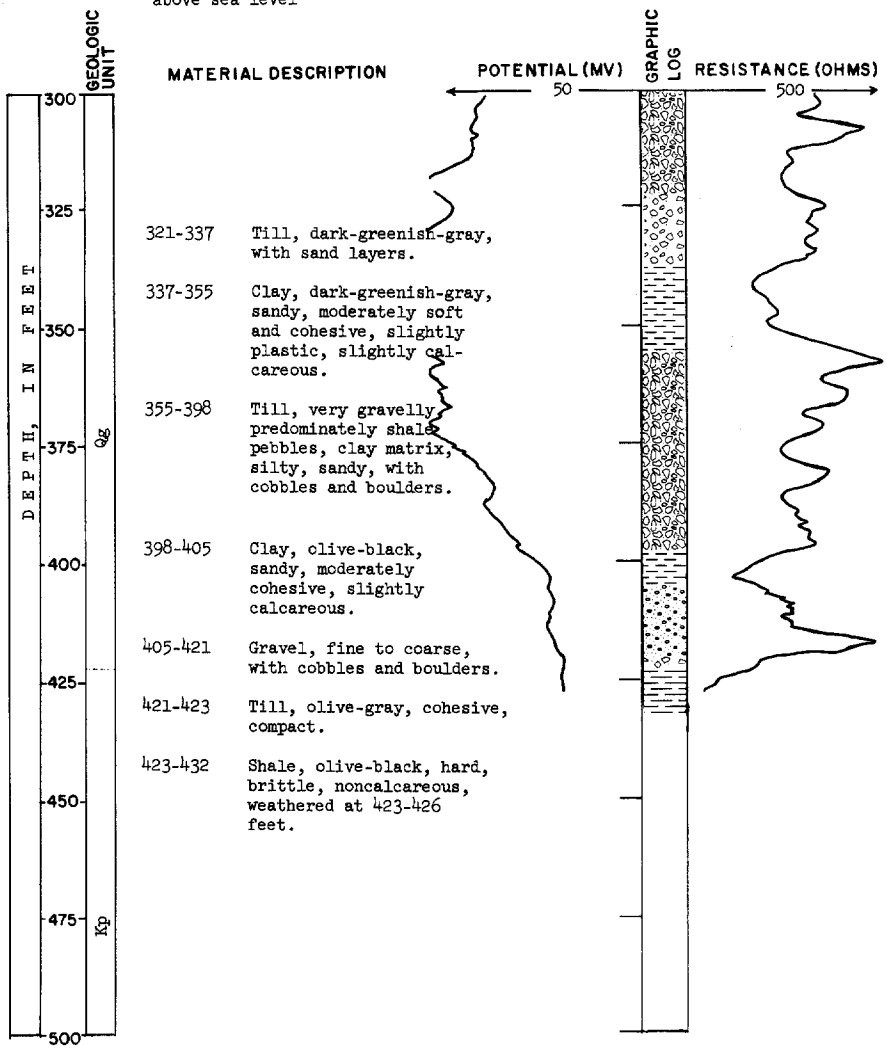
TEST HOLE 2284
(Continued)

LOCATION: Eddy County 150-65-5adc

DATE DRILLED: July 24, 1964

ELEVATION: 1,590 feet above sea level

DEPTH: 432 feet



321-337 Till, dark-greenish-gray, with sand layers.

337-355 Clay, dark-greenish-gray, sandy, moderately soft and cohesive, slightly plastic, slightly calcareous.

355-398 Till, very gravelly, predominately shale pebbles, clay matrix, silty, sandy, with cobbles and boulders.

398-405 Clay, olive-black, sandy, moderately cohesive, slightly calcareous.

405-421 Gravel, fine to coarse, with cobbles and boulders.

421-423 Till, olive-gray, cohesive, compact.

423-432 Shale, olive-black, hard, brittle, noncalcareous, weathered at 423-426 feet.

150-65-11aaa
Test hole 2283

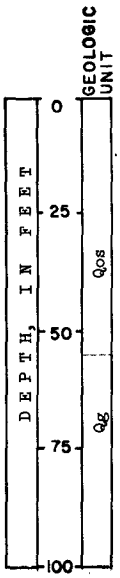
Elevation: 1,408 feet above sea level

Date Drilled: 1964

Material	Thickness (feet)	Depth (feet)
Clay, yellowish-gray, silty, soft, moderately compact, calcareous.	6	6
Shale, olive-black, hard, brittle, fractured, non-calcareous, oxidized on edges.	6	12
Shale, as above, unoxidized.	30	42

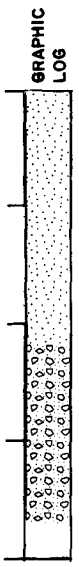
Eddy County
LOCATION: 150-65-21aca
E. Berglund TH 3
ELEVATION: 1,544 feet
above sea level

DATE DRILLED: 1961
DEPTH: 90 feet



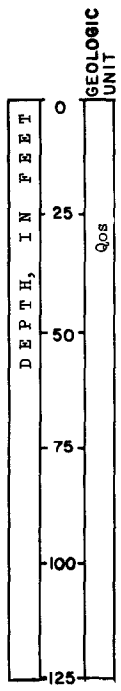
Driller's log

MATERIAL DESCRIPTION	
0-11	Fine brown sand.
11-14	Tight fine gray sand.
14-29	Loose gray sand.
29-31	Medium coarse sand.
31-55	Loose gray fine sand, used water.
55-58	Hard sand layer, broken rock.
58-72	Clay.
72-76	Rock.
76-90	Clay.



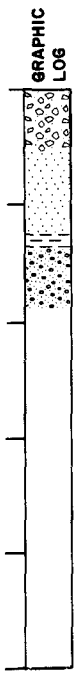
Eddy County
LOCATION: 150-65-22bdb
E. Berglund
ELEVATION: 1,542 feet
above sea level

DATE DRILLED: 1962
DEPTH: 46 feet



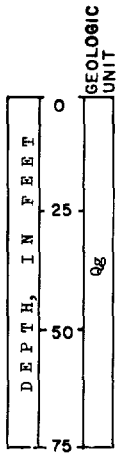
Driller's log

MATERIAL DESCRIPTION	
0-12	Sandy clay.
12-31	Fine sand.
31-35	Sandy clay.
35-46	Gravel.



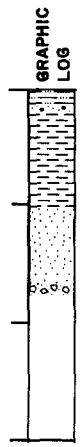
Eddy County
LOCATION: 150-65-24ccc
USBR GWI 17
ELEVATION: 1,591 feet
above sea level

DATE DRILLED: June 15, 1951
DEPTH: 45 feet



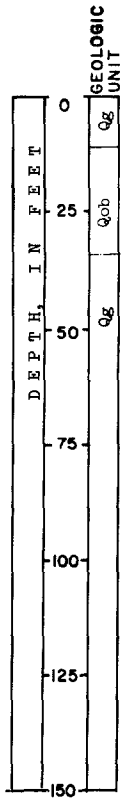
MATERIAL DESCRIPTION

0-3.5	Silt, tan, clayey, few pebbles.
3.5-5	Gravel, fine, with lean clay binder.
5-26	Clay, tan, varying proportions of silt and very fine sand.
26-42	Sand, tan, very fine, silty, small proportion of clay.
42-45	Till, gray, plastic.



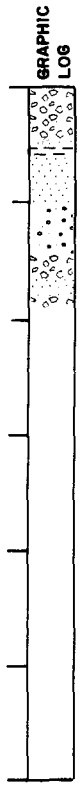
Eddy County
LOCATION: 150-65-33aaa
USBR GWI 18
ELEVATION: 1,535 feet
above sea level

DATE DRILLED: June 15, 1951
DEPTH: 45 feet



MATERIAL DESCRIPTION

0-10	Till, brown, sandy.
10-11.5	Sand, brown, very fine, clean, loose.
11.5-14.5	Clay, gray, silty, very plastic.
14.5-24	Sand, brown, fine, very clean, loose.
24-33.5	Sand, gray, coarse, and gravel, fine to medium, with hard shale particles, very clean, loose.
33.5-38	Till, gray, plastic.
38-42	Sand, gray, very fine, silty.
42-45	Till, gray, plastic.



150-65-35bbb
U.S. Bureau of Reclamation
GWI 16

Eddy County

Elevation: 1,535 feet
above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sand, buff, lean clay. binder with small proportion of fine gravel and shale particles, iron-stained, from 10-14'.	14	14
Sand, buff to gray, fine, clean, small proportion of fine gravel, loose.	5	19
Sand, gray, medium, silty, small proportion of clay, with medium gravel and shale particles throughout.	6	25
Till, gray, plastic.	5	30

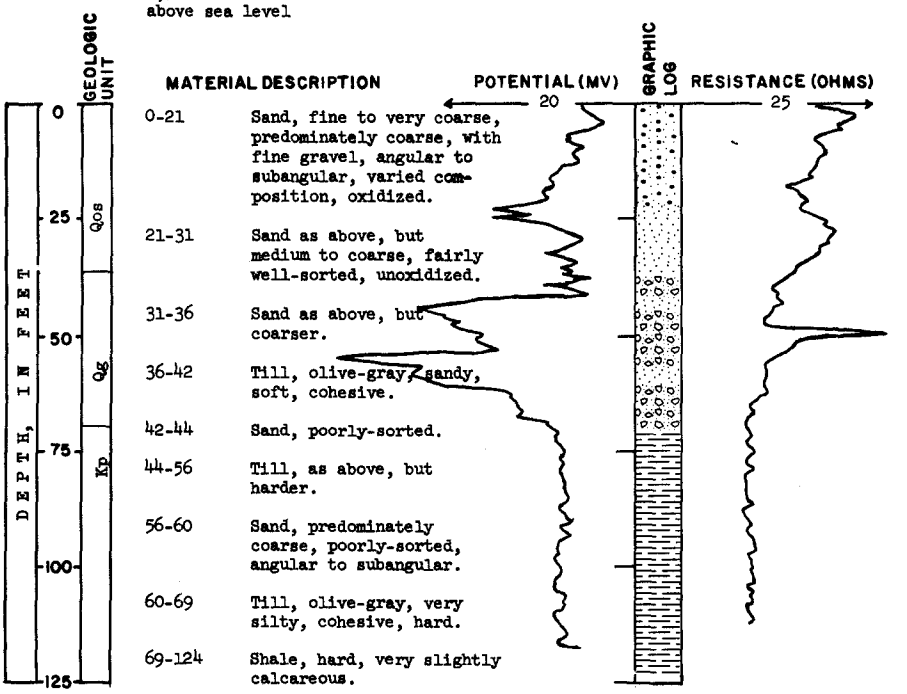
TEST HOLE 2305

LOCATION: Eddy County 150-65-36baa

DATE DRILLED: August 26, 1964

ELEVATION: 1,536 feet above sea level

DEPTH: 124 feet



150-65-36ddd
U.S. Bureau of Reclamation
Test hole 6N-6E

Eddy County

Elevation: 1,530 feet
above sea level

Date Drilled: 1951

Material	Thickness (feet)	Depth (feet)
Sandy clay loam.	9	9
Fine sand.	5	14
Medium sand.	17	31
Till-light clay.	4	35

Eddy County

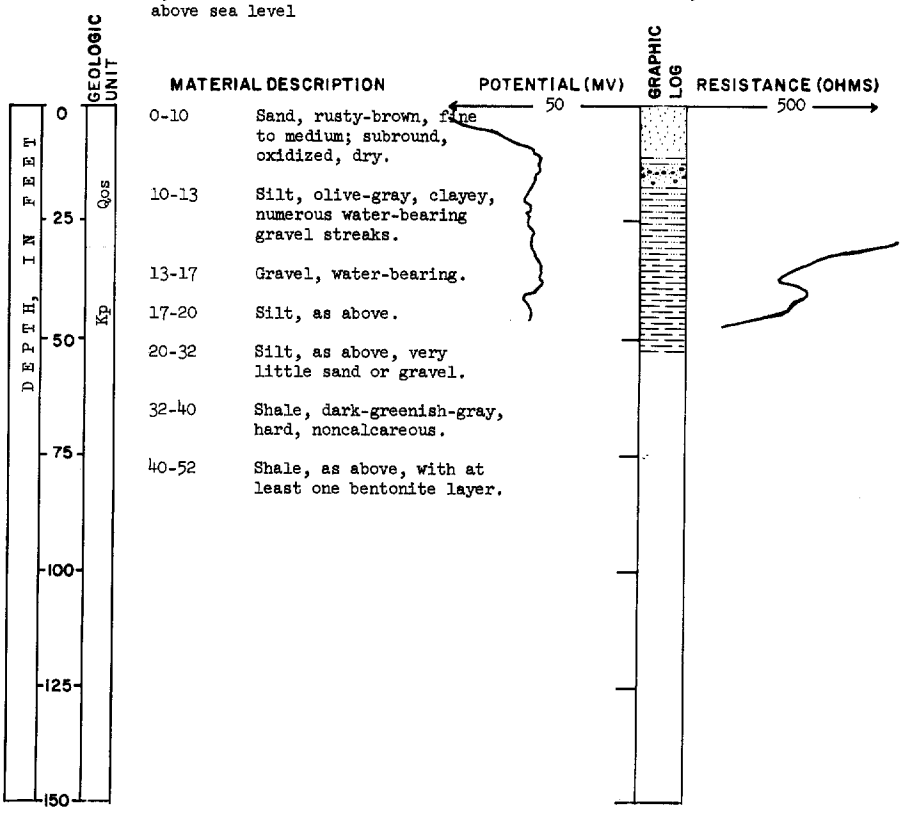
TEST HOLE 2285

LOCATION: 150-66-18cbb

DATE DRILLED: July 28, 1964

ELEVATION: 1,498 feet
above sea level

DEPTH: 52 feet



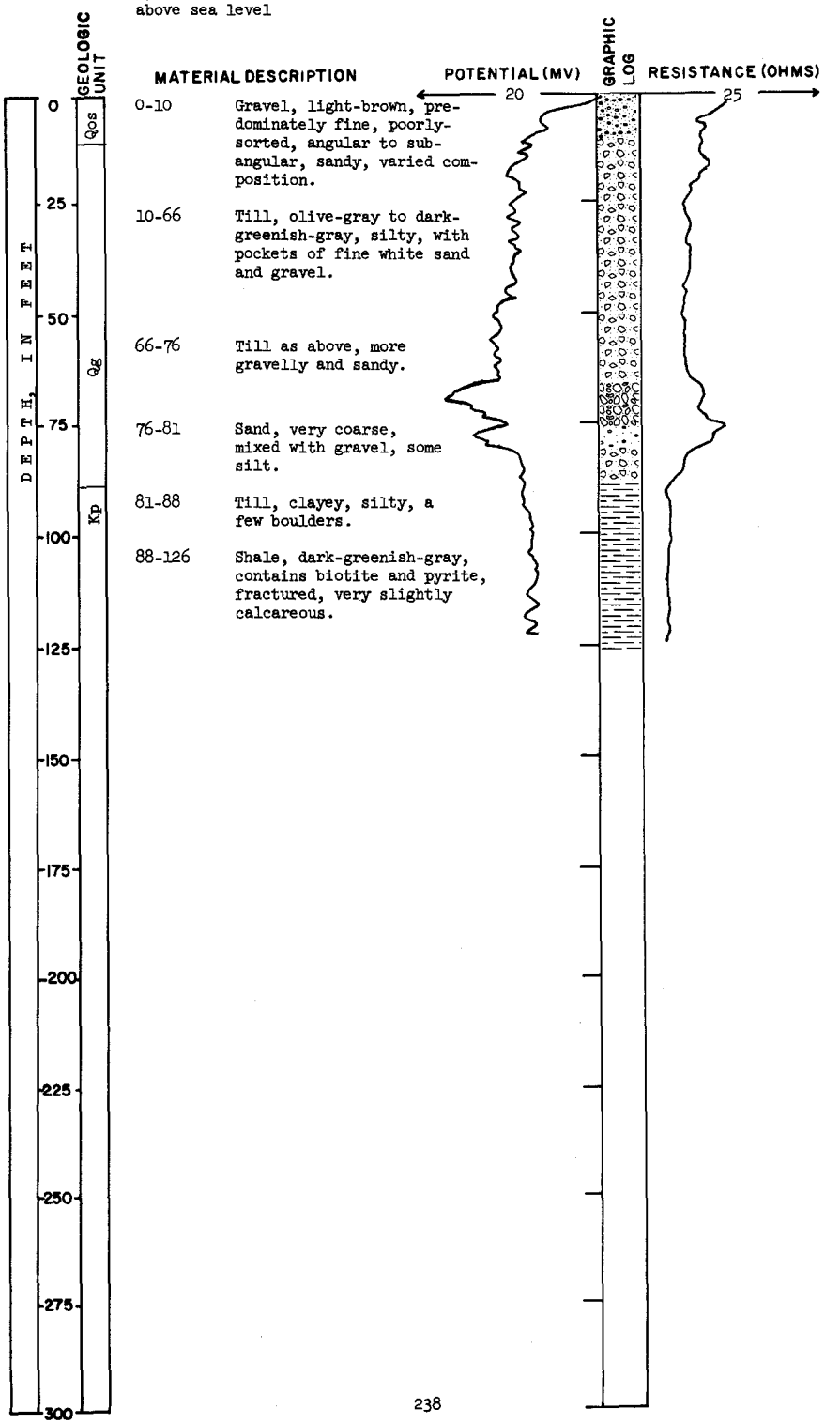
TEST HOLE 2308

LOCATION: Eddy County 150-66-31dda

DATE DRILLED: September 3, 1964

ELEVATION: 1,562 feet above sea level

DEPTH: 126 feet



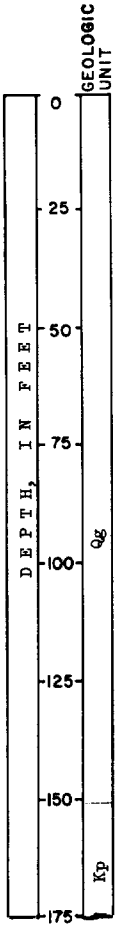
LOCATION: Eddy County
150-66-32cdc3
E. O. Myhre TH

ELEVATION: 1,565

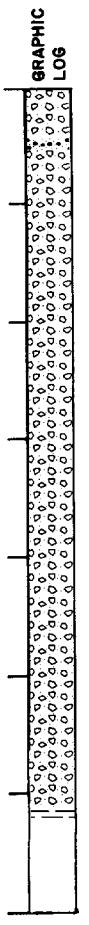
DATE DRILLED: September 1962

DEPTH: 155 feet

Driller's log



MATERIAL DESCRIPTION	
0-3	Soil and boulders.
3-10	Yellow clay.
10-12	Gravel.
12-16	Gray clay.
16-43.5	Gray clay with boulders.
43.5-52	Gray sticky clay with boulders.
52-89	Gray clay--sticky.
89-125	Hard gray clay.
125-152	Gray clay.
152-155	Shale.



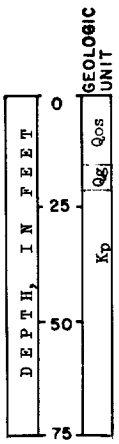
TEST HOLE 2286

LOCATION: Eddy County
150-67-18add

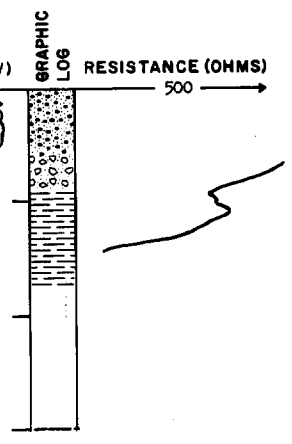
ELEVATION: 1,489 feet
above sea level

DATE DRILLED: July 29, 1964

DEPTH: 42 feet



MATERIAL DESCRIPTION	
0-14	Gravel, rusty-brown, fine to medium, subangular to subround, with medium to very coarse sand, oxidized.
14-21	Till; clay, dark-greenish-gray, moderately soft, cohesive, and plastic with pebbles, cobbles, and small boulders.
21-42	Shale, olive-gray to olive-black, soft to moderately hard, slightly plastic, noncalcareous.



Eddy County

LOCATION: 150-67-26bca

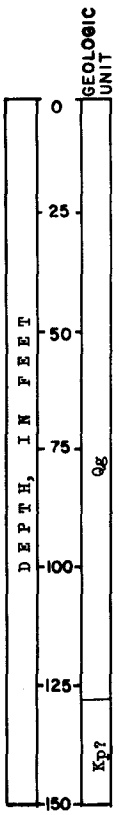
P. Sund TH 1

ELEVATION: 1,598 feet above sea level

DATE DRILLED: 1963

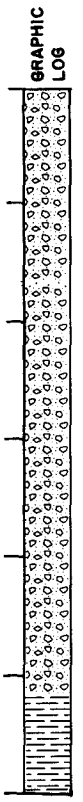
DEPTH: 150 feet

Driller's log



MATERIAL DESCRIPTION

0-17	Sandy yellow clay.
17-41.5	Till.
41.5-42.5	Sand.
42.5-130	Gray clay (till).
130-150	Hard clay (shale?).



Eddy County

LOCATION: 150-67-27bcc2

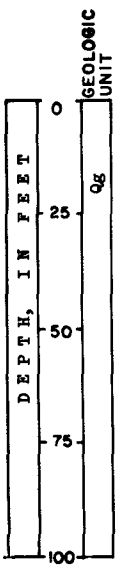
A. E. Seastrand

ELEVATION: 1,518 feet above sea level

DATE DRILLED: 1962

DEPTH: 90 feet

Driller's log



MATERIAL DESCRIPTION

0-11	Clay.
11-12.5	Gravel.
12.5-15	Boulders.
15-90	Clay.

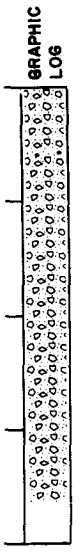


TABLE 4.--Chemical analyses of water

Explanation: (a) Analysis by North Dakota State Department of Health. (b) Analysis from private laboratory. (c) Deviation between equivalents per million of cations and anions exceeds 1 percent of sum of cation and anion equivalents per million. (d) Sample taken from unspecified one of several similar closely-spaced wells, or combined sample. (e) Calcium carbonate precipitate in sample bottle at time of analysis. (f) Sample taken after pumping at estimated rate of 500 gallons per minute for several weeks.

Source: Kd, Dakota Sandstone; Kp, Pierre Shale; Qg, glacial drift, undifferentiated; Qob, outwash or other glaciofluvial deposits, buried; Qos, outwash or other glaciofluvial deposits, surficial.

Except where otherwise stated, the analyses were run by the North Dakota State Laboratories.

[Analytical results in parts per million except as indicated]

Location	Depth (feet)	Source of water	Date of collection	Temperature (°F)	Silica (SiO_2)	Total iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids: Sum	Dissolved solids: Residue on evaporation at 180°C	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Percent sodium	Sodium-adsorption-ratio	Specific conductance (micromhos at 25°C)	pH	Remarks
Foster County																										
145-62-20daa2	180	Qg	7-14-65	..	26	1.2	59	14	142	9.5	446	0	137	12	0.3	2.0	0.00	622	617	205	0	59	3.9	963	7.8	
24aaa	166	Qob	7- 9-64	48	21	.37	121	48	239	20	454	0	457	98	.3	80	.00	1,310	1,340	502	130	59	4.6	1,890	8.0	
27aaa2	117+	Qob	8- 8-63	48	22	7.50	138	47	128	15	434	0	388	38	.6	3.0	.75	1,000	1,105	540	165	33	2.5	1,433	7.4	c
32bdc3	135	Qg	7-14-65	..	27	2.3	142	23	58	9.4	428	0	192	32	.3	2.4	.00	699	691	450	100	22	1.2	1,040	7.6	
145-63-12dda	24	Qg	10-30-64	45	21	.12	192	165	96	10	383	0	810	61	.3	174	.00	1,730	1,680	1,160	847	15	1.2	2,220	7.7	
15dcc2	160	Qg	10-30-64	44	25	1.2	6.8	1.4	330	3.0	817	0	128	62	.8	.0	3.0	1,030	1,060	23	0	96	35	1,600	8.2	
32bba	186	Kp	10-14-64	49	21	.26	11	6.8	848	16	925	0	37	794	.6	11	4.4	2,200	2,230	55	0	96	50	3,610	8.2	
145-64-12cdc	266	Qg	7-14-65	44	23	1.0	104	18	52	6.8	364	0	112	25	.3	.4	.42	522	522	334	36	25	1.2	822	7.7	
21dba	33	Qos	8-29-63	..	23	.69	40	33	95	8.0	410	0	84	12	.3	0	1.65	500	530	236	0	46	2.8	837	7.7	c
145-65- 4cdd	.....	Lake George	10-29-64	45	5.2	.23	154	58	42	32	254	0	518	7.7	.2	.0	.00	942	1,000	625	417	12	.7	1,250	7.6	
8dda	109	Qg	10-14-64	48	22	.69	78	21	220	15	514	0	158	142	.4	1.5	1.3	911	930	284	0	61	5.7	1,500	7.9	
31aba	1,960	Kd	10- 8-64	50	7.0	1.0	4.0	4.9	1,020	16	464	0	1,250	402	2.8	4.6	3.5	2,950	2,940	30	0	98	81	4,420	8.1	
145-66- 1dcc	1,849	Kd	10- 8-64	54	6.8	1.1	8.0	6.1	1,000	40	553	0	1,160	431	7.0	5.0	4.9	2,930	2,960	45	0	96	65	4,490	8.1	
7aab	64.3	Qg	3- 5-64	..	.....	.34	78	23	370	....	708	0	625	130	.3	11	...	.....	.....	290	0	..	....	.....	7.6	a
13aaa	1,900	Kd	10- 1-64	48	10	1.0	12	5.8	1,060	11	554	0	1,190	475	3.1	5.5	4.2	3,040	3,080	55	0	97	62	4,480	7.9	
32baa	88	Qob	8-23-63	..	26	1.13	72	39	104	14	508	0	132	14	.3	2.0	1.00	654	654	340	0	38	2.5	1,068	7.7	
145-67-13dcc	48	Qob	8-26-63	..	26	.10	46	47	110	23	478	0	136	12	.2	0	0	635	675	310	0	41	2.7	1,057	8.2	c
16ccb	37	Qos	8-27-63	23	38	75	102	85	12	372	0	472	14	.6	0	.15	966	1,076	610	305	23	1.5	1,623	7.8	
146-62- 7bbb	143	Qob	10-28-64	44	17	.28	47	29	146	8.3	639	0	7.2	25	.4	2.0	.12	597	585	236	0	56	4.1	968	8.0	
21aac	153	Qob	8-18-64	47	26	.13	66	16	122	10	305	0	121	99	.4	2.5	.00	613	631	234	0	52	3.5	932	8.2	
30ccc	150	Qob	8-7-63	46	23	.59	56	24	243	12	757	0	4.5	114	.2	2.0	.95	850	852	240	0	68	7.0	1,495	7.7	
36bbb	198	Qob	7-13-64	47	21	.40	139	36	312	25	733	0	503	54	.3	.0	.55	1,450	1,430	495	0	56	6.1	2,030	7.8	
146-63- 9ccd2	178	Qob(?)	7-14-65	44	19	.16	360	270	67	12	512	0	1,140	180	.1	377	.15	2,680	3,020	2,010	1,590	7	6.5	3,230	7.4	
15aba	140	Qob	10-28-64	44	20	.20	106	24	95	10	405	0	227	13	.2	.0	.85	695	694	364	32	35	2.2	1,030	7.6	
146-64- 1dcd	182	Qob	10-28-64	47	22	.36	31	24	162	11	418	0	137	43	.2	.0	.00	636	638	176	0	65	5.3	1,010	8.0	
146-65- 1dcc2	80	Qg	10-30-64	45	22	.28	80	26	93	11	453	0	119	24	.1	.0	.00	598	626	308	0	39	2.4	960	7.7	
24cbc	105	Qg	10-30-64	46	24	.38	15	5.4	400	12	781	0	208	66	.4	.0	1.1	1,120	1,170	60	0	92	22	1,760	8.2	
24ccb1	180	Kp	10-30-64	45	19	.97	37	18	418	12	759	0	266	137	.4	1.5	.50	1,280	1,310	165	0	83	14	1,990	8.0	
32dad	65	Qg	1963	..	..	0	.....	.....			403	0	.....	.....	...	Trace	....	.....	.....	150	0	..	....	.....	...	a
146-66- 6aad	25.0	Qob	1947	..	..	5.05	91.5	24		31.3	407	..	65.5	1.2	0	.....	....	.....	.....	328	0	..	....	.....	7.0	a
6aad	25.0	Qob	1949	..	..	.8	86.5	25.3		26.3	402.5	0	34.8	8	0	Trace	....	.....	.....	320	0	..	....	.....	7.6	a
18ada1	89.9	Qob	12-4-64	45	18	1.2	94	26	26	5.1	376	0	86	11	.1	.0	.00	452	478	344	36	14	.6	714	8.0	
18ada2	89.2	Qob	10-8-64	46	12	.71	68	39	19	5.6	335	0	92	7.4	.3	.0	.00	409	418	330	56	11	.5	740	7.7	
18ada2	89.2	Qob	12-4-64	45	22	.22	82	34	28	5.2	373	0	85	10	.4	.0	.00	451	464	342	36	15	.6	721	7.5	
146-67- 1aad	45	Qob	9-25-53	..	..	5.1	.....	.....	.....	....	444	0	.....	.....	...	2.1	....	.....	940	676	310	..	....	885	....	
19bab	150	Kp	9-3-64	..	15	12	12	7.5	920	18	861	0	110	904	.3	1.0	4.6	2,420	2,360	60	0	96	52	4,010	8.1	
22bbb	28.0	Qg	10-1-64	..	22	.68	206	113	444	13	493	0	1,470	26	.4	.0	.00	2,540	2,590	980	576	49	6.2	3,130	7.7	
33deb	75	Qg-Kp	1960	..	..	.....	....	.....	.....	....	939.4	0	.....	.....	...	Trace	....	.....	.....	150	0	..	....	.....	...	
147-62- 5dbd1	95	Kp	9-30-64	..	25	.94	12	3.2	464	10	732	19	115	222	.5	2.0	4.2	1,230	1,200	43	0	95	31	2,020	8.4	a
5dbd2	110	Kp	9-30-64	48	25	.90	14	5.4	724	12	644	0	99	726	.6	1.0	4.2	1,920	1,940	58	0	96	41	3,070	7.8	
10abb	48	Qob	7-22-64	48	27	.58	41	19	250	9.5	450	0	292	47	.3	2.0	.15	910	899	180	0	74	8.1	1,380	7.9	
147-63-11adb	92	Qg	11-6-64	44	23	.81	14	3.4	332	6.7	717	0	170	15	.8	.0	.45	918	932	49	0	93	21	1,390	8.2	
19bcc	...	Lake Juanita	10-28-64	40	14	.16	32	39	64	15	349	0	83	24	.5	2.0	.00	445	471	240	0	35	1.8	728	7.5	c
27bac	108	Qob	11-6-64	45	27	.28	55	25	213	8.0	560	0	151	73	.5	2.0	.30	830	836	242	0	65	5.9	1,280	8.0	
28acd	137	Qg	11-6-64	45	27	.13	74	30	25	5.6	364	0	69	2.5	.4	.0	.00	412	423	308	10	15	.6	638	7.8	
													241													

[Analytical results in parts per million except as indicated]

Location	Depth (feet)	Source of water	Date of collection	Temperature (°F)	Silica (SiO_2)	Total iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids: Sum	Dissolved solids: Residue on evaporation at 180°C	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Percent sodium	Sodium-adsorption-ratio	Specific conductance (micromhos at 25°C)	pH	Remarks
Foster County																										
147-63-32ecc	180	Qob	7-13-65	46	7.6	5.4	20	5.6	286	7.7	706	15	24	60	.5	2.6	.82	783	773	73	0	88	4.6	1,260	8.4	
147-64-15acd	44	Qg	10-14-64	..	22	.86	264	102	65	12	327	0	828	75	.3	1.0	.00	1,530	1,610	1,080	813	11	.8	1,950	7.6	
25add	63	Qob	7-8-64	51	24	.17	70	27	76	12	366	0	156	3.0	.5	.0	.00	548	612	288	0	35	1.9	892	7.9	
28aab2	152	Qob	10-28-64	48	24	.57	30	18	335	12	705	8	206	57	.3	1.9	.00	1,050	1,030	148	0	82	12	1,540	8.3	
147-65- 3a	242	Qob	1961	..	.....	.....	77	28	155	.....	475	0	179	49	...	.....	.....	.....	722	306	0	52	3.8	1,160	...	b
3d	246	Qob	1961	..	.....	.....	192	49	143	.....	925	0	157	50	...	.....	.....	.....	1,047	681	0	31	2.4	1,660	...	b
8baa1	195	Kp	2-11-65	42	.....	.....	...	.....	...	...	534	0	72	866	...	6.4	.....	.....	.....	145	0	..	.....	3,000	8.2	
8baa2	199	Kp	10-16-64	46	21	.68	18	11	582	13	468	0	70	620	.5	9.3	3.7	1,620	1,650	85	0	93	27	2,570	8.1	
8baa2	199	Kp	2-11-65	43	.....	.....	...	.....	.....	.....	556	0	57	582	...	10	.....	.....	.....	80	0	..	.....	2,500	8.1	
147-66-19aad	76	Qob	1965	..	.....	6.2	...	.....	.....	.....	400	0	89	11	...	3	.....	.....	578	280	0	20	1.0	827	7.4	
29ddd	87	Qob	7-8-64	49	20	.21	95	40	172	14	495	0	323	38	.6	2.0	.00	948	1,000	400	0	47	3.7	1,470	7.9	
31acc1	93	Qob	6-1-64	..	25	.10	114	30	50	7.6	528	0	81	5.0	.4	1.0	.45	572	584	404	0	21	1.1	984	8.0	
31acc1	93	Qob	6-2-64	..	26	1.1	110	31	50	7.5	526	0	82	6.0	.3	1.0	.15	572	576	406	0	20	1.1	981	7.7	
31acc1	93	Qob	6-3-64	..	25	.46	110	32	49	7.5	528	0	82	6.0	.4	1.0	.18	571	574	402	0	21	1.1	958	7.6	
31acc1	93	Qob	6-5-64	..	26	1.0	109	31	51	7.1	528	0	79	6.0	.4	1.0	.18	571	574	402	0	21	1.1	958	7.6	
31ccc	79	Qob	8-10-63	..	28	3.2	98	27	60	7.6	493	0	86	2.0	.7	0	1.35	555	582	356	0	26	1.5	951	7.5	
33dad	129	Qob	8-17-63	46	23	.16	117	27	253	15	527	0	245	194	.5	1.0	1.80	1,134	1,102	400	0	57	5.6	1,825	7.7	
147-67-10dda	68	Qob	8-21-63	..	22	1.44	43	29	323	14	588	0	306	56	.4	0	1.20	1,134	1,191	228	0	74	9.4	1,129	7.7	
13abd	97	Qg	11-20-63	..	.....	2.0	...	.....	.....	.....	588	0	286	98	...	2	.....	.....	1,278	210	0	79	11	1,974	7.9	
14dac2	34	Qob	1965	..	.....	2.0	...	.....	.....	.....	403	0	232	25	...	3	.20	.....	778	488	158	..	.....	1,120	7.4	
19cbc	79	Qob	8-20-63	46	21	.85	59	43	52	12	376	0	117	4.0	.3	2.5	.58	496	534	324	15	25	1.4	830	7.6	c
22ddd	99	Qob	8-17-63	..	27	.46	115	41	42	8.2	449	0	184	4.0	.6	0	.80	643	690	456	85	16	.8	1,050	7.5	
27ded	23.0	Qoa	1963	..	.....	.....	...	.....	10	.....	402	0	...	.....	...	11	....	.....	.....	420	90	..	.....	.....	...	a
Eddy County																										
148-62-15cdd	147	Qob	7-21-64	46	22	.73	17	4.2	236	10	460	7	110	54	.5	2.0	.30	690	719	60	0	88	12	1,090	8.3	
25acc2	112	Qob	9-30-64	44	20	4.6	97	60	116	14	566	0	275	5.5	.3	1.0	1.0	872	929	490	26	72	2.3	1,550	7.8	
29daa	98	Qob	7-22-64	50	20	.37	43	10	36	8.5	256	0	27	2.0	.5	5.0	.00	278	289	150	0	22	.13	472	8.1	c
148-63-11ccb	38	Qob	7-17-64	46	18	.17	76	23	39	8.2	376	0	59	5.5	.3	4.5	.00	419	428	284	0	22	1.0	689	8.0	
148-64-11cbc	14	Qoa	.....	50	....	.....	...	.....	Trace	.....	525	0	.....	.....	...	66	....	.....	.....	500	70	..	.....	.....	7.8	a
12ccd	53	Qg	10-22-64	49	23	.40	34	8.3	105	5.5	342	0	45	20	.4	.0	.30	410	408	118	0	65	4.2	659	8.0	
27abb2	16	Qoa	10-22-64	..	17	.23	120	45	23	2.0	343	0	144	92	.4	2.0	.00	626	630	485	204	12	.6	1,100	7.9	
148-65-19daa	217	Qob	8-10-64	..	21	.89	21	6.4	283	13	599	0	155	60	.6	8.0	.00	875	891	104	0	84	12	1,270	8.1	
35bbd	25	Qg	10-8-64	..	10	12	138	108	34	10	348	0	574	2.9	.3	.0	.00	1,060	1,140	730	506	8	.5	1,640	7.6	
35cdb	216	Qob	1961	..	.....	.....	130	49	213	.....	670	0	296	93	...	.....	.....	.....	1,111	526	...	47	4.1	1,683	...	b
148-66- 3ddc	218	Qob	8-7-64	48	25	2.0	20	40	445	12	703	5	494	92	.4	3.0	.25	1,450	1,470	212	0	81	13	2,230	8.3	
4cbb2	150	Qob	1956	..	.....	.....	...	.....	.....	.....	712	0	.....	.....	...	0	.....	.....	.....	612	28	..	.....	.....	...	a
6bcc1	90-150	Qob	1963	..	....	1.7	...	.....	.....	.....	768	0	195	78	...	0	....	.....	1,242	370	0	66	7.5	2,162	7.6	d
6bcc3	140	Qob	11-6-64	45	22	.61	43	21	328	15	776	0	206	75	.1	.0	.42	1,100	1,080	195	0	77	11	1,700	8.1	e
6bcc3	140	Qob	4-26-65	..	22	.49	86	26	346	13	887	0	223	75	.2	.7	.35	1,230	1,280	320	0	69	8.4	1,900	7.8	c
6bcc3	140	Qob	4-28-65	..	22	1.5	98	26	356	13	975	0	222	76	.1	.0	.80	1,290	1,270	350	0	68	8.3	1,910	8.1	
6bcc4	195	Qob	9-3-64	..	24	1.0	59	48	377	14	949	0	197	144	.2	1.5	.00	1,330	1,380	345	0	69	8.8	1,990	8.1	
6bcc5	209	Qob	9-21-64	..	23	.81	37	48	412	14	912	0	318	94	.3	1.0	.15	1,400	1,400	290	0	74	11	1,890	8.2	
6bcc6	106	Qob	9-21-64	..	23	5.4	114	41	120	14	769	0	188	28	.3	1.0	.00	973	1,030	455	0	45	3.7	1,420	7.9	
13dac	118	Qob	6-15-65	..	22	.46	44	13	76	5.4	322	0	54	10	.2	1.6	.25	386	336	162	0	49	2.6	625	7.8	
													342													

[Analytical results in parts per million except as indicated]

Location	Depth (feet)	Source of water	Date of collection	Temperature (°F)	Silica (SiO_2)	Total iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids: Sum	Dissolved solids: Residue on evaporation at 180°C	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Percent sodium	Sodium-adsorption ratio	Specific conductance (micromhos at 25°C)	pH	Remarks
Eddy County																										
148-66-24bcc2	170	Kp	1-20-65	46	24	.18	18	6.8	302	9.0	573	0	205	44	.4	.0	2.6	891	890	74	0	88	15	1,320	8.1	
28bbc	170	Qob(?)	6-17-65	47	20	.66	58	11	383	14	460	0	382	183	.4	1.1	.78	1,260	1,230	140	0	84	14	1,980	8.0	c
148-67-28bda2	65	Qob	10-1-64	46	29	4.0	64	34	180	13	575	0	193	24	.4	2.0	1.0	826	840	300	0	55	4.5	1,250	7.4	
149-62- 6aaa	51	Qg	3-10-65	43	19	.06	112	35	18	5.7	349	0	132	16	.3	23	.00	533	554	424	138	8	.4	846	7.7	
24bab	90	Qob(?)	3-10-65	45	22	.13	102	22	7.8	4.0	345	0	88	3.8	.1	.0	.00	420	428	345	62	5	.2	666	7.6	c
27abc	Pit	Qob	9-30-64	45	23	.15	85	25	17	6.2	342	0	79	.5	.2	.0	.00	404	434	314	34	10	.4	688	7.9	f
35dac2	100	Qob	5-26-65	41	22	.40	66	13	249	13	582	0	247	23	.2	1.8	1.4	924	899	218	0	70	7.3	1,400	8.2	
149-63-11cdc	...	South Washington Lake	10-23-64	35	12	2.3	49	54	1,100	292	1,730	36	1,020	396	.8	2.0	3.0	3,820	3,850	345	0	77	26	5,450	8.4	
14bad	Spring	Qg	10-23-64	52	23	.15	72	27	14	6.9	337	0	44	4.9	.5	.0	.00	258	365	292	16	9	.4	618	7.9	
27cbd	...	Lake Coe	10-23-64	38	11	4.2	8.0	44	2,170	300	1,680	410	1,790	1,010	.3	1.0	7.8	6,580	6,590	200	0	89	67	8,830	9.3	
149-64- 8dcd	15	Qos	10-21-64	47	20	.13	59	25	18	5.0	307	0	36	4.4	.4	3.0	.00	322	336	250	0	13	.5	584	7.9	
19ddd	12	Qos	10-23-64	48	20	.09	104	54	37	14	406	0	168	48	.4	11	.15	656	660	480	148	14	.7	1,070	8.2	
149-65- 1bba	20	Qos	10-20-64	..	22	.14	61	20	4.7	2.1	240	0	43	2.5	.2	4.0	.00	278	309	236	39	4	.1	474	7.7	
29baa2	14	Qos	10-20-64	50	20	.17	156	95	180	18	647	0	318	225	.5	20	.00	1,350	1,380	780	250	33	2.8	2,130	8.1	
149-66- 9ddd	25	Qg	10-21-64	47	19	.11	56	44	51	4.6	371	0	116	9.5	.6	.0	.00	483	506	320	16	25	1.2	802	8.2	
19cdd2	15	Qos	10-20-64	..	16	.19	101	44	29	6.5	373	0	158	21	.3	2.0	.00	561	563	434	129	12	.6	883	8.0	
35dbd1	90	Qob	7-15-65	..	24	.68	56	19	68	7.8	340	0	65	17	.3	2.3	.25	427	404	216	0	40	2.0	695	7.8	
149-67-17bbb	258	Qob	8-6-64	48	24	2.0	34	34	666	15	1,230	0	85	425	.2	1.0	.90	1,890	1,910	224	0	86	19	3,150	8.2	
25ccc	120	Qob	7-16-65	45	17	15	130	51	176	12	802	0	231	25	.1	1.9	.42	1,050	1,010	534	0	41	3.3	1,610	7.8	
33aba	79	Qob	7-16-65	44	21	.3	95	23	109	10	529	0	110	18	1.2	2.1	.45	651	624	330	0	41	2.6	1,030	7.7	
150-62-24dca2	161	Qob	6-8-65	..	28	.11	90	22	10	3.5	338	0	58	2.6	.2	.4	.00	383	354	320	43	6.3	.2	591	7.9	
28aac	26	Qos	9-30-64	..	22	.09	76	32	8.6	2.8	331	0	62	5.0	.2	3.0	.00	374	382	320	49	5	.2	606	8.0	
29dcd	70	Qob	7-29-65	..	25	.26	91	20	28	5.2	364	0	75	3.5	.4	.1	.25	428	400	310	12	16	.7	679	7.6	
150-63-14bac1	89	Qg	3-10-65	43	24	.12	133	30	17	3.8	346	0	75	42	.2	110	.00	605	581	456	172	7	.3	948	7.5	c
14bac2	207	Kp	3-10-65	48	22	1.0	70	46	1,620	23	754	0	212	2,120	.2	.0	5.2	4,450	4,080	266	0	92	43	6,950	8.0	
15ceb	Spring		10-23-64	42	25	.29	65	16	10	3.0	250	0	44	5.4	.2	2.0	.00	294	307	230	25	8	.3	498	7.8	
35dab	52	Qg	4-14-65	43	18	.09	160	55	67	7.8	390	0	319	94	.2	7.5	.20	921	993	625	310	19	1.2	1,410	8.0	
150-64- 6cdc2	15	Qg	4-15-65	43	27	.12	143	38	47	5.9	395	0	163	78	.2	34	.25	728	756	512	192	16	.9	1,130	7.9	
7bab	90	Kp	4-15-65	..	26	.11	8.8	2.2	566	14	581	7	105	483	2.0	4.0	4.2	1,510	1,510	31	0	96	44	2,380	8.3	
13bcc	83	Qg	4-15-65	45	24	.12	88	25	102	9.5	461	0	142	24	.2	2.2	.45	644	660	322	0	40	2.5	1,030	8.0	
19aca2	130	Kp	1961	..	..	2.5	.....	.....	.....	....	647	0	.....	.....	...	0	....	.....	.....	440	90	..	.....	.....	...	a
31bba	Spring		7-15-65	..	22	.04	64	18	12	3.2	270	0	36	2.5	.2	7.4	.00	293	245	232	11	9	.3	468	7.7	
36bdb2	139	Qg	7-29-65	46	22	3.0	4.8	.5	244	3.6	532	24	67	2.0	.6	.4	1.1	633	610	14	0	96	26	996	8.5	
150-65- 5aac2	200	Qg	10-16-64	46	24	.29	109	30	19	10	327	0	168	34	.3	6.0	.00	531	532	396	128	9	.4	813	7.8	
22bdb	46	Qos	8-24-64	47	20	.17	50	22	14	3.7	256	0	31	3.5	.2	2.0	.00	272	268	214	4	12	.4	468	7.9	
22bdb	46	Qos	8-26-64	47	20	.17	51	21	14	3.7	259	0	32	2.5	.2	2.0	.00	274	270	214	2	12	.4	468	7.8	
22bdb	46	Qos	8-27-64	47	20	.18	48	23	14	3.7	259	0	32	3.0	.2	2.0	.00	274	277	216	1	12	.4	468	7.9	
150-66-10ada1	52	Qg	1964	..	..	1.0	428	226	.....	....	560	0	2,300	1,150	...	100	....	.....	6,400	1,890	1,430	..	.....	9,470	7.6	
10ada2	217	Kp	1963	..	..	1.7	.....	.....	.....	....	428	0	580	3,250	...	1	....	.....	6,100	740	356	..	.....	11,437	7.6	
17adc2	114	Kp	10-15-64	45	17	7.8	99	62	2,720	43	556	0	272	4,070	.3	1.0	5.2	7,550	7,590	502	46	91	53	12,400	8.0	
150-67-11dac	25	Qos	11-6-64	50	19	.08	57	36	13	7.8	311	0	59	7.5	.4	6.0	.00	359	402	288	33	8	.3	612	7.9	
21cab1	26	Qg	11-6-64	45	22	.80	334	465	641	24	903	0	2,290	426	1.9	557	.00	5,200	5,640	2,750	2,010	33	5.3	6,120	7.6	
													243													