
Ground-Water Data for the

Spiritwood Aquifer System

Dickey and Parts of LaMoure and Sargent Counties,
North Dakota

By
Robert B. Shaver

North Dakota Ground Water Studies
Number 91, Part I
North Dakota State Water Commission



THE HYDROGEOLOGY OF THE
SPIRITWOOD AQUIFER SYSTEM,
DICKEY COUNTY AND PARTS OF
LAMOURE AND SARGENT COUNTIES,
NORTH DAKOTA

NORTH DAKOTA GROUND-WATER STUDIES
NUMBER 91 - PART I

By
Robert B. Shaver, Hydrogeologist
North Dakota State Water Commission

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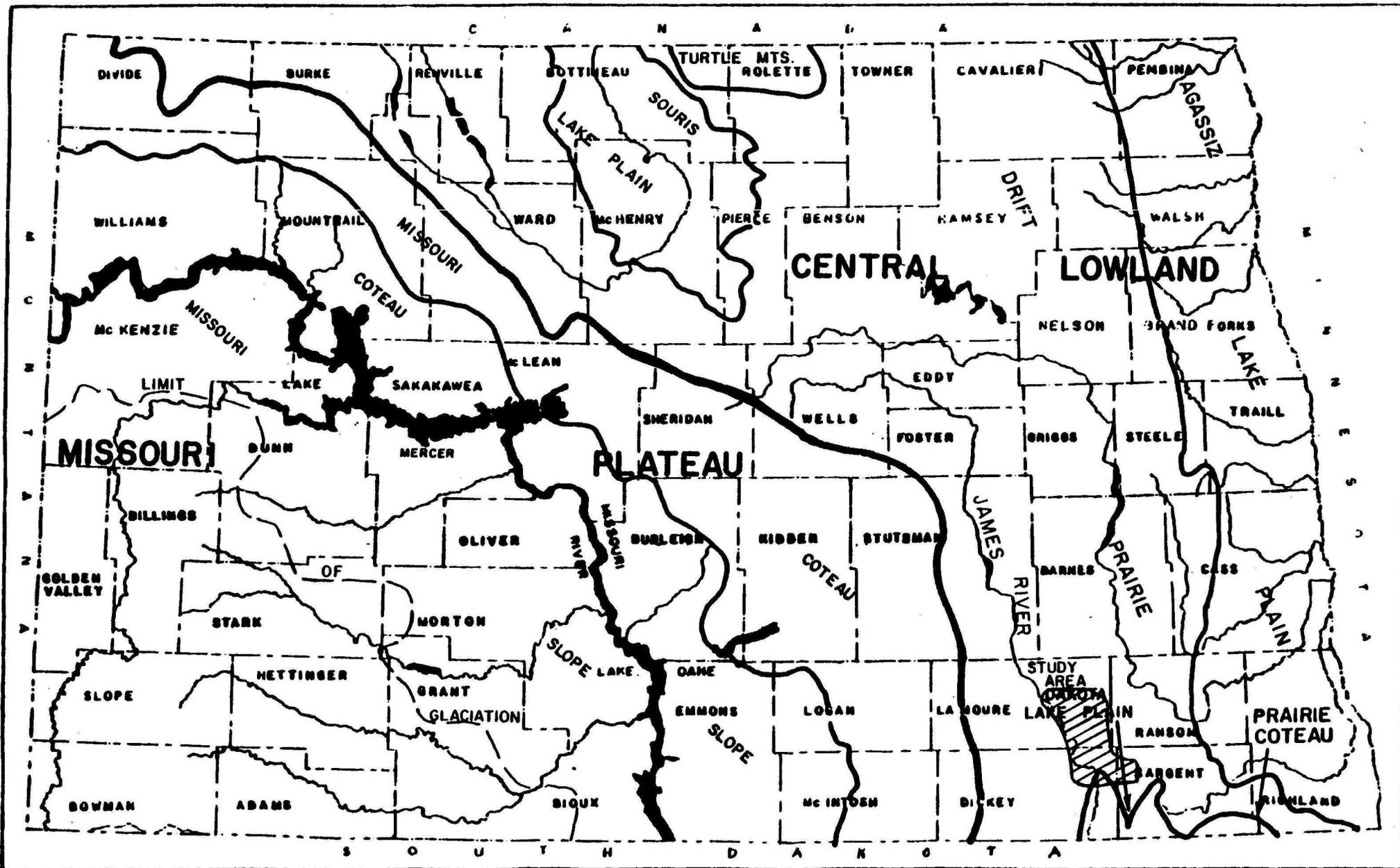
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INTRODUCTION

The Spiritwood aquifer system underlies an area of approximately 110 square miles in southeastern LaMoure, northeastern Dickey and northwestern Sargent Counties (fig. 1). The Dickey-LaMoure County ground-water study provides data on the Spiritwood aquifer collected through 1976. The Ransom-Sargent County ground-water study provides data on the Spiritwood aquifer collected through 1977. Additional data has been collected from the Spiritwood aquifer in LaMoure, Dickey, and Sargent Counties since the completion of the county studies. The additional data provided the framework for a more detailed hydrogeologic investigation of the Spiritwood aquifer in this three county area. The results of this investigation are published in two parts. Part I is a compilation of the geologic and hydrologic data collected during this and previous investigations. Part II is an interpretive report which describes the hydrogeology of the Spiritwood aquifer in the study area.



SCALE
0 10 20 30 40 MILES

FIGURE 1.—Study area location

PURPOSE AND OBJECTIVES

The purpose of this investigation is to establish a basis for the development of a management program for the Spiritwood aquifer in the study area. The objectives of this report are threefold: 1) to describe the present conceptual model of the aquifer system, 2) to determine which aspects of the conceptual model require further investigation, and 3) to propose a future work plan.

LOCATION-NUMBERING SYSTEM

The location-numbering system is based upon the location of a well or test hole in the Federal system of rectangular surveys of public lands (fig. 2). The first number denotes the township north of a baseline and the second number denotes the range west of the Fifth Principal Meridian. The third number indicates the section in which the well or test hole is located. The letters a, b, c, and d designate, respectively, the northeast, northwest, southwest, and southeast quarter section, quarter-quarter section, and quarter-quarter-quarter section (10 acre tract). Thus well 131-59-12AAA would be located in the ~~NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$~~ Section 12, Township 131 North, Range 59 West. Consecutive terminal numerals are added if more than one well is located within a 10 acre tract.

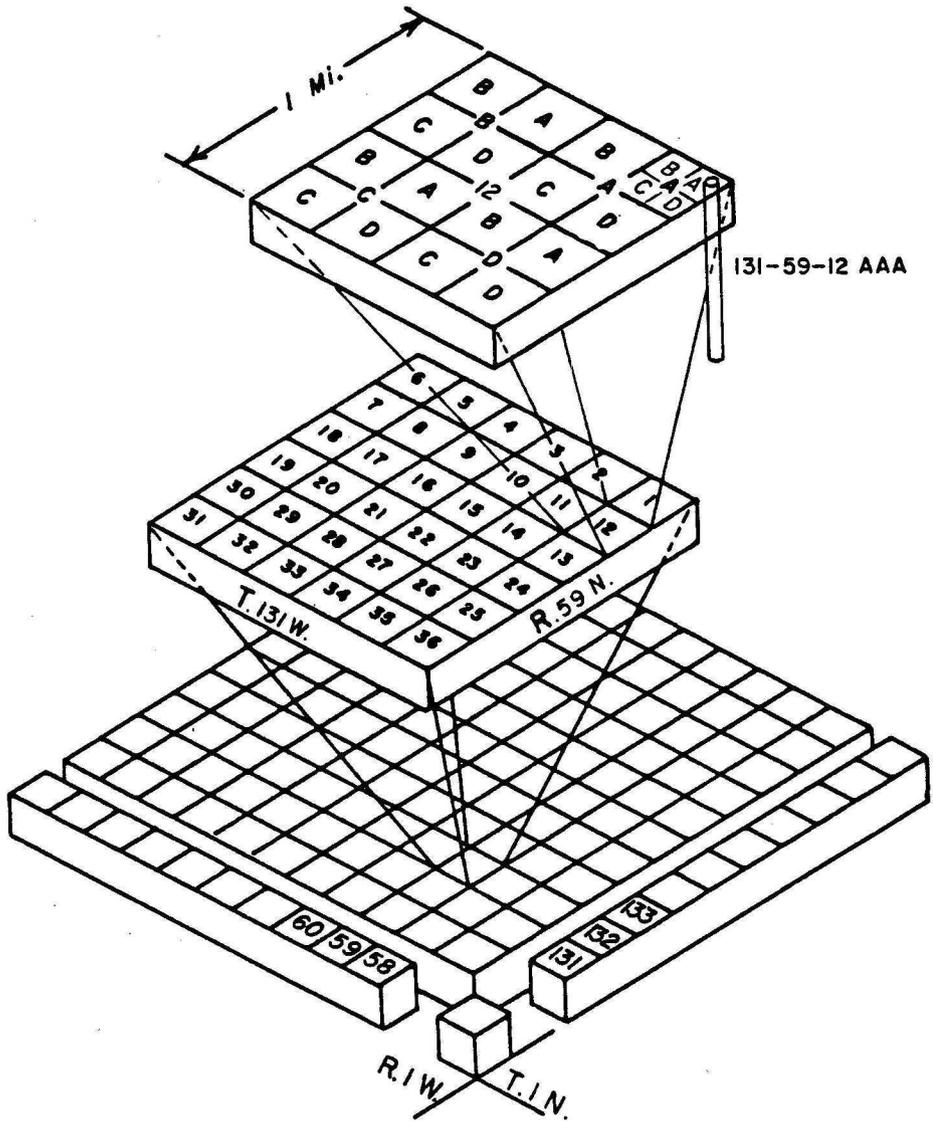


FIGURE 2.—Location-numbering system

ACKNOWLEDGEMENTS

The author is indebted to the residents of Dickey, LaMoure, and Sargent Counties who furnished essential information on wells and permitted the construction, measurement and sampling of the observation well network. Particular recognition is due to the following North Dakota State Water Commission personnel: Allen Comeskey, Paul Christensen and Steve Pusc for logging of test holes, Garvin Muri for chemical analysis of water samples and Milton Lindvig for scheduling the test drilling. Thanks are due to the various well drillers and drilling companies that furnished drillers' logs and other information in this report.

EXPLANATION OF DATA TABLES

For the most part, the data in this report was collected between 1973 and 1983. The points of collection are shown on Plate 1. The data consists of the following: 1) lithologic logs of 478 test holes and wells; 2) water level measurements in 147 observation wells; and 3) 172 chemical analyses of ground water.

Logs of Test Holes and Wells

The lithologic logs are from three sources. These include: 1) 310 lithologic logs from test holes completed under the direction of the North Dakota State Water Commission (Table 1A); 2) 15 lithologic logs from test holes completed under the direction of the U. S. Bureau of Reclamation (Table 1A); and 3) 153 logs from commercial well drillers (Table 1B). The lithologic logs in this report are summaries of the actual logs. Screened intervals of observation wells, domestic/stock wells, and irrigation wells are indicated at the bottom of each log. For many of the test holes, geophysical logs are available but are not included in this report. The grain size reported on the North Dakota State Water Commission lithologic logs is based on the Wentworth scale.

Land surface elevations are shown on each lithologic log. Land surface elevations indicated by integers were determined from 7½ minute topographic quadrangles of the U. S. Geological Survey. Land surface elevations indicated by decimal numbers were determined by differential levelling techniques.

Water Levels in Selected Wells

Water levels from selected observation wells are shown in Table 2. The water levels are reported in feet below land surface and elevation

above mean sea level (NGVD, 1929). The aquifer in which the well is completed, the screened interval and land surface elevation (msl) are also indicated for each observation well. Water levels were measured using chalked steel tapes.

Chemical Analyses

Water samples were collected from most of the State Water Commission observation wells, domestic/stock wells and irrigation wells in the study area. 163 water samples were collected from wells completed in the Spiritwood aquifer. Nine water samples were collected from wells completed in glaciofluvial deposits which overlie the Spiritwood aquifer. The chemical analyses of these water samples are shown in Tables 3 and 4.

TABLE 1A

Logs of test holes and wells from the
North Dakota State Water Commission and
U. S. Bureau of Reclamation

130-57-01CCC
NDSWC 9229

Elevation: 1304.2
(ft, msl)

Date Drilled: 11/21/74
Thickness Depth

Topsoil, black, silty loam	1	1
Clay, dark yellowish-orange, very silty, sandy, pebbly, soft, sticky, oxidized (till)	9	10
Clay, dark yellowish-brown, very silty, sandy, pebbly, soft, plastic, oxidized (till)	16	26
Clay, dark gray, very silty, sandy, pebbly, plastic, interbedded gravel (till)	53	79
Clay, dark olive-gray, moderately firm, plastic, interbedded gravel (till)	22	101
Sand, fine to very coarse, with fine to very coarse gravel angular to rounded	22	123
Clay, moderately dark gray, silty, very sandy, pebbly, plastic (till)	17	140
Sand, moderate to very coarse, subrounded, with gravel, fine to medium, subangular to subrounded	28	168
Clay, dark olive-gray, silty, sandy, pebbly, firm, moderately plastic (till)	14	182
Shale, light olive-gray, soft, plastic, very calcareous, white specks (Niobrara Fm.)	18	200

Observation Well
S.I. = 158-161

130-57-03AAA
NDSWC 4857

Elevation: 1318.8
(ft, msl)

Date Drilled: 10/16/75
Thickness Depth

Clay, dark yellowish-brown, silty, sandy, pebbly, soft, sticky, oxidized (till)	12	12
Clay, dark gray, soft, interbedded shaley sand, (till)	83	95
Sand, medium to coarse, interbedded silt and gravel	24	119
Clay, dark gray, soft, interbedded sand (till)	35	154
Shale, light olive-gray, silty, sandy, calcareous, interbedded limestone (Niobrara Fm.)	26	180

Observation Well
S.I. = 108-111

130-57-05AAA
NDSWC 4858

Elevation: 1301
(ft, msl)

Date Drilled: 10/16/75
Thickness Depth

Sand, dark yellowish-brown, very fine to fine, silty oxidized	12	12
Sand, dark gray, shaley, interbedded gravel	72	84
Sand, medium to very coarse, very shaley, gravelly	36	120
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	30	150
Shale, light olive gray, calcareous, white specks, (Niobrara Fm.)	10	160

Observation Well
S.I. = 103-106
Destroyed

130-57-05BBB₁
NDSWC 9951

Elevation: 1301.9 (BBB₁), 1301.8 (BBB₂)
(ft, msl)

Date Drilled: 8/30/77
Thickness Depth

Topsoil	1	1
Clay, yellow, silty, slightly sandy, oxidized	11	12
Clay, gray, silty	68	80
Sand, fine to medium, shaley	7	87
Clay, gray, silty	13	100
Clay, silty, interbedded with sand	50	150
Sand, medium-grading to fine gravel, rounded	15	165
Shale, medium gray, calcareous	15	180

Two Observation Wells

BBB₁ - S.I. = 100-105
BBB₂ - S.I. = 153-156

130-57-08DDD₁ & 2
NDSWC 9954 & 9954A

Elevation: 1292.2 (DDD₁), 1292.6 (DDD₂)
(ft, msl)

Date Drilled: 8/30/77
Thickness Depth

Topsoil	1	1
Clay, yellow, silty, oxidized	11	12
Sand, gray, fine	30	42
Clay, medium dark gray, pebbly, interbedded sand, (till)	94	136
Sand, medium	21	157
Clay, medium dark-gray (till)	3	160
Shale, medium gray, calcareous	20	180

Observation Wells

DDD₁ - 9954 S.I. = 143-146
DDD₂ - 9954A S.I. = 33-39

130-57-09DDD
NDSWC 9953

Elevation: 1309
(ft, msl)

Date Drilled: 8/30/77
Thickness Depth

Topsoil	1	1
Clay, yellow, oxidized (till)	13	14
Clay, gray brown (till)	94	108
Clay, gray, sandy (till)	32	140
Clay, gray (till)	61	201
Clay, gray, cobbly (till)	3	204
Shale, medium gray, non-calcareous	16	220

130-57-10AAA
NDSWC 11693

Elevation: 1305
(ft, msl)

Date Drilled: 8/25/81
Thickness Depth

Clay, moderate olive brown, silty, soft, cohesive, oxidized	16	16
Clay, olive gray, silty, sandy, gravelly, cohesive, interbedded shale gravel	50	66
Sand, very fine to fine	10	76
Silt, olive gray, interbedded sand and silty clay	33	109
Silt, light olive gray, clayey, friable, hard, massive	44	153
Clay, olive gray, silty, sandy, gravelly, hard	22	175
Shale, light olive gray, silty, calcareous, soft, cohesive, white specks (Niobrara Fm.)	25	200

130-57-14CCC

NDSWC 11691

Elevation: 1295
(ft, msl)Date Drilled: 8/20/81
Thickness Depth

Clay, light olive brown, silty, cohesive, soft	13	13
Clay, olive gray, silty, sandy, gravelly, soft, cohesive (till)	71	84
Clay, olive gray, silty, soft, cohesive	12	96
Clay, olive gray, silty, sandy, gravelly, interbedded with sand and gravel (till)	5	101
Gravel, sandy, coarse sand to fine pebble gravel	3	104
Clay, olive gray, silty, soft, cohesive	17	121
Gravel, granule to medium pebble, interbedded clay, silt, and sand	5	126
Clay, olive gray, silty, soft, cohesive	14	140
Silt, olive gray, sandy	7	147
Clay, olive gray, silty, sandy, gravelly, cohesive	25	172
Clay, light gray, silty, cohesive, calcareous, white specks (Niobrara Fm.)	8	180

130-57-15AAA

NDSWC 11692

Elevation: 1302
(ft, msl)Date Drilled: 8/21/81
Thickness Depth

Clay, moderate olive brown, silty, sandy, gravelly, soft, cohesive, oxidized (till)	20	20
Clay, olive gray, silty, sandy, gravelly, soft, cohesive (till)	102	122
Silt, olive gray, clayey, soft, friable	5	127
Clay, olive gray, silty, sandy, gravelly, soft, cohesive (till)	16	143
Clay, olive gray, very silty	24	167
Gravel, granule to very coarse pebble, subrounded to angular	6	173
Claystone, olight olive gray, soft, waxy, calcareous, white specks (Niobrara Fm.)	27	200

130-57-17BBB
NDSWC 11286

Elevation: 1331.5
(ft, msl)

Date Drilled: 7/16/80
Thickness Depth

Clay, light olive brown, silty, sandy, cohesive	11	11
Gravel, sandy, subangular to subrounded	2	13
Clay, light olive brown, silty, cohesive (Lacustrine)	9	22
Sand, dark yellow brown, medium rounded to subrounded	10	32
Clay, dark greenish gray, silty, sandy, cohesive, (lacustrine)	98	130
Boulder	1	131
Clay, olive gray, cohesive, interbedded sand and gravel (till)	57	186
Sand, very fine to very coarse, subrounded, poorly sorted	17	203
Shale, dark greenish gray, calcareous (Niobrara Fm.)	17	220

Observation Well
S.I. = 198 - 201

130-58-01DDD
NDSWC 4859

Elevation: 1305
(ft, msl)

Date Drilled: 10/16/75
Thickness Depth

Clay, dark gray, very silty, sandy, sticky, cohesive	113	113
Gravel, fine to medium, sandy	11	124
Clay, dark olive gray, silty, sandy, pebbly, plastic (till)	30	154
Clay, very gravelly and sandy (till)	26	180
Shale, light olive gray, very silty, calcareous, white specks (Niobrara Fm.)	20	200

130-58-09AAA
NDSWC 4861

Elevation: 1407.2
(ft, msl)

Date Drilled: 10/17/75
Thickness Depth

Topsoil, sandy loam	1	1
Clay, dark yellow brown, silty, sandy, pebbly, gravelly, oxidized (till)	73	74
Clay, dark gray, soft, plastic (till)	12	86
Silt, medium dark gray, siliceous	14	100
Clay, medium dark gray, gravelly (till)	19	119
Sand, very fine to medium, silty, shaley with detrital lignite	54	173
Clay, medium dark gray, gravelly, tight (till)	81	254
Shale, light olive gray, calcareous, white specks	26	280

Observation Well
S.I. = 158-161

131-57-19BBB
Bureau of Reclamation

Elevation: 1332
(ft, msl)

Date Drilled: 9/4/53
Thickness Depth

Topsoil, black, clayey, silty, organic	1.5	1.5
Sand, brown, fine, silty	5.5	7
Sand, gray brown, fine to coarse, poorly sorted, clayey	13	20
Silt, gray, clayey, sandy, laminated	115	135
Clay, gray, silty, sandy pebbly (till)	10	145

131-57-19BCC
Bureau of Reclamation

Elevation: 1373.4
(ft, msl)

Date Drilled: 9/1/53
Thickness Depth

Topsoil, black, clayey, silty, organic	1.5	1.5
Clay, buff, silty, very sandy, few pebbles (till)	8.5	10
Silt, buff, clayey, very sandy, oxidized	5	15
Sand, buff, very fine, silty, poorly sorted	5	20
Silt, buff to gray, very sandy, oxidized	50	70
Silt, gray, clayey, laminated	16	86
Silt, gray, clayey and sandy	144	230
Sand, gray, fine to medium	10	240

131-57-19CCC
Bureau of Reclamation

Elevation: 1369.7
(ft, msl)

Date Drilled: 7/7/53
Thickness Depth

Topsoil	1.5	1.5
Clay, buff, silty, sandy, pebbly, plastic (till)	15.5	17
Sand, gray brown, fine to medium, clayey, silty	13	30
Silt, gray, clayey, sandy	195	225

131-57-20CCC
NDSWC 9947

Elevation: 1340
(ft, msl)

Thickness Depth

Topsoil	1	1
Clay, yellow, silty, oxidized (till)	16	17
Sand, black, silty, shaley	2	19
Sand, brown, silty	8	27
Sand, shaley	8	35
Clay, light medium gray, silty	110	145
Clay, medium dark gray, pebbly (till)	46	191
Shale, medium gray, calcareous	9	200

131-57-20DDD
NDSWC 9948

Elevation: 1304
(ft, msl)

Date Drilled: 8/26/77
Thickness Depth

Topsoil	1	1
Clay, gray, silty	7	8
Silt, yellow, sandy, oxidized	16	24
Clay, gray, silty	56	80
Sand, fine to medium, gravelly, shaley	67	147
Shale, light medium gray, calcareous	13	160

Observation Well
S.I. = 138' - 141'

131-57-23CCC
NDSWC 9950

Elevation: 1297
(ft, msl)

Date Drilled: 8/30/77
Thickness Depth

Topsoil	1	1
Sand, yellow, silty, oxidized	10	11
Sand, gray, medium	54	65
Silt, gray	71	136
Silt, gray, interbedded gravel	31	167
Shale, medium gray, calcareous	13	180

131-57-27BBB
NDSWC 9949

Elevation: 1300
(ft, msl)

Date Drilled: 8/29/77
Thickness Depth

Topsoil	1	1
Sand, yellow brown, silty, oxidized	4	5
Sand, mottled gray and brown, fine, silty	12	17
Sand, mottled gray and brown, fine, shaley	26	43
Clay, light gray, silty	50	93
Sand, fine to medium, very shaley	10	103
Sand, fine to medium, shaley, interbedded silty clay	22	125
Clay, brown, silty	32	157
Shale, gray, calcareous	23	180

131-57-30BCC
Bureau of Reclamation

Elevation: 1359.6
(ft, msl)

Date Drilled: 7/10/53
Thickness Depth

Silt, buff, clayey, sandy (till)	34	34
Sand, tan, fine	1	35
Silt, buff to brown, laminated, oxidized	13	48
Silt, gray	7	55
Sand, gray, very fine, silty	13	68
Silt, gray, laminated, interbedded sand	8	76
Silt, gray, laminated, interbedded clay	4	80
Sand, gray, very fine, silty	59	139
Silt, gray, interbedded sand	91	230

131-57-31CCC
NDSWC 11285

Elevation: 1303.4
(ft, msl)

Date Drilled: 7/15/80
Thickness Depth

Clay, dark yellow brown (lacustrine)	15	15
Clay, olive gray (lacustrine)	48	63
Sand, coarse to gravel, poorly sorted, subangular to subrounded	3	66
Clay, olive gray, silty, sandy (till)	94	160
Sand, coarse, poorly sorted, subrounded interbedded clay	76	236
Clay, olive gray, calcareous	4	240
Shale, grayish black (Pierre Fm.)	5	245

Observation Well
S.I. = 198' - 201'

131-58-05AAA

NDSWC 4870

Elevation: 1317
(ft, msl)

Date Drilled: 10/21/75

Thickness Depth

Clay, dark yellow brown, silty, sandy, pebbly, gravelly, oxidized (till)	17	17
Clay, dark gray, interbedded sand and gravel (till)	107	124
Shale, light olive gray, calcareous, white specks	36	160

131-58-11DDD

NDSWC 9228

Elevation: 1390
(ft, msl)

Date Drilled: 11/20/74

Thickness Depth

Silt, moderate yellow brown, clayey, sandy, interbedded gravel, oxidized	34	34
Silt, moderate yellow brown, clayey, sandy, oxidized	14	48
Silt, medium gray to medium dark gray, clayey, sandy, laminated, interbedded gravel	105	153
Silt, medium dark gray, clayey, sandy, laminated	20	173
Clay, grayish black, silty, sandy, pebbly, interbedded gravel (till)	65	238
Shale, light olive gray, very calcareous, white specks (Niobrara Fm.)	22	260

131-58-14CDD
Bureau of Reclamation

Elevation: 1352
(ft, msl)

Date Drilled: 10/13/53
Thickness Depth

Topsoil, black, clayey, sandy, organic	2	2
Silt, buff to tan, very sandy, slightly clayey, oxidized	28	30
Silt, buff, clayey, oxidized	3	33
Sand, buff to brown, very fine, silty	7	40
Sand, brown to tan, very fine, clayey, silty	6	46
Sand, gray, fine to medium, fairly sorted, interbedded clay	59	105
Sand, gray, fine to medium, interbedded clay and detrital lignite	18	123
Silt, gray, clayey	3	126
Clay, gray, silty, sandy, pebbly (till)	4	130

131-58-15DDD
Bureau of Reclamation

Elevation: 1353.7
(ft, msl)

Date Drilled: 4/14/53
Thickness Depth

Topsoil	1	1
Sand, buff, very fine, poor sorting	18	19
Silt, buff, clayey, very sandy	15	34
Sand, gray, fine, slightly clayey	50	84
Silt, gray, clayey	2	86
Clay, gray, silty	14	100
Clay, gray, silty (till)	5	105

131-58-20BBB
NDSWC 11284

Elevation: 1328.7
(ft, msl)

Date Drilled: 7/15/80
Thickness Depth

Clay, moderate yellow brown with reddish brown stringers, silty, sandy, gravelly, oxidized (till)	16	16
Clay, dark gray, silty, sandy	10	26
Sand, medium, poorly sorted	9	35
Clay, olive black, silty, sandy, gravelly (till)	107	142
Sand, very to very coarse, silty, poorly sorted, rounded	55	197
Shale, dark gray, very calcareous (Niobrara Fm.)	23	220

Observation Well
S.I. = 188' - 191'

131-58-23AAA
Bureau of Reclamation

Elevation: 1337
(ft, msl)

Date Drilled: 10/7/53
Thickness Depth

Topsoil, black, silty, clayey, organic	1	1
Clay, buff, sandy, gravelly	4	5
Silt, buff, clayey, very sandy, oxidized	15	20
Silt, gray, clayey, sandy	82	102
Clay, gray, silty, sandy, pebbly (till)	8	110

131-58-24ABB
Bureau of Reclamation

Elevation: 1355
(ft, msl)

Date Drilled: 9/10/53
Thickness Depth

Topsoil, black, clayey, silty, organic	2	2
Clay, buff, silty, sandy, oxidized (till)	3	5
Silt, buff, clayey, sandy, oxidized	20	25
Sand, gray, very fine, clayey, silty	40	65
Silt, gray, clayey, sandy, laminated, interbedded clay	71	136
Clay, gray, silty, sandy, pebbly (till)	9	145

131-58-24BBA
NDSWC 4867

Elevation: 1350
(ft, msl)

Date Drilled: 10/21/75
Thickness Depth

Silt, dark yellow brown, clayey, interbedded sand, oxidized	50	50
Silt, dark gray	68	118
Clay, dark gray, silty, sandy, pebbly, gravelly (till)	86	204
Shale, light olive gray, calcareous, white specks (Niobrara Fm.)	6	210

131-58-24DDD
NDSWC 9946

Elevation: 1368
(ft, msl)

Date Drilled: 8/25/77
Thickness Depth

Topsoil	1	1
Clay, yellow, sandy, oxidized (till)	21	22
Gravel, oxidized	7	29
Clay, yellow, sandy, oxidized (till)	17	46
Clay, medium dark gray, silty	196	242
Sand, medium, interbedded silt	22	264
Clay, medium dark gray, gravelly (till)	19	283
Shale, light medium gray, calcareous. (Niobrara Fm.)	17	300

131-58-26CCD
Bureau of Reclamation

Elevation: 1352.3
(ft, msl)

Date Drilled: 3/27/53
Thickness Depth

Topsoil, black, clayey, silty, organic	1	1
Clay, tan, silty, pebbly, oxidized (till)	10	11
Sand, tan, clayey, silty, gravelly	4	15
Silt, tan, clayey, sandy	25	40
Sand, brown, fine to medium, poorly sorted, silty	5	45
Sand, brown, fine	3	48
Sand, buff, fine to medium, clayey, silty	7	55
Silt, buff, clayey, sandy	5	60
Sand, gray, very fine, clayey, very silty	50	110
Silt, gray, clayey	40	150

131-58-27ABA
NDSWC 4866

Elevation: 1334.7
(ft, msl)

Date Drilled: 10/21/75
Thickness Depth

Sand, dark yellow brown, fine to coarse, silty, oxidized	38	38
Sand, dark gray, fine to coarse, silty	55	93
Clay, dark gray to olive gray, silty, sandy	100	193
Gravel, fine to coarse, sandy, cobbly	57	250
Clay	10	260

Observation Well
S.I. = 208'- 211'

131-58-27DDB
Bureau of Reclamation

Elevation: 1371.8
(ft, msl)

Date Drilled: 4/1/53
Thickness Depth

Topsoil, black, silty, organic	1	1
Clay, buff, silty, sandy, gravelly, cobbly (till)	10	11
Sand, tan, clayey, silty	29	40
Silt, tan, sandy	38	78
Silt, gray, sandy	147	225

131-58-27BDB
Bureau of Reclamation

Elevation: 1343.1
(ft, msl)

Date Drilled: 4/3/53
Thickness Depth

Clay, buff, silty, sandy, gravelly, oxidized	20	20
Silt, buff, sandy, oxidized	11	31
Silt, buff, interbedded sand, oxidized	15	46
Silt, buff to gray, clayey, sandy, partially oxidized	64	110

131-58-31CCC
NDSWC 9952

Elevation: 1305
(ft, msl)

Date Drilled: 8/30/77
Thickness Depth

Topsoil	1	1
Silt, yellow, sandy, oxidized	7	8
Silt, mottled yellow gray, interbedded sand and gravel	7	15
Sand, gray, fine to medium, interbedded silt	27	42
Clay, gray, sandy (till)	90	132
Shale, medium gray, calcareous	8	140

131-58-32BCC₁
NDSWC 11293

Elevation: 1305.8
(ft, msl)

Date Drilled: 7/17/80
Thickness Depth

Clay, dark reddish brown, oxidized	14	14
Clay, olive gray (lacustrine)	17	31
Sand, very fine to very coarse, poorly sorted, subangular to subrounded	8	39
Clay, olive gray, interbedded sand and gravel (till)	2	41
Clay, olive gray, silty (lacustrine)	20	61
Clay, olive gray, sandy, gravelly (till)	78	139
Sand, coarse, poorly sorted, subrounded	15	154
Shale, olive gray, very calcareous (Niobrara Fm.)	6	160

Observation Well
S.I. = 148' - 151'

131-58-32BCC2
NDSWC 11293A

Elevation: 1305.7
(ft, msl)

Date Drilled: 7/17/80
Thickness Depth

topsoil	2	2
Clay, dark yellow brown, interbedded sand and gravel	10	12
Clay, olive gray	19	31
Sand, fine, silty	3	34
Clay, olive gray, silty	4	38
Silt	2	40

Observation Well
S.I. = 31'- 34'

131-58-33CCB
NDSWC 4862

Elevation: 1325
(ft, msl)

Date Drilled: 10/20/75
Thickness Depth

Sand, yellow brown, fine to medium, oxidized	22	22
Clay, dark gray, silty	12	34
Clay, dark gray, silty, sandy, interbedded gravel	24	58
Clay, dark olive gray, gravelly (till)	105	163
Shale, light olive gray, calcareous, white specks (Niobrara Fm.)	17	180

131-58-34BBB
NDSWC 4865

Elevation: 1307
(ft, msl)

Date Drilled: 10/21/75
Thickness Depth

Clay, dark yellow brown, silty, organic, oxidized	18	18
Clay, dark gray, silty, organic, interbedded sand	14	32
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	116	148
Sand, fine to very coarse, gravelly, interbedded silt	20	168
Shale, light olive gray, calcareous, white specks	12	180

Observation Well
S.I. = 158'- 161'
Plugged and abandoned

131-58-36BAB
Bureau of Reclamation

Elevation: 1348
(ft, msl)

Date Drilled: 7/1/53
Thickness Depth

Clay, buff, silty, sandy, gravelly, gypsiferous, oxidized (till)	23	23
Sand, buff, very fine, silty	8	31
Clay, gray, silty (till)	2	33
Sand, buff to gray, silty, oxidized	14	47
Silt, gray, clayey, sandy, varved	168	215
Sand, gray, medium to coarse, with gravel, fine to medium, silty	12	227

131-58-36AAA
Bureau of Reclamation

Elevation: 1353.25
(ft, msl)

Date Drilled: 7/6/53
Thickness Depth

Silt, dark brown, sandy	1	1
Silt, tan, clayey	2	3
Sand, buff, fine, silty, interbedded silt	7	10
Clay, buff, sandy, pebbly (till)	9	19
Silt, buff, interbedded sand	3	22
Silt, buff, laminated	12	34
Silt, gray, sandy	14	48
Sand, gray, fine, silty	5	53
Silt, gray, clayey, sandy, laminated	89	142
Clay, gray (till)	13	155

131-59-1CCC
NDSWC 9825

Elevation: 1336.3
(ft, msl)

Date Drilled: 10/22/76
Thickness Depth

Silt, moderate to yellow brown, clayey, sandy	6	6
Gravel, sandy	2	8
Clay, moderate yellow brown, silty, sandy, pebbly	7	15
Clay, olive gray, silty, sandy, pebbly	3	18
Gravel, medium sand to medium pebble, sandy	15	33
Clay, olive gray, silty, sandy, pebbly	5	38
Clay, olive gray, sandy	15	53
Clay, olive gray, silty	6	59
Clay, olive gray, silty, sandy, pebbly	5	64
Clay, dark olive gray, silty, sandy, pebbly	4	68
Gravel, medium sand to fine pebble, sandy	1	69
Clay, dark olive gray, silty, sandy, pebbly	4	73
Gravel, sand to medium, pebble, sandy	7	80
Sand, gravelly	1	81
Clay, dark olive gray, silty, sandy, pebbly	25	106
Clay, olive gray, silty, sandy	6	112
Clay, olive gray, silty, sandy, pebbly	9	121
Gravel, medium sand to fine pebble	5	126
Clay, olive gray, silty, sandy, pebbly	14	140
Clay, dark olive gray, slightly silty, sandy, slightly pebbly	13	153
Gravel, medium sand to fine pebble, sandy	4	157
Clay, olive gray, slightly silty, sandy, pebbly	6	163
Gravel, medium sand to medium pebble	37	200
Clay, silty, sandy, pebbly, gravelly	11	211
Clay, moderate brown, calcareous, white specks (Niobrara Fm.)	9	220

Observation Well
S.I. = 172'-175'

131-59-1DDA
NDSWC 4871

Elevation: 1328.4
(ft, msl)

Date Drilled: 10/22/75
Thickness Depth

Clay, dark brown to yellow brown, silty, sandy, oxidized, (slough deposits)	16	16
Clay, dark gray to olive gray, silty, sandy, pebbly, gravelly, interbedded sand and gravel (till)	122	138
Gravel, fine to very coarse, sandy, interbedded clay	34	172
Shale, light olive gray, calcareous, white specks (Niobrara Fm.)	28	200

Observation Well
S.I. = 163'- 166'

131-59-2AAA
NDSWC 9129

Elevation: 1316.5
(ft, msl)

Date Drilled: 9/26/74
Thickness Depth

Topsoil, black, silty loam	1	1
Clay, moderate yellow brown, very silty, pebbly, interbedded sand, oxidized	9	10
Clay, dark gray, silty, interbedded sand and gravel	6	16
Sand, medium to coarse, gravelly, interbedded clay, oxidized	2	18
Clay, dark gray, silty, very sandy, pebbly (till)	35	53
Sand, medium dark gray, very fine	17	70
Sand, medium dark gray, very fine, clayey	21	91
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	26	117
Silt, medium dark gray to live gray, clayey	3	120
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	13	133
Sand, very fine to medium, interbedded clay	7	140
Gravel, fine to medium, subangular to subrounded, sandy, interbedded clay	31	171
Clay, moderate dark gray to dark gray, very calcareous (Niobrara Fm.)	29	200

Observation Well
S.I. = 158'- 161'

131-59-03BAA
NDSWC 11657

Elevation: 1334.0
(ft, msl)

Date Drilled: 8/1/81
Thickness Depth

Clay, pale yellow brown with medium yellow stringers, silty, sandy, pebbly, oxidized (till)	10	10
Sand, yellow stained, very fine to very coarse, subangular to rounded, gravelly, stratified, oxidized	16	26
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel	37	63
Silt, greenish gray to brownish gray, clayey, interbedded with till	17	80
Silt, greenish gray, clayey	23	103
Clay, olive gray, silty, sandy, pebbly (till)	47	150
Sand, very fine to very coarse, subangular to subrounded, interbedded gravel	52	205
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	15	220

Observation Well
S.I. = 197'- 200'

131-59-03BBB
NDSWC 9130

Elevation: 1326.6
(ft, msl)

Date Drilled: 9/26/74
Thickness Depth

Topsoil, black, sandy silty loam	1	1
Clay, dark yellow orange, very silty, sandy, pebbly, oxidized (till)	5	6
Clay, moderate yellow brown, very silty, sandy, pebbly, interbedded sand and gravel, oxidized (till)	6	12
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	5	17
Silt, dark gray, sandy	71	88
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	12	100
Sand, dark gray, fine to medium, gravelly, interbedded silt	16	116
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	30	146
Sand, dark gray, medium to very coarse, gravelly, interbedded clay and silt	14	160
Gravel, fine to medium, sandy	20	180
Gravel, medium to coarse, sandy	25	205
Shale, medium dark gray, calcareous, white specks, sandy (Niobrara Fm.)	35	240

Observation Well
S.I. = 178' - 184'

131-59-04CDC
NDSWC 11972

Elevation: 1332
(ft, msl)

Date Drilled: 9/9/82
Thickness Depth

Sand, yellow, very fine to medium, silty, oxidized	3	3
Sand, very fine to very coarse, subangular to rounded, gravelly, oxidized	11	14
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	9	23
Clay, olive gray, silty, sandy, pebbly (till)	6	29
Silt, pale greenish gray, clayey, sandy	5	34
Clay, olive gray, silty, sandy, pebbly (till)	8	42
Silt, pale greenish gray, clayey, sandy, interbedded clay and sand	47	89
Clay, olive gray, silty sandy, pebbly (till)	3	92
Sand, very fine to very coarse, angular to rounded, gravelly	33	125
Clay, olive gray, silty, sandy, pebbly (till)	14	139
Sand, gravelly	4	143
Shale, light to medium brown, calcareous, light gray specks (Niobrara Fm.)	17	160

131-59-05AAA
NDSWC 11656

Elevation: 1346.7
(ft, msl)

Date Drilled: 8/19/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	20	20
Sand, very fine to fine	3	23
Silt, greenish gray, clayey	9	32
Sand, very fine to fine	13	45
Silt, clayey, interbedded sand	40	85
Clay, olive gray, silty, sandy, pebbly (till)	67	152
Sand, very fine to very coarse, subangular to rounded, gravelly	44	196
Shale, dark brown, calcareous, gray specks, (Niobrara Fm.)	25	221

Observation Well
S.I. = 187'- 190'

131-59-05BAA₁
NDSWC 11970A

Elevation: 1351.5
(ft, msl)

Date Drilled: 9/8/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Clay, olive gray, silty, sandy, pebbly (till)	25	43
Silt, pale greenish gray, clayey	23	66
Clay, olive gray, silty, sandy, pebbly (till)	41	107
Gravel, sandy, cobbly	9	116
Clay, olive gray, silty, sandy, pebbly (till)	35	151
Sand, very fine to very coarse, subangular to rounded, gravelly, cobbly, bouldery	31	182
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	3	185

Observation Well
S.I. = 166'- 171'

131-59-05BAA₂
NDSWC 11970B

Elevation: 1351.8
(ft, msl)

Date Drilled: 9/8/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	25	43
Silt, pale greenish gray, very clayey	27	70
Clay, olive gray, silty, sandy, pebbly (till)	34	104

Observation Well
S.I. = 98'- 103'

131-59-05BAA₃
NDSWC 11970C

Elevation: 1351.5
(ft, msl)

Date Drilled: 9/8/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	15	15
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	30	45
Silt, pale greenish gray, very clayey	9	54
Sand, very fine to very coarse, subrounded to rounded	3	57
Clay, olive gray, silty, sandy, pebbly (till)	3	60

Observation Well
S.I. = 52'- 57'

131-59-05BBB
NDSWC 9131

Elevation: 1349.2
(ft, msl)

Date Drilled: 9/26/74
Thickness Depth

Clay, moderate yellow brown, very silty, very sandy, pebbly, oxidized (till)	7	7
Clay, dark yellow brown, very silty, sandy, pebbly, interbedded sand and gravel (till)	17	24
Sand, dark yellow brown, very silty, clayey, oxidized	11	35
Sand, dark gray	19	54
Sand, medium dark gray, moderately clayey	8	62
Silt, moderate dark gray, clayey	37	99
Clay, dark gray to olive gray, silty, sandy, pebbly (till)	11	110
Gravel, fine to coarse, angular to subrounded, sandy	15	125
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	22	147
Gravel, fine to coarse, angular to subrounded, interbedded gravel (till)	22	169
Shale, medium gray, very calcareous, white specks (Niobrara Fm.)	31	200

Observation Well
S.I. = 158'- 161'

131-59-05DDD
NDSWC 12262

Elevation: 1296.59
(ft, msl)

Date Drilled: 7/29/83
Thickness Depth

Topsoil	1	1
Clay, dark brown, silty, organic	5	6
Sand, very fine, silty, fossiliferous	4	10
Sand, very fine to very coarse, gravelly	13	23
Silt, olive gray, clayey	7	30
Gravel, very fine to medium pebble	1	31
Silt, olive gray, clayey	9	40

Observation Well
S.I. = 15'- 20'

131-59-06BAA
NDSWC 6146

Elevation: 1300
(ft, msl)

Date Drilled: 9/20/82
Thickness Depth

Topsoil	1	1
Clay, yellow brown to live gray, silty, partially oxidized (lacustrine)	30	31
Silt, olive brown to live gray, clayey, interbedded sand	5	36
Gravel, very fine to very coarse pebble	2	38
Silt	5	43
Clay, olive gray, silty, sandy, pebbly, interbedded silt and sand (till)	44	87
Cobbles	1	88
Clay, olive gray, silty, sandy, pebbly (till)	21	109
Boulder	2	111
Mudstone, gray to light gray, calcareous, (Niobrara Fm.)	11	122

131-59-06BBB
NDSWC 9132

Elevation: 1292
(ft, msl)

Date Drilled: 9/26/74
Thickness Depth

Topsoil, black, clayey loam	2	2
Clay, grayish black, very silty	8	10
Clay, dark gray, silty, very sandy	20	30
Clay, dark bluish gray	40	70
Clay, olive gray	27	97
Gravel, fine to medium, sandy	23	120
Gravel, medium to coarse, sandy	13	133
Shale, medium gray, very calcareous, white specks	7	140

Observation Well
S.I. = 112' - 118'
Plugged and abandoned

131-59-06CDD
NDSWC 6163

Elevation: 1292
(ft, msl)

Date Drilled: 9/24/82
Thickness Depth

Topsoil	1	1
Clay, dark brown, pebbly (till)	9	10
Clay, olive gray (lacustrine)	94	104
Sand, coarse, angular to rounded, cobbly	8	112
Silt	18	130
Gravel, coarse, interbedded with sand and clay	15	145

131-59-08BBB
NDSWC 6162

Elevation: 1295
(ft, msl)

Date Drilled: 9/24/82
Thickness Depth

Topsoil	1	1
Clay, dark brown, silty	6	7
Silt, yellow brown, clayey, oxidized	9	16
Clay, olive gray, silty	8	24
Sand, fine sand to medium gravel, angular to rounded	2	26
Clay, olive gray, silty, pebbly, interbedded gravel (till)	65	91
Claystone, brownish gray, calcareous, interbedded clayey siltstone	11	102

131-59-08ABB
NDSWC 11971

Elevation: 1346.8
(ft, msl)

Date Drilled: 9/9/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	24	24
Silt, pale yellow brown, clayey	19	43
Clay, greenish gray to olive gray, very silty, pebbly, very slightly sandy (till-reworked)	54	97
Clay, olive gray, silty, sandy, pebbly	49	146
Sand, very fine to coarse, subangular to rounded, gravelly	16	162
Shale, light to medium brown, calcareous, light gray specks	18	180

Observation Well
S.I. = 155' - 160'

131-59-08CDD
NDSWC 11973

Elevation: 1330
(ft, msl)

Date Drilled: 9/9/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	40	40
Clay, olive gray, silty, sandy, pebbly (till)	2	42
Silt, pale greenish gray, clayey, sandy	35	77
Clay, olive gray, silty, sandy, pebbly	36	113
Silt	9	122
Clay, olive gray, silty, sandy, pebbly	14	136
Shale, light to medium brown, calcareous, light gray specks (Niobrara Fm.)	24	160

131-59-09DBB
NDSWC 9604

Elevation: 1335
(ft, msl)

Date Drilled: 6/21/76
Thickness Depth

Sand, fine to very coarse, gravelly, fair sorting, subrounded to rounded, oxidized	17	17
Clay, olive gray, silty, sandy, pebbly (till)	13	30
Clay, greenish gray, silty, calcareous	65	95
Clay, olive gray, silty, sandy, pebbly (till)	10	105
Sand, fine to coarse, gravelly, subrounded to rounded	5	110
Clay, olive gray, silty, sandy, pebbly (till)	30	140
Shale, gray-brown, calcareous, light gray specks	20	160

131-59-09DCC
NDSWC 9529B

Elevation: 1334
(ft, msl)

Date Drilled: 4/8/76
Thickness Depth

Clay, black, silty, sandy (topsoil)	1	1
Clay, moderate yellow brown, silty, sandy, oxidized	1	2
Gravel, fine to coarse, angular to subangular, 30% sand, oxidized	9	11
Gravel, fine to coarse, angular to subangular, 40% sand, oxidized	8	24
Clay, medium to olive gray, silty, sandy, pebbly (till)	17	41
Gravel, fine to medium, angular to subrounded 30% sand	6	47
Clay, medium to olive gray, silty, very sandy, pebbly, interbedded sand (till)	95	142
Gravel, fine to medium, sandy, clayey	2	144
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	12	156
Shale, medium gray to medium light gray, silty, calcareous, white specks (Niobrara Fm.)	24	180

131-59-09DDC
NDSWC 9529A

Elevation: 1334
(ft, msl)

Date Drilled: 4/7/76
Thickness Depth

Topsoil, clayey, sandy	1	1
Sand, fine to very coarse, angular to subangular, gravelly, clayey, oxidized	2	3
Gravel, angular to subangular, sandy, oxidized	20	23
Clay, olive gray to medium gray, silty, sandy, pebbly, interbedded sand and gravel (till)	33	56
Clay, medium gray to medium dark gray, silty, very sandy (lacustrine)	55	111
Clay, medium gray to olive gray, silty, sandy, pebbly, gravelly, interbedded sand and gravel (till)	11	122
Sand, fine to very coarse, angular to subrounded	3	125
Clay, olive gray, very sandy, pebbly, gravelly (till)	40	165
Shale, medium gray to medium light gray, silty, sandy, calcareous, white specks (Niobrara Fm.)	15	180

131-59-10BBA
NDSWC 9823

Elevation: 1341.1
(ft, msl)

Date Drilled: 10/21/76
Thickness Depth

Silt, slightly clayey, sandy, yellow brown, oxidized	4	4
Silt, clayey, sandy, pebbly, yellow brown, oxidized	10	14
Sand and gravel, sand, medium to very coarse, predominantly very coarse, lots of carbonates, shield silicates, detrital shale, and quartz	13	27
Clay, silty, sandy, pebbly, olive gray (till)	35	62
Clay, silty, greenish gray	26	88
Silt, clayey, brownish gray	27	115
Clay, silty, sandy, slightly pebbly, olive gray	8	123
Gravel, sandy, sand, medium to very coarse, lots of carbonates, shield silicates and detrital shale	9	132
Clay, silty, sandy, pebbly, olive gray	26	158
Gravel, sandy, sand, medium to very coarse	5	163
Clay, silty, sandy, pebbly, olive gray	25	188
Sand, graveely, sand, medium to very coarse, lots of quartz, detrital shale, carbonates, some shield silicates	18	206
Clay, silty, sandy, pebbly (till)	5	211
Clay, medium brown, white specks, (Niobrara Formation)	9	220

131-59-11BBB
NDSWC 9524

Elevation: 1340
(ft, msl)

Date Drilled: 10/21/76
Thickness Depth

Topsoil	1	1
Sand, yellow brown, very fine to coarse, silty	3	4
Clay, moderate yellow brown, silty, sandy, pebbly	3	7
Silt, light olive, clayey, sandy	4	11
Clay, moderate yellow brown, silty, sandy, pebbly (till)	2	13
Clay, dark yellow brown, silty, sandy, pebbly (till)	2	15
Sand, olive gray, clayey, silty, pebbly (till)	1	16
Clay, silty, sandy, pebbly	45	61
Silt, olive gray, clayey, sandy	56	117
Clay, olive gray, silty, sandy, pebbly	18	135
Clay, olive gray, silty, sandy, pebbly	23	158
Boulder	1	159
Clay, dark brownish gray, silty	9	168
Clay, olive gray, silty, sandy	18	184
Silt, clayey, sandy	10	194
Clay, olive gray, silty, sandy	15	209
Clay, medium brown, calcareous, white specks (Niobrara Fm.)	11	220

Observation Well
S.I. = 188' - 194'

131-59-12CCC₂
NDSWC 9826

Elevation: 1368.2
(ft, msl)

Date Drilled: 10/26/76
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, silty	6	7
Sand, very fine sand to fine pebble, gravelly	46	53
Clay, moderate yellow brown mottled dusky yellow brown, silty, sandy, pebbly	9	62
Sand, very fine sand to fine pebble, gravelly	5	67
Gravel, fine sand to fine pebble, sandy	4	71
Boulder	1	72
Clay, olive gray, silty, sandy, pebbly	8	80
Gravel, coarse	7	87
Clay, olive gray, silty, sandy, pebbly	35	122
Sand, very fine to fine pebble, gravelly	11	133
Clay, olive gray, silty, sandy, pebbly	9	142
Gravel, fine sand to medium pebble, sandy	9	151
Clay, silty, sandy, pebbly, interbedded sand and gravel	11	162
Clay, olive gray, silty, sandy, pebbly	5	167
Gravel, bouldery	4	171
Clay, dark gray, sandy, pebbly	15	186
Gravel, fine sand to medium pebble, sandy	8	194
Clay, silty, sandy	4	198
Gravel, fine sand to medium pebble	28	226
Gravel, coarse	1	227
Gravel, medium sand to medium pebble, sandy	24	251
Clay, medium brown, calcareous, white specks (Niobrara Fm.)	9	260

Observation Well
S.I. = 208' - 211'

131-59-15AAA₁
 NDSWC 9122

Elevation: 1346.0(AAA₁), 1345.7(AAA₂)
 (ft, msl)

Date Drilled: 9/20/74
 Thickness Depth

Silt, dark yellow orange, sandy, interbedded sand and gravel, oxidized	10	10
Silt, moderate yellow brown, sandy, interbedded sand and gravel, oxidized	15	25
Sand, medium to very coarse, angular to subrounded, gravelly	23	48
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	34	82
Silt, olive gray, interbedded sand and gravel	12	94
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	66	160
Gravel, cobbly	12	172
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	10	182
Sand, fine to very coarse, subangular to rounded, interbedded silt	21	203
Shale, medium gray, calcareous (Niobrara Fm.)	17	220

Observation Well
 AAA₁ - S.I. = 188' - 194'
 AAA₂ - S.I. = 44' - 47'

131-59-15BBB
NDSWC 9121

Elevation: 1341.3
(ft, msl)

Date Drilled: 9/20/74
Thickness Depth

Sand, medium to very coarse, gravelly, subangular to rounded, oxidized	30	30
Silt, dark gray to medium dark gray, clayey, interbedded sand and gravel	30	60
Silt, dark gray, clayey, interbedded sand and gravel	49	109
Clay, dark gray to olive gray, silty, sandy, pebbly, interbedded sand and gravel	60	169
Sand, dark gray, fine to medium, very silty, subangular to subrounded	18	187
Boulders, cobbly	13	200
Shale, moderate gray, very calcareous	20	220

Observation Well
S.I. = 178' - 184'

131-59-17ABA
NDSWC 6155

Elevation: 1293.52
(ft, msl)

Date Drilled: 9/22/82
Thickness Depth

Topsoil	1	1
Silt, brown to olive gray, clayey	6	7
Sand, coarse sand to fine gravel, angular to rounded	31	38
Silt, olive gray, clayey	29	67
Clay, brownish gray	12	79
Clay, brownish gray, silty, pebbly (till)	15	94
Sand, very coarse to medium gravel, angular to rounded	11	105
Claystone, brownish gray	17	122

Observation Well
S.I. = 33' - 38'

131-59-17BBA
NDSWC 6157

Elevation: 1295.91
(ft, msl)

Date Drilled: 9/23/82
Thickness Depth

Topsoil	1	1
Silt, yellow brown, clayey, oxidized	14	15
Silt, olive gray, clayey	26	41
Sand, coarse sand to fine gravel, angular to rounded, oxidized	5	46
Clay, brownish gray, silty, pebbly (till)	11	57

Observation Well
S.I. = 41'- 46'

131-59-17BBB
NDSWC 6156

Elevation: 1295.12
(ft, msl)

Date Drilled: 9/23/82
Thickness Depth

Topsoil	1	1
Silt, yellow brown, clayey, oxidized	12	13
Silt, olive gray, clayey	6	19
Clay, olive gray	9	28
Sand, gravelly	2	30
Clay	2	32
Sand, gravelly	1	33
Clay, olive gray, silty, pebbly, interbedded gravel (till)	65	98
Claystone, brownish gray	14	112

Observation Well
S.I. = 30'- 35'

131-59-17BCC
NDSWC 6159

Elevation: 1293.82
(ft, msl)

Date Drilled: 9/23/82
Thickness Depth

Topsoil	1	1
Silt, dark brown, clayey	13	14
Sand, very fine, well sorted, angular	4	18
Silt, olive gray, clayey	51	69
Clay, green	5	74
Silt, olive gray, clayey	17	91
Sand, coarse sand to coarse gravel, rounded	19	110
Silt, brownish gray, clayey, interbedded gravel	37	147
Siltstone, greenish to brownish gray	15	162

Observation Well
S.I. = 95' - 100'

131-59-17DCC
NDSWC 9827

Elevation: 1299.3
(ft, msl)

Date Drilled: 10/26/76
Thickness Depth

Topsoil	1	1
Sand, very fine to very coarse	11	12
Silt, pale yellow brown, clayey	6	18
Silt, olive gray, clayey	19	37
Clay, olive gray silty	6	43
Silt, olive gray, clayey	7	50
Gravel, medium sand to medium pebble, sandy	20	70
Silt, olive gray, clayey, sandy	42	112
Sand, very fine to fine pebble, gravelly, well sorted	4	116
Silt, olive gray, clayey	4	120
Sand, very fine to fine pebble, gravelly	7	127
Gravel, coarse	1	128
Clay, olive gray, silty	2	130
Gravel, coarse, bouldery	2	132
Clay, grayish brown, calcareous, white specks (Niobrara Fm.)	28	160

Observation Well
S.I. = 121' - 124'

131-59-20AAA₁

NDSWC 9118

Elevation: 1330.0(AAA₁), 1329.9(AAA₂)
(ft, msl)

Date Drilled: 9/19/74
Thickness Depth

Sand, light brown, medium to very coarse, well sorted, oxidized	35	35
Sand, moderate gray, medium to very coarse, well sorted	56	91
Sand, moderate dark gray, silty	56	147
Sand, coarse to very coarse, angular to subrounded, gravelly	39	186
Gravel, fine to medium, sandy, interbedded silt and till	21	207
Shale, moderate gray, calcareous	13	220

Observation Well

AAA₁ - S.I. = 168' - 174'

AAA₂ - S.I. = 83' - 86'

131-59-20BBB

NDSWC 6158

Elevation: 1293.96
(ft, msl)

Date Drilled: 9/23/82
Thickness Depth

Topsoil	1	1
Clay, dark brown	4	5
Sand, fine sand to medium gravel, angular to rounded	15	20
Sand, very fine, well sorted, angular	18	38
Silt, olive gray	2	40
Clay, olive gray	24	64
Silt, olive gray, clayey	30	94
Clay, olive gray, basal gravel	14	108
Claystone, brownish gray, very calcareous, interbedded siltstone	14	122

Observation Well

S.I. = 25' - 30'

131-59-21AAA
NDSWC 9119

Elevation: 1330
(ft, msl)

Date Drilled: 9/19/74
Thickness Depth

Sand, coarse to very coarse, gravelly, subangular, oxidized	22	22
Silt, dark gray, very sandy, interbedded sand and till	93	115
Silt, dark gray, clayey, interbedded gravel	20	135
Boulders	9	144
Shale, medium dark gray, very calcareous	16	160

131-59-22ABB
NDSWC 11974

Elevation: 1340.8
(ft, msl)

Date Drilled: 9/9/82
Thickness Depth

Sand, very fine to coarse, gravelly, subangular to rounded, oxidized	15	15
Silt	7	22
Sand, very fine to coarse, gravelly, subangular to rounded, oxidized	27	49
Silt, greenish gray, clayey, interbedded sand	114	163
Sand, very fine to fine, silty, gravelly, subangular to rounded	34	197
Sand, very fine to very coarse, subangular to rounded, gravelly	3	200
Boulder	1	201

Observation Well
S.I. = 197' - 200'

131-59-22BDA₂
NDSWC 9772

Elevation: 1335
(ft, msl)

Date Drilled: 9/13/76
Thickness Depth

Topsoil, black	1	1
Sand, very fine to coarse, rounded	5	6
Clay, moderate yellow brown, silty	7	13
Sand, very fine sand to medium pebble, gravelly	7	20
Sand, very fine sand to very fine pebble, gravelly	23	43
Silt, grayish brown, clayey	81	124
Sand, very fine sand to fine pebble, gravelly	24	148
Clay, brownish gray, silty	28	176
Sand, very fine to fine pebble, gravelly	33	209
Gravel, very fine sand to coarse pebble, sandy	30	239

Observation Well
S.I. = 212' - 215'

131-59-22BAD
NDSWC 9774

Elevation: 1330
(ft, msl)

Date Drilled: 9/14/76
Thickness Depth

Topsoil	1	1
Sand, very fine to fine pebble	1	3
Silt, light olive brown, clayey	8	11
Sand, fine sand to medium pebble, gravelly, rounded	10	21
Sand, very fine sand to fine pebble, well sorted	16	37
Sand, very fine sand to fine pebble	9	46
Silt, brownish gray, clayey	16	62
Sand, very fine to fine	3	65
Clay, brownish gray, silty	17	82
Silt, sandy	41	123
Sand, very fine to very coarse	10	133
Silt, brownish gray, clayey	43	176
Silt	4	180
Sand, very fine to very coarse, predominantly medium, clayey	11	191
Sand, very fine to very coarse, predominantly medium	13	204
Sand, fine sand to fine pebble, gravelly	14	218
Gravel, fine sand to medium pebble, sandy	8	226

Observation Well
S.I. = 213' - 216'

131-59-22BAA
NDSWC 9775

Elevation: 1340
(ft, msl)

Date Drilled: 9/15/76
Thickness Depth

Topsoil	1	1
Sand, fine sand to medium pebble, gravelly	27	28
Sand, very fine to very fine pebble	6	34
Sand, very fine to medium pebble, gravelly	7	41
Silt, brownish gray, clayey	55	96
Silt, brownish gray, sandy	22	118
Silt, brownish, gray, clayey, sandy	58	176
Sand, very fine to very fine pebble	28	204
Sand, very fine to fine pebble, gravelly, boulder at 212'	8	212

Observation Well
S.I. = 119.5' - 122.5'

131-59-22BDA
NDSWC 9773

Elevation: 1331
(ft, msl)

Date Drilled: 9/14/76
Thickness Depth

Topsoil	1	1
Silt, light olive brown, clayey	8	9
Sand, very fine to medium pebble, gravelly, rounded	12	21
Sand, very fine to fine pebble, gravelly	17	38
Sand, fine to medium pebble	13	51
Silt, brownish gray, clayey	64	115
Sand, very fine to very coarse, silty	25	140
Silt, clayey, sandy	56	196
Sand, very fine to fine pebble	5	201
Silt, brownish gray, clayey	3	204
Gravel, medium sand to medium pebble, sandy	12	216
Gravel, medium sand to medium pebble	18	234
Clay, brownish gray, calcareous, white specks	17	251

Observation Well
S.I. = 215'- 218'

131-59-26BCB₁
NDSWC 9423

Elevation: 1341.2
(ft, msl)

Date Drilled: 8/26/75
Thickness Depth

Sand, very fine to very coarse, angular to subrounded, gravelly	51	51
Clay, medium gray to olive gray, silty, sandy, pebbly (till)	24	75
Silt, medium gray, clayey, sandy, calcareous, (lacustrine)	17	92
Gravel, fine to coarse, angular to subangular	10	102
Clay, medium dark gray to olive gray, silty, sandy, pebbly	13	115
Sand, very fine to very coarse, angular to subrounded	5	120
Clay, medium dark gray to olive gray, silty, sandy, pebbly (till)	38	158
Shale, medium light to medium bluish gray, silty, sandy, very calcareous (Niobrara Fm.)	22	180

Observation Well
S.I. = 43' - 46'

131-59-27CBB₁
NDSWC 11918

Elevation: 1310.56(CBB₁), 1310.36(CBB₂)
(ft, msl)

Date Drilled: 7/8/82
Thickness Depth

Clay, light brown, silty, sandy	3	3
Sand, fine to very coarse, gravelly subangular to subrounded	49	52
Gravel, very fine to coarse pebble, angular to subangular, sandy	6	58
Sand, fine to very coarse, gravelly, subangular to subrounded	3	61
Clay, olive gray, silty, sandy (lacustrine)	8	69
Clay, olive gray, silty, sandy, pebbly (till)	52	121
Gravel, very fine to coarse pebble, subangular, sandy	16	137
Mudstone, brownish gray, silty, calcareous, white specks	23	160

Observation Well
CBB₁ - S.I. = 127' - 132'
CBB₂ - S.I. = 47' - 52'

131-59-31AAA
NDSWC 6160

Elevation: 1294.51
(ft, msl)

Date Drilled: 9/23/82
Thickness Depth

Topsoil	1	1
Silt, yellow brown, clayey, oxidized	9	10
Silt, dark olive gray, clayey	14	24
Sand, fine, well sorted, angular	12	36
Silt, dark olive gray, clayey	60	96
Clay, olive gray	6	102
Gravel	3	105
Clay, brownish gray, very silty, calcareous, interbedded gravel	14	119
Claystone, brownish gray, silty, calcareous, fissile	13	132

Observation Well
S.I. = 24' - 29'

131-59-34BCC₂
NDSWC 11926

Elevation: 1311.27
(ft, msl)

Date Drilled: 7/18/82
Thickness Depth

Topsoil	1	1
Sand, yellow brown, fine to coarse, subrounded to rounded, silty, oxidized	5	6
Clay, yellow brown, silty, sandy, oxidized	2	8
Sand, fine to coarse, subrounded to rounded, silty, interbedded gravel	27	35
Clay, olive gray, silty, sandy, pebbly (till)	81	116
Clay, olive gray, silty (bedrock)	24	140

Observation Well
S.I. = 30' - 35'

131-59-36BBB
NDSWC 9424

Elevation: 1341.0
(ft, msl)

Date Drilled: 8/26/75
Thickness Depth

Clay, moderate yellow brown, silty, sandy, pebbly, oxidized (till)	17	17
Clay, medium dark gray to olive gray, silty, sandy, pebbly (till)	17	34
Sand, very fine to very coarse, angular to subrounded	21	55
Gravel, fine to coarse, angular to subrounded.	15	70
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	36	106
Gravel, fine to coarse, angular to subrounded	9	115
Clay, medium dark to olive gray, silty, very sandy, pebbly, gravelly (till)	39	154
Gravel, fine to coarse, angular to subrounded	4	158
Clay, medium drk to olive gray, silty, sandy, pebbly, gravelly (till)	14	172
Shale, medium light to medium bluish gray, calcareous, white specks (Niobrara Fm.)		

Observation Well
S.I. = 58' - 61'

131-60-01ABA
NDSWC 6145

Elevation: 1292.83
(ft, msl)

Date Drilled: 9/17/82
Thickness Depth

Topsoil	1	1
Clay, brownish gray, silty	14	15
Clay, yellow brown, oxidized	3	18
Clay, olive gray	34	52
Sand, very coarse, well sorted, rounded	14	66
Sand, fine, well sorted, rounded, gravelly at bottom	75	141
Clay, boundery (till)	5	146
Claystone, greenish gray, calcareous	10	156

Observation Well
S.I. = 75' - 80'

131-60-01BAA
NDSWC 6144

Elevation: 1369.90
(ft, msl)

Date Drilled: 7/16/82
Thickness Depth

Topsoil	1	1
Sand, fine sand to medium gravel, angular to rounded, interbedded silt, oxidized	16	17
Clay, yellow brown, silty, interbedded gravel, oxidized (till)	14	31
Clay, yellow brown, silty, interbedded silt and gravel (till)	7	38
Sand, very coarse sand to coarse gravel, angular to rounded, interbedded with till	23	61
Clay, olive gray, silty, pebbly (till)	35	96
Silt, olive gray, clayey, interbedded sand	23	119
Clay (till)	11	130
Clay, silty	6	136
Silt, clayey	5	141
Sand, coarse sand to medium gravel, rounded, interbedded with clay	17	158
Clay, olive gray, silty, pebbly, gravelly	27	185
Claystone, greenish gray, calcareous	12	197

Observation Well
S.I. = 147' - 152'

131-60-02BBB
NDSWC 9133

Elevation: 1369
(ft, msl)

Date Drilled: 9/27/74
Thickness Depth

Silt, dark yellow orange, sandy, pebbly	13	13
Clay, moderate yellow brown, very silty, very sandy, pebbly, interbedded gravel (till)	12	25
Clay, dark gray, very silty, very sandy, pebbly, interbedded gravel (till)	35	60
Silt, dark gray	9	69
Clay, dark gray, silty, very sandy, pebbly, interbedded sand (till)	51	120
Clay, moderate dark gray, silty, very sandy, pebbly, interbedded sand and gravel (till)	40	160
Clay, dark gray to grayish black, silty, sandy, pebbly, interbedded gravel and clay (till)	40	200
Clay, medium dark gray to dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	16	216
Shale, medium gray, white specks (Niobrara Fm.)	24	240

131-60-04BBB
NDSWC 9134

Elevation: 1390
(ft, msl)

Date Drilled: 9/27/74
Thickness Depth

topsoil, black, sandy loam	1	1
Clay, moderate yellow brown, very silty, sandy, pebbly, oxidized (till)	12	13
Sand, coarse to very coarse, angular to rounded, gravelly, iron stained	47	60
Sand, medium dark gray, coarse to very coarse, angular to rounded, gravelly	7	67
Sand, medium dark gray, very fine, very silty	8	75
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	12	87
Clay, dark gray to grayish black, silty, sandy, pebbly (till)	16	103
Silt, medium gray to medium bluish gray, clayey, calcareous	5	108
Clay, dark gray, interbedded sand	12	120
Clay, dark gray, silty, sandy, pebbly, interbedded sand, gravel, and till	123	243
Shale, medium gray, very calcareous, white specks (Niobrara Fm.)	17	260

131-60-13DDD
NDSWC 6219

Elevation: 1350
(ft, msl)

Date Drilled: 7/7/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	18	19
Clay, olive gray, silty, sandy, pebbly (till)	6	25
Sand, medium to coarse	10	35
Clay, medium gray, silty, sandy, pebbly (till)	6	41
Sand, very coarse, pebbly	2	43
Silt, olive gray, clayey	2	45
Gravel, fine	1	46
Clay, medium gray, silty, sandy, pebbly, interbedded gravel (till)	55	101
Clay, gray, silty, sandy, interbedded gravel, (till)	9	110
Clay, medium gray, very silty, sandy, pebbly, interbedded gravel (till)	40	150
Shale, brown, silty, very calcareous, white inclusions (Niobrara Fm.)	13	163

132-58-16BBA₁ & 2
 NDSWC 9268 and 9268_A

Elevation: 1321.3(BBA₁), 1321.8(BBA₂)
 (ft, msl)

Date Drilled: 5/21/75
 Thickness Depth

Topsoil, dark yellow brown, sandy, oxidized	1	1
Gravel, fine to coarse, sandy, interbedded, silty sand, oxidized	5	6
Clay, dark yellow brown, silty, sandy, pebbly, oxidized (till)	7	13
Clay, dark gray, silty, sandy, pebbly (till)	28	41
Gravel, medium to very coarse	10	51
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	93	144
Sand, medium to very coarse, gravelly	18	162
Gravel, medium to coarse, angular to subrounded, sandy	16	178
Shale, light olive gray, very calcareous, white specks (Niobrara Fm.)	22	200

Observation Wells
 BBA₁ - 9268 S.I. = 46'- 49'
 BBA₂ - 9268_A S.I. = 166.8'- 169.8'

132-58-20CCC
 NDSWC 11975

Elevation: 1313
 (ft, msl)

Date Drilled: 9/13/82
 Thickness Depth

Topsoil, black, clay loam	3	3
Silt, moderate yellow brown, clayey	5	8
Clay, moderate yellow brown, silty, sandy, pebbly (till)	4	12
Clay, olive gray, silty, very sandy, slightly pebbly	9	21
Gravel, sandy, medium sand to medium gravel	1	22
Clay, dark gray to olive gray, silty, sandy, slightly pebbly, interbedded sand and gravel (till)	110	132
Shale, brownish gray, white specks, (Niobrara Fm.)	28	160

132-58-21AAA
NDSWC 9593 & 9593 A

Elevation: 1372.7
(ft, msl)

Date Drilled: 6/10/76
Thickness Depth

Clay, yellow gray, silty, sandy, pebbly, oxidized (till)	11	11
Sand, yellow, very fine to fine, good sorting, subrounded to rounded, oxidized	69	80
Clay, olive gray, silty, sandy, pebbly (till)	120	200
Shale, gray brown, very calcareous, light grey specks (Niobrara Fm.)	20	220

Observation Well
9593A S.I. = 66' - 72'

132-58-21BBB₁ & 2
 NDSWC 9267
 NDSWC 9267_A

Elevation: 1329.6(BBB₁), 1329.6(BBB₂)
 (ft, msl)

Date Drilled: 7/21/75
 Thickness Depth

Topsoil, dark yellow brown, sandy, oxidized	1	1
Clay, moderate yellow brown, silty, sandy, pebbly, interbedded sand, oxidized (till)	10	11
Sand, fine to coarse, gravelly, oxidized	11	22
Sand, medium gray, gravelly	3	25
Gravel, fine to very coarse, sandy	13	38
Clay, dark gray, silty	7	45
Clay, olive gray, silty, sandy, pebbly, (till)	38	83
Clay, dark gray, interbedded sand and gravel (till)	17	100
Clay, olive gray, interbedded sand and gravel (till)	18	118
Sand, fine to coarse, subangular to rounded, gravelly	74	192
Gravel, fine to coarse	4	196
Clay, dark gray, silty, sandy, pebbly (till)	4	200
Shale, medium olive gray, very calcareous, white specks	20	220

Observation Wells

BBB₁ - 9267 S.I. = 178' - 181'
 BBB₂ - 9267_A S.I. = 33' - 36'

132-58-29CDD
NDSWC 11977

Elevation: 1315
(ft, msl)

Date Drilled: 9/13/82
Thickness Depth

Topsoil	1	1
Silt, moderate yellow brown, very sandy	14	15
Silt, olive gray, very sandy	5	20
Silt, olive gray, clayey, very sandy, pebbly, interbedded sand and gravel (till)	22	42
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	104	146
Clay, dark brown, white specks (Niobrara Fm.)	14	160

132-58-30DAA
NDSWC 11978

Elevation: 1320
(ft, msl)

Date Drilled: 9/14/82
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, very silty, very sandy, pebbly (till)	8	9
Clay, moderate yellow brown, silty, sandy, pebbly, interbedded gravel (till)	7	16
Gravel, very fine to very coarse, poorly sorted, sandy	13	29
Clay, gray, silty, sandy, pebbly	96	125
Silt, medium gray, clayey	22	147
Gravel, fine, sandy	6	153
Clay, light gray, white specks (Niobrara Fm.)	27	180

Observation Well
S.I. = 147' - 152'

132-58-31AAA
NDSWC 11976

Elevation: 1325
(ft, msl)

Date Drilled: 9/13/82
Thickness Depth

Topsoil	1	1
Silt, yellow brown, sandy	8	9
Clay, moderate yellow brown, silty, sandy, pebbly (till)	7	16
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	114	130
Clay, dark gray, white specks	11	141
Gravel, fine, sandy	15	156
Clay, dark gray, white specks (Niobrara Fm.)	24	180

Observation Well
S.I. = 150' - 155'

132-59-03CCC
NDSWC 9145

Elevation: 1327
(ft, msl)

Date Drilled: 10/3/74
Thickness Depth

Topsoil, black, silty loam	1	1
Clay, moderate yellow brown, very silty, sandy, pebbly, interbedded sand and gravel, oxidized (till)	10	11
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	27	38
Clay, medium dark gray, very sandy, pebbly, (till)	26	64
Clay, olive gray, interbedded sand and gravel (till)	41	105
Gravel, fine to coarse, 40% sand, angular to subrounded	15	120
Gravel, fine to coarse, 10% sand, angular to subrounded	20	140
Shale, medium gray, very calcareous, white specks (Niobrara Fm.)	20	160

Observation Well
S.I. = 118' - 121'
Plugged and abandoned

132-59-04CCC
NDSWC 10950

Elevation: 1367.2
(ft, msl)

Date Drilled: 6/7/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	17	17
Silt, greenish gray, clayey	25	42
Silt, light gray, calyey	5	47
Sand, very fine to fine, clayey, silty	3	50
Clay, olive gray, silty, sandy, pebbly (till)	28	78
Sand, very fine to fine, clayey, silty	6	84
Silt, greenish gray, clayey	9	93
Clay, olive gray, silty, sandy, pebbly interbedded sand and gravel (till)	80	143
Sand, very fine to very coarse, gravelly, subangular to rounded	8	181
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	10	191
Sand, very fine to very coarse, gravelly	10	201
Clay, light grayish brown, calcareous, light olive gray specks (Niobrara Fm.)	19	220

Observation Well
S.I. = 195' - 198'

132-59-04DCC
NDSWC 10951

Elevation: 1363.1
(ft, msl)

Date Drilled: 6/11/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized, interbedded sand (till)	14	14
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	27	41
Silt, greenish gray, clayey	8	49
Sand, very fine to very coarse, subangular	6	55
Silt, greenish gray, clayey	8	63
Sand, very fine to very coarse, subangular to rounded	3	66
Silt, olive gray, clayey	14	80
Silt, greenish gray brown, very clayey, sandy	8	88
Clay, olive gray silty, sandy, pebbly (till)	61	149
Sand, very fine to very coarse, gravelly	18	167
Clay (till)	2	169
Sand, very fine to very coarse, gravelly	2	171
Clay, light gray brown, silty, calcareous, light gray specks (Niobrara Fm.)	29	200

Observation Well
S.I. = 158' - 161'

132-59-05CCC
NDSWC 10949

Elevation: 1380
(ft, msl)

Date Drilled: 6/7/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly (till)	31	31
Clay, olive gray, silty, sandy, pebbly (till)	3	34
Silt, greenish gray, clayey	10	44
Sand, very fine to very coarse, gravelly, subangular to rounded	13	57
Silt, greenish gray, clayey	34	91
Sand, very fine to very coarse, rounded	1	92
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel	103	195
Sand, gravelly	9	204
Clay, light gray brown, calcareous, light gray specks (Niobrara Fm.)	36	240

132-59-06CDD
NDSWC 11963

Elevation: 1368
(ft, msl)

Date Drilled: 8/30/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	20	20
Clay, olive gray, silty, sandy, pebbly (till)	9	29
Sand, gravelly, angular to rounded	24	53
Clay, olive gray, silty, sandy, pebbly (till)	149	202
Clay, greenish gray, silty, sandy, interbedded sand and carbonaceous zones	8	210
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	30	240

132-59-08BAA
NDSWC 10953

Elevation: 1380
(ft, msl)

Date Drilled: 6/12/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, interbedded sand and gravel, oxidized (till)	22	22
Silt, yellow brown, clayey, sandy, oxidized	2	24
Clay, olive gray, silty, sandy, pebbly (till)	6	30
Silt, greenish gray, slightly clayey and sandy	12	42
Sand, very fine to very coarse, subangular to rounded, gravelly	12	54
Silt, greenish gray, interbedded sand	39	93
Sand, very fine to very coarse, subangular to rounded, gravelly	18	101
Sand, very clayey, silty	29	130
Clay, interbedded gravel and cobbles (till)	52	182
Clay, dark grayish brown, silty, calcareous, light gray specks (Niobrara Fm.)	18	200

132-59-09CDD
NDSWC 11200

Elevation: 1363.8
(ft, msl)

Date Drilled: 11/6/79
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	17	18
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	6	24
Clay, olive gray, silty, very sandy, pebbly (till)	18	42
Clay, olive gray, silty, sandy, pebbly (till)	30	72
Clay, olive gray, very silty (till)	30	102
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	54	156
Sand, fine to coarse, subrounded to rounded, gravelly	14	170
Shale, brownish gray, calcareous (bedrock)	30	200

Observation Well
S.I. = 162' - 165'

132-59-10ADD
NDSWC 10952

Elevation: 1355
(ft, msl)

Date Drilled: 6/12/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, interbedded sand and gravel, oxidized (till)	18	18
Clay, olive gray, silty, sandy, pebbly (till)	10	28
Silt, greenish gray, clayey, sandy	67	95
Sand, greenish gray, very fine to fine, clayey	8	103
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	55	158
Gravel, very coarse cobble	1	159
Clay, brownish gray, silty, calcareous, light gray specks (Niobrara Fm.)	21	180

132-59-12BBB
NDSWC 9146

Elevation: 1335
(ft, msl)

Date Drilled: 10/4/74
Thickness Depth

Topsoil, dark yellow brown, silty loam	1	1
Silt, moderate yellow brown, sandy, oxidized	5	6
Clay, moderate yellow brown, silty, sandy, pebbly, oxidized (till)	9	15
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	29	44
Clay, medium dark gray, silty, very sandy, pebbly, interbedded sand and gravel (till)	16	60
Silt, olive gray, laminated	31	91
Silt, olive gray, interbedded sand and gravel	12	103
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	15	118
Silt, olive gray, clayey	26	144
Shale, light olive gray, calcareous, white specks (Niobrara Fm.)	16	160

132-59-15CDD
NDSWC 10957

Elevation: 1340
(ft, msl)

Date Drilled: 6/14/79
Thickness Depth

Clay, pale yellow brown, silty, very sandy, pebbly, interbedded sand and gravel, oxidized (till)	19	19
Sand, gravelly, angular to rounded, oxidized	7	26
Clay, olive gray, silty, sandy, pebbly (till)	3	29
Sand, very fine to fine, well sorted, angular to subangular	3	32
Silt, greenish gray, clayey	59	91
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	53	144
Clay, gray brown, silty, calcareous, light gray specks (Niobrara Fm.)	16	160

132-59-15DDD
NDSWC 11199

Elevation: 1367
(ft, msl)

Date Drilled: 11/6/79
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, pebbly, oxidized (till)	33	34
Clay, olive gray, silty, sandy, pebbly (till)	24	58
Clay, olive gray, very silty (fluvial)	66	124
Sand, medium to coarse, well sorted, rounded, gravelly	6	130
Clay, olive gray, silty, sandy, pebbly, cobble, interbedded sand and gravel (till)	47	177
Shale, brownish gray mottled light gray, calcareous (bedrock)	23	200

132-59-17CDD
NDSWC 11976A

Elevation: 1356.6
(ft, msl)

Date Drilled: 9/1/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	7	7
Sand, very fine to medium, silty, oxidized	15	22
Sand, greenish gray, very fine to medium, silty, interbedded clayey sand	31	53
Clay, olive gray, silty, sandy, pebbly (till)	7	60
Clay, greenish gray, very silty	20	80
Silt, clayey, interbedded clay	15	95
Clay, olive gray, silty, sandy, pebbly (till)	6	101
Sand, very fine to coarse, gravelly	14	115
Clay, olive gray, silty, sandy, pebbly (till)	6	121
Sand, very fine to coarse, gravelly	10	131
Clay, olive gray, silty, sandy, pebbly boundary (till)	30	161
Sand, very fine to very coarse, gravelly subangular to rounded	34	195
Clay, silty, sandy (till)	6	201
Sand, gravelly, very cobbly	11	212
Gravel, coarse, cobbly, bouldery	2	214
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	16	240

Observation Well
S.I. = 123'- 128'

132-59-17DCD₁
NDSWC 11969A

Elevation: 1371.1
(ft, msl)

Date Drilled: 9/3/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	21	21
Clay, olive gray, silty, sandy, pebbly (till)	10	31
Silt, greenish gray, clayey	4	35
Sand, gravelly	1	36
Clay, olive gray, silty, sandy, pebbly (till)	22	58
Sand, very fine to medium, silty	11	69
Silt, gray brown, clayey, clayey	47	116
Clay, olive gray, silty, sandy, pebbly (till)	6	122
Sand, gravelly, interbedded with till	15	137
Clay, olive gray, silty, sandy, pebbly (till)	19	156
Sand, very fine to very coarse, gravelly	37	193
Sand, gravelly, interbedded with till	9	212
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	8	220

Observation Well
S.I. = 188' - 193'

132-59-17DCD₂
NDSWC 11969B

Elevation: 1371.2
(ft, msl)

Date Drilled: 7/9/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	23	23
Sand, very fine to medium, silty, oxidized	1	24
Clay, olive gray, silty, sandy, pebbly (till)	2	26
Cobbles	1	27
Clay, greenish gray, silty	10	37
Clay, olive gray, silty, sandy, pebbly (till)	19	56
Sand, very fine to medium, silty	11	67
Sand, very fine to medium, clayey, silty	21	88
Clay, greenish gray, silty	9	97
Clay, olive gray, silty, sandy, pebbly	3	100
Silt, greenish gray, clayey, very sandy	13	113
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	7	120

Observation Well
S.I. = 114' - 119'

132-59-17DCD₃
NDSWC 11969C

Elevation: 1371.1
(ft, msl)

Date Drilled: 9/7/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Clay, olive gray, silty, sandy, pebbly (till)	5	23
Silt, clayey, sandy, interbedded sand	8	31
Clay, olive gray, silty, sandy, pebbly (till)	3	34
Silt, greenish gray, clayey	4	38
Clay, olive gray, silty, sandy, pebbly (till)	19	57
Sand, very fine to medium, silty	9	66

Observation Well
S.I. = 58' - 63'

132-59-18DCC
NDSWC 11968

Elevation: 1363.7
(ft, msl)

Date Drilled: 9/2/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly (till)	13	13
Clay, yellow brown, silty, oxidized	2	15
Clay, greenish gray, silty	2	17
Clay, olive gray, silty, sandy, pebbly	4	21
Sand, very fine to very coarse, gravelly, subangular to rounded, oxidized	7	28
Sand, very fine to very coarse, gravelly, subangular to rounded, unoxidized	1	29
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	164	193
Sand, very fine to very coarse, gravelly, subangular to rounded	8	201
Clay, silty	3	204
Sand, very fine to very coarse, gravelly, subangular to rounded, interbedded silty clay	7	211
Clay, silty	1	212
Sand, very fine to very coarse, gravelly, subangular to rounded	17	229
Clay, silty	1	230
Sand, very fine to very coarse, gravelly, subangular to rounded	7	237
Clay, olive gray, silty	6	243
Sand, very fine to very coarse, gravelly, interbedded silty clay and gravel	4	247
Sand, very fine to very coarse, gravelly	14	261
Boulders	2	263
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	17	280

Observation Well
S.I. = 245' - 250'

132-59-19AAA
NDSWC 10955

Elevation: 1369.4
(ft, msl)

Date Drilled: 6/13/79
Thickness Depth

Silt, dark brown, clayey	3	3
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	21
Silt, yellow brown, clayey, oxidized	4	25
Clay, light gray to black, silty, laminated, interbedded clayey silt	22	47
Sand, very fine to medium, subangular to rounded	19	66
Clay, silty	7	73
Sand, very fine to medium, very clayey, silty,	13	86
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	101	187
Sand, very fine to very coarse, gravelly, subangular to rounded, interbedded clay and gravel	94	281
Clay (till)	19	300

Observation Well
S.I. = 238' - 241'

132-59-21BBA
NDSWC 10956

Elevation: 1377.8
(ft, msl)

Date Drilled: 6/14/79
Thickness Depth

Silt, pale yellow brown, clayey, sandy, pebbly (till)	13	13
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	16	29
Clay, olive gray, silty, sandy, pebbly (till)	10	39
Silt, dark greenish gray, clayey, very sandy	3	42
Clay, greenish gray, silty	17	59
Sand, gravelly, interbedded till	3	62
Silt, dark greenish gray, very sandy	3	65
Silt, greenish gray, clayey, sandy	27	92
Clay, olive gray, silty, sandy, pebbly (till)	19	111
Silt, olive gray, clayey	15	126
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	42	168
Sand, very fine to very coarse, gravelly, subangular to rounded, interbedded clay	62	230
Clay, gray brown, silty, calcareous, light gray specks (Niobrara Fm.)	10	240

Observation Well
S.I. = 213' - 216'

132-59-21CBD₁
NDSWC 5672

Elevation: 1360
(ft, msl)

Date Drilled: 11/28/79
Thickness Depth

topsoil	1	1
Clay, yellow brown, silty, sandy, pebbly, interbedded gravel, oxidized to 30'	43	44
Sand, very fine to medium, subrounded, clayey, silty	13	57
Clay, olive gray, very silty, sandy (fluvial)	18	75
Clay, olive gray, silty, sandy, pebbly (till)	30	105
Sand, fine sand to coarse gravel, rounded	5	110
Clay, olive gray, silty, sandy, pebbly (till)	42	152
Sand, very fine sand to medium gravel, rounded	8	160
Sand, fine sand to coarse gravel, very gravelly, poorly sorted, rounded	35	195
Gravel, coarse sand to coarse gravel and cobbles, moderately sorted, rounded	32	227

Observation Well
S.I. = 198'- 201'
(Destroyed)

132-59-21CCA₁
NDSWC 5673

Elevation: 1361
(ft, msl)

Date Drilled: 11/30/79
Thickness Depth

Topsoil	1	1
Clay, yellow brown, very silty, sandy, pebbly, oxidized (till)	35	36
Silt, olive gray	9	45
Sand, very fine, well sorted, rounded, clayey	7	52
Clay, olive gray, silty, sandy (fluvial)	33	85
Clay, olive gray, silty, sandy, pebbly, cobbly (till)	27	112
Sandy, very fine to very coarse, moderate sorting, rounded	10	122
Clay, olive gray, silty, sandy, pebbly (till)	38	160
Sand, fine to mediu, well sorted, rounded	20	180
Sand, very coarse, gravelly, poorly sorted, angular to rounded	47	227

Observation Well
S.I. = 197'- 200'
(Destroyed)

132-59-21CCA₂
 NDSWC 5676

Elevation: 1362
 (ft, msl)

Date Drilled: 12/4/79
 Thickness Depth

Topsoil	1	1
Clay, brown, silty, sandy, pebbly, oxidized (till)	27	28
Sand, very fine, well sorted	5	33
Clay, olive gray, silty, sandy, pebbly (till)	15	48
Sand, very fine to medium, well sorted, rounded	14	62
Silt, olive gray, clayey, sandy (fluvial)	8	70
Clay, olive gray, very sandy, very pebbly, interbedded sand (till)	35	105
Sand, very fine to gravel, poorly sorted, angular to rounded	7	112
Clay, olive gray, very sandy, very pebbly, interbedded sand (till)	12	124
Sand, very fine to gravel, poorly sorted, angular to rounded	2	126
Clay (till)	7	133
Sand	2	135
Clay (till)	5	140

Observation Well
 S.I. = 105' - 111'
 (Destroyed)

132-59-21CCD₁
NDSWC 5674

Elevation: 1360
(ft, msl)

Date Drilled: 11/30/79
Thickness Depth

Topsoil	1	1
Clay, yellow brown, very silty, very sandy, pebbly, oxidized (till)	31	32
Silt, olive gray	20	52
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	64	116
Sand, fine sand to medium gravel	12	128
Clay, olive gray, sandy, pebbly, cobbly, (till)	32	160
Sand, fine sand to medium gravel, rounded	15	175
Sand, very coarse sand to fine gravel	45	220

Observation Well
S.I. = 198'- 201'
(Destroyed)
132-59-21CCD₂
NDSWC 5675

Elevation: 1357
(ft, msl)

Date Drilled: 12/3/79
Thickness Depth

Topsoil, brown to dark brown	2	2
Clay, yellowish brown, silty sandy, pebbly, oxidized to 28' (till)	26	28
Sand, very fine to medium, rounded, silty	17	45
Clay, olive gray, very silty, sandy (fluvial)	23	68
Clay, olive gray, silty, sandy, pebbly, bouldery, interbedded sand (till)	44	112
Sand, fine sand to medium gravel, subrounded	13	125
Clay, olive gray, pebbly, bouldery, interbedded, sand	25	150
Sand, very fine to very coarse, angular to rounded	10	160
Sand, very fine to fine gravel, subrounded	15	175

Observation Well
S.I. = 197'- 200'
(Destroyed)

132-59-27CCC
NDSWC 6153

Elevation: 1299.71
(ft, msl)

Date Drilled: 9/22/82
Thickness Depth

Topsoil	5	5
Clay, brown, silty	3	8
Sand, coarse sand to medium gravel, angular to rounded, interbedded clay	19	27
Clay, olive gray	8	35
Silt, brownish gray, clayey	32	67
Clay, brownish gray, silty, pebbly (till)	15	82

Observation Well
S.I. = 23' - 28'

132-59-27ADD
NDSWC 11198

Elevation: 1327.3
(ft, msl)

Date Drilled: 10/30/79
Thickness Depth

Topsoil	1	1
Gravel, coarse sand to fine gravel, well sorted, rounded, oxidized	3	4
Sand, fine sand to gravel poorly sorted, subrounded to rounded	20	24
Clay, olive gray, silty, sandy, pebbly (till)	38	62
Clay, olive gray, very silty (till)	76	138
Sand, fine to coarse, poorly sorted, subrounded to rounded	18	156
Shale, brownish gray, calcareous	24	180

Observation Well
S.I. = 153' - 156'

132-59-27CDC₁
NDSWC 12260

Elevation: 1332.42
(ft, msl)

Date Drilled: 7/28/83

Topsoil	1	1
Sand, very fine to coarse, oxidized	11	12
Gravel, very fine to very coarse, oxidized	13	25
Clay, olive brown, silty, sandy, pebbly, oxidized to 26' (till)	13	38
Silt, olive gray, clayey	43	81
Clay, olive gray, silty, sandy, pebbly (till)	2	83
Silt, olive gray, clayey	6	89
Clay, olive gray, silty, sandy, pebbly (till)	32	121
Sand, very fine, silty	10	131
Clay, silty, interbedded sandy clay and sand	10	141
Clay, olive gray, silty, sandy, pebbly (till)	6	147
Gravel, very coarse sand to fine pebble gravel, angular to subrounded	47	194
Cobbles	1	195
Gravel, very fine to very coarse, sandy	18	213
Gravel, bouldery	5	218
Shale, medium gray, calcareous, white specks (Niobrara Fm.)	42	260

Observation Well
S.I. = 209' - 214'

132-59-27CDC₂
NDSWC 112261

Elevation: 1332.87
(ft, msl)

Date Drilled: 7/28/83
Thickness Depth

Topsoil	1	1
Sand, very fine to coarse, oxidized	15	16
Gravel, very fine pebble to coarse pebble, sandy, oxidized	6	22
Clay, yellow brown to olive brown, silty, sandy, pebbly, oxidized (till)	4	26
Clay, olive gray, silty	10	36
Silt, olive gray, clayey	35	71
Clay, olive gray, silty, sandy, pebbly (till)	8	79
Silt, olive gray, clayey	10	89
Clay, olive gray, silty, sandy, pebbly (till)	7	96
Clay, interbedded gravel and till	5	101
Clay, olive gray, silty, sandy, pebbly (till)	10	111

Observation Well
S.I. = 105' - 110'

132-59-27CDD
NDSWC 6154

Elevation: 1317.28
(ft, msl)

Date Drilled: 9/22/82
Thickness Depth

Topsoil	1	1
Silt, yellow brown to dark yellow orange, clayey, oxidized	16	17
Silt, olive gray, clayey	2	19
Sand, coarse sand to medium gravel, rounded	3	22
Silt	4	26
Sand, coarse sand to medium gravel, rounded	34	60
Clay, brownish gray, silty, pebbly, interbedded silt (till, partially fluvial)	22	82

Observation Well
S.I. = 49' - 54'

132-59-29DDD
NDSWC 11197

Elevation: 1355.7
(ft, msl)

Date Drilled: 10/30/79
Thickness Depth

Topsoil	1	1
Clay, yellow brown, very sandy, pebbly, oxidized (till)	24	25
Clay, olive gray, very silty, sandy (till)	70	95
Clay, olive gray, silty, sandy, pebbly (till)	61	156
Sand, fine sand to fine gravel, subrounded to rounded	40	196
Shale, medium gray, calcareous	24	220

Observation Well
S.I. = 192' - 195'

132-59-35CCC
NDSWC 11658

Elevation: 1339.2
(ft, msl)

Date Drilled: 8/20/81
Thickness Depth

Sand, very fine to very coarse, angular to rounded, gravelly, oxidized	17	17
Silt, pale yellow brown, clayey	2	19
Silt, greenish gray, clayey	3	22
Sand, very fine to very coarse, angular to rounded, gravelly	6	28
Clay, olive gray, silty, sandy, pebbly (till)	4	32
Sand, very fine to very coarse, angular to rounded, gravelly	4	36
Clay, olive gray, silty, sandy, pebbly (till)	14	50
Clay, greenish gray, silty	37	87
Clay, olive gray, silty, sandy, pebbly (till)	23	110
Sand, gravelly, interbedded with till	23	133
Clay, olive gray, silty, sandy, pebbly (till)	23	156
Clay, dark brown, silty	10	166
Sand, very fine to coarse, subangular, gravelly, interbedded silty clay	41	207

Observation Well
S.I. = 177'- 180'

132-60-01DCC
NDSWC 11962

Elevation: 1357.6
(ft, msl)

Date Drilled: 8/26/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	12	12
Clay, olive gray, silty, sandy, pebbly (till)	10	22
Sand, very fine to very coarse, gravelly	5	27
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	165	192
Sand, very fine to coarse, gravelly, subangular to rounded	5	197
Sand, very fine to very coarse, very gravelly, subangular to rounded	9	206
Gravel, sandy, bouldery	17	223
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	17	240

Observation Well
S.I. = 203' - 208'

132-60-2CCC
NDSWC 11960

Elevation: 1380
(ft, msl)

Date Drilled: 8/25/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	10	10
Clay, olive gray, silty, sandy, pebbly (till)	10	20
Clay, greenish gray, very silty	6	26
Clay, olive gray, silty, sandy, pebbly, cobble (till)	178	204
Boulder	1	205
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	25	230

132-60-04CCC
NDSWC 11956

Elevation: 1388
(ft, msl)

Date Drilled: 8/24/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	21	21
Sand, very fine to very coarse, subangular to rounded, oxidized	8	29
Clay, yellow brown, silty, oxidized	2	31
Clay, greenish gray, silty	15	46
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	177	223
Shale, medium to dark brown, calcareous, light gray specks (Niobrara Fm.)	17	240

132-60-05BBB
NDSWC 9150

Elevation: 1345
(ft, msl)

Date Drilled: 10/8/74
Thickness Depth

topsoil	1	1
Silt, moderate yellow brown, sandy, oxidized	7	8
Sand, very fine to fine, very silty, interbedded silt, oxidized	4	12
Sand, fine to coarse, silty, subangular to rounded, oxidized	10	22
Clay, dark gray	14	36
Sand, interbedded clay	48	84
Sand, fine to coarse, interbedded with gravel and till	12	96
Clay, dark to moderate dark gray, very silty, very sandy, interbedded silt, sand, and gravel (till)	64	164
Shale, medium greenish gray, very calcareous, white specks (Niobrara Fm.)	20	180

132-60-09BAA
NDSWC 11957

Elevation: 1381
(ft, msl)

Date Drilled: 8/24/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly oxidized (till)	19	19
Sand, very fine to coarse, gravelly, subangular to rounded, partially oxidized	17	36
Clay, greenish gray, silty	2	38
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	171	209
Shale, medium brown, very calcareous, light gray specks (Niobrara Fm.)	31	240

132-60-10BAA
NDSWC 11959

Elevation: 1384.1
(ft, msl)

Date Drilled: 8/25/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Sand, very fine to very coarse, gravelly, subangular to rounded, oxidized	2	20
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	67	87
Sand, very fine to very coarse, gravelly, subangular to rounded	13	100
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	69	169
Sand, very fine to very coarse, gravelly, subangular to rounded, interbedded till	34	203
Sand, very fine to very coarse, gravelly, subangular to rounded	6	209
Boulder	1	210
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)		

Observation Well
S.I. = 203' - 208'

132-60-10BBB

NDSWC 11958

Elevation: 1387
(ft, msl)

Date Drilled: 8/25/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	20	20
Sand, very fine to very coarse, gravelly, subangular to rounded, partially oxidized	12	32
Clay, greenish gray, very silty	2	34
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)		209
Boulder	1	210
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	30	240

132-60-11BAA

NDSWC 11961

Elevation: 1384.2
(ft, msl)

Date Drilled: 8/26/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, oxidized (till)	20	20
Clay, olive gray, silty, sandy, pebbly (till)	12	32
Clay, greenish gray, very silty	12	44
Clay, olive gray, silty, sandy, pebbly, bouldery, interbedded sand and gravel	119	163
Sand, very fine to very coarse, gravelly, subangular to rounded	10	173
Sand, silty, clayey	5	178
Sand, very fine to very coarse, gravelly	2	180
Gravelly, fine to coarse, sand, cobbly, subangular to rounded	35	215
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	21	236

Observation Well
S.I. = 203' - 208'

132-60-12AAA
NDSWC 9144

Elevation: 1385
(ft, msl)

Date Drilled: 10/3/74
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, very silty, sandy, pebbly, oxidized (till)	21	22
Clay, dark to medium dark gray, silty, sandy, pebbly, interbedded gravel (till)	20	42
Sand, medium to very coarse, angular to rounded	18	60
Gravel, coarse, cobbly, interbedded silt	5	65
Clay (till)	9	74
Sand, coarse to very coarse, gravelly, angular to rounded, interbedded clay	8	82
Clay, dark gray to black, silty, sandy, pebbly, interbedded sand and gravel (till)	138	220
Gravel, subrounded	7	227
Shale, medium gray, very calcareous, white specks (Niobrara Fm.)		

Observation Well
S.I. = 47' - 50'

132-60-12BBB
NDSWC 10954

Elevation: 1369.6
(ft, msl)

Date Drilled: 6/12/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly (till)	14	14
Sand, gravelly, oxidized	1	15
Silt, olive gray, very clayey	5	20
Silt, light gray laminations, very clayey	4	24
Sand, very fine to fine	3	27
Silt, olive gray, very clayey	4	31
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	172	203
Cobbles	1	204
Sand, very fine to very coarse, gravelly, subangular to rounded, interbedded till	38	242
Clay, dark brownish gray, silt, calcareous, light gray specks (Niobrara Fm.)	18	260

Observation Well
S.I. = 210' - 216'

132-60-13CDD
NDSWC 11966

Elevation: 1373
(ft, msl)

Date Drilled: 8/31/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	21	21
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	191	212
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	28	240

132-60-16AAA
NDSWC 9143

Elevation: 1380
(ft, msl)

Date Drilled: 10/3/74
Thickness Depth

Topsoil, black, sandy, silty loam	1	1
Silt, moderate brown to moderate yellow brown, clayey, sandy, oxidized	3	4
Clay, moderate brown, very silty, very sandy, pebbly, oxidized (till)	8	12
Sand, fine to medium, subangular to rounded, oxidized	10	22
Sand, fine to medium, subangular to rounded	3	25
Clay, dark gray, very silty, sandy, pebbly, interbedded sand and gravel (till)	38	63
Gravel, fine to coarse, very sandy, cobbly	21	84
Clay, medium dark gray to dark gray, silty, sandy, pebbly, interbedded gravel (till)	131	215
Shale, medium gray, very calcareous, white specks (Niobrara Fm.)	5	220

132-60-19ABB
NDSWC 6136

Elevation: 1302.75
(ft, msl)

Date Drilled: 9/13/82
Thickness Depth

Clay, olive brown to olive gray, very silty, partially oxidized (lacustrine)	10	10
Sand, fine to very coarse, gravelly	8	18
Silt, olive gray, sandy	4	22
Sand, very fine to medium, silty	5	27
Sand, very fine to coarse, silty	43	70
Silt, clayey	7	77
Sand, fine to very coarse, gravelly	11	88
Gravel, coarse, cobbly	9	97

Observation Well
S.I. = 58'- 63'

132-60-20ABA
NDSWC 6216

Elevation: 1385
(ft, msl)

Date Drilled: 7/6/83
Thickness Depth

Clay, yellow brown, silty, pebbly, oxidized (till)	8	8
Sand, very coarse, pebbly, oxidized	22	30
Gravel, fine to medium, sandy, oxidized	9	39
Clay, yellow brown, silty, pebbly, oxidized (till)	3	42
Clay, olive gray, silty, pebbly (till)	7	49
Clay, olive gray, silty, sandy, pebbly (till)	31	80
Sand, very coarse, pebbly	3	83
Silt, olive gray, clayey	2	85
Clay, olive to brownish gray, silty	13	98
Clay, olive gray, silty, sandy, very pebbly (till)	135	233
Shale, brown, silty, very calcareous, white limey inclusions (Niobrara Fm.)	30	263

132-60-23AAA
NDSWC 11965

Elevation: 1348
(ft, msl)

Date Drilled: 8/31/83
Thickness Depth

Clay, pale yellow brown, silty, oxidized	3	3
Sand, silty, gravelly, subangular to rounded, oxidized	13	16
Silt, pale yellow brown, clayey, oxidized	2	18
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	2	20
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	173	193
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	27	220

132-60-23ADD
NDSWC 6218

Elevation: 1313
(ft, msl)

Date Drilled: 7/7/83
Thickness Depth

Topsoil	1	1
Silt, dark yellowish orange, oxidized	6	7
Sand, very fine, interbedded silt	126	133
Gravel, coarse	2	135
Sand, very coarse, pebbly	30	165
Gravel, fine to very coarse, cobbly	8	173
Shale, brown, very calcareous, white limey inclusions (Niobrara Fm.)	10	183

132-60-23BBB
NDSWC 11964

Elevation: 1345
(ft, msl)

Date Drilled: 8/31/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	13	13
Clay, olive gray, silty, sandy, pebbly (till)	28	41
Sand, very fine to very coarse, silty, subangular to rounded	2	43
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	124	167
Clay, olive gray, silty (till)	16	183
Boulder	1	184
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	16	200

132-60-23CDD
NDSWC 6151

Elevation: 1326.48
(ft, msl)

Date Drilled: 9/22/82
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, oxidized	17	18
Silt, olive gray, clayey	34	52
Silt, to fine sand	8	60
Silt, olive gray, clayey, interbedded sand	48	108
Clay, olive gray, sandy (till)	5	113
Clay, interbedded silt, sand, gravel (till)	7	120
Sand, fine sand to fine gravel, unsorted, rounded, clayey	10	130
Sand, very coarse sand to cobbles, angular to rounded	8	138
Clay, medium gray to olive gray, sandy (till)	10	148
Claystone, brownish gray, calcareous	14	162

Observation Well
S.I. = 127' - 132'

132-60-24AAA
NDSWC 9463

Elevation: 1375
(ft, msl)

Date Drilled: 10/3/75
Thickness Depth

Clay, moderate yellow brown, silty, very sandy, pebbly, oxidized (till)	15	15
Clay, medium dark to olive gray, silty, very sandy, pebbly (till)	10	25
Sand, fine to very coarse, gravelly, angular to subrounded	8	33
Clay, medium dark to olive gray, very sandy, pebbly, very gravelly (till)	157	190
Shale, medium to brownish gray, silty, sandy, calcareous (Niobrara Fm.)	10	200

132-60-26ABA
NDSWC 6152

Elevation: 1293.5
(ft, msl)

Date Drilled: 9/22/82
Thickness Depth

Topsoil	1	1
Clay, dark brown, silty	13	14
Clay, yellow brown, oxidized	4	18
Clay, olive gray	50	68
Sand, very fine, well sorted, rounded	59	127
Sand, coarse sand to cobbles, gravelly	5	132
Claystone, brownish gray, very calcareous, white specks (Niobrara Fm.)	30	162

Observation Well
S.I. = 83'- 88'

132-60-27DAA
NDSWC 6217

Elevation: 1340
(ft, msl)

Date Drilled: 7/7/83
Thickness Depth

Gravel, fine to medium, oxidized	10	10
Sand, very coarse, pebbly	13	23
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	1	24
Clay, olive gray, silty, sandy, pebbly (till)	21	45
Sand, very coarse, pebbly	6	51
Clay, olive gray, silty, sandy, pebbly (till)	8	59
Silt, olive gray, sandy	6	65
Clay, olive gray, silty, sandy, pebbly	125	190
Shale, brown to brownish gray, very calcareous, (Niobrara Fm.)	23	213

132-60-28AAA
NDSWC 6148

Elevation: 1297.47
(ft, msl)

Date Drilled: 9/21/82
Thickness Depth

Topsoil	1	1
Clay, yellow brown, oxidized (lacustrine)	10	11
Silt, olive gray, clayey, interbedded fine sand	43	54
Sand, coarse sand to medium gravel	21	75
Gravel, very coarse sand to coarse gravel, rounded	7	82
Clay, olive gray, silty, pebbly, interbedded silt (till)	20	102

Observation Well
S.I. = 68'- 73'

132-60-28ABA
NDSWC 6147

Elevation: 1310
(ft, msl)

Date Drilled: 9/21/82
Thickness Depth

Silt, yellow brown, clayey, oxidized (fluvial)	16	16
Silt, olive gray, clayey (fluvial)	7	23
Clay, olive gray, silty, sandy, pebbly (till)	29	52
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	75	127
Clay, dark olive gray, pebbly (till)	10	137
Clay, brownish gray, silty, pebbly (till)	9	146
Claystone, olive to greenish gray, very calcareous	16	162

132-60-33DDD
NDSWC 6143

Elevation: 1388.75
(ft, msl)

Date Drilled: 9/16/82
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, oxidized (till)	13	14
Clay, dark yellow brown, very silty	4	18
Sand, fine to medium rounded, oxidized	16	34
Sand, coarse sand to medium gravel, rounded, oxidized	6	40
Clay	3	43
Gravel, medium to coarse, rounded	9	52
Clay, olive gray, silty, interbedded, silt and gravel (till)	42	94
Clay, olive to brownish gray, silty, interbedded sand and gravel	17	111
Clay, olive gray, silty, pebbly, interbedded sand and gravel (till)	36	147
Silt, olive gray, clayey	4	151
Clay, olive gray, silty, pebbly, interbedded gravel	71	222
Claystone, greenish gray, calcareous	20	242

Observation Well
S.I. = 48' - 53'

132-60-34ADD
NDSWC 6150

Elevation: 1295.90
(ft, msl)

Date Drilled: 9/21/82
Thickness Depth

Topsoil	1	1
Clay, dark brown	15	16
Silt, yellow brown, clayey, oxidized	3	19
Clay, light brown to olive	24	43
Sand, medium to coarse, rounded	3	46
Sand, coarse sand to cobbles, gravelly, angular to rounded	24	70
Sand, fine to coarse, interbedded gravel	67	143
Claystone, greenish gray, calcareous	19	162

Observation Well
S.I. = 68' - 73'

132-60-35BBB
NDSWC 6149

Elevation: 1295
(ft, msl)

Date Drilled: 9/21/82
Thickness Depth

Topsoil	1	1
Clay, brown	14	15
Clay, dark gray to dark olive gray	8	23
Silt, olive gray	7	30
Clay, dark greenish gray to black	13	43
Silt, olive gray, very clayey, laminated	7	50
Clay, olive to brown	48	98
Sand, gravelly, unsorted	2	100
Clay, olive to brownish gray, pebbly (till)	27	127
Clay, brownish gray, silty (till)	13	140
Claystone, greenish gray, calcareous	22	162

132-61-01AAA
NDSWC 6133

Elevation: 1300.38
(ft, msl)

Date Drilled: 9/10/82
Thickness Depth

Topsoil	1	1
Clay, dark brown, silty, interbedded silt	4	5
Clay, pale yellow to greenish gray, silty, interbedded silt, oxidized	4	9
Gravel, very coarse sand to coarse gravel, angular to rounded	7	16
Clay, olive gray, sandy	26	42

Observation Well
S.I. = 11'- 16'

132-61-12CBB
NDSWC 6134

Elevation: 1309.21
(ft, msl)

Date Drilled: 9/10/82
Thickness Depth

Topsoil	1	1
Sand, fine to coarse, clayey and silty, oxidized	15	16
Sand, fine to very coarse, angular to rounded, interbedded silty and sandy clay	71	87
Gravel, fine to coarse subrounded to rounded, interbedded clay	20	107
Clay, olive gray, sandy (till)	15	122

Observation Well
S.I. = 60'- 65'

133-59-01CCC
NDSWC 9453

Elevation: 1370
(ft, msl)

Date Drilled: 9/25/75
Thickness Depth

Clay, moderate yellow brown, silty, sandy, pebbly, gravelly, oxidized (till)	22	22
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	18	40
Shale, grayish black, well indurated, fractured, siliceous (Pierre Fm. boulder)	15	55
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	5	60
Gravel, fine to medium, angular to subrounded	8	68
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	59	127
Sand, fine to very coarse, angular to subrounded	5	132
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	8	140
Sand, fine to very coarse, angular to subrounded	7	147
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	31	178
Shale, brownish to olive gray, silty, sandy, very calcareous, white specks (Niobrara Fm.)		

133-59-02BBA
NDSWC 9210

Elevation: 1390
(ft, msl)

Date Drilled: 11/13/74
Thickness Depth

Topsoil, dark yellow brown, silty loam	1	1
Clay, moderate yellow brown, very silty, sandy, pebbly, oxidized (till)	9	10
Clay, dark yellow brown, very silty, sandy, pebbly, interbedded sand and gravel, oxidized (till)	12	22
Clay, dark gray (till)	64	86
Clay, olive gray, interbedded gravel (till)	26	112
Clay, olive gray, interbedded gravel (till)	92	204
Shale, grayish black, siliceous, very bentonitic (Pierre Fm.)	5	209
Shale, light olive gray, very calcareous, (Niobrara Fm.)	11	220

133-59-03CDD
NDSWC 6236

Elevation: 1393
(ft, msl)

Date Drilled: 7/19/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, very silty, sandy, pebbly, interbedded sand, oxidized, (till, partially fluvial)	19	20
Sand, very coarse sand to fine gravel, angular to rounded, interbedded silty till	15	35
Clay, olive gray, very silty, sandy, pebbly, interbedded silt and gravel (till)	25	60
Clay, dark yellowish orange, very silty, very sandy, oxidized (till)	10	70
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	58	128
Clay, brownish gray, silty, sandy (till)	27	155
Clay, olive gray, silty, sandy, pebbly (till)	51	206
Shale, medium gray, silty (Pierre Fm.)	26	232

133-59-03DDD
NDSWC 11653

Elevation: 1390
(ft, msl)

Date Drilled: 8/18/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	23	23
Sand, gravelly	1	24
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	17	41
Clay, olive gray, silty, sandy, pebbly, interbedded silt and sand (till)	148	189
Clay, brownish black, silty	11	200
Clay, brown, silty	38	238
Clay, dark brown, silty, interbedded gravel	80	318
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	23	341

133-59-04AAA
NDSWC 11650

Elevation: 1404.3
(ft, msl)

Date Drilled: 8/17/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	21	21
Sand, very fine to fine, oxidized	2	23
Clay, olive gray, silty, sandy, pebbly (till)	5	28
Clay, greenish gray, silty	10	38
Sand, very fine to fine, silty	12	50
Sand, very fine to coarse, interbedded clay	15	65
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	125	190
Silt, mottled dark brown, clayey	75	265
Sand, very fine to coarse, interbedded clay and gravel	110	375
Clay, greenish gray to black, non-calcareous, (Pierre Fm.-Niobrara Fm.)	25	400

Observation Well
S.I. = 342' - 345'

133-59-04DCC
NDSWC 6237

Elevation: 1395.06
(ft, msl)

Date Drilled: 7/20/83
Thickness Depth

Topsoil	3	3
Clay, yellow brown	1	4
Sand, fine, oxidized	2	6
Clay, yellow brown, silty, pebbly (till)	19	25
Clay, olive gray, silty, pebbly (till)	18	43
Sand, fine to coarse, very clayey, interbedded gravel	12	55
Gravel, very coarse to medium gravel, rounded	5	60
Gravel, very coarse sand to coarse gravel, angular to rounded	17	77
Clay, olive gray, very sandy (fluvial)	14	91
Gravel, fine	2	93
Clay, olive gray, silty, pebbly (till)	7	100
Gravel, fine	4	104
Clay, olive gray, silty, pebbly, interbedded gravel	46	150
Silt, olive gray, interbedded sand and gravel	10	160
Gravel, very coarse sand to fine gravel, angular to rounded	5	165
Clay, olive gray, interbedded gravel (till)	16	181
Silt	10	191
Sand coarse to very coarse, angular to rounded	9	200
Gravel, very coarse sand to fine gravel, rounded	10	210
Shale, brownish gray to dark brown, silty, carbonaceous	32	242

Observation Well
S.I. = 205' - 210'

133-59-05CDD₁ & 2
 NDSWC 6239 & 6239_A

Elevation: 1390.17(CDD₁), 1390.33(CDD₂)
 (ft, msl)

Date Drilled: 7/21/83
 Thickness Depth

Topsoil	1	1
Silt, dark yellowish orange, very clayey, oxidized	6	7
Clay, yellow brown, silty, pebbly, oxidized (till)	13	20
Clay, olive gray, silty, pebbly (till)	3	23
Silt, olive gray, clayey, interbedded sand	29	52
Gravel, very coarse sand to very coarse gravel, angular	12	64
Clay, olive gray, very silty, sandy, interbedded sand and gravel (till)	113	177
Gravel, very coarse sand to fine gravel, subangular, interbedded clay	32	209
Silt, carbonaceous	6	215
Shale, brownish gray (Niobrara Fm.)	27	242

Observation Well

CDD₁ - 6239 S.I. = 197' - 202'
 CDD₂ - 6239_A S.I. = 54' - 59'

133-59-06DDD

NDSWC 6240

Elevation: 1375.13
(ft, msl)

Date Drilled: 7/22/83
Thickness Depth

Topsoil	1	1
Silt, yellow brown, oxidized	6	7
Clay, yellow brown, very silty, pebbly (till)	5	12
Clay, olive gray, very silty, pebbly (till)	15	27
Sand, fine, well sorted, angular, very clayey	17	44
Clay, olive gray, very silty, interbedded gravel (till)	26	70
Clay, olive gray, silty, pebbly, interbedded gravel	64	134
Clay, olive gray, silty, sandy (till)	9	143
Sand, very coarse, rounded	4	147
Clay, olive gray, silty, sandy (till)	6	153
Sand, very coarse sand to fine gravel, angular to rounded	7	160
Gravel, fine to coarse, sandy, rounded	20	180
Sand, very coarse, angular to rounded, interbedded coarse gravel	24	204
Shale, brownish gray, silty, light gray specks (Niobrara Fm.)	28	232

Observation Well
S.I. = 197' - 202'

133-59-07BAA₁ & 2
 NDSWC 6241 & 6241_A

Elevation: 1385.95(BAA₁), 1386.47(BAA₂)
 (ft, msl)

Date Drilled: 7/25/83
 Thickness Depth

Topsoil	1	1
Clay, yellow brown, very silty, pebbly, oxidized (till, partially fluvial)	17	18
Silt, yellow brown, oxidized	8	26
Silt, olive gray	11	37
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	16	53
Clay, olive gray, very silty, pebbly, (till, partially fluvial)	23	76
Clay, dark olive gray, silty, pebbly, interbedded sand (till)	27	103
Gravel, coarse sand to coarse gravel, subrounded to rounded	12	115
Clay, dark olive gray, silty, pebbly, interbedded gravel (till)	11	126
Sand, very coarse sand, gravelly, subangular	7	133
Clay, brownish gray, silty, pebbly (till)	40	173
Sand	5	178
Clay, olive gray, silty, pebbly	3	181
Sand, coarse, gravelly, angular to rounded	24	205
Gravel, coarse, sandy, rounded	135	340
Silt, olive gray, clayey, interbedded sand	32	372
Shale, brownish gray (Niobrara Fm.)	30	402

Observation Well

BAA₁ - 6241 S.I. = 292' - 297'

BAA₂ - 6241_A S.I. = 197' - 202'

133-59-09AAA
NDSWC 11651

Elevation: 1396
(ft, msl)

Date Drilled: 8/18/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	17	17
Clay, olive gray, silty, sandy, pebbly (til)	9	26
Sand, very fine to fine, silty	5	31
Clay, greenish gray, silty	7	38
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	143	181
Sand, gravelly, interbedded with clay	23	204
Shale, black, non-calcareous (Pierre Fm.)	11	215
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	85	300

133-59-09BBB₁ & 2
NDSWC 6238 & 6238_A

Elevation: 1390.62(BBB₁), 1390.71(BBB₂)
(ft, msl)

Date Drilled: 7/21/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, very silty, pebbly, oxidized (till, partially fluvial)	20	21
Clay, olive gray, silty, pebbly (till)	2	23
Silt, olive gray, clayey	19	42
Sand, fine to medium, subrounded to rounded, interbedded gravel	18	60
Gravel, very coarse sand to medium gravel, angular to rounded, interbedded till	18	78
Clay, olive gray, silty, pebbly (till)	23	101
Gravel, very coarse	5	106
Clay (till)	3	109
Sand, gravelly	4	113
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	61	174
Gravel, very coarse sand to coarse gravel, angular to rounded	8	182
Sand, very coarse sand to fine gravel, subangular	8	190
Gravel, very coarse sand to medium gravel, subangular	27	217
Shale, brownish gray (Niobrara Fm.)	35	252

Observation Well

BBB₁ - 6238 S.I. = 211' - 216'

BBB₂ - 6238_A S.I. = 60' - 65'

133-59-10DDD
NDSWC 9452

Elevation: 1374
(ft, msl)

Date Drilled: 9/25/75
Thickness Depth

Clay, moderate yellow brown, silty, sandy, pebbly, oxidized (till)	14	14
Clay, medium dark to olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	148	162
Gravel, fine to coarse, angular to subangular, interbedded clay	17	179
Clay, medium dark to olive gray, silty, sandy, pebbly, gravelly, interbedded sand and gravel (till)	16	195
Shale, brownish to olive gray, silty, calcareous, white specks (Niobrara Fm.)	25	220

133-59-14CCC
NDSWC 11636

Elevation: 1364.1
(ft, msl)

Date Drilled: 8/10/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, interbedded sand, oxidized (till)	19	19
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	128	147
Gravel, sandy, subangular to rounded	29	176
Shale, black, non-calcareous (Pierre Fm.)	25	201

Observation Well
S.I. = 167' - 170'

133-59-14CDD
NDSWC 11637

Elevation: 1369.8
(ft, msl)

Date Drilled: 8/10/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	19	19
Clay, olive gray, silty, sandy, pebbly (till)	11	30
Sand, very fine to very coarse, gravelly, angular to rounded	10	40
Sand, gravelly, interbedded with clayey silt	5	45
Clay, olive gray, silty, sandy, pebbly (till)	19	64
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	6	70
Clay, olive gray, silty, sandy, pebbly, interbedded sand, gravel, and silt (till)	84	154
Sand, very fine to very coarse, gravelly, subangular to rounded, stratified	20	174
Shale, black, non-calcareous (Pierre Fm.)	6	180

Observation Well
S.I. = 167'- 170'

133-59-15AAA
NDSWC 11649

Elevation: 1376.7
(ft, msl)

Date Drilled: 8/14/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	10	10
Clay, olive gray, silty, sandy, pebbly (till)	28	38
Sand, very fine to very coarse, gravelly, angular to subrounded, interbedded clay	15	53
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	109	162
Sand, very fine to coarse, gravelly, subangular to rounded, interbedded clay	12	174
Shale, black, non-calcareous (Pierre Fm.)	6	180

Observation Well
S.I. = 167'- 170'

133-59-15CCC
NDSWC 9451

Elevation: 1387.1
(ft, msl)

Date Drilled: 9/24/75
Thickness Depth

Clay, moderate yellowish brown, silty, sandy, pebbly, oxidized (till)	21	21
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	107	128
Gravel, fine to coarse, angular to subangular	3	131
Clay, medium dark gray to olive gray, silty, sandy, pebbly, gravelly (till)	44	175
Gravel, fine to coarse, sandy, angular to subrounded	50	225
Shale, brownish to olive gray, white specks, (Niobrara Fm.)	15	240

Observation Well
S.I. = 188'- 191'

133-59-15DCC
NDSWC 11639

Elevation: 1376
(ft, msl)

Date Drilled: 8/11/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	17	17
Clay, olive gray, silty, sandy, pebbly (till)	13	30
Sand, very fine to very coarse, gravelly, angular to rounded	5	35
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	129	164
Shale, black, non-calcareous (Pierre Fm.)	21	185
Shale, medium-brown, calcareous, light gray specks (Niobrara Fm.)	16	201

133-59-19BAA
NDSWC 11644

Elevation: 1382.7
(ft, msl)

Date Drilled: 8/13/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	12	12
Clay, olive gray, silty, sandy, pebbly (till)	13	25
Clay, greenish gray, silty	17	42
Sand, very fine to fine, silty	12	54
Sand, gravelly, angular to subrounded	1	55
Clay, olive gray, silty, sandy, pebbly	121	176
Sand, very fine to very coarse, gravelly, subangular to rounded	31	207
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	13	220

Observation Well
S.I. = 196'- 199'

133-59-20ABB
NDSWC 11643

Elevation: 1386.0
(ft, msl)

Date Drilled: 8/12/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	12	12
Clay, olive gray, silty, sandy, pebbly	2	14
Sand, very fine, silty	47	61
Sand, gravelly	2	63
Clay, olive gray, silty, sandy, pebbly (till)	19	82
Sand, very fine to very coarse, gravelly, angular to rounded	10	92
Clay, olive gray, silty, sandy, pebbly (till)	48	140
Sand, very fine to very coarse, gravelly, angular to rounded	6	146
Clay, olive gray, silty, sandy, pebbly (till)	32	178
Sand, very fine to very coarse, gravelly, subangular to subrounded, stratified	33	211
Shale, brown, calcareous, light gray specks (Niobrara Fm.)	10	221

Observation Well
S.I. = 197'- 200'

133-59-20BBB
NDSWC 11642

Elevation: 1386.1
(ft, msl)

Date Drilled: 8/12/81

	Thickness	Depth
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	14	14
Clay, olive gray, silty, sandy, pebbly (till)	2	16
Clay, greenish gray, silty	6	22
Sand, very fine, silty	8	30
Clay, greenish gray, silty	3	33
Sand, very fine, silty	2	35
Clay, greenish gray, silty	7	42
Sand, very fine, silty	12	54
Sand, very fine to very coarse, gravelly	2	56
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	106	162
Clay, olive gray, silty, sandy, pebbly (till)	19	181
Sand, very fine to very coarse, very gravelly, stratified	27	208
Shale, gray brown, calcareous, gray specks (Niobrara Fm.)	12	220

Observation Well
S.I. = 197'- 200'

133-59-21BBB

NDSWC 11641

Elevation: 1390
(ft, msl)

Date Drilled: 8/12/81

	Thickness	Depth
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	17	17
Clay, olive gray, silty, sandy, pebbly (till)	1	18
Clay, black with gray stringers	5	23
Sand, very fine to fine	24	47
Sand, very fine to coarse, gravelly, angular to rounded	6	53
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	53	106
Sand, clayey, silty	7	113
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	67	180
Sand, gravelly	4	184
Shale, black, non-calcareous (Pierre Fm.)	16	200

133-59-21BAA

NDSWC 11640

Elevation: 1381.9
(ft, msl)

Date Drilled: 8/11/81

	Thickness	Depth
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	10	10
Clay, olive gray, silty, sandy, pebbly (till)	14	24
Sand, very fine to very coarse, very gravelly, angular to rounded	29	53
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	88	141
Sand, gravelly	14	155
Clay, olive gray, silty, sandy, pebbly (till)	4	159
Sand, very fine to very coarse, interbedded clay and silt	189	348
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	32	380

Observation Well

S.I. = 231' - 234'

133-59-24BBB
NDSWC 11638

Elevation: 1360
(ft, msl)

Date Drilled: 8/11/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Clay, olive gray, silty, sandy, pebbly (till)	18	36
Sand, very fine to very coarse, gravelly, subangular to rounded	28	64
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	92	156
Shale, black (Pierre Fm.)	5	161

133-59-27CCC
NDSWC 11946A

Elevation: 1365.4
(ft, msl)

Date Drilled: 8/18/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	17	17
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	145	162
Sand, very fine to very coarse, gravelly, angular to rounded	7	169
Clay	1	170
Sand, very fine to very coarse, gravelly, angular to rounded	2	172
Shale, black, non-calcareous (Pierre Fm.)	8	180

Observation Well
S.I. = 164' - 169'

133-59-27DCC
NDSWC 11945

Elevation: 1370.7
(ft, msl)

Date Drilled: 8/17/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Clay, olive gray, silty, sandy, pebbly (till)	72	90
Sand, very fine to very coarse, gravelly, subangular to rounded	18	108
Clay, olive gray, silty, sandy, pebbly (till)	9	117
Sand, very fine to coarse, gravelly, subangular to rounded	6	123
Clay, olive gray, silty, sandy, pebbly (till)	32	155
Sand, very fine to very coarse, gravelly, subangular to rounded	23	178
Shale, light gray brown, calcareous, light gray specks (Niobrara Fm.)	22	200

Observation Well
S.I. = 168'- 173'

133-59-28CCC
NDSWC 11948

Elevation: 1378.3
(ft, msl)

Date Drilled: 8/18/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly (till)	16	16
Clay, olive gray, silty, sandy, pebbly (till)	5	21
Sand, very fine to coarse, subangular to rounded	7	28
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel	159	187
Sand, very fine to very coarse, gravelly, subangular to rounded	16	203
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	17	220

Observation Well
S.I. = 195'- 200'

133-59-28CDD
NDSWC 11947

Elevation: 1384.2
(ft, msl)

Date Drilled: 8/18/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	23	23
Clay, olive gray, silty, sandy, pebbly (till)	2	25
Sand, very fine to very coarse, gravelly, subangular to rounded	14	39
Silt, pale greenish gray, clayey	35	74
Cobbles	1	75
Clay, olive gray, silty, sandy, pebbly (till)	16	91
Sand, very fine to very coarse, gravelly, subangular to rounded	29	120
Clay, olive gray, silty, sandy, pebbly (till)	68	188
Sand, very fine to very coarse, gravelly, subangular to rounded, interbedded clay	23	211
Shale, dark brown, calcareous, light gray, specks (Niobrara Fm.)	29	240

Observation Well
S.I. = 204' - 209'

133-59-29AAA
NDSWC 9450

Elevation: 1380
(ft, msl)

Date Drilled: 9/24/75
Thickness Depth

Clay, moderate yellowish brown, silty, sandy, pebbly, oxidized (till)	14	14
Clay, medium dark to olive gray, silty, sandy, pebbly (till)	17	31
Sand, fine to very coarse, angular to rounded	29	60
Sand, fine to very coarse, very gravelly, poorly sorted	24	84
Clay, medium dark to olive gray, silty, sandy, pebbly, interbedded gravel (till)	96	180
Gravel, fine to coarse, sandy, angular to subrounded	8	188
Shale, brownish to olive gray, silty, sandy, calcareous, white specks (Niobrara Fm.)	32	220

Observation Well
S.I. = 73' - 76'

133-59-29DCC
NDSWC 11949

Elevation: 1374.8
(ft, msl)

Date Drilled: 8/19/82
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	12	12
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	178	190
Boulder	1	191
Sand, very fine to very coarse, gravelly, subangular to rounded, interbedded clay	25	216
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	24	240

Observation Well
S.I. = 198' - 203'

133-59-30CCC
NDSWC 11951

Elevation: 1394.2
(ft, msl)

Date Drilled: 8/19/82
Thickness Depth

Sand, very fine to medium, oxidized	13	13
Sand, very fine to medium, silty, interbedded clay and sandy silt	14	27
Sand, gravelly, angular to rounded, oxidized	2	29
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	2	31
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	176	207
Sand, very fine to very coarse, gravelly, subangular to rounded	45	252
Boulder	1	253
Shale, dark to medium brown, calcareous, light gray specks (Niobrara Fm.)	7	260

Observation Well
S.I. = 225' - 230'

133-59-30CDD
NDSWC 11950

Elevation: 1385.7
(ft, msl)

Date Drilled: 8/19/82
Thickness Depth

Sand, very fine to fine, oxidized	7	7
Silt, pale greenish gray, clay, sandy, oxidized	4	11
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	9	20
Sand, very fine to very coarse, gravelly, angular to roundish, oxidized	4	24
Silt, greenish gray, clayey	7	31
Clay, olive gray, silty, sandy, pebbly, interbedded cobbles (till)	169	200
Sand, very fine to very coarse, gravelly, interbedded clay	19	219
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	21	240

Observation Well
S.I. = 214' - 219'

133-59-32BBB
NDSWC 9449

Elevation: 1373.5
(ft, msl)

Date Drilled: 9/24/75
Thickness Depth

Sand, very fine to coarse, subangular to subrounded	6	6
Clay, moderate yellow brown, silty, sandy, pebbly, oxidized (till)	7	13
Clay, medium dark to olive gray, interbedded gravel (till)	61	74
Sand, fine to very coarse, angular to subrounded	4	78
Clay, medium dark to olive gray, silty, sandy, pebbly, gravelly (till)	7	85
Sand, fine to very coarse, very gravelly, angular to subangular, interbedded clay	15	100
Clay, medium dark to olive gray, silty, sandy, pebbly, gravelly (till)	27	127
Sand, fine to very coarse, angular to subrounded	5	132
Clay, medium dark to olive gray, silty, sandy, pebbly, gravelly, bouldery (till)	54	186
Gravel, fine to coarse, sandy, angular to subrounded, interbedded clay	32	218
Shale, medium to brownish gray, silty, sandy, calcareous (Niobrara Fm.)	22	240

Observation Well
S.I. = 198'- 201'

133-59-32CDD
NDSWC 9148

Elevation: 1380
(ft, msl)

Date Drilled: 10/7/74
Thickness Depth

Sand, very fine to fine, silty (aeolian)	2	2
Clay, moderate yellow brown, very silty, sandy, pebbly, interbedded sand and gravel, oxidized (till)	18	20
Sand, fine to medium, silty, angular to rounded, interbedded gravel, oxidized	13	33
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	11	44
Clay, medium dark gray, silty, very sandy, pebbly	14	58
Clay, olive gray, silty, very sandy, pebbly, interbedded sand and gravel (till)	31	89
Sand, fine to medium, clayey, subangular to subrounded, interbedded clay	5	94
Clay, olive gray, interbedded sand, gravel, and cobbles (till)	116	210
Cobbles	7	217
Shale, medium gray, very calcareous, white specks (Niobrara Fm.)	23	240

133-59-34AAA₂
NDSWC 11944A

Elevation: 1358.6
(ft, msl)

Date Drilled: 8/17/82
Thickness Depth

Clay, pale yellow, brown, silty, sandy, pebbly, oxidized (till)	24	24
Clay, olive gray, silty, sandy, pebbly (till)	120	144
Sand, gravelly, interbedded silty clay	9	153
Sand, very fine to very coarse, gravelly, subangular to rounded	23	176
Shale, light gray brown, calcareous, light gray specks (Niobrara Fm.)	24	200

Observation Well
S.I. = 168'- 173'

133-59-35AAA
NDSWC 11943

Elevation: 1355.8
(ft, msl)

Date Drilled: 8/16/82
Thickness Depth

Sand, very fine to very coarse, gravelly, subangular to rounded, oxidized	31	31
Clay, silty, sandy, pebbly, oxidized (till)	7	38
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	27	65
Silt, greenish-gray, clayey	10	75
Silt, very clayey, interbedded cobbles	17	92
Clay, olive gray, silty, sandy, pebbly, interbedded sand, gravel, and cobbles (till)	71	163
Sand, gravelly, interbedded clayey silt	12	175
Boulder	1	176
Sand, very fine to very coarse, gravelly, angular to rounded	25	201
Shale, light gray brown, calcareous, light gray specks (Niobrara Fm.)	19	220

Observation Well
S.I. = 193'- 198'

133-59-35ABB
NDSWC 11655

Elevation: 1355.6
(ft, msl)

Date Drilled: 8/19/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	13	13
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	126	139
Sand, very fine to very coarse, gravelly, subangular to rounded	34	173
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	28	201

Observation Well
S.I. = 162'- 165'

133-59-36AAA
NDSWC 11654

Elevation: 1380
(ft, msl)

Date Drilled: 8/18/81
Thickness Depth

Sand, very fine to very coarse, gravelly, interbedded clay, oxidized	38	38
Clay, olive gray, silty, sandy, pebbly (till)	47	85
Clay, greenish gray, silty	7	92
Silt	11	103
Clay, dark brown, silty	13	116
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	60	176
Sand, very fine, silty	13	189
Clay, greenish-gray	2	191
Sand, very fine, silty	8	199
Clay, greenish-gray	2	201
Sand, very fine, silty	5	206
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	15	221

133-59-36BAA
NDSWC 9147

Elevation: 1345
(ft, msl)

Date Drilled: 10/4/74
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, silty, sandy, pebbly, interbedded sand and gravel (till)	15	16
Clay, dark gray to olive gray, silty, sandy, pebbly (till)	21	41
Clay, medium dark gray, very sandy, interbedded sand and gravel (till)	8	49
Clay, olive gray, interbedded sand and gravel (till)	95	144
Clay, medium dark to dark gray, siliceous, laminated (reworked Pierre Fm.)	16	160
Shale, light olive gray, very calcareous, white specks (Niobrara Fm.)	20	180

133-60-01CCC
NDSWC 6245

Elevation: 1403.44
(ft, msl)

Date Drilled: 7/27/83
Thickness Depth

Topsoil	2	2
Sand, oxidized	1	3
Silt, clayey, oxidized	4	7
Clay, yellow brown, silty, pebbly, oxidized	3	10
Silt, clayey, oxidized	5	15
Clay, yellow brown, silty, pebbly, oxidized (till)	11	26
Silt, olive gray, clayey	5	31
Sand, fine, well sorted, angular	8	39
Silt, olive gray, clayey	3	42
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	55	97
Gravel, very coarse sand to fine gravel, rounded	18	115
Clay, olive gray silty, sandy, pebbly, interbedded sand (till)	66	181
Gravel, very coarse sand to fine gravel, angular to rounded, interbedded clay	41	222
Clay, brown, silty, sandy, interbedded gravel	30	252
Shale, brown (Niobrara Fm.)		

Observation Well
S.I. = 209' - 214'

133-60-01DDD
NDSWC 9822

Elevation: 1405.7
(ft, msl)

Date Drilled: 10/20/76
Thickness Depth

Topsoil	1	1
Silt, moderate yellow brown, clayey, sandy	6	7
Clay, moderate yellow brown, silty, sandy, pebbly	15	22
Sand, clayey, silty	14	36
Sand, very fine to very coarse	6	42
Clay, olive gray, silty	4	46
Gravel, sandy	2	48
Clay, brownish gray, silty	4	52
Clay, olive gray, silty, sandy, pebbly	81	133
Gravel, sandy	2	135
Clay, olive gray, silty, sandy, pebbly	7	142
Gravel, coarse sand to fine pebble	9	151
Clay, olive gray, silty, sandy, pebbly	29	180
Boulder	2	182
Clay, olive gray, silty, sandy, pebbly	6	188
Gravel, medium sand to medium pebble	13	201
Clay, olive gray, sandy	7	208
Gravel, sandy, medium sand to medium pebble, interbedded clay	13	221
Gravel, very coarse, sandy	2	223
Clay, black, bentonite (Pierre Fm.)	2	225
Clay, silty	3	228
Clay, brown, white specks (Niobrara Fm.)	12	240

Observation Well
S.I. = 193' - 196'

133-60-02CDD
NDSWC 6246

Elevation: 1398.12
(ft, msl)

Date Drilled: 7/27/83
Thickness Depth

Topsoil	1	1
Gravel, very coarse sand to fine gravel, oxidized	1	2
Clay, yellow brown to dark yellow orange, banded, very silty (fluvial)	8	10
Clay, yellow brown, silty, pebbly, oxidized (till)	8	18
Clay, olive gray, silty, pebbly (till)	9	27
Sand, fine, well sorted, angular	5	32
Silt, olive gray, clayey	5	37
Clay, olive gray, silty, sandy, pebbly, bouldery, interbedded sand and gravel (till)	156	193
Sand, very coarse sand to fine gravel, angular to rounded	7	200
Gravel, very coarse sand to fine gravel, rounded, interbedded coarse gravel	61	261
Shale, brown, silty, white specks (Niobrara Fm.)	21	282

Observation Well
S.I. = 255' - 260'

133-60-04DCC
NDSWC 6250

Elevation: 1407.95
(ft, msl)

Date Drilled: 8/1/83
Thickness Depth

Topsoil	1	1
Silt, yellow brown, oxidized (fluvial)	8	9
Clay, yellow brown, very silty, pebbly, oxidized (till)	26	35
Sand, coarse sand to gravel, rounded	6	41
Clay, olive gray, silty, pebbly (till)	19	60
Silt, olive gray, sandy, grades into coarse sand	32	92
Clay, olive gray, silty, pebbly, interbedded gravel (till)	101	193
Sand, coarse sand to medium gravel, subrounded	26	219
Shale, brown, bentonite (Niobrara Fm.)	23	242

Observation Well
S.I. = 211'- 216'

133-60-05DAA
NDSWC 6252

Elevation: 1409.83(DAA₁), 1409.8(DAA₂)
(ft, msl)

Date Drilled: 8/2/83
Thickness Depth

Topsoil	1	1
Silt, yellow brown, interbedded clay	9	10
Clay, yellow brown, silty, pebbly (till)	14	24
Sand, fine to very coarse, rounded	6	30
Clay, yellow brown, silty, pebbly (till)	6	36
Sand, fine to very coarse, rounded	7	43
Gravel, fine to very coarse, angular to rounded	35	78
Silt, olive gray	7	85
Clay, olive gray, silty, pebbly, bouldery	96	181
Silt	6	187
Sand, coarse sand to fine gravel, angular to rounded	37	224
Shale, dark gray to black (Pierre Fm.)	38	262

Observation Well
DAA₁ - 6252 S.I. = 217'- 222'
DAA₂ - 6252A S.I. = 60'- 65'

133-60-06BBB
NDSWC 9205

Elevation: 1414
(ft, msl)

Date Drilled: 11/6/74
Thickness Depth

Topsoil	1	1
Clay, dark yellow brown, very silty, sandy, pebbly (till)	3	4
Sand, fine to medium, gravelly, angular to rounded, silty	14	18
Clay, dark yellow brown, very silty, sandy, pebbly, interbedded gravel (till)	6	24
Gravel, fine to medium, gravelly, subangular to subrounded, oxidized	10	34
Clay, dark yellow brown, very silty, sandy, pebbly, gravelly (till)	2	36
Clay, medium dark gray, very silty, sandy, pebbly, gravelly	18	54
Sand, medium to coarse, angular to subrounded	21	75
Clay, medium dark gray, interbedded gravel (till)	14	89
Clay, olive gray, interbedded gravel (till)	75	164
Clay, olive gray, much interbedded gravel (till)	52	216
Clay, olive gray, gravelly (till)	14	230
Shale, olive gray, very calcareous (Niobrara Fm.)	30	260

133-60-07CCC₂
NDSWC 11903

Elevation: 1314.0
(ft, msl)

Date Drilled: 6/29/82
Thickness Depth

Clay, silty	2	2
Gravel	27	29
Sand	26	55
Clay, sandy	6	61
Clay (till)	19	80

Observation Well
S.I. = 38' - 43'

133-60-07DAA
NDSWC 11904

Elevation: 1335
(ft, msl)

Date Drilled: 6/30/82
Thickness Depth

Sand, brown to gray, very fine to coarse gravel, subangular to rounded	57	57
Gravel, very fine to medium pebble, subangular	4	61
Clay, olive gray, silty, sandy, pebbly (till)	66	127
Mudstone, gray, silty, calcareous, white inclusions	28	160

133-60-08DDD
NDSWC 9218

Elevation: 1324.5
(ft, msl)

Date Drilled: 11/15/74
Thickness Depth

Topsoil, dusky yellow brown, very sandy loam	1	1
Sand, dark yellow brown, very fine to medium, silty, oxidized	9	10
Gravel, fine to very coarse, sandy, angular to rounded, oxidized	30	40
Gravel, fine to very coarse, sandy, angular to rounded	9	49
Clay, dark gray, silty, sandy, pebbly (till)	11	60

Observation Well
S.I. = 42' - 45'

133-60-09BBB
NDSWC 6251

Elevation: 1400
(ft, msl)

Date Drilled: 8/2/83
Thickness Depth

Topsoil	1	1
Silt, yellow brown, oxidized	5	6
Clay, yellow brown, silty, pebbly, interbedded gravel, oxidized (till)	26	32
Clay, olive gray, silty, pebbly, interbedded sand and silt	67	99
Gravel, fine to very coarse, rounded	13	112
Clay, dark olive gray, silty, pebbly (till)	21	133
Clay, greenish gray, very silty, very sandy	14	147
Clay, olive gray, pebbly, cobbly, bouldery (till)	42	189
Shale, dark gray, carbonaceous	23	212

133-60-10ABB
NDSWC 6248

Elevation: 1406.27
(ft, msl)

Date Drilled: 7/28/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, very silty, pebbly, bouldary, oxidized (till)	22	23
Clay, olive gray, silty, pebbly (till)	11	34
Sand, fine, well sorted, subangular to subrounded, interbedded silt	13	47
Clay, olive gray, silty, pebbly (till)	35	82
Clay, olive gray, very silty, light gray stringers (lacustrine)	15	97
Clay, olive gray, silty, sandy, pebbly (till)	88	185
Sand, very coarse, subangular	7	192
Clay, very silty, carbonaceous	7	199
Sand, very coarse sand to fine gravel, angular to rounded		
Shale, brown (Niobrara Fm.)		

Observation Well
S.I. = 220' - 225'

133-60-10BBB₁ & 2
NDSWC 6249 and 6249_A

Elevation: 1416.1(BBB ₁), 1416.77(BBB ₂) (ft, msl)	Date Drilled: 7/29/83	
	Thickness	Depth
Topsoil	1	1
Sand, gravelly, oxidized	1	2
Silt, yellow brown, oxidized	6	8
Clay, yellow brown, very silty, pebbly, oxidized (till)	34	42
Sand, fine grained, well sorted, subangular to rounded	5	47
Clay, olive gray, silty, pebbly (till)	20	67
Sand, very coarse sand to fine gravel, angular to rounded, interbedded silt	16	83
Clay, olive gray, silty	14	97
Silt, olive gray	5	102
Clay, olive gray, silty, pebbly (till)	97	199
Clay, medium gray, very silty, pebbly (till)	8	207
Sand, coarse sand to medium gravel, angular to rounded	34	241
Silt, brown, carbonaceous	2	243
Shale, brown, white specks (Niobrara Fm.)	29	272

Observation Well

BBB₁ - 6249 S.I. = 227' - 232'
BBB₂ - 6249_A S.I. = 77' - 82'

133-60-11BBB
NDSWC 6247

Elevation: 1406.27 (ft, msl)	Date Drilled: 7/28/83	
	Thickness	Depth
Topsoil	1	1
Clay, yellow brown, silty, pebbly, oxidized (till)	29	30
Clay, olive gray, very silty, pebbly	7	37
Sand, fine to coarse, rounded	5	42
Silt, olive gray, clayey	8	50
Clay, olive gray, very silty, sandy, pebbly, interbedded gravel and cobbles (till)	151	201
Sand, very coarse sand to fine gravel, angular to rounded	36	237
Shale, brown (Niobrara Fm.)	15	252

Observation Well

S.I. = 227' - 232'

133-60-12BAA
NDSWC 6244

Elevation: 1406.03
(ft, msl)

Date Drilled: 7/26/83
Thickness Depth

Topsoil	1	1
Silt, yellow brown mottled with light brown, oxidized	9	10
Clay, yellow brown, very silty, pebbly, oxidized (till)	11	21
Sand, fine to very coarse, angular, oxidized	6	27
Silt, yellow brown, clayey, oxidized	6	33
Silt, olive gray, clayey	23	56
Sand, coarse sand to coarse gravel, angular to rounded	2	58
Clay, olive gray, silty, very pebbly (till)	29	87
Sand, coarse sand to medium gravel, angular to rounded	15	102
Clay, olive gray, silty, very pebbly (till)	37	139
Gravel, fine to medium, rounded	5	144
Clay, olive gray, silty, very pebbly (till)	43	187
Clay, brownish gray	187	192
Sand, very coarse sand to medium gravel, subrounded, interbedded sandy clay and silt	50	242
Clay, brown, sandy (till)	10	252
Sand	8	260
Clay, sandy, interbedded sand and gravel (till)	22	282
Shale, brown, white specks (Niobrara Fm.)	20	302

Observation Well
S.I. = 197' - 202'

133-60-15CCC
NDSWC 9215

Elevation: 1310.5
(ft, msl)

Date Drilled: 11/14/74
Thickness Depth

Gravel, fine to very coarse, very sandy, angular to rounded, oxidized	10	10
Gravel, fine to very coarse, very sandy, angular to rounded, unoxidized	20	30
Gravel, fine to coarse, sandy, angular to rounded	10	40
Gravel, fine to very coarse, very sandy	36	76
Clays, dark gray, silty, sandy, pebbly (till)	24	100

Observation Well
S.I. = 58' - 61'

133-60-15DDD
NDSWC 9214

Date Drilled: 11/14/74
Thickness Depth

Topsoil, dusky yellow brown, sandy, loam	1	1
Sand, fine to medium, subrounded, silty, oxidized	8	9
Silt, dark yellow brown, clayey, oxidized	8	17
Clay, dark yellow brown, silty, sandy, pebbly, oxidized (till)	43	60
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	18	78
Clay, olive gray to dark olive gray, interbedded silt, sand, and gravel (till)	106	184
Gravel	8	192
Shale, light olive gray, very calcareous, white specks (Niobrara Fm.)	28	220

133-60-16ABA
NDSWC 11909

Elevation: 1330
(ft, msl)

Date Drilled: 7/1/82

	Thickness	Depth
Clay, dark brown, silty, very sandy	4	4
Sand, brown, fine to coarse, subrounded to rounded	25	29
Sand, brown, fine to very coarse, gravelly	16	45
Cobbles	3	48
Clay, olive gray, silty, sandy, pebbly (till)	54	102
Silt, olive gray, clayey, sandy	4	106
Clay, olive gray, silty, sandy, pebbly (till)	6	112
Silt, olive gray, clayey, sandy	4	116
Clay, olive gray, silty, sandy, pebbly (till)	21	137
Siltstone, dark gray to black, noncalcareous (Pierre Fm.)	5	142
Mudstone, gray, silty, calcareous, white inclusions (Niobrara Fm.)	18	160

133-60-16CCC
NDSWC 9216

Elevation: 1323
(ft, msl)

Date Drilled: 11/14/74

	Thickness	Depth
Sand, fine to very coarse, very gravelly, angular to rounded, oxidized	20	20
Gravel, fine to very coarse, sandy	11	31
Clay, dark gray, silty, sandy, pebbly (till)	104	135
Shale, olive gray, very calcareous, white specks (Niobrara Fm.)	5	140

133-60-16DAA
NDSWC 9447

Elevation: 1320.6
(ft, msl)

Date Drilled: 9/23/75
Thickness Depth

Sand, fine to very coarse, angular to subrounded	25	25
Sand, fine to very coarse, gravelly, angular to subrounded	29	54
Gravel, fine to coarse, angular to subrounded	36	90
Clay, medium dark to olive gray, silty, sandy, pebbly (till)	20	110

Observation Well
S.I. = 58'- 63'

133-60-17ADA
NDSWC 9217

Elevation: 1318.0
(ft, msl)

Date Drilled: 11/14/74
Thickness Depth

Gravel, fine to very coarse, very sandy, angular to rounded, oxidized	12	12
Gravel, fine to very coarse, sandy	30	42
Sand, fine to medium, gravelly	28	70
Gravel, cobbly	1	71
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	29	100

Observation Well
S.I. = 58'- 61'

133-60-17CCB₁
NDSWC 11890

Elevation: 1301.4
(ft, msl)

Date Drilled: 7/1/82
Thickness Depth

Clay, dark brown, organic	7	7
Clay, yellow brown to olive brown	7	14
Clay, olive gray	10	24
Gravel, fine to coarse pebble, sandy	32	56
Gravel, fine to medium pebble, sandy, cobbly	18	74
Clay, olive gray, silty, sandy, pebbly (till)	37	111
Shale, dark to brownish gray, calcareous, white inclusions (Niobrara Fm.)	9	120

Observation Well
S.I. = 58'- 63'
133-60-17DAA
NDSWC 11907

Elevation: 1320.4
(ft, msl)

Date Drilled: 6/30/82
Thickness Depth

Sand, coarse	18	18
Gravel	28	46
Clay (till)	14	60

Observation Well
S.I. = 35'- 40'

133-60-17DDA
NDSWC 11906

Elevation: 1323.3
(ft, msl)

Date Drilled: 6/30/82
Thickness Depth

Sand, coarse	18	18
Gravel	13	31
Clay (till)	9	40

Observation Well
S.I. = 25'- 30'

133-60-18CBB
NDSWC 11897

Elevation: 1302.8
(ft, msl)

Date Drilled: 6/25/82
Thickness Depth

Clay, silty (fluvial)	7	7
Clay (lacustrine)	16	23
Gravel, sandy	25	48
Clay (till)	43	91
Silt, clayey, sandy	12	103
Clay (till)	29	132
Shale, (Niobrara Fm.)	8	140

Observation Well
S.I. = 31'- 36'

133-60-19ABA₁
NDSWC 11891

Elevation: 1307
(ft, msl)

Date Drilled: 6/23/82
Thickness Depth

Clay, dark brown, silty, organic	7	7
Clay, olive brown, oxidized	14	21
Clay, olive gray	43	64
Gravel, fine to medium	24	88
Boulder	2	90
Clay, olive gray, silty, sandy, pebbly (till)	43	133
Shale, dark brownish gray, silty (Niobrara Fm.)	7	140

133-60-21BBC₂
Bureau of Reclamation

Elevation: 1296.9
(ft, msl)

Date Drilled: 10/13/72
Thickness Depth

Topsoil, brown, sandy silt	4	4
Clay, brown to gray black, silty, laminated, organic	48	52
Clay, gray	32	84
Sand, brown, subangular	5	89
Gravel, clayey, subrounded	1	90

133-60-23AAA
NDSWC 11647

Elevation: 1391.6
(ft, msl)

Date Drilled: 8/13/81
Thickness Depth

Sand, very fine to fine, silty, oxidized	5	5
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	12	17
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	24	41
Clay, greenish gray, silty	7	48
Clay, olive gray, silty, sandy, pebbly (till)	56	104
Sand, very fine to fine, silty	9	113
Clay, olive gray, silty, sandy, pebbly (till)	7	120
Sand, very gravelly, angular to subrounded	10	130
Clay, olive gray, silty, sandy, pebbly	59	189
Sand, very fine to very coarse, very gravelly, subangular to rounded	46	235
Shale, dark brown, calcareous, light gray, specks, (Niobrara Fm.)	6	241

Observation Well
S.I. = 217' - 220'

133-60-23ABB
NDSWC 11648

Elevation: 1399.7
(ft, msl)

Date Drilled: 8/14/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	26	26
Sand, very fine to coarse, oxidized	2	28
Clay, yellow brown, silty, oxidized	3	31
Clay, greenish gray, silty	6	37
Clay, olive gray, silty, sandy, pebbly (till)	24	61
Sand, very fine to very coarse, very gravelly	5	66
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	124	190
Sand, very fine to very coarse, gravelly, interbedded clay	27	217
Shale, black, noncalcareous (Pierre Fm.)	9	226
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	15	241

Observation Well
S.I. = 211'- 214'

133-60-23DAA
NDSWC 10947

Elevation: 1392
(ft, msl)

Date Drilled: 6/7/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	19	19
Clay, olive gray, silty, sandy, pebbly (till)	4	23
Silt, greenish gray, calyey	12	35
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	15	50
Silt	7	57
Clay, olive gray, silty, sandyk pebbly (till)	4	61
Sand, gravelly	2	63
Clay, olive gray, silty, very sandy, pebbly, interbedded sand and gravel (till)	46	109
Silt	5	114
Sand, gravelly	2	116
Clay, olive gray, silty, very sandy, pebbly (till)	64	180

133-60-24AAA
NDSWC 11645

Elevation: 1393.1
(ft, msl)

Date Drilled: 8/13/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Clay, olive gray, silty, sandy, pebbly (till)	3	21
Clay, greenish gray silty	32	53
Sand, very fine to very coarse, gravelly, angular to subrounded	3	56
Clay, olive gray, silty, sandy, pebbly (till)	8	64
Sand, very fine to very coarse, gravelly	9	73
Clay, olive gray, silty, sandy, pebbly (till)	77	150
Silt, greenish gray, sandy, interbedded silty clay	55	205
Sand, very fine to very coarse, very gravelly, subangular to rounded	12	217
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	24	241

Observation Well
S.I. = 207'- 210'

133-60-24BAA
NDSWC 11646

Elevation: 1384.3
(ft, msl)

Date Drilled: 8/13/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	10	10
Clay, olive gray, silty, sandy, pebbly (till)	2	12
Clay, greenish gray, silty	6	18
Clay, olive gray, silty, sandy, pebbly (till)	26	44
Boulder	1	45
Sand, very fine to fine, silty	18	63
Clay, gray brown, silty	10	73
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	105	178
Sand, very fine to very coarse, gravelly, cobbly	68	246
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	15	261

Observation Well
S.I. = 217'- 220'

133-60-25BBB
NDSWC 10946

Elevation: 1395.8
(ft, msl)

Date Drilled: 6/6/79
Thickness Depth

Sand, very fine to fine, silty, oxidized	3	3
Clay, pale yellow brown, silty, sandy, pebbly oxidized (till)	19	22
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	176	198
Gravel, very coarse, cobbly and bouldery	32	230

Observation Well
S.I. = 218' - 221'

133-60-25BCC
NDSWC 10948

Elevation: 1400
(ft, msl)

Date Drilled: 6/21/79
Thickness Depth

Sand, very fine to medium, subangular to rounded, oxidized	9	9
Sand, very fine to medium, subangular to rounded, unoxidized	3	12
Clay, light greenish gray silty	1	13
Sand, very fine to medium, subangular to rounded	9	24
Silt, greenish gray, clayey	18	42
Sand, very fine to medium, subangular to rounded	10	52
Clay, olive gray, silty, sandy, pebbly (till)	5	57
Silt, greenish gray, clayey	5	62
Clay, olive gray, silty, sandy, pebbly (till)	9	71
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel	15	86
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	34	120
Silt, sandy	7	127
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	53	180

133-60-25CCC
NDSWC 11953A

Elevation: 1399.0
(ft, msl)

Date Drilled: 8/23/82
Thickness Depth

Sand, very fine to fine, silty, oxidized	6	6
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	8	14
Clay, olive gray, silty, sandy, pebbly (till)	12	26
Silt, greenish gray, very clayey	17	43
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	17	60
Silt, greenish gray, very clayey	13	73
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	134	207
Sand, very fine to very coarse, very gravelly, subangular to well rounded	9	216
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	14	230

Observation Well
S.I. =208'- 213'

133-60-26BAA
NDSWC 10945

Elevation: 1405
(ft, msl)

Date Drilled: 6/6/79
Thickness Depth

Sand, very fine to very coarse, subangular to rounded, oxidized	7	7
Sand, very fine to very coarse, subangular to rounded, unoxidized	5	12
Clay, green gray, very silty, sandy (till)	6	18
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	23	41
Silt, light to medium gray, clayey	7	48
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	28	76
Silt, light to medium gray, clayey	32	108
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	97	205
Sand, very fine to very coarse, very gravelly, angular to rounded	8	213
Cobbles	1	214

133-60-26DCC
NDSWC 11954

Elevation: 1391.7
(ft, msl)

Date Drilled: 8/24/82
Thickness Depth

Sand, very fine to fine, silty, oxidized	8	8
Clay, greenish gray, silty, sandy	10	18
Clay, olive gray, silty, sandy, pebbly	10	28
Silt, greenish gray, very clayey	7	35
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	166	201
Sand, very fine to very coarse, very gravelly, subangular to rounded, interbedded clay	9	210
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	20	230

Observation Well
S.I. = 202' - 207'

133-60-27DDD
NDSWC 11955

Elevation: 1394
(ft, msl)

Date Drilled: 8/24/82
Thickness Depth

Silt, yellow brown, clayey, oxidized	8	8
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	11	19
Sand, very fine to very coarse, gravelly, angular to rounded	14	33
Silt, greenish gray, clayey	13	46
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	36	82
Silt, clayey, interbedded silty clay and sand and gravel	61	143
Sand, very fine to very coarse, very gravelly	9	152
Clay, olive gray, silty, sandy, pebbly (till)	57	209
Shale, medium to dark brown, calcareous, light gray specks (Niobrara Fm.)	31	240

133-60-28AAA
NDSWC 9219

Elevation: 1313
(ft. msl)

Date Drilled: 11/15/74
Thickness Depth

Sand, very fine to coarse, subangular to rounded, oxidized	14	14
Sand, fine to very coarse, gravelly, oxidized	46	60
Sand, fine to very coarse, gravelly, unoxidized	18	78
Gravel, fine sand to coarse gravel	5	83
Clay, dark gray, silty, sandy, pebbly (till)	17	100

Observation Well
S.I. = 78' - 81'

133-60-28CAD
NDSWC 11916

Elevation: 1300
(ft, msl)

Date Drilled: 7/7/82
Thickness Depth

Clay, brown to dark brown, silty, organic (fluvial)	4	4
Clay, light brown, silty, sandy (fluvial)	3	7
Clay, brown, silty, sandy (fluvial)	10	17
Clay, grayish green, silty	5	22
Clay, gray to dark gray, silty	54	76
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	54	130
Mudstone, brownish gray, very silty, calcareous, white nodules (Niobrara Fm.)	10	140

133-60-31DDD
NDSWC 9152

Elevation: 1318
(ft, msl)

Date Drilled: 10/18/74
Thickness Depth

Topsoil	1	1
Sand, fine to coarse, silty, oxidized	7	8
Silt, moderate yellow brown, very sandy, interbedded sand, oxidized	14	22
Silt, dark gray	10	32
Silt, dark gray, very clayey	13	45
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (Till)	15	60
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	92	152
Shale, medium gray, very calcareous (Niobrara Fm.)	8	160

133-60-33CCC
NDSWC 9151

Elevation: 1297
(ft, msl)

Date Drilled: 10/8/74
Thickness Depth

Topsoil	2	2
Silt, moderate yellow brown, clayey, sandy, interbedded gravel	18	20
Clay, dark gray, silty, sandy, pebbly, interbedded sand and gravel (till)	21	41
Gravel, fine to coarse, sandy, subrounded to rounded	5	46
Clay, medium dark gray, interbedded gravel (till)	11	57
Clay, interbedded gravel (till)	30	87
Clay, olive gray (till)	49	136
Shale, medium gray, very calcareous (Niobrara Fm.)		

133-60-36BAA
NDSWC 11952

Elevation: 1396.9
(ft, msl)

Date Drilled: 8/20/82
Thickness Depth

Sand, very fine to fine, silty, oxidized	7	7
Sand, very fine to fine, silty, interbedded clayey sandy silt	6	13
Clay, olive gray, silty, sandy, pebbly (till)	30	43
Sand, gravelly, subangular to rounded	4	47
Clay, olive gray, silty, sandy, pebbly, interbedded silt, sand and gravel (till)	160	207
Sand, very fine to very coarse, subangular to rounded, very gravelly	21	228
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	12	240

Observation Well
S.I. = 218' - 223'

133-60-36CCC
NDSWC 9149

Elevation: 1390
(ft, msl)

Date Drilled: 10/7/74
Thickness Depth

Topsoil, black, silty, loam	1	1
Silt, moderate yellow brown, sandy, oxidized	2	3
Clay, moderate yellow brown, very silty, sandy pebbly, oxidized (till)	10	13
Clay, dark gray, very silty, sandy, pebbly, interbedded sand and gravel (till)	37	50
Gravel, fine to very coarse, sandy	5	55
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	148	203
Shale, medium gray, very calcareous (Niobrara Fm.)	17	220

133-60-36DDD
NDSWC 9448

Elevation: 1383.1
(ft, msl)

Date Drilled: 9/23/75
Thickness Depth

Clay, moderate yellowish brown, silty, sandy, pebbly, oxidized (till)	17	17
Clay, olive gray, silty, sandy, pebbly (till)	17	34
Clay, medium dark gray, silty, sandy (lacustrine)	6	40
Clay, medium dark to olive gray, silty, sandy, pebbly, gravelly, interbedded gravel (till)	164	204
Sand, very fine to very coarse, gravelly, subangular to rounded	39	243
Shale, brownish gray to dark greenish gray, silty, sandy	17	260

Observation Well
S.I. = 212' - 215'

133-61-03BBB
NDSWC 9204

Elevation: 1322.19
(ft, msl)

Date Drilled: 11/6/74
Thickness Depth

Topsoil	1	1
Sand, fine to coarse, very silty, angular to rounded	24	25
Gravel, fine to very coarse, sandy, subangular to rounded	25	50

Observation Well
S.I. = 38' - 41'

133-61-04BBB
NDSWC 6128

Elevation: 1417.43
(ft, msl)

Date Drilled: 9/7/82
Thickness Depth

Topsoil	1	1
Clay, yellow brown to olive brown, very silty, sandy, pebbly, interbedded sand and gravel, oxidized	17	18
Sand, very fine to very coarse, gravelly, oxidized	13	31
Clay, olive brown to olive gray, silty, sandy, pebbly, interbedded silt (till)	31	62
Sand, very fine, clayey, interbedded coarse sand and gravel	26	88
Clay, olive gray, silty, sandy, pebbly, interbedded silt, sandy clay and silty clay (till)	50	138
Clay, dark olive gray, silty, pebbly, gravelly	148	286
Claystone, brownish gray, calcareous	16	302

Observation Well
S.I. = 67' - 72'

133-61-10CCC₁ & 2

NDSWC 6129 & 6129A

Elevation: 1412.86(CCC₁), 1413.13(CCC₂)
(ft, msl)

Date Drilled: 9/8/82
Thickness Depth

Topsoil	1	1
Sand, fine, well sorted, oxidized	3	4
Clay, yellow brown, silty, oxidized (till)	13	17
Clay, olive gray, silty, pebbly (till)	28	45
Clay, brownish gray, interbedded sand, partially oxidized	9	54
Clay, dark olive gray to brownish gray, silty, sandy, pebbly (till)	10	64
Silt, brownish gray, clayey	13	77
Gravel, very coarse sand to fine gravel, angular to rounded	5	82
Clay, olive gray, silty, sandy, gravelly, cobbly, boundary, interbedded gravel (till)	66	148
Sand, very coarse sand to medium gravel, rounded,	6	154
Clay, brown, silty, interbedded fine gravel (fluvial)	40	194
Clay, olive gray, silty, sandy, pebbly	58	242
Gravel, very coarse sand to medium gravel, angular, interbedded silty clay	20	262
Clay, brownish gray, silty, boundary (till)	20	282
Claystone, brown		

Observation Well

CCC₁ - 6129 S.I. = 248' - 253'
CCC₂ - 6129A S.I. = 77' - 82'

133-61-11CDC
NDSWC 6130

Elevation: 1332.74
(ft, msl)

	Thickness	Depth
Topsoil	1	1
Sand, fine sand to medium gravel, angular to rounded, oxidized	73	74
Clay, olive gray, silty, cobbly (till)	28	102

Observation Well
S.I. = 59' - 64'

133-61-12AAD
NDSWC 11888

Elevation: 1306.3
(ft, msl)

	Thickness	Depth	Date Drilled: 6/21/82
Clay, dark gray to black, organic (Topsoil)	2	2	
Gravel, very fine to coarse pebble, sandy, subangular to subrounded, partially oxidized	16	18	
Gravel, very fine to medium pebble, sandy, subangular to rounded	48	66	
Clay, olive gray, silty, sandy, pebbly (till)	14	80	

Observation Well
S.I. = 31' - 36'

134-59-30CBB
NDSWC 6269

Elevation: 1393
(ft, msl)

Date Drilled: 8/24/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown to dark yellowish orange, very silty, pebbly, oxidized (till)	17	18
Silt, dark yellow orange, clayey, oxidized	5	23
Silt, olive gray, calyey	7	30
Sand, gravelly	2	32
Clay, olive gray, sandy, pebbly (till)	10	42
Sand, very coarse sand to very coarse gravel	2	44
Clay, olive gray, sandy, pebbly (till)	10	54
Silt, olive gray	10	64
Clay, brownish gray, very silty, interbedded sand and cobbles	85	149
Clay, dark olive gray, pebbly (till)	8	157
Shale, dark gray (Pierre Fm.)	25	183

134-59-31CBB
NDSWC 6242

Elevation: 1389.65
(ft, msl)

Date Drilled: 7/26/83
Thickness Depth

Topsoil	1	1
Silt, yellow brown, pebbly, oxidized (fluvial)	9	10
Clay, yellow brown, very silty, sandy, pebbly, oxidized (till)	7	17
Clay, olive gray, very silty, sandy, pebbly, interbedded gravel (till)	20	37
Sand, medium sand to gravel, angular to rounded	5	42
Silt, olive green, clayey	13	55
Clay, olive gray, silty, pebbly (till)	7	62
Silt, olive green, clayey	33	95
Clay, olive gray, silty, very pebbly interbedded gravel (till)	55	150
Sand, very fine	15	165
Sand, very coarse sand to fine gravel, angular to rounded, interbedded coarse gravel	22	184
Shale, dark gray (Pierre Fm.)	18	202

Observation Well
S.I. = 177' - 182'

134-59-31CCC
NDSWC 9208

Elevation: 1386.7
(ft, msl)

Date Drilled: 11/12/74
Thickness Depth

Topsoil, dusky yellow brown, silty loam	1	1
Silt, dark yellow brown, clayey, organic, oxidized	14	15
Clay, dark gray, very silty, pebbly, interbedded sand (till)	5	20
Silt, medium dark gray, clayey, interbedded coarse sand and gravel	14	34
Clay, dark gray, silty, sandy, pebbly, interbedded sand (till)	39	73
Silt, medium dark gray, clayey, interbedded gravel	53	126
Clay, dark gray to olive gray, silty, sandy, pebbly (till)	38	164
Sand, fine to very coarse, gravelly, angular to rounded	28	192
Gravel, fine to medium, sandy	4	196
Clay, gray to black (till)	14	210
Clay, dark gray, noncalcareous, bentonitic, organic inclusions (Pierre Fm.)	13	223
Clay, light olive gray, very calcareous (Niobrara Fm.)	17	240

Observation Well
S.I. = 178' - 184'

134-59-33BBB
NDSWC 11652

Elevation: 1401
(ft, msl)

Date Drilled: 8/18/81
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	19	19
Clay, olive gray, silty, sandy, pebbly (till)	1	20
Sand, very fine, silty	34	54
Gravel, sandy, cobbly, angular to rounded	4	58
Clay, greenish gray, silty	3	61
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	165	226
Shale, dark brown, calcareous, light gray specks (Niobrara Fm.)	14	240

134-60-02CCC
NDSWC 9213

Elevation: 1421
(ft, msl)

Date Drilled: 11/13/74
Thickness Depth

Topsoil, dark yellow brown, silty loam	1	1
Clay, moderate yellow brown, very silty, sandy, pebbly, oxidized (till)	15	16
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	4	20
Silt, dark gray, very clayey	27	47
Clay, dark gray, silty	2	49
Clay, dark olive gray, silty, sandy, pebbly (till)	2	51
Sand, fine to medium, very silty, subangular to rounded	19	70
Clay, dark olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	90	160
Clay, olive gray, interbedded gravel (till)	18	178
Clay, black (Pierre Fm.)	2	180
Clay, black, noncalcareous, bentonite (Pierre Fm.)	40	220

134-60-07BBB
NDSWC 9480

Elevation: 1412
(ft, msl)

Date Drilled: 10/27/75
Thickness Depth

Clay, moderate yellow brown, silty, sandy, pebbly, oxidized (till)	15	15
Sand, very fine to medium, subrounded to rounded	9	24
Clay, medium dark to olive gray, silty, sandy, pebbly, gravelly (till)	16	40
Sand, fine to very coarse, angular to subrounded	11	51
Clay, medium dark to olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	49	100
Sand, fine to very coarse, angular to subrounded	9	109
Clay, olive gray, silty, very sandy, pebbly, gravelly, (till)	89	195
Shale (Pierre Fm.)	5	200

134-60-07CCC
NDSWC 10941

Elevation: 1402
(ft, msl)

Date Drilled: 6/4/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	14	14
Sand, very fine to very coarse, gravelly, oxidized	10	24
Sand, very fine to very coarse, gravelly, unoxidized	6	30
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	73	103
Sand, gravelly, interbedded with till	11	114
Clay, olive gray, silty, sandy, pebbly (till)	2	116
Sand, gravelly	2	118
Clay, olive gray, silty, very sandy, pebbly, interbedded sand and gravel (till)	15	133
Clay, olive gray, silty, sandy, pebbly (till)	24	157
Clay, light gray, bouldery	22	179
Silt, very sandy, interbedded silty sand	221	400

134-60-08DCC
NDSWC 10943

Elevation: 1413
(ft, msl)

Date Drilled: 6/5/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	15	15
Clay, olive gray, silty, sandy, pebbly (till)	8	23
Clay, slightly silty sandy and pebbly (till)	9	32
Sand	1	33
Clay, olive gray, silty, sandy, pebbly (till)	12	45
Sand, very fine to very coarse, gravelly, subangular to rounded	7	52
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	101	153
Gravel, sandy	1	154
Clay, black, noncalcareous (Pierre Fm.)	26	180

134-60-16BBB
NDSWC 9817

Elevation: 1420
(ft, msl)

Date Drilled: 10/14/76
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, silty	3	4
Clay, silty, sandy, pebbly	13	17
Clay, olive gray, silty, sandy, pebbly	27	44
Clay, sandy	2	46
Clay, olive gray, silty, sandy, pebbly	65	111
Gravel, sandy	2	113
Clay, olive gray, silty, sandy, pebbly	43	156
Clay, black (Pierre Fm.)	24	180

134-60-16CCC
NDSWC 9818

Elevation: 1418.8
(ft, msl)

Date Drilled: 10/14/76
Thickness Depth

Silt, moderate yellow brown, silty	4	4
Clay, moderate yellow brown, silty, sandy, pebbly	17	21
Clay, dark yellow brown, silty, sandy, pebbly	5	26
Clay, olive gray, silty, sandy, pebbly	4	30
Sand, fine sand to medium pebble	5	35
Clay, olive gray, silty, sandy, pebbly	10	45
Gravel, sandy	2	47
Clay, olive gray, silty, sandy, pebbly	67	114
Gravel, sandy	2	116
Clay, olive gray, silty, sandy, pebbly	18	134
Sand, medium, gravelly	4	138
Clay, olive gray, silty, sandy, pebbly	24	162
Clay, olive gray, silty, sandy, pebbly	32	194
Clay, black	10	204
Sand, fine sand to medium pebble	19	223
Clay, black (Pierre Fm.)	17	240

Observation Well
S.I. = 212' - 215'

134-60-17ADD
NDSWC 6257

Elevation: 1423
(ft, msl)

Date Drilled: 8/15/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	20	21
Clay, olive gray, silty, sandy, pebbly (till)	87	108
Silt, olive gray, very clayey	4	112
Clay, olive gray, silty, sandy, pebbly (till)	21	133
Clay, gray to black	3	136
Clay, black, bentonite (Pierre Fm.)	46	182

134-60-18AAA
NDSWC 10942A

Elevation: 1415
(ft, msl)

Date Drilled: 6/5/79
Thickness Depth

Clay, pale yellow, brown, silty, sandy, pebbly, oxidized (till)	14	14
Clay, olive gray, silty, sandy, pebbly, (till)	16	30
Sand, very fine to very coarse, gravelly	3	33
Sand, very fine to very coarse, gravelly, interbedded clay	2	35
Clay, olive gray, silty, sandy, pebbly (till)	7	42
Sand, very fine to very coarse, very gravelly, angular to rounded	8	50
Clay, olive gray, silty, sandy, pebbly, cobbly (till)	147	197
Clay, black, noncalcareous (Pierre Fm.)	23	220

134-60-20ADD
NDSWC 6256

Elevation: 1396.19
(ft, msl)

Date Drilled: 8/11/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty	9	10
Clay, yellow brown, silty, pebbly (till)	10	20
Clay, olive gray, very silty, pebbly (till)	8	28
Sand, fine to coarse, gravelly, subrounded	18	46
Clay, brownish gray, very silty and sandy, interbedded sand (till)	3	49
Clay, dark gray, pebbly	21	70
Clay, olive green to olive gray, silty, sandy (till)	22	92
Silt, greenish gray, clayey	39	131
Clay, brownish gray, silty, sandy, bouldery, interbedded gravel (till)	71	202
Shale, dark gray, bentonite (shove block)	20	222
Clay, brown, silty, very bouldery (till)	18	240
Gravel, fine to medium subangular	2	242
Clay, olive green, sandy, cobbly, bouldery, interbedded sand (till)	33	275
Clay, brown, silty, sandy	36	311
Sand, coarse sand to medium gravel, angular to rounded	14	325
Shale, yellowish orange, very calcareous, oxidized	27	352

Observation Well
S.I. = 317' - 322'

134-60-22AAA
NDSWC 6264

Elevation: 1410
(ft, msl)

Date Drilled: 8/19/83
Thickness Depth

Sand, very fine to very coarse, silty, oxidized	8	8
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	7	15
Clay, olive gray, silty, sandy, pebbly (till)	11	26
Clay, greenish gray silty, interbedded clayey silt	8	34
Sand, very fine to very coarse, very gravelly, subangular to rounded	8	42
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	124	166
Clay, black, noncalcareous, interbedded dolomite (Pierre Fm.)	26	202

134-60-23CBB
NDSWC 6265

Elevation: 1410
(ft, msl)

Date Drilled: 8/22/83
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	8	8
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	334	342
Clay, dark brown, silty	45	387
Clay, medium brown, calcareous, light gray specks (Niobrara Fm.)	15	402

134-60-24AAA
NDSWC 11281

Elevation: 1405
(ft, msl)

Date Drilled: 7/10/80
Thickness Depth

Topsoil	1	1
Clay, dark yellowish brown, silty, sandy, oxidized, interbedded coarse sand (till)	11	12
Clay, olive black interbedded silt, sand, and gravel (till)	173	185
Clay, olive black	16	201
Sand, gravelly, interbedded clay	55	256
Clay, olive black, very calcareous (Niobrara Fm.)	4	260

134-60-25DDD
NDSWC 6243

Elevation: 1392.86
(ft, msl)

Date Drilled: 7/25/83
Thickness Depth

Topsoil, gravelly	1	1
Silt, yellow brown, to dark yellowish orange, oxidized	9	10
Clay, yellow brown, very silty, pebbly, oxidized (till)	5	15
Clay, olive gray, very silty, slightly pebbly (till)	15	30
Clay, olive gray, very silty, pebbly (till)	8	38
Sand	4	42
Silt, olive gray, clayey, interbedded sand	51	93
Clay, olive gray, very silty, very pebbly, interbedded sand	62	155
Gravel, very coarse sand to medium gravel, angular to rounded	58	213
Shale, dark brown to black, carbonaceous, pyrite, bentonitic	29	242

Observation Well
S.I. = 200' - 205'

134-60-26BBB
NDSWC 9815

Elevation: 1419.4
(ft, msl)

Date Drilled: 10/13/76
Thickness Depth

Topsoil	1	1
Sand, moderate yellow brown, very fine to fine	7	8
Clay, moderate yellow brown, slightly silty and sandy	4	12
Clay, moderate yellow brown, slightly silty, sandy, pebbly	5	17
Clay, dusky yellow brown, slightly silty, sandy, pebbly	2	19
Clay, olive gray, slightly silty, sandy, pebbly	16	35
Gravel, fine sand to medium pebble	2	37
Clay, dark olive gray, slightly silty, sandy	14	51
Sand, fine sand to medium pebble	10	61
Clay, olive gray, silty, very sandy, pebbly	28	89
Clay, olive gray, slightly silty, sandy, pebbly	85	174
Gravel, fine sand to medium pebble	2	176
Clay, olive gray, silty, sandy	6	182
Sand, gravelly, interbedded clay	10	192
Sand, very fine sand to fine pebble	18	210
Gravel, fine sand to medium pebble	24	234
Clay, black	17	251
Clay, brown, calcareous, white specks (Niobrara Fm.)	9	260

Observation Well
S.I. = 218' - 221'

134-60-26CBB
NDSWC 6266

Elevation: 1412.4
(ft, msl)

Date Drilled: 8/23/83
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly (till)	18	18
Clay, olive gray, silty, sandy, pebbly (till)	10	28
Clay, greenish gray, silty, interbedded clayey silt	8	36
Clay, olive gray, silty, sandy, pebbly (till)	7	43
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	20	63
Silt, greenish gray, clayey, interbedded clay	27	90
Clay, olive gray, silty, sandy, pebbly (till)	82	172
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	5	177
Gravel, coarse, sandy, subangular to rounded, interbedded cobbles	57	234
Clay, medium brown calcareous, light gray specks (Niobrara Fm.)	28	262

Observation Well
S.I. = 225' - 230'

134-60-26DCC
NDSWC 9816

Elevation: 1405.8
(ft, msl)

Date Drilled: 10/13/76
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, silty, slightly sandy	4	5
Clay, moderate yellow brown, silty, sandy, slightly pebbly (till)	16	21
Clay, dusky yellow brown, silty, sandy, slightly pebbly (till)	2	23
Clay, olive gray, silty, sandy, slightly pebbly (till)	1	24
Gravel, coarse sand to medium pebble	2	26
Clay, olive gray, slightly silty, sandy, pebbly (till)	52	78
Sand, fine sand to medium pebble	2	80
Silt, olive gray, clayey, sandy	14	94
Clay, olive gray, silty	12	106
Clay, olive gray, silty, sandy, slightly pebbly	4	110
Gravel, sandy, interbedded clay	3	113
Clay, olive gray, silty, sandy, slightly pebbly	60	173
Gravel, fine sand to coarse pebble	14	187
Clay	2	189
Gravel, fine sand to fine pebble	19	208
Gravel, fine sand to medium pebble	15	223
Boulder	2	225
Clay, black, bentonitic (Pierre Fm.)	11	236
Clay, moderate brown, white specks (Niobrara Fm.)	4	240

Observation Well
S.I. = 198'- 201'

134-60-28AAA
NDSWC 11282

Elevation: 1417
(ft, msl)

Date Drilled: 7/10/80
Thickness Depth

Topsoil, sandy	7	7
Clay, moderate yellow brown, silty, gravelly, oxidized (till)	10	17
Clay, dark gray to olive black, very silty, sandy, gravelly, bouldery, interbedded sand (till)	228	245
Clay, olive black, calcareous (Niobrara Fm.)	15	260

134-60-28ADD
NDSWC 11283

Elevation: 1412.5
(ft, msl)

Date Drilled: 7/11/80
Thickness Depth

Topsoil	1	1
Clay, dark yellowish brown, very silty, sandy, gravelly, oxidized (till)	17	18
Clay, olive black to olive gray, very silty, sandy, gravelly, interbedded sand (till)	148	176
Sand, very fine to very coarse, subrounded	29	205
Clay, olive gray to olive black, silty, sandy, gravelly, interbedded sand and gravel	32	247
Clay, black (Pierre Fm.)	2	249
Clay, olive gray to olive black (Niobrara Fm.)	11	260

Observation Well
S.I. = 178' - 181'

134-60-29AAA
NDSWC 11281

Elevation: 1402.5
(ft, msl)

Date Drilled: 7/10/80
Thickness Depth

Sand and clay, sand, coarse, with 60% quartz and 40% silicates and carbonates, yellow brown, oxidized	12	12
Clay, silty, sandy, pebbly, olive gray, with interlayered silt, sand and gravel at 58' to 65', 70' to 80', 152' to 156' (till)	173	185
Clay, olive black, cohesive (Pierre Formation shove block)	16	201
Sand and gravel, lots of detrital shale, carbonates, shield silicates and quartz, clay layers at 234', 245', and 256' (Spiritwood aquifer)	55	256
Clay, olive black, with white stringers, very calcareous (Niobrara Formation)	4	260

134-60-29BBB
NDSWC 11280

Elevation: 1378.4
(ft, msl)

Date Drilled: 7/9/80
Thickness Depth

Topsoil, moderate yellowish brown	1	1
Clay, moderate yellowish brown, silty, sandy, gravelly (till)	12	13
Clay, olive gray, silty, sandy, gravelly, interbedded, sand and gravel (till)	140	153
Sand, very fine to coarse, subrounded, interbedded clay	274	427

Observation Well
S.I. = 278'- 281'

134-60-29DDD
NDSWC 6254

Elevation: 1404.66
(ft, msl)

Date Drilled: 8/5/83
Thickness Depth

Topsoil	1	1
Clay, dark yellow green, silty, oxidized	6	7
Clay, yellow brown, silty, pebbly, oxidized, interbedded gravel (till)	12	19
Clay, olive gray silty, pebbly (till)	4	23
Silt	4	27
Sand, fine to coarse, angular to rounded	10	37
Clay, olive gray, silty, pebbly, interbedded, sand and gravel	35	72
Sand, coarse sand to fine gravel, angular to rounded	6	78
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	68	146
Clay, olive gray, silty, sandy, very pebbly (till)	22	168
Silt, olive gray, interbedded clay and sandy clay	12	180
Sand, coarse sand to medium gravel, angular to rounded, interbedded coarse gravel	20	200
Gravel, fine to coarse, rounded	27	227
Clay, sandy	5	232
Clay, brownish gray, silty, pebbly	5	237
Shale, brown (Niobrara Fm.)	25	262

Observation Well
S.I. = 207' - 212'

134-60-29DAA
NDSWC 6255

Elevation: 1410.17
(ft, msl)

Date Drilled: 8/8/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, slightly pebbly (till)	23	24
Sand, fine to coarse, rounded, oxidized	6	30
Clay, olive gray, silty, pebbly, bouldery, interbedded sand and gravel (till)	156	186
Gravel, very coarse sand to medium gravel, rounded, interbedded clay	78	264
Shale, brownish gray (Niobrara Fm.)	28	292

Observation Well
S.I. = 217'- 222'

134-60-30BBB
NDSWC 6260

Elevation: 1411.99
(ft, msl)

Date Drilled: 8/16/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, oxidized	14	15
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	9	24
Sand, medium to coarse, gravelly, subrounded to rounded, oxidized	15	39
Clay, olive gray, silty, sandy, pebbly (till)	2	41
Sand, medium to coarse, rounded	3	44
Clay, olive gray, silty, sandy, pebbly (till)	11	55
Gravel, fine to medium, sandy, subrounded to rounded	8	63
Clay, olive gray, silty, sandy, pebbly (till)	146	209
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	4	213
Clay (till)	5	218
Sand, medium to coarse, gravelly, subrounded to rounded	20	238
Clay, olive gray to brown, silty (bedrock)	34	272

Observation Well
S.I. = 230'- 235'

134-60-30CBB
NDSWC 6261

Elevation: 1401.74
(ft, msl)

Date Drilled: 8/17/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	9	10
Clay, olive gray, silty, sandy, pebbly (till)	6	16
Silt, sandy	2	18
Clay, olive gray, silty, sandy, pebbly (till)	3	21
Sand, medium to coarse, subrounded to rounded, partially oxidized	7	28
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	115	143
Clay, olive gray to brown, silty, sandy	9	152
Clay, olive gray, silty, very sandy, pebbly, interbedded gravel (till)	7	159
Clay, gray to black, bouldery	38	197
Gravel, fine to medium sandy, subrounded to rounded	15	212
Clay, black, noncalcareous (Pierre Fm.)	30	242

Observation Well
S.I. = 205' - 210'

134-60-32DDD
NDSWC 9206

Elevation: 1405.8
(ft, msl)

Date Drilled: 11/7/74
Thickness Depth

Topsoil, brown to black, silty loam	1	1
Clay, dark yellow brown, silty, sandy, pebbly, oxidized (till)	26	27
Sand, fine to coarse, gravelly, subangular to rounded, oxidized	11	38
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	22	60
Sand, fine to coarse, subangular to rounded	12	72
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	30	102
Sand, fine to very coarse, angular to subrounded	7	109
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	69	178
Sand, medium to very coarse, very gravelly, angular to subrounded	62	240
Boulders	6	246
Clay, dark gray, silty, sandy, pebbly (till)	14	260
Shale, light olive gray, very calcareous (Niobrara Fm.)	40	300

Observation Well
S.I. = 218' - 224'

134-60-33BCC
NDSWC 6253

Elevation: 1404.63
(ft, msl)

Date Drilled: 8/3/83
Thickness Depth

Topsoil	1	1
Silt, yellow brown, oxidized	7	8
Clay, yellow brown, very silty, pebbly, oxidized (till)	11	19
Sand, fine to coarse, subangular	7	26
Clay, olive gray, silty, pebbly, interbedded sand and gravel (till)	125	151
Clay, dark olive gray, silty, sandy, pebbly, interbedded gravel (till)	28	179
Sand, coarse to very coarse, gravelly, interbedded clay and very coarse gravel	60	239
Shale, brown (Niobrara Fm.)	13	252

Observation Well
S.I. = 217' - 222'

134-60-35BBB
NDSWC 6267

Elevation: 1405.61
(ft, msl)

Date Drilled: 8/23/83
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	12	12
Clay, olive gray, silty, sandy, pebbly (till)	20	32
Sand, very fine to very coarse, gravelly, angular to rounded	7	39
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	23	62
Silt, greenish gray, clayey, sandy	15	77
Sand, very fine to very coarse, gravelly, subangular to rounded	11	83
Clay, olive gray, silty, sandy, pebbly (till)	104	187
Sand, very fine to very coarse, gravelly, subangular to rounded	9	196
Boulder	1	197
Clay (till)	5	212
Cobbles	2	214
Clay, black, noncalcareous (Pierre Fm.)	28	242

Observation Well
S.I. = 190' - 195'

134-60-35CBB₁ & 2

NDSWC 6268 & 6268A

Elevation: 1400.17(CBB₁), 1399.97(CBB₂)
(ft, msl)

Date Drilled: 8/23/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown to dark yellow orange, very silty, slightly sandy and pebbly, oxidized (till)	16	17
Clay, olive gray, silty, slightly pebbly (till)	9	26
Sand, fine grained, well sorted, subangular, interbedded silt	10	36
Clay, olive gray, silty, sandy (fluvial)	13	49
Sand, fine to very coarse, rounded, interbedded silt and gravel	26	75
Clay, olive gray, silty, sandy, pebbly, interbedded silt (till)	9	84
Gravel, fine, rounded	6	90
Clay, brownish gray, silty, pebbly (till)	85	175
Clay, olive gray, silty (fluvial)	8	183
Sand, fine	7	190
Sand, coarse sand to fine gravel, angular to rounded, interbedded coarse gravel	13	203
Clay, silty	6	209
Sand, gravelly	4	213
Clay	5	218
Gravel, coarse, bouldery	5	223
Shale, brownish gray, white specks (Niobrara Fm.)	30	253

Observation Well

CBB₁ - 6268 S.I. = 195' - 200'
CBB₂ - 6268A S.I. = 65' - 70'

134-60-35CCC
NDSWC 9207

Elevation: 1397.0
(ft, msl)

Date Drilled: 11/7/74
Thickness Depth

Topsoil, dark yellow brown, sandy loam	1	1
Clay, moderate yellow brown, silty, sandy, pebbly, interbedded sand (till)	12	13
Clay, dark gray	19	32
Gravel, fine to very coarse, very sandy, angular to subrounded	23	55
Silt, medium dark gray, clayey	7	62
Clay, dark gray, very silty, sandy, slightly pebbly, interbedded sand and gravel	20	82
Clay, dark gray, silty, sandy, pebbly, interbedded gravel (till)	92	174
Clay, medium dark gray, silty, sandy, pebbly, interbedded gravel (till)	12	186
Clay, dark gray to black, calcareous, laminated	28	214
Sand, medium to very coarse, very gravelly, angular to subrounded	26	240
Gravel, fine to medium, sandy, angular to subrounded	32	272
Clay, dark gray, silty, sandy, pebbly	8	280
Gravel, fine to medium, sandy, angular to subrounded	24	304
Shale, light olive gray, very calcareous, white specks (Niobrara Fm.)	16	320

Observation Well
S.I. = 255' - 261'

134-60-36CBB2
NDSWC 9821

Elevation: 1394.7
(ft, msl)

Date Drilled: 10/19/76
Thickness Depth

Topsoil	1	1
Gravel, fine sand to medium pebble	4	5
Clay, medium yellow brown, silty, sandy, slightly pebbly	3	8
Clay, olive gray, silty, sandy, slightly pebbly	11	19
Clay, olive gray, silty	7	26
Clay, olive gray, silty, sandy, slightly pebbly	13	39
Sand, fine sand to medium pebble	9	48
Clay, olive gray, silty, sandy, slightly pebbly	7	55
Gravel, fine sand to coarse pebble	4	59
Sand, slightly clayey, silty	13	72
Clay, brownish gray, silty	10	82
Clay, olive gray, silty, sandy, pebbly	94	176
Gravel, fine sand to medium pebble, subangular to rounded	29	205
Clay, silty	5	210
Gravel, sandy	14	224
Clay, brown, white specks (Niobrara Fm.)	16	240

Observation Well
S.I. = 216' - 219'
(Destroyed)

134-60-36CBB
NDSWC 9820

Elevation: 1395
(ft, msl)

Date Drilled: 10/19/76
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, silty, sandy, slightly pebbly	15	16
Clay, olive gray, silty, sandy, slightly pebbly	25	41
Sand, fine sand to medium pebble	5	46
Clay, dusky brown, slightly silty, sandy, slightly pebbly	18	64
Gravel, medium sand to coarse pebble	5	69
Clay, olive gray, silty, sandy, pebbly	16	85
Clay, brownish gray, silty	3	88
Clay, olive gray, silty, sandy, pebbly	38	110
Gravel, fine sand to medium pebble	6	116
Clay, olive gray, slightly silty, slightly sandy, pebbly	53	169
Gravel, fine sand to medium pebble	53	222
Clay, black, bentonite (Pierre Fm.)	3	225
Clay, brown, white specks (Niobrara Fm.)	15	240

Observation Well
S.I. = 212' - 215'
(Destroyed)

134-60-36CBC
NDSWC 9819

Elevation: 1395
(ft, msl)

Date Drilled: 10/15/76
Thickness Depth

Topsoil	1	1
Clay, moderate yellow brown, silty, sandy, pebbly	13	14
Clay, olive gray, silty, sandy, pebbly	7	21
Clay, olive gray, silty	8	29
Sand, fine to coarse	3	32
Clay, olive gray, silty, sandy, pebbly	36	68
Gravel, fine sand to medium pebble	13	81
Clay, grayish brown, silty	11	92
Sand, fine to very coarse	4	96
Clay, olive gray, silty, sandy, pebbly	74	170
Gravel, fine sand to medium pebble	51	221
Boulder	1	222

Observation Well
S.I. = 212'- 215'
(Destroyed)

134-61-03AAA
NDSWC 6207

Elevation: 1435
(ft, msl)

Date Drilled: 6/29/83
Thickness Depth

Clay, yellow brown, silty, pebbly, oxidized (till)	15	15
Sand, medium, well sorted, angular, interbedded gravel	5	20
Clay, olive gray, silty, pebbly, interbedded gravel (till)	103	123
Clay, silty	7	130
Silt, olive gray, clayey, interbedded sand	13	143
Sand, fine, well sorted, subangular, interbedded silt and clay	22	165
Clay, olive gray, silty, pebbly (till)	12	177
Silt, olive gray, clayey	6	183
Gravel, fine to very coarse, rounded	3	186
Clay, olive gray, silty, pebbly (till)	11	197
Shale, dark brown to black, carbonaceous	16	213

134-61-03DDD
NDSWC 9479

Elevation: 1423
(ft, msl)

Date Drilled: 10/15/75
Thickness Depth

Clay, moderate yellow brown, silty, sandy, pebbly, oxidized (till)	20	20
Clay, medium dark to olive gray, silty, sandy, pebbly (till)	4	24
Sand, very fine to coarse, subangular to rounded	4	28
Clay, olive gray, silty, sandy, pebbly, gravelly (till)	184	212
Sand, fine to very coarse, gravelly, angular to subrounded	8	220
Clay, olive gray, silty, very sandy, pebbly (till)	24	244
Sand, gravelly	4	248
Clay, olive gray, silty, very sandy, pebbly (till)	20	268
Gravel, sandy	7	275
Shale, black, noncalcareous, (Pierre Fm.)	5	280

134-61-04AAA
NDSWC 6113

Elevation: 1430.78
(ft, msl)

Date Drilled: 8/27/82
Thickness Drilled

Topsoil	1	1
Sand, fine to coarse, oxidized	11	12
Clay, yellow brown, silty, pebbly, oxidized (till)	13	25
Clay, olive gray, silty (till)	3	28
Sand, fine sand to fine gravel, subrounded, clayey	6	34
Clay, olive gray, silty (till)	10	44
Clay, olive gray, very silty (till)	10	54
Clay, dark yellow orange, sandy, pebbly, oxidized (till)	1	55
Clay, olive gray, sandy, pebbly, cobbly (till)	18	73
Silt, medium to olive gray, clayey	8	81
Clay, olive gray, sandy, pebbly, cobbly (till)	8	89
No sample	16	105
Cobbles	1	106
Clay, poor sample	9	115
Clay, brownish gray, silty, pebbly, cobbly, interbedded silt (till)	55	170
Clay, brownish gray, silty, sandy, gravelly, bouldery (till)	36	206
Gravel, very coarse sand to fine gravel, rounded, bouldery, interbedded sandy clay	14	220
Clay, medium gray, sandy, slightly pebbly, very calcareous (till)	27	247
Sand, very coarse sand to fine gravel, angular to rounded	28	275
Shale, dark gray, noncalcareous	7	282

Observation Well
S.I. = 263' - 266'

134-61-04BAB
NDSWC 6115

Elevation: 1312.81
(ft, msl)

Date Drilled: 8/30/82
Thickness Depth

Topsoil	1	1
Silt, dark brown, slightly clayey, organic	9	10
Silt, yellow brown, slightly clayey, oxidized	8	18
Sand, coarse to very coarse, rounded	2	20
Silt, olive gray	2	22
Sand, coarse to very coarse, rounded	4	26
Silt, olive gray, slightly clayey	11	37
Clay, olive gray (lacustrine)	8	45
Clay, olive gray, very silty, interbedded clayey silt	10	55
Clay, medium to olive gray, sandy, pebbly, oxidized 55'- 57' (till)	21	76
Clay, medium to dark gray, pebbly (till)	12	88
Gravel, very coarse sand to coarse gravel, subrounded to rounded	32	120

Observation Well
S.I. = 20' - 25'

134-61-04DDD
NDSWC 10944

Elevation: 1435.7
(ft, msl)

Date Drilled: 6/5/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly (till)	24	24
Sand, very fine to very coarse, gravelly, angular to rounded, oxidized	14	38
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel	195	233
Sand, very fine to very coarse, very gravelly	35	268
Clay, light to medium dark gray, noncalcareous (Pierre Fm.)	12	280

Observation Well
S.I. = 256' - 259'

134-61-05AAB
NDSWC 6110

Elevation: 1318.0
(ft, msl)

Date Drilled: 8/25/82
Thickness Depth

Topsoil	1	1
Gravel, very coarse sand to very coarse gravel, angular to rounded, oxidized	39	40
Sand, very coarse, angular to rounded, interbedded coarse gravel	13	53
Clay, olive gray, silty (till)	9	62

Observation Well
S.I. = 43'- 48'

134-61-05DCD
NDSWC 6206

Elevation: 1320
(ft, msl)

Date Drilled: 6/28/83
Thickness Depth

Gravel, very coarse sand to very coarse gravel, oxidized	22	22
Clay, olive gray (till)	1	23
Gravel, very coarse sand to very coarse gravel	2	25
Clay, olive gray, silty, pebbly, bouldery (till)	105	130
Shale, dark brown, very carbonaceous, pyritic	13	143

134-61-06CBB
NDSWC 11278

Elevation: 1441.5
(ft, msl)

Date Drilled: 7/8/80
Thickness Depth

Topsoil	2	2
Clay, dark yellowish brown, silty, interbedded sand and gravel, oxidized (till)	24	26
Clay, olive black, interbedded sand and gravel (till)	58	84
Clay, olive black to olive gray, interbedded sand and gravel	158	242
Sand, coarse, gravelly	32	274
Shale, black, noncalcareous (Pierre Fm.)	6	280

Observation Well
S.I. = 268' - 271'

134-61-07DCD
NDSWC 6117

Elevation: 1431
(ft, msl)

Date Drilled: 8/31/82
Thickness Depth

Clay, dark brown, silty	5	5
Clay, yellow brown to dark yellowish orange, silty, pebbly (till)	18	23
Clay, olive gray, silty, pebbly (till)	22	45
Sand, very coarse sand to fine gravel, subrounded, interbedded clay	5	50
Clay, olive gray to gray, silty, pebbly (till)	10	60
Silt, olive gray, interbedded coarse sand and fine gravel	20	80
Clay, medium gray to olive gray, silty, interbedded gravel (till)	74	154
Clay, olive gray, silty, pebbly (till)	128	282
Shale, gray to brownish gray	10	292

134-61-08DBA
NDSWC 6119

Elevation: 1308.93
(ft, msl)

Date Drilled: 8/3/82
Thickness Depth

Topsoil	1	1
Silt, brown, clayey	4	5
Sand, medium to coarse, rounded, oxidized	14	19
Clay, poor sample	3	22
Gravel, very coarse sand to coarse gravel, angular to rounded	15	37
Clay, olive gray, silty, pebbly	15	52

Observation Well
S.I. = 30' - 35'

134-61-10CBB
NDSWC 6208

Elevation: 1413.54
(ft, msl)

Date Drilled: 6/29/83
Thickness Depth

Clay, yellow brown, silty, pebbly (till)	25	25
Gravel, fine to coarse, oxidized	8	33
Clay, olive gray, silty, pebbly	54	87
Gravel	2	89
Clay, greenish gray, silty (till)	89	178
Clay, medium gray, silty, sandy, pebbly (till)	50	228
Gravel, fine to coarse, angular to rounded	16	244
Shale, dark gray		

Observation Well
S.I. = 237' - 242'

134-61-11AAA
NDSWC 10937

Elevation: 1411.2
(ft, msl)

Date Drilled: 5/24/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	23	23
Sand, very fine to very coarse, subangular to rounded	14	37
Clay, olive gray, silty, sandy, pebbly (till)	1	38
Sand, very fine to very coarse, gravelly, subangular to rounded	5	43
Clay, olive gray, silty, sandy, pebbly (till)	4	47
Sand, very fine to very coarse, gravelly, subangular to rounded	5	52
Clay, olive gray, silty, sandy, pebbly (till)	4	56
Sand, very fine to very coarse, gravelly, subangular to rounded	8	64
Clay, olive gray, silty, sandy, pebbly (till)	43	107
Sand, very fine to very coarse, gravelly, interbedded till	11	128
Sand, gravelly, angular to rounded	31	159
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	60	219
Clay, light greenish gray to gray brown, silty	40	259
Clay, black to brown, slightly silty, noncalcareous (Pierre Fm.)	21	280

Observation Well
S.I. = 148' - 151'

134-61-13DAD
NDSWC 6259

Elevation: 1413.79
(ft, msl)

Date Drilled: 8/16/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, very sandy, interbedded clay and sand, oxidized (till)	21	22
Sand, medium to coarse, gravelly, rounded to subrounded, oxidized	17	39
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	35	64
Sand, gravelly, subrounded to rounded	8	72
Clay, olive gray, silty, sandy, pebbly, interbedded silt and sand (till)	40	112
Sand, fine to medium, clayey and very silty, rounded	10	122
Sand, fine to medium, clayey and very silty, rounded	5	137
Gravel, fine, sandy, subrounded to rounded	23	160
Gravel, sandy, rounded, interbedded clay	119	279
Clay, brownish black, slightly silty, bentonitic	33	312

Observation Well
S.I. = 257' - 262'

134-61-14AAA
NDSWC 10938

Elevation: 1425
(ft, msl)

Date Drilled: 5/23/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	18	18
Sand, very fine to very coarse, gravelly	18	36
Clay, olive gray, silty, sandy, pebbly (till)	14	50
Sand, very fine to very coarse, interbedded till	16	66
Clay, olive gray, silty, sandy, pebbly (till)	7	73
Sand, very fine to very coarse, gravelly, subangular to rounded	5	78
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	262	340

134-61-14DDD
NDSWC 10939

Elevation: 1420.0
(ft, msl)

Date Drilled: 5/25/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	21	21
Sand, very fine to very coarse, gravelly, subangular to rounded	12	33
Clay, olive gray, silty, sandy, pebbly (till)	16	49
Sand, very fine to very coarse, gravelly, subangular to rounded	11	60
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	155	225
Sand, very fine to very coarse, very gravelly, subangular to rounded, interbedded clay	50	275
Clay, black, noncalcareous (Pierre Fm.)	5	280

Observation Well
S.I. = 258' - 261'

134-61-15CCD
NDSWC 6123

Elevation: 1319.27
(ft, msl)

Date Drilled: 9/2/82
Thickness Depth

Topsoil	1	1
Gravel, very coarse sand to cobbles, angular to rounded	22	23
Sand, coarse to very coarse, rounded	10	33
Sand, fine to medium, rounded, clayey	9	42
Clay, olive gray, very sandy	11	53
Clay, olive gray, silty, sandy (till)	29	82

Observation Well
S.I. = 25' - 30'

134-61-16ABA
NDSWC 6118

Elevation: 1310
(ft, msl)

Date Drilled: 8/21/82
Thickness Depth

Topsoil	1	1
Clay, dark brown, silty	4	5
Clay, yellow brown, silty, oxidized	3	8
Clay, yellow brown, interbedded gravel, oxidized	22	30
Clay, olive gray, silty, pebbly (till)	12	42
Gravel, very coarse sand to fine gravel, rounded	2	44
Clay, olive gray, silty, pebbly	5	49
Clay, medium gray, slightly silty, pebbly (till)		62

134-61-16BCB
NDSWC 6204

Elevation: 1314
(ft, msl)

Date Drilled: 6/29/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown, oxidized	9	10
Gravel, fine to coarse pebble, oxidized	34	44
Clay, olive gray, silty, sandy, pebbly (till)	19	63

134-61-16DDD
NDSWC 9477

Elevation: 1316
(ft, msl)

Date Drilled: 10/14/75
Thickness Depth

Gravel, fine to coarse, sandy, angular to subrounded	70	70
Clay, medium dark to olive gray, silty, very sandy, pebbly (till)	78	148
Shale, brownish black to black, noncalcareous, (Pierre Fm.)	12	160

Observation Well
S.I. = 64' - 67'

134-61-18CCC
NDSWC 9582

Elevation: 1440
(ft, msl)

Date Drilled: 6/7/76
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	44	44
Clay, olive gray, silty, sandy, pebbly (till)	30	74
Sand, very fine to fine, silty, grading into coarse sand and gravel subangular to rounded	18	92
Clay, olive gray, silty, sandy, pebbly, interbedded gravel (till)	198	290
Shale, medium gray, very calcareous (Niobrara Fm.)	10	300

134-61-20BBB
NDSWC 6121

Elevation: 1429
(ft, msl)

Date Drilled: 9/1/82
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, slightly pebbly, oxidized (till)	29	30
Clay, olive gray, silty, slightly pebbly, interbedded gravel (till)	27	57
Clay, yellow brown, sandy, pebbly, oxidized (till)	2	59
Clay, olive gray, silty, slightly pebbly (till)	3	62
Clay, olive gray, very sandy (till)	8	70
Sand, fine to medium, clayey, interbedded silt and cobbles	21	91
Silt, olive gray, clayey, interbedded sand and gravel	4	95
Clay, olive gray, very sandy, interbedded gravel	30	125
Clay, olive gray, sandy, pebbly, gravelly, interbedded silt, sand, and gravel (till)	55	180
Clay, olive gray, pebbly, cobbly (till)	62	242
Clay, gray to dark brownish gray, slightly silty, pebbly	46	288
Shale, brownish gray	14	302

134-61-20DDA
NDSWC 6120

Elevation: 1341.56
(ft, msl)

Date Drilled: 8/30/82
Thickness Depth

topsoil	1	1
Clay, brown, very silty	3	4
Silt, yellow brown, very clayey, oxidized	14	18
Sand, fine to coarse, angular to rounded, interbedded clay and silt, oxidized	12	30
Gravel, very coarse sand to coarse gravel, subrounded to rounded, oxidized	58	88
Clay, olive gray, silty, very sandy (till)	14	102

Observation Well
S.I. = 73' - 78'

134-61-21BBB
NDSWC 9478

Elevation: 1324
(ft, msl)

Date Drilled: 10/14/75
Thickness Depth

Sand, fine to very coarse, gravelly, angular to subrounded	18	18
Gravel, fine to coarse, sandy	5	23
Clay, medium dark to olive gray (till)	17	40

Observation Well
S.I. = 17' - 20'

134-61-21DAA
NDSWC 9476

Elevation: 1317.4
(ft, msl)

Date Drilled: 10/14/75
Thickness Depth

Gravel, fine to coarse, sandy, angular to subrounded	55	55
Clay, medium dark to olive gray, silty, very sandy, pebbly (till)	25	80

Observation Well
S.I. = 47' - 50'

134-61-23CCC
NDSWC 6124

Elevation: 1314.43
(ft, msl)

Date Drilled: 9/2/82
Thickness Depth

Topsoil	1	1
Sand, very coarse sand to coarse gravel, angular to rounded, graded bedding	57	58
Clay, poor sample	4	62
Sand, coarse sand to fine gravel, rounded, interbedded clay	8	70
Gravel, very coarse sand to coarse gravel, rounded	4	74
Cobbles	2	76
Clay, olive gray, silty, pebbly (till)	26	102

Observation Well
S.I. = 48' - 53'

134-61-23DCB
NDSWC 6125

Elevation: 1308
(ft, msl)

Date Drilled: 9/2/82
Thickness Depth

Topsoil	1	1
Sand, very fine, well sorted, subangular, clayey	13	14
Silt, brown, very clayey	8	22
Sand, very fine, well sorted, subangular, clayey	7	29
Silt, brown to gray, clayey	8	37
Clay, medium gray, silty, pebbly (till)	25	62

134-61-24DAA
NDSWC 6258

Elevation: 1414.08
(ft, msl)

Date Drilled: 8/15/83
Thickness Depth

Topsoil	1	1
Silt, very sandy, oxidized	7	8
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	8	16
Sand, medium to coarse, subrounded to rounded, oxidized	11	27
Clay, olive gray, silty	2	29
Sand, medium to coarse, gravelly, subrounded to rounded	7	36
Clay, olive gray, silty, sandy, pebbly (till)	10	46
Clay, very silty, sandy	11	57
Clay, olive gray, sandy, pebbly, interbedded sand and gravel (till)	37	94
Clay, olive gray, very silty, interbedded sand and gravel	13	107
Clay, olive gray, very sandy, pebbly, interbedded silt (till)	52	159
Clay, gray to black	44	203
Gravel, medium to coarse, subrounded to rounded	24	227
Sand, medium to coarse, gravelly, subrounded to rounded	17	244
Clay, gray to black, bentonitic (bedrock)	38	282

Observation Well
S.I. = 217' - 222'

134-61-24DCC
NDSWC 10940

Elevation: 1412.2
(ft, msl)

Date Drilled: 5/28/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, interbedded sand and gravel, oxidized (till)	20	20
Sand, very fine to very coarse, subangular to rounded, oxidized	7	27
Clay, yellow brown, silty, sandy, pebbly, interbedded sand, oxidized (till)	4	31
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	155	186
Sand, very fine to very coarse, gravelly, subangular to rounded	7	193
Clay, olive gray, silty, sandy, pebbly (till)	25	218
Cobbles	2	220
Sand, very fine to very coarse, gravelly, subangular to rounded	22	242
Clay, light to medium dark gray, calcareous, light gray specks (Niobrara Fm.)		

Observation Well
S.I. = 228'- 231'

134-61-25BBB
NDSWC 6126

Elevation: 1311.48
(ft, msl)

Date Drilled: 9/2/82
Thickness Depth

Topsoil	4	4
Gravel, very coarse sand to coarse gravel, rounded, oxidized, interbedded clay and silt	18	22
Sand, coarse to very coarse, rounded	30	52
Gravel, fine to medium, sandy, interbedded, clay	25	77
Clay, olive gray, pebbly (till)	25	102

Observation Well
S.I. = 58'- 63'

134-61-25DDD
NDSWC 6262

Elevation: 1409.55
(ft, msl)

Date Drilled: 8/18/83
Thickness Depth

Clay, pale yellow brown, silty, slightly sandy, oxidized	8	8
Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	8	16
Sand, very fine to very coarse, oxidized	17	33
Clay, olive gray, silty, sandy, pebbly, interbedded sand (till)	151	184
Sand, very fine to very coarse, gravelly, cobbly, subangular to rounded	36	220
Clay, black, noncalcareous (Pierre Fm.)	17	237
Clay, medium brown, calcareous, light gray specks (Niobrara Fm.)	15	252

Observation Well
S.I. = 209'- 214'

134-61-26CCC
NDSWC 9475

Elevation: 1351.47
(ft, msl)

Date Drilled: 10/13/75
Thickness Depth

Sand, fine to very coarse, gravelly, angular to subrounded	40	40
Sand, fine to very coarse, very gravelly	36	76
Clay, very silty, very sandy (lacustrine)	13	89
Clay, medium dark to olive gray, silty, sandy, pebbly (till)	110	199
Shale, medium to brownish gray, silty, sandy, very calcareous (Niobrara Fm.)	21	220

Observation Well
S.I. = 68'- 71'

134-61-26DBC
NDSWC 6214

Elevation: 1309
(ft, msl)

Date Drilled: 7/6/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown to olive brown, silty, oxidized	12	13
Gravel, fine to coarse pebble	32	45
Clay, olive gray	3	48
Gravel, very coarse, cobbly	15	63
Clay, medium gray, silty	10	73

134-61-28CDD
NDSWC 6122

Elevation: 1423.65
(ft, msl)

Date Drilled: 9/1/82
Thickness Depth

Topsoil	1	1
Clay, yellow brown, silty, pebbly, gravelly, oxidized (till)	41	42
Clay, olive gray, silty, slightly pebbly (till)	3	73
Gravel, fine to coarse, interbedded till	3	76
Clay, yellow brown, silty, pebbly, oxidized (till)	2	78
Clay, olive gray (till)	4	82
Sand, coarse sand to medium gravel, rounded, interbedded clay	9	91
Clay, olive gray, sandy, pebbly, interbedded gravel (till)	35	126
Clay, olive gray, very silty, very sandy (till)	14	140
Silt, brownish gray, clayey, slightly pebbly, interbedded sand and gravel	59	199
Clay, olive gray, silty, slightly sandy, pebbly (till)	57	256
Gravel, very coarse sand to coarse gravel, subangular, interbedded sand	12	268
Clay, dark gray, very pebbly (till)	19	287
Shale, brownish gray, very calcareous	15	302

Observation Well
S.I. = 68' - 73'

134-61-30DDC
NDSWC 6127

Elevation: 1423.96
(ft, msl)

Date Drilled: 9/3/82
Thickness Depth

Topsoil	3	3
Clay, yellow brown, silty, clayey, slightly, pebbly, oxidized (till)	15	18
Clay, olive gray, silty, slightly pebbly (till)	9	27
Gravel, very coarse sand to medium gravel, subangular	4	31
Clay, yellow brown, silty, pebbly, oxidized (till)	2	33
Clay, olive gray to dark olive gray, silty, pebbly (till)	34	67
Clay, silty, sandy, interbedded coarse sand	18	85
Sand, coarse sand to medium gravel, subrounded, interbedded till	24	109
Clay, medium gray, silty, sandy (fluvial)	11	120
Clay, medium gray, very silty, slightly pebbly, interbedded sand (till, partially fluvial)	167	287
Claystone, brownish gray, calcareous	15	302

Observation Well
S.I. = 91' - 96'

134-61-35CCC
NDSWC 9447

Elevation: 1306
(ft, msl)

Date Drilled: 10/10/75
Thickness Depth

Clay, moderate yellowish brown, very silty, sandy, oxidized (lacustrine)	15	15
Clay, olive gray, very silty, sandy (lacustrine)	16	31
Sand, fine to very coarse, gravelly, subangular to rounded	8	39
Clay, medium dark to olive gray, silty, very sandy, pebbly (till)	115	154
Shale, brownish black to black, noncalcareous, (Pierre Fm.)	6	160

134-61-36ADD
NDSWC 6263

Elevation: 1411.25
(ft, msl)

Date Drilled: 8/18/83
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	3	3
Sand, very fine to medium, silty, oxidized	3	6
Clay, yellow brown, silty, sandy, pebbly, oxidized (till)	16	22
Sand, very fine to coarse, gravelly, subangular to rounded	15	37
Clay, olive gray silty, sandy, pebbly, interbedded sand and gravel (till)	175	212
Sand, very fine to very coarse, gravelly, angular to rounded	5	217
Sand, very fine to very coarse, gravelly, angular to rounded, interbedded clay	3	220
Shale, black, noncalcareous (Pierre Fm.)	3	223
Shale, medium brown, calcareous, light gray specks (Niobrara Fm.)	19	242

Observation Well
S.I. = 212' - 217'

134-62-01DDD
NDSWC 11279

Elevation: 1435
(ft, msl)

Date Drilled: 7/8/80
Thickness Depth

Clay, dark yellowish brown, silty, sandy, interbedded sand, oxidized	25	25
Clay, dusky yellowish brown to olive black, sandy, gravelly, interbedded sand and gravel (till)	231	256
Sand, coarse, gravelly, subangular to rounded	3	259
Shale, black, noncalcareous (Pierre Fm.)	21	280

135-61-18CCC₁
NDSWC 6212

Elevation: 1457
(ft, msl)

Date Drilled: 7/1/83
Thickness Depth

Topsoil	1	1
Clay, yellow brown to olive brown, very silty, sandy, pebbly, interbedded silty clay, oxidized (till)	28	29
Clay, olive gray, very silty, sandy, pebbly (till)	68	97
Gravel, sandy, interbedded sandy silt	4	101
Clay, olive gray, very silty, sandy, pebbly (till)	5	106
Clay, brownish gray, silty, sandy, pebbly (till)	76	176
Shale, medium to dark gray (ice thrust block)	13	189
Boulder	1	190
Clay	2	192
Gravel, very fine to very coarse, sandy, cobbly	10	202
Clay, olive gray, silty, interbedded sandy gravel	10	212
Gravel, very fine to very coarse, sandy, cobbly	6	218
Clay, gray, silty, sandy, interbedded gravel	14	232
Gravel, fine to very coarse pebble	10	242
Gravel, sandy	23	265
Clay, medium gray, silty, sandy, pebbly (till)	15	280
Sand, fine, silty, clayey, interbedded silt and clay	30	310
Gravel, clayey, silty	12	322
Sand, coarse to very coarse, pebbly	20	342
Clay, medium gray, silty, sandy, pebbly (till)	11	353
Shale, brown (Niobrara Fm.)	10	363

135-61-25CCC
NDSWC 10935

Elevation: 1420
(ft, msl)

Date Drilled: 5/22/79
Thickness Depth

Clay, red to yellow brown, silty, sandy, pebbly, oxidized (till)	7	7
Sand, very fine to very coarse, subangular to rounded	19	26
Clay, light olive gray, silty, sandy, pebbly (till)	138	164
Clay, light gray, poor sample	46	210
Clay, brown to black, noncalcareous (Pierre Fm.)	30	240

135-61-28CCB
NDSWC 9489

Elevation: 1338.3
(ft, msl)

Date Drilled: 10/31/75
Thickness Depth

Sand, fine to very coarse, very gravelly, angular to subrounded	10	10
Gravel, fine to coarse, angular to subrounded	37	47
Clay, olive gray, silty, sandy, pebbly (till)	13	60

Observation Well
S.I. = 37' - 40'

135-61-29ABB
NDSWC 6112

Elevation: 1430
(ft, msl)

Date Drilled: 8/26/82
Thickness Depth

Topsoil, sandy	1	1
Sand, fine, oxidized	1	2
Clay, yellow brown, silty, pebbly, oxidized (till)	6	8
Clay, yellow brown, silty, pebbly, interbedded sand, oxidized (till)	18	26
Clay, olive gray, silty, slightly pebbly	14	40
Sand, coarse sand to fine gravel, subangular	9	49
Clay, olive gray, sandy (till)	8	57
Gravel, very coarse sand to coarse gravel, angular to rounded	2	59
Clay, yellow orange to olive gray, silty, sandy, cobbly, partially oxidized (till)	55	114
Clay, olive gray, silty, pebbly	36	150
Silt, olive gray, interbedded clay	21	171
Shale, medium dark gray, noncalcareous, bentonitic	31	202

135-61-29CCD
NDSWC 6116

Elevation: 1319.14
(ft, msl)

Date Drilled: 8/31/82
Thickness Depth

Clay, dark brown to yellow brown, silty, grades into silt, oxidized	10	10
Gravel, very fine to coarse, subrounded to rounded	17	27
Clay, olive gray, silty, sandy, pebbly (till)	3	30
Sand, very fine to medium pebble	11	41
Clay, olive gray, silty, sandy, pebbly (till)	21	62

Observation Well
S.I. = 35'- 40'

135-61-29CDC
NDSWC 6213

Elevation: 1334
(ft, msl)

Date Drilled: 7/5/83
Thickness Depth

Gravel, fine to very coarse pebble, sandy	58	58
Clay, olive gray, silty, sandy, pebbly (till)	46	104
Sand, coarse to very coarse, pebbly	43	147
Clay, medium gray, very silty, sandy, pebbly	31	178
Sand, medium to coarse	6	184
Clay, gray, silty	4	188
Sand, very coarse, pebbly	3	191
Clay, gray, silty, sandy, pebbly	9	200
Clay, dark gray, silty, sandy, pebbly (till)	7	207
Shale, brown, very calcareous (Niobrara Fm.)	16	223

135-61-31ABC
NDSWC 6111

Elevation: 1316.14
(ft, msl)

Date Drilled: 8/25/82
Thickness Depth

Topsoil	1	1
Silt, brown, clayey, interbedded sand	20	21
Sand, fine to coarse, rounded	10	31
Clay, medium gray, silty, interbedded clayey silt	51	82

Observation Well
S.I. = 26' - 31'

135-61-32CDC
NDSWC 6109

Elevation: 1329
(ft, msl)

Date Drilled: 8/25/82
Thickness Depth

topsoil	1	1
Sand, coarse sand to coarse gravel, angular to rounded, oxidized	14	15
Gravel, coarse sand to coarse gravel, subrounded, oxidized	9	24
Silt, yellow brown, clayey, oxidized	4	28
Clay, olive gray, very sandy	19	47
Clay, olive gray, slightly sandy, pebbly	34	81
Sand, coarse sand to fine gravel, subrounded, interbedded clay	16	105
Clay, medium dark gray, pebbly (till)	19	124
Silt, olive gray, very clayey, interbedded silty clay and sand	114	238
Clay, olive green, very calcareous	44	282

135-61-33BBB
NDSWC 9488

Elevation: 1354
(ft, msl)

Date Drilled: 10/31/75
Thickness Depth

Gravel, fine to coarse, angular to rounded, oxidized	40	40
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135-61-33DCD

NDSWC 6114

Elevation: 1323.17(DCD₁), 1322.73(DCD₂)
(ft, msl)

Date Drilled: 8/30/82
Thickness Depth

Silt, dark brown to brown, sandy	7	7
Sand, medium to very coarse, gravelly, subrounded to rounded	12	19
Gravel, very fine to coarse, subrounded	3	22
Sand, medium to very coarse, subrounded to rounded	10	32
Clay, olive gray, silty, sandy, pebbly, boundery (till)	59	91
Gravel, very fine to medium, subrounded to rounded	10	101
Clay, light olive gray, silty, sandy, pebbly (till)	9	110

Observation Well

DCD₂ - S.I. = 26'- 31'

DCD₁ - S.I. = 95'-100'

135-61-36CCC

NDSWC 10936

Elevation: 1415
(ft, msl)

Date Drilled: 5/23/79
Thickness Depth

Clay, pale yellow brown, silty, sandy, pebbly, oxidized (till)	12	12
Sand, very fine to very coarse, subangular to rounded, oxidized to 19'	18	30
Clay, olive gray, silty, sandy, pebbly (till)	13	43
Sand, very fine to very coarse, subangular to rounded	8	51
Clay, olive gray, silty, sandy, pebbly (till)	40	91
Sand, very gravelly, interbedded till	11	102
Clay, olive gray, silty, sandy, pebbly, interbedded sand and gravel (till)	92	194
Clay, light gray brown, silty, noncalcareous (Pierre Fm.)	26	220

135-62-36DDD
NDSWC 11276

Elevation: 1438.1
(ft, msl)

Date Drilled: 7/7/80
Thickness Depth

Silt, sandy, sand, very fine to very coarse, oxidized	4	4
Clay, silty, sandy, pebbly, pale yellow brown, oxidized (till)	45	49
Clay, silty, sandy, pebbly, olive gray (till)	183	232
Sand and gravel, predominantly sand, very fine to very coarse, predominantly medium, lots of shield silicates, clay layers to 223, 226, and 228 feet (Spiritwood aquifer)	232	253
Clay, dark black, non-calcareous (Pierre Formation)	7	260

Observation Well
S.I. = 248'- 251'

TABLE 1B

Logs of test holes and wells from
commercial well drillers

131-58-14CBC
Empire Drilling

Elevation: 1350
(ft, msl)

Date Drilled: 10/22/74

	Thickness	Depth
Topsoil	2	2
Clay, yellow (till)	18	20
Sand, fine, interbedded clay	45	65
Clay, gray (till)	15	80

131-58-14CCC
Empire Drilling

Elevation: 1342
(ft, msl)

Date Drilled: 10/22/74

	Thickness	Depth
Topsoil	2	2
Clay, yellow (till)	13	15
Sand, fine, interbedded clay	35	50
Clay	35	85
Clay, gray (till)	105	190
Bedrock	10	200

131-58-15AAC
Empire Drilling

Elevation: 1330
(ft, msl)

Date Drilled: 10/21/74

	Thickness	Depth
Topsoil	2	2
Clay, yellow	18	20
Silt	15	35
Sand, interbedded clay	20	55
Clay, silty	55	110
Clay, gray (till)	90	200

131-58-18BBD
Falk Brothers

Elevation: 1335
(ft, msl)

Date Drilled: 9/25/76

	Thickness	Depth
Clay, yellow	12	12
Gravel	22	34
Shale	12	46
Sand, coarse	2	48
Sand, fine	2	50
Shale	5	55
Sand, fine	65	120
Shale	3	123
Sand, fine	17	140
Shale	5	145
Sand, coarse	15	160
Sand, medium	35	195
Sand, coarse	5	200

Irrigation Well
S.I. = 189'-195'

131-58-19BAC
Empire Drilling

Elevation: 1320
(ft, msl)

Date Drilled:

	Thickness	Depth
Topsoil	2	2
Clay, yellow	10	12
Sand	39	51
Clay, gray (till)	39	90
Clay, interbedded sand (till)	20	110
Clay, gray (till)	44	154
Sand, gravelly	17	171
Shale	9	180

131-58-20BBD
Empire Drilling

Elevation: 1325
(ft, msl)

Date Drilled: 10/12/76

	Thickness	Depth
Topsoil	2	2
Clay, yellow	13	15
Clay, blue	7	22
Sand	23	45
Clay, blue		

131-58-27DDD
Adair Drilling

Elevation: 1350
(ft, msl)

Date Drilled: 8/30/76

	Thickness	Depth
Topsoil	1	1
Clay (till)	179	180
Sand, fine to medium	20	200
Gravel	21	221

Domestic Well
S.I. = 206' - 221'

131-58-32BBA
Falk Brothers

Elevation: 1337
(ft, msl)

Date Drilled: 8/13/73

	Thickness	Depth
Clay, yellow	17	17
Shale	122	139
Sand	14	153
Sand, shaly	7	160

Domestic Well
S.I. = 144' - 150'

131-58-32CBD
M & W Drilling

Elevation: 1318
(ft, msl)

Date Drilled: 9/15/80

	Thickness	Depth
Topsoil	1	1
Clay, sandy	6	7
Clay	10	17
Sand, medium	19	36
Sand, medium to coarse	11	47
Clay, silty	27	74
Clay,(till)	22	96
Clay, interbedded sand and gravel (till)	49	145
Clay	3	148
Sand, coarse, gravelly	20	168
Shale	2	170

Irrigation Well
S.I. = 153'- 168'

131-59-02BCC
Falk Brothers

Elevation: 1345
(ft, msl)

Date Drilled: 8/15/73

	Thickness	Depth
Clay, yellow	18	18
Shale	7	25
Sand, gravelly	9	34
Slate	128	162
Sand	31	193

Domestic Well
S.I. = 171'- 186'

131-59-04DCA
Empire Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 2/25/76

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	28	30
Clay	85	115
Gravel	3	118
Clay	2	120
Sand	18	138
Clay	5	143
Sand, gravelly	3	146
Clay	24	170
Rock	10	180

131-59-04DCD₁
Empire Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 7/6/76

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	26	28
Clay		

Irrigation Well
S.I. = 18'- 28'

131-59-04DCB₂
Empire Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 7/18/76

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	33	35
Clay		

Irrigation Well
S.I. = 20'- 35'

131-59-04DDB
Empire Drilling

Elevation: 1340
(ft, msl)

Date Drilled: 2/25/76

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	33	35
Clay, gray (till)	105	140
Gravel	8	148
Clay, gray (till)	17	165
Rock	5	170

131-59-09ABC
Empire Drilling

Elevation: 1330
(ft, msl)

Date Drilled: 10/9/74

	Thickness	Depth
Topsoil	2	2
Gravel	13	15
Clay, gray (till)	13	28
Gravel	4	32
Clay, gray (till)	13	45
Clay, silty	33	78
Gravel	12	112
Clay, gray (till)	38	150
Rock	10	160

131-59-09BAB
M & W Drilling

Elevation: 1330
(ft, msl)

Date Drilled: 6/30/78

	Thickness	Depth
Topsoil	1	1
Sand, medium, clayey, oxidized	15	16
Clay, gray (till)	19	35
Silt, gray, clayey	41	76
Clay, gray, interbedded silt, sand, and gravel (till)	20	96
Sand, coarse, gravelly	20	116

131-59-09BAD
Empire Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 5/22/75

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	23	25
Clay	85	110
Clay, interbedded sand	10	120
Clay	10	130
Sand, fine	6	136
Clay	9	145
Shale		

131-59-09BBD
Empire Drilling

Elevation: 1330
(ft, msl)

Date Drilled: 5/22/75

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	13	15
Clay, gray (till)	63	78
Sand, gravelly	23	101
Clay, gray (till)	19	120

131-59-09BCC
Empire Drilling

Elevation: 1315
(ft, msl)

Date Drilled: 5/22/75

	Thickness	Depth
Topsoil	2	2
Clay, sandy	2	4
Sand, gravelly	4	8
Clay, gray (till)	107	115
Sand, fine	4	119
Clay, gray (till)	11	130

131-59-09BDB₁
Empire Drilling

Elevation: 1330
(ft, msl)

Date Drilled: 7/17/75

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	13	15
Clay, gray (till)	63	78
Sand, gravelly	23	101
Clay, gray (till)		

Irrigation Well
S.I. = 80' - 100'

131-59-09BDB₂
Empire Drilling

Elevation: 1330
(ft, msl)

Date Drilled: 5/20/75

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	33	35
Clay	52	87
Sand, gravelly	15	102
Clay	40	142
Shale	3	145

131-59-09CCC
Wieber Well Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 10/3/74

	Thickness	Depth
Topsoil	1	1
Sand	2	3
Clay, yellow	12	15
Clay, blue	5	20
Sand, medium	10	30

Domestic Well
S.I. = 22' - 30'

131-59-09DAC
Empire Drilling

Elevation: 1333
(ft, msl)

Date Drilled: 10/9/74

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	24	26
Clay	2	28
Gravel	8	36
Clay, gray (till)	24	60
Silt	48	108
Gravel	5	113
Clay, gray (till)	31	144
Rock		

131-59-10CCA
Tim Adair

Elevation: 1352
(ft, msl)

Date Drilled: 9/7/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	29	30
Clay, blue	55	85
Clay (till)	65	150

131-59-10CCC
Tim Adair

Elevation: 1345
(ft, msl)

Date Drilled: 9/7/76
Thickness Depth

Topsoil	1	1
Clay, yellow	29	30
Clay, blue	30	60
Clay (till)	105	165
Sand, very fine	20	185
Sand, fine to medium	5	190
Sand, medium to coarse	10	200
Gravel	8	208
Clay	2	210

131-59-11AAC
M & W Drilling

Elevation: 1340
(ft, msl)

Date Drilled: 4/8/82
Thickness Depth

Topsoil	1	1
Clay, brown, sandy	13	14
Sand, oxidized	16	30
Sand, gravelly	4	34
Clay, gray (till)	16	50
Sand	7	57
Clay, gray (till)	120	177
Gravel	37	214

Irrigation Well
S.I. = 184' - 214'

131-59-11CAC
Falk Brothers

Elevation: 1350
(ft, msl)

Date Drilled: 9/21/76

	Thickness	Depth
Clay, yellow	20	20
Gravel	10	30
Shale	25	55
Sand	3	58
Shale	107	165
Sand	21	186
Sand, fine	6	192
Sand, gravelly	8	200
Gravel	16	216
Shale	9	225

Irrigation Well
S.I. = 210' - 246'

131-59-13CAC
Empire Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 9/24/74

	Thickness	Depth
Topsoil	2	2
Clay, yellow (till)	16	18
Sand, gravelly	25	43
Clay, silty, sandy	97	140
Gravel	10	150
Silt, sandy	30	180
Sand, medium to coarse	20	200
Gravel, coarse	15	215

131-59-14CCC
Traut Wells, Inc.

Elevation: 1355
(ft, msl)

Date Drilled: 5/27/77

	Thickness	Depth
Topsoil	1	1
Sand	14	15
Clay, gray	2	17
Sand	9	26
Clay, brown	5	31
Sand, clayey	14	45
Sand, gravelly	5	50
Sand, clayey	8	58
Clay, gray	22	80

Stock Well
S.I. = 30' - 50'

131-59-15ABB
Falk Brothers

Elevation: 1350
(ft, msl)

Date Drilled:

	Thickness	Depth
Clay, yellow	20	20
Gravel	10	30
Shale	135	165
Sand	13	178
Shale	32	210

131-59-15ABC
Adair Drilling

Elevation: 1350
(ft, msl)

Date Drilled: 9/29/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	4	5
Gravel	2	7
Sand, gravelly	30	55
Clay, pebbly (till)	35	90
Clay, gray, sandy	20	110
Sand, fine	1	111
Clay, (till)	44	155
Sand	1	156
Clay (till)	4	160
Sand	2	162
Clay	1	163
Sand	12	175
Clay (till)	5	180
Sand, gravelly	25	205

131-59-15BAC
Empire Drilling

Elevation: 1345
(ft, msl)

Date Drilled: 10/12/75

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	28	30
Clay, gray (till)	25	55
Sand	2	57
Clay (till)	98	155
Bedrock	15	170

131-59-15BBB

Empire Drilling

Elevation: 1345
(ft, msl)

Date Drilled: 10/12/75

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	28	30
Clay, gray (till)	13	43
Sand	9	52
Clay, gray (till)	113	165
Sand, fine	15	180
Sand, gravelly	20	200
Gravel	10	210
Bedrock		

131-59-15BDA

Falk Brothers

Elevation: 1350
(ft, msl)

Date Drilled: 9/23/76

	Thickness	Depth
Clay, yellow	12	12
Gravel	33	45
Shale	75	120
Sand	25	145
Shale	95	240

131-59-15BDD

Traut Wells, Inc.

Elevation: 1345
(ft, msl)

Date Drilled: 2/18/77

	Thickness	Depth
Topsoil	2	2
Clay, yellow	38	40
Clay, gray, sandy	20	60
Sand, coarse, gravelly	5	65
Clay, gray	15	80
Clay, sandy	37	117
Sand, coarse	3	120
Clay, sandy	37	157
Sand, coarse	37	194
Clay, gray	21	215

Irrigation Well

S.I. = 167'- 192'

131-59-15DBC

Empire Drilling

Elevation: 1345
(ft, msl)

Date Drilled: 2/17/76

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	33	35
Clay, silty	140	175
Gravel	15	190
Sand, gravelly	38	228
Bedrock	2	230

131-59-15DCA

Traut Wells, Inc.

Elevation: 1350
(ft, msl)

Date Drilled: 5/26/77

	Thickness	Depth
Topsoil	1	1
Sand, brown, gravelly	61	62
Clay, gray, sandy	98	160
Sand, gray, gravelly	52	212
Clay, gray	28	240

Irrigation Well

S.I. = 161'- 186'

131-59-15DCC

Traut Wells, Inc.

Elevation: 1345
(ft, msl)

Date Drilled:

	Thickness	Depth
Topsoil	2	2
Sand, brown, fine	5	7
Sand, coarse	15	22
Clay, brown, interbedded gravel	14	36
Sand, brown	4	40
Clay, brown	10	50
Sand, gravelly	19	69
Clay, gray	31	100
Sand, gray, fine	16	116
Clay, gray	52	168
Clay, sandy	9	177
Sand	10	187
Sand, coarse	13	200
Sand, gravelly	15	215
Clay, gray	5	220

131-59-15DDB

Green Circle Supply, Inc.

Elevation: 1350
(ft, msl)

Date Drilled: 1/31/75

	Thickness	Depth
Topsoil	1	1
Sand, tan, silty, gravelly	5	6
Clay, brown, silty, oxidized	7	13
Sand, brown, silty, gravelly, oxidized	7	20
Sand, brown, medium, gravelly, oxidized	25	45
Sand, gravelly, interbedded, clay	2	47
Clay, gray, sandy (till)	13	60
Clay, gray (till)	20	80
Clay, gray, interbedded sand, (till)	86	166
Boulder	1	167
Clay, gray (till)	1	168
Boulder		

131-59-16AAB

Empire Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 4/10/74

	Thickness	Depth
Topsoil	2	2
Clay	4	6
Gravel	19	25
Clay	35	60

131-59-16BDD

Tim Adair

Elevation: 1330
(ft, msl)

Date Drilled: 9/7/76

	Thickness	Depth
Topsoil	1	1
Sand, gravelly	14	15
Clay (till)	20	35
Sand, gray, fine	15	50
Clay (till)	30	80
Gravel, coarse	30	110
Clay (till)	35	145
Sand, fine to medium	10	155
Clay (till)	55	210

131-59-16CAA

Empire Drilling

Elevation: 1330
(ft, msl)

Date Drilled: 4/10/74

	Thickness	Depth
Topsoil	2	2
Sand, gravelly	13	15
Clay	65	80
Sand, interbedded clay	30	110
Sand, gravelly	15	125
Clay (till)	13	138
Sand, medium	22	160
Gravel, sandy	10	170
Gravel, coarse	20	190

131-59-16CAA

Tim Adair

Elevation: 1330
(ft, msl)

Date Drilled: 9/1/76

	Thickness	Depth
Topsoil	1	1
Sand, gravelly		10
Clay (till)	40	50
Sand, gray, fine	30	80
Clay (till)	22	102
Sand, fine to medium	21	123
Clay (till)	15	138
Sand, fine	5	143
Sand, fine to medium	12	155
Clay, bouldery (till)	45	200

131-59-16CCC

Tim Adair

Elevation: 1330
(ft, msl)

Date Drilled: 9/7/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	26	27
Clay, blue	63	90
Clay (till)	65	155
Sand, fine to medium	10	165
Gravel, coarse	40	205
Clay		

131-59-16DCC

Tim Adair

Elevation: 1330
(ft, msl)

Date Drilled: 9/7/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	20	21
Clay, blue	46	67
Clay (till)	61	128
Gravel, coarse	9	137
Clay (till)	63	200

131-59-17ADA

Empire Drilling

Elevation: 1320
(ft, msl)

Date Drilled:

	Thickness	Depth
Topsoil	2	2
Clay, sandy	5	7
Gravel	8	15
Clay, interbedded sand (till)	100	115
Sand, gravelly	10	125
Bedrock	15	140

131-59-17DDB

Empire Drilling

Elevation: 1320
(ft, msl)

Date Drilled: 10/22/76

	Thickness	Depth
Topsoil	1	1
Sand	12	13
Clay, yellow	5	18
Clay, blue	19	37
Sand	2	39
Clay, blue	79	118
Sand	9	127
Clay, blue	3	130
Sand	4	134
Shale	6	140

131-59-18DAB

Falk Brothers

Elevation: 1315
(ft, msl)

Date Drilled: 10/15/80

	Thickness	Depth
Clay, yellow	40	40
Shale	125	165
Sand	20	185

Domestic Well

S.I. = 168' - 180'

131-59-21ABB

Green Circle Supply, Inc.

Elevation: 1328
(ft, msl)

Date Drilled: 12/3/76

	Thickness	Depth
Topsoil	1	1
Sand, brown, gravelly	17	18
Sand, clayey, gravelly, oxidized	9	27
Sand, fine to medium, oxidized	44	31
Clay, silty	63	94
Clay, gray, interbedded sand (till)	5	99
Clay, gray, bouldery (till)	38	137
Gravel, interbedded clay	6	143

Domestic Well

S.I. = 124'- 144'

131-59-21ACC₁

Empire Drilling

Elevation: 1327
(ft, msl)

Date Drilled: 5/8/73

	Thickness	Depth
Topsoil	2	2
Sand	43	45
Clay, silty	65	110
Sand, gravelly	8	118
Gravel	7	125
Sand, gravelly	5	130
Clay	2	132
Gravel	8	140
Clay		

Irrigation Well

S.I. = 115'- 140'

131-59-21ACC₂

Mann Drilling Co.

Elevation: 1326
(ft, msl)

Date Drilled: 4/28/73

	Thickness	Depth
Clay, sandy	20	20
Sand, coarse	17	37
Silt	81	118
Sand	2	120
Gravel	20	140
Sand	5	145
Clay, silty	15	160

Industrial Well

131-59-21CCB

Green Circle Supply, Inc.

Elevation: 1315
(ft, msl)

Date Drilled:

	Thickness	Depth
Topsoil	1	1
Clay, sandy	3	4
Clay, sandy	6	10
Sand, fine to medium, oxidized	5	15
Sand, clayey	5	20
Sand	18	38
Clay, sandy	3	41
Sand	19	60
Clay, gravelly (till)	80	140
Sand, fine	6	146
Clay (till)	4	150
Clay, gravelly (till)	10	160

131-59-22ACB

Empire Drilling

Elevation: 1338
(ft, msl)

Date Drilled: 4/6/73

	Thickness	Depth
Topsoil	2	2
Clay, sandy	8	10
Sand	40	50
Silt	68	118
Sand, fine	9	127
Clay	34	161
Clay, silty	34	195
Sand, gravelly	30	225
Gravel	12	237
Shale	3	240

131-59-22BDA₃

Empire Drilling

Elevation: 1332
(ft, msl)

Date Drilled: 5/22/73

	Thickness	Depth
Topsoil	2	2
Clay, sandy	8	10
Sand	40	50
Silt	68	118
Sand, fine	9	127
Clay	34	161
Clay, silty	34	195
Sand, gravelly	17	212
Gravel	12	224
Shale		

Irrigation Well

S.I. = 199' - 224'

131-59-22BDD

Farmers Supply Co.

Elevation: 1330
(ft, msl)

Date Drilled: 2/26/73

	Thickness	Depth
Topsoil	3	3
Sand, coarse	22	25
Sand, fine, silty	101	126
Sand, coarse	54	180
Sand, fine	22	202
Gravel, medium	30	232

131-59-22DCA

Empire Drilling

Elevation: 1333
(ft, msl)

Date Drilled: 11/74

	Thickness	Depth
Topsoil	2	2
Sand	18	20
Silt	35	55
Clay	10	65
Clay, gray	72	137
Sand, gravelly	20	157

Irrigation Well

S.I. = 137' - 157'

131-59-23BCA

Empire Drilling

Elevation: 1358
(ft, msl)

Date Drilled: 10/26/75

	Thickness	Depth
Topsoil	2	2
Silt, yellow	33	35
Clay, gray (till)	75	110
Clay, interbedded sand	35	145
Bedrock		

131-59-23BCC

Empire Drilling

Elevation: 1350
(ft, msl)

Date Drilled: 2/24/76

Topsoil

Thickness Depth

2 2

Sand, gravelly

36 38

Clay, gray (till)

137 175

Bedrock

Domestic Well

S.I. = 200'- 220'

131-59-24AAA

Falk Brothers

Elevation: 1340
(ft, msl)

Date Drilled: 7/12/75

Clay, yellow

Thickness Depth

18 18

Shale

30 48

Sand

7 55

Shale

22 77

Sand

12 89

Shale

6 95

Domestic Well

S.I. = 77'- 89'

131-59-24CCC

Falk Brothers

Elevation: 1325
(ft, msl)

Date Drilled: 11/18/72

Clay, yellow

Thickness Depth

25 25

Sand, gravelly

25 50

Domestic Well

S.I. = 44'- 50'

131-59-24CDD

Falk Brothers

Elevation: 1335
(ft, msl)

Date Drilled: 11/10/75

	Thickness	Depth
Clay, yellow	12	12
Sand, fine	35	47
Shale	65	112
Sand	8	120
Shale	2	122
Sand, coarse	43	165
Sand, medium	12	177

Domestic Well

S.I. = 159'- 165'

131-59-25BBD₁

Traut Wells, Inc.

Elevation: 1335
(ft, msl)

Date Drilled: 3/3/78

	Thickness	Depth
Topsoil	2	2
Clay, brown	4	6
Sand, gravelly	9	15
Clay, yellow, sandy	3	18
Sand, brown, fine	38	56
Clay, sandy	37	93
Gravel	12	105
Clay, sandy	50	155
Sand, fine, interbedded clay	14	169
Clay	31	200

Irrigation Well

S.I. = 93'- 169'

131-59-25BBD₂

Falk Brothers

Elevation: 1335
(ft, msl)

Date Drilled: 9/23/76

	Thickness	Depth
Clay, yellow	12	12
Gravel	18	30
Shale	117	147
Sand, fine to medium	18	165
Shale	30	195

Irrigation Well

S.I. = 159'- 165'

131-59-27ABD₂

Empire Drilling

Elevation: 1323
(ft, msl)

Date Drilled: 6/12/75

	Thickness	Depth
Topsoil	2	2
Clay, sandy	8	10
Sand, fine	48	58
Clay	17	75
Sand, gravelly	20	95
Clay, gray (till)	40	135
Sand, gravelly	17	152

Irrigation Well

S.I. = 72'- 152'

131-59-28CAC
Empire Drilling

Elevation: 1315
(ft, msl)

Date Drilled: 9/20/74

	Thickness	Depth
Topsoil	2	2
Clay, sandy	8	10
Sand, medium to coarse	32	42
Clay, gray (till)	73	115
Sand, fine to medium	83	198

131-59-28DBD
Empire Drilling

Elevation: 1312
(ft, msl)

Date Drilled: 5/22/75

	Thickness	Depth
Topsoil	2	2
Sand	40	42
Clay, gray, interbedded gravel (till)	92	130
Sand, fine	12	142
Clay, gray (till)	8	150
Shale	10	160

131-59-30BAB
M & W Drilling

Elevation: 1335
(ft, msl)

Date Drilled:

	Thickness	Depth
topsoil	1	1
Clay, brown, gravelly	27	28
Clay, gray, gravelly	4	32
Clay, interbedded sand	9	41
Clay, gravelley (till)	12	53
Sand, medium, interbedded clay	9	62
Clay (till)	66	128
Gravel, medium	2	130
Clay (till)	43	173
Shale	2	175

131-59-33DAC

Schnell, Inc.

Elevation: 1310
(ft, msl)

Date Drilled: 10/3/63

	Thickness	Depth
Topsoil	2	2
Sand, medium	43	45
Gravel	7	52
Clay, gray (till)	39	91
Sand	2	93
Clay, gray, interbedded sand (till)	23	116
Gravel	22	138
Clay	12	150

131-59-33DAD

Schnell, Inc.

Elevation: 1312
(ft, msl)

Date Drilled: 10/4/64

	Thickness	Depth
Topsoil	2	2
Sand, medium	42	44
Gravel	8	52
Clay, gray (till)	46	98
Gravel	3	101
Clay, gray (till)	34	135
Shale	25	160

131-59-34CDB

Empire Drilling

Elevation: 1310
(ft, msl)

Date Drilled: 9/19/74

	Thickness	Depth
Topsoil	2	2
Clay	16	18
Sand, fine to medium	12	30
Clay, gray (till)	100	130
Bedrock	10	140

132-59-02CCA

Green Circle Supply, Inc.

Elevation: 1355
(ft, msl)

Date Drilled: 12/16/76

	Thickness	Depth
Topsoil	2	2
Clay, yellow	6	8
Gravel, silty, oxidized	6	14
Clay, gray	10	24
Sand, silty, interbedded sandy clay	70	94
Clay, sandy	18	112
Clay, pebbly, bouldery (till)	34	146

132-59-04BBA

Lenius Well Drilling

Elevation: 1375
(ft, msl)

Date Drilled: 6/7/73

	Thickness	Depth
Topsoil	2	2
Clay, yellow	16	18
Clay, blue	1	19
Sand, fine	26	45
Clay, blue	99	144
Sand, coarse	26	170

Domestic Well

S.I. = 165' - 170'

132-59-04CCB

M & W Drilling

Elevation: 1372
(ft, msl)

Date Drilled: 9/24/83

	Thickness	Depth
Topsoil	1	1
Clay, brown, sandy	11	12
Clay, brown	10	22
Clay, gray	9	31
Sand, medium	4	35
Clay, gray	19	54
Gravel	4	58
Clay, gray (till)	108	166
Sand	4	170
Sand, medium to coarse gravel	8	178
Shale		

Domestic Well

S.I. = 174'- 178'

132-59-04DAC

Adair Drilling Co.

Elevation: 1365
(ft, msl)

Date Drilled: 6/23/77

	Thickness	Depth
Topsoil	1	1
Clay, yellow	15	16
Clay, blue	4	20
Clay (till)	24	44
Sand	6	50
Clay, gravelly (till)	10	60
Sand	20	80
Clay (till)	76	156
Sand, gravelly	14	180
Clay (till)	5	185

132-59-05DAC

K & K Drilling

Elevation: 1380
(ft, msl)

Date Drilled: 6/11/77

	Thickness	Depth
Topsoil	2	2
Clay, yellow	13	15
Clay, blue	6	21
Sand, yellow, fine	2	23
Clay, blue	19	42
Clay, interbedded sand	33	75
Sand	7	82
Clay, blue	88	170
Gravel	8	178
Clay		

Observation Well

S.I. = 168' - 178'

132-59-11CCB

Lenius Well Drilling

Elevation: 1356
(ft, msl)

Date Drilled: 10/26/77

	Thickness	Depth
Fill	2	2
Topsoil	2	4
Clay, yellow	28	32
Clay, blue	138	170
Bedrock	125	295

Domestic Well

S.I. = 235' - 295'

132-59-16ACA

Elevation: 1335
(ft, msl)

Date Drilled: 3/20/80

	Thickness	Depth
Topsoil	1	1
Sand, brown, oxidized, gravelly	16	17
Clay, gray, silty	35	52
Clay, bouldery (till)	64	116
Sand, fine to medium	3	119
Sand, medium, gravelly	5	124
Gravel, coarse	12	136
Clay, gray (till)	9	145

132-59-16ADB

Adair Drilling Co.

Elevation: 1335
(ft, msl)

Date Drilled: 3/15/77

	Thickness	Depth
Topsoil	1	1
Sand	5	6
Clay, yellow	9	15
Clay, blue	45	60
Clay (till)	71	131
Sand, gravelly	19	150
Clay (till)	15	165

132-59-16CCA

Adair Drilling Co.

Elevation: 1365
(ft, msl)

Date Drilled: 3/15/77

	Thickness	Depth
Topsoil	1	1
Clay, yellow	29	30
Clay, blue	10	40
Sand, fine	10	50
Clay	25	75
Sand, fine	15	90
Clay, blue	30	120
Clay (till)	45	165
Sand, gravelly	42	207
Clay (till)	3	210

132-59-16CDD

Elevation: 1340
(ft, msl)

Date Drilled: 2/6/81

	Thickness	Depth
Topsoil	1	1
Sand, brown, medium, gravelly	21	22
Clay, gray	36	58
Sand, gray, silty	4	62
Silt, gray, interbedded silty sand	8	70
Clay, gray, gravelly (till)	50	120
Sand, medium, interbedded clay	13	133
Sand, coarse, gravelly	24	157
Sand, coarse, gravelly, interbedded clay	8	165
Gravel, coarse	11	176
Clay	4	180

132-59-16DDA

M & W Drilling

Elevation: 1360
(ft, msl)

Date Drilled: 10/19/81

	Thickness	Depth
Topsoil	1	1
Sand, brown, medium	11	12
Gravel, brown, coarse	6	18
Clay, gray (till)	115	133
Sand, medium, coarse gravel	24	157
Clay, gray		

132-59-21BAA

Adair Drilling Co.

Elevation: 1340
(ft, msl)

Date Drilled: 3/21/77

	Thickness	Depth
Topsoil	1	1
Clay (till)	109	110
Gravel	55	165

Domestic Well

S.I. = 150' - 165'

132-59-21BAC

Adair Drilling Co.

Elevation: 1355
(ft, msl)

Date Drilled: 3/15/77

	Thickness	Depth
Topsoil	1	1
Clay, yellow	24	25
Clay, blue	80	105
Clay (till)	48	153
Sand, gravelly	44	197
Clay (till)	13	210

132-59-23BAB

Manikowski Well Drilling

Elevation: 1325
(ft, msl)

Date Drilled: 12/9/80

	Thickness	Depth
Topsoil, black	1	1
Gravel	24	25
Clay, yellow	2	27
Clay, blue	48	75
Sand, fine	5	80
Clay, blue	11	91
Gravel, interbedded clay	6	97
Clay, blue	8	105
Clay, interbedded sand	5	110
Clay, blue	14	124
Sand, fine interbedded clay	26	150
Sand, gravelly	15	165

Domestic Well

S.I. = 155'- 165'

132-59-25DAA

Falk Brothers

Elevation: 1326
(ft, msl)

Date Drilled: 11/8/75

	Thickness	Depth
Clay, yellow	30	30
Shale	30	60
Sand, fine	10	70
Shale	95	165
Bedrock	34	199

Domestic Well

S.I. = 193'- 199'

132-59-26DCB

Falk Brothers

Elevation: 1323
(ft, msl)

Date Drilled: 5/8/72

	Thickness	Depth
Clay, yellow	14	14
Gravel	14	28
Shale	74	102
Sand	2	104
Shale	46	150
Sand	8	158

Stock Well

S.I. = 152' - 158'

132-59-28BAA

Empire Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 10/20/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	35	36
Clay, blue	20	56
Sand	4	60
Clay, blue	132	192
Sand	2	194
Clay, blue	6	200

132-59-28BCA

Empire Drilling

Elevation: 1365
(ft, msl)

Date Drilled: 10/20/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	33	34
Clay, blue	22	56
Sand	4	60
Clay, blue	8	68
Sand	4	72
Clay, blue	62	134
Sand	2	136
Clay, blue	54	190
Sand, interbedded clay	30	220

132-59-28BCC

Empire Drilling

Elevation: 1365
(ft, msl)

Date Drilled:

	Thickness	Depth
Topsoil	1	1
Clay, yellow	29	30
Clay, blue	2	32
Sand		34
Clay, blue	148	182
Sand	13	195
Clay, blue	6	201
Sand	23	224
Bedrock	6	230

132-59-29DAA

Elevation: 1365
(ft, msl)

Date Drilled: 10/30/78

	Thickness	Depth
Topsoil, gravelly	1	1
Clay, brown	22	23
Clay, gray (till)	28	51
Sand, clayey and silty	51	102
Clay, gray (till)	24	126
Sand, medium, gravelly	10	136
Clay, gray, interbedded sand (till)	26	162
Sand	6	168
Sand, medium, gravelly	20	188

Domestic Well

S.I. = 183' - 188'

132-59-32DAA

Elevation: 1360
(ft, msl)

Date Drilled: 10/20/82

	Thickness	Depth
Topsoil	1	1
Clay, brown	28	29
Clay, gray, interbedded sand, (till)	77	106
Clay, gray, bouldery (till)	14	120
Clay, gray (till)	45	165
Sand, coarse, gravelly	43	208
Clay, gray	2	210

Domestic Well

S.I. = 203' - 208'

132-59-33BAA
Adair Drilling

Elevation: 1355
(ft, msl)

Date Drilled: 9/17/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	22	23
clay (till)	17	40
Clay, gravelly (till)	20	60
Clay (till)	132	192
Boulder	1	193
Clay (till)	3	196
Sand	4	200
Shale	10	210

132-59-33BAC
M & W Drilling

Elevation: 1355
(ft, msl)

Date Drilled: 11/6/80

	Thickness	Depth
Topsoil	1	1
Sand, brown, clayey	8	9
Clay, brown	14	23
Clay, gray (till)	52	75
Silt, gray, clayey	115	190
Clay, gray (till)	10	200
Clay, gray, interbedded sand (till)	2	202
Shale, gray	18	220

132-59-33BCC
Adair Drilling

Elevation: 1355
(ft, msl)

Date Drilled: 10/3/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	19	20
Clay, blue	15	35
Sand, fine	5	40
Clay	3	43
Sand	2	45
Clay, blue	25	70
Clay, silty	10	80
Clay, gray	25	105
Clay (till)	30	135
Sand	1	136
Clay, gravelly (till)	24	160

132-59-33CCC
Manikowski Drilling

Elevation: 1350
(ft, msl)

Date Drilled: 7/17/81

	Thickness	Depth
Topsoil, black	2	2
Clay, yellow	26	28
Sand, fine	5	33
Clay, blue	57	90
Sand, fine	7	97
Clay, blue	38	135
Gravel, coarse	5	140
clay, blue	15	155
Sand, coarse	8	163
clay, blue	4	167
Sand	13	180

Domestic Well
S.I. = 170' - 180'

132-59-35AAC₁

M & W Drilling

Elevation: 1327
(ft, msl)

Date Drilled: 5/6/78

	Thickness	Depth
Topsoil	1	1
Clay, brown, interbedded sand	14	15
Gravel, coarse, oxidized	8	23
Clay, gray (till)	135	158
Sand, medium	12	170
Gravel, coarse	16	186
Clay	4	190
Sand, coarse, gravelly, interbedded clay		200

132-59-35ABC

M & W Drilling

Elevation: 1327
(ft, msl)

Date Drilled: 4/16/81

	Thickness	Depth
Topsoil	2	2
Sand, clayey	5	7
Clay, brown	11	18
Clay, gray (till)	139	157
Sand, fine	12	169
Gravel, coarse, interbedded clay		11

Irrigation Well

S.I. = 172' - 187'

132-59-36CAC
Adair Drilling

Elevation: 1335
(ft, msl)

Date Drilled: 9/28/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow	1	15
Clay, blue	12	27
Sand, gravelly	5	32
Clay (till)	4	36
Sand, gravelly	4	40
Clay, cobbly (till)	20	60
Clay, gray	20	80
Clay (till)	10	90
Sand, fine	2	92
Clay (till)	5	97
Sand, gravelly	3	100
Clay (till)	34	134
Sand, gravelly	17	151
Clay (till)	9	160
Sand, gravelly	12	172
Clay (till)	3	175
Shale	5	180

132-59-36CCA
Adair Drilling

Elevation: 1323
(ft, msl)

Date Drilled: 9/28/76

	Thickness	Depth
Topsoil	1	1
Clay, yellow, gravelly	19	20
Clay (till)	20	40
Clay, gravelly (till)	20	60
Clay (till)	94	154
Sand	3	157
Clay (till)	2	159
Sand, gravelly	7	166
Shale	14	180

132-60-01BAC
K & K Drilling

Elevation: 1385
(ft, msl)

Date Drilled: 6/23/77

	Thickness	Depth
Topsoil	1	1
Clay, yellow	30	31
Clay, blue	59	90
Sand	5	95
Clay, blue, cobbly	120	215
Sand, coarse	15	230

Observation Well
S.I. = 215' - 225'

132-60-01BBD
K & K Drilling

Elevation: 1380
(ft, msl)

Date Drilled: 7/19/77

	Thickness	Depth
Topsoil	1	1
Clay, yellow	29	30
Clay, blue	41	71
Gravel	2	73
Clay, blue	9	82
Sand	3	85
Clay	129	214
Sand	26	240

132-60-04BBA

Lenius Well Drilling

Elevation: 1405
(ft, msl)

Date Drilled: 3/21/80

	Thickness	Depth
Topsoil	2	2
Clay, yellow	32	34
Sand, fine	31	65
Clay, blue	97	162
Sand, coarse	2	164
Clay, blue	11	175
Sand, fine	4	179
Clay, blue	51	230
Bedrock	7	300

132-60-10DAA

Elevation: 1377
(ft, msl)

Date Drilled: 11/25/74

	Thickness	Depth
Topsoil	2	2
Clay, yellow	16	18
Clay, blue	132	150
Sand, fine	15	165
Clay, blue	38	203
Bedrock	42	245

Domestic Well

S.I. = 220' - 245'

133-59-07DAA
Frederickson's

Elevation: 1385
(ft, msl)

Date Drilled: 11/7/74

	Thickness	Depth
Topsoil	1	1
Clay, sandy, interbedded sand	29	30
Sand	2	32
Clay, sandy	3	35
Sand, fine	12	47
Clay, sandy	85	132
Sand	1	133
Clay, sandy	1	134
Sand	1	135
Clay, sandy	7	142
Sand	3	145
Clay, sandy	2	147
Sand, coarse	4	151
Clay, sandy	36	187
Sand	1	188
Clay, sandy	1	189
Sand	38	227

Domestic Well

S.I. = 216' - 225'

133-59-08ACD
Mann Drilling Co.

Elevation: 1395
(ft, msl)

Date Drilled: 3/14/82

	Thickness	Depth
Clay, buff, silty	30	30
Sand, fine	6	36
Clay, silty	7	43
Gravel	2	45
Clay	12	57
Sand	3	60
Clay (till)	21	81
Sand	3	84
Clay (till)	111	195
Gravel	36	231
Shale	9	240

133-59-09ADA

Elevation: 1395
(ft, msl)

Date Drilled: 9/29/77

	Thickness	Depth
Topsoil	2	2
Clay, yellow	29	31
Clay, blue	11	42
Sand, fine	6	48
Clay, blue	134	182
Sand, coarse	28	210

Domestic Well

S.I. = 200'- 210'

133-59-26ADD

Frederickson's, Inc.

Elevation: 1370
(ft, msl)

Date Drilled: 12/26/69

	Thickness	Depth
Topsoil	1	1
Clay, yellow	22	23
Clay, blue	7	30
Sand, clayey	8	38
Clay	29	67
Clay, sandy	33	100
Clay, cobbly	73	173
Gravel	15	188

Domestic Well

S.I. = 176'- 187'

133-59-30BDD

LTP Enterprises, Inc.

Elevation: 1395
(ft, msl)

Date Drilled: 5/15/81

	Thickness	Depth
Sand	4	4
Clay, sandy	14	18
Sand	2	20
Clay, sandy	22	42
Sand	5	47
Clay, sandy	26	73
Sand, coarse	1	74
Clay, sandy, cobbly	3	77
Boulder	2	79
Clay, sandy	23	102
Sand, interbedded clay	4	106
Boulder	3	109
Sand, coarse	3	112
Clay, sandy	55	167
Sand	5	172
Clay, sandy	1	173
Sand	9	182
Clay, sandy	15	197
Sand	22	219
Boulder	1	220
Clay, sandy	7	227

133-59-27CCC

Traut Well Drilling

Elevation: 1372
(ft, msl)

Date Drilled: 1/30/81

	Thickness	Depth
Topsoil	2	2
Clay, brown	26	28
Clay, gray	70	98
Gravel, clayey and cobbly	7	105
Clay, gray, cobbly	70	175
Sand, fine to coarse	10	185
Shale, gray, rounded	15	200

Domestic Well

S.I. = 178'- 183'

133-59-33DCC

Adair Drilling Co.

Elevation: 1385
(ft, msl)

Date Drilled: 8/3/78

	Thickness	Depth
Topsoil	1	1
Clay, yellow	14	15
Clay, gray	33	48
Clay, sandy (till)	12	60
Clay, sandy	60	120
Sand, coarse	30	150
Clay	20	170

Domestic Well

S.I. = 130'- 150'

133-59-34CCC
M & W Drilling

Elevation: 1365
(ft, msl)

Date Drilled: 1/3/77

	Thickness	Depth
Topsoil	1	1
Clay, brown	18	19
Clay, gray, interbedded sand and gravel	3	22
Gravel, medium, oxidized	9	31
Gravel, medium, unoxidized	2	33
Gravel, clayey, silty	4	37
Clay, gray (till)	31	68
Sand, fine, silty	10	78
Sand, medium to coarse	13	91
Clay, gray (till)	28	119
Gravel	1	120
Clay, gray (till)	57	177

Domestic Well
S.I. = 86'- 91'

133-59-35BBD
Adair Drilling Co.

Elevation: 1365
(ft, msl)

Date Drilled: 11/4/77

	Thickness	Depth
Topsoil	1	1
Clay, blue	39	40
Clay (till)	40	80
Clay, gravelly (till)	95	175
Sand, gravelly	22	197
Clay (till)	13	210
Sand, gravelly	25	235
Shale	2	237

133-59-35CDD
Adair Drilling

Elevation: 1370
(ft, msl)

Date Drilled: 11/1/77

	Thickness	Depth
Topsoil	1	1
Clay, blue	19	20
Clay, gray (till)	60	80
Clay, gravelly (till)	10	90
Clay (till)	85	175
Sand, gravelly	20	195
Clay (till)	5	200
Sand, gravelly	30	230
Shale	2	232

Domestic Well
S.I. = 190' - 230'

133-60-02BCC
Traut Wells, Inc.

Elevation: 1402
(ft, msl)

Date Drilled: 8/30/77

	Thickness	Depth
Topsoil	2	2
Clay, brown	23	25
Sand, clayey	5	30
Clay, gray, sandy	55	85
Sand, fine	10	95
Clay, gray, sandy	80	175
Sand, clayey	10	185
Sand, fine to coarse	30	215
Sand, coarse	25	240
Sand, fine to coarse	20	260

Domestic Well
S.I. = 230' - 240'

133-60-02CCA
Traut Wells, Inc.

Elevation: 1405
(ft, msl)

Date Drilled: 11/20/77

	Thickness	Depth
Topsoil	2	2
Clay, brown	15	17
Clay, gray	89	106
Sand	3	109
Clay, gray, sandy	81	190
Clay, gray, interbedded gravel	10	200
Sand, fine to coarse	39	239
Clay, gray	41	280

Irrigation Well
S.I. = 213' - 238'

133-60-09CCA
Traut Well, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 8/30/78

	Thickness	Depth
Topsoil	2	2
Clay, brown	55	57
Clay, gray	158	215
Sand, fine	2	217
Sand, fine, interbedded clay	13	230

Domestic Well
S.I. = 217' - 230'

133-60-10DCC

Frederickson's, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 1/17/74

	Thickness	Depth
Topsoil	1	1
Clay, sandy	25	26
Boulder	1	27
Clay, silty	38	65
Clay, sandy	88	153
Sand	1	154
Clay, sandy	55	209
Sand	3	212
Clay, sandy	121	333
Shale	9	342

133-60-10DDC

Frederickson's, Inc.

Elevation: 1395
(ft, msl)

Date Drilled: 1/26/74

	Thickness	Depth
Topsoil	1	1
Clay, brown, sandy	23	24
Clay, blue, sandy	2	26
Clay, blue, silty, sandy	14	40
Clay, blue, sandy	72	112
Sand	1	113
Clay, sandy	7	120
Sand	9	129
Clay, sandy	58	187
Sand	2	189
Clay, sandy	16	205
Sand	5	210
Clay, sandy	2	212

Domestic Well

S.I. = 204'- 210'

133-60-12CCC

Frederickson's, Inc.

Elevation: 1415
(ft, msl)

Date Drilled: 3/20/75

	Thickness	Depth
Topsoil	1	1
Clay, brown, sandy	32	33
Sand, clayey	8	41
Clay, sandy	100	141
Sand	2	143
Clay, sandy	8	181
Boulder	1	182
Clay, sandy	9	191
Boulder	2	193
Clay, sandy	4	197
Sand	30	227

Domestic Well

S.I. = 215'- 225'

133-60-22DBC

Elevation: 1375
(ft, msl)

Date Drilled: 3/19/80

	Thickness	Depth
Topsoil	2	2
Clay, brown, sandy	16	18
Sand, coarse, gravelly	16	34
Sand, coarse	11	45
Clay, gray, cobbly	15	60

Well

S.I. = 25'- 45'

133-60-22DDB

Elevation: 1375
(ft, msl)

Date Drilled: 3/19/80

	Thickness	Depth
Topsoil	2	2
Clay, gray, silty	22	24
Clay, gray	33	57
Clay, gray, silty	14	71
Clay, gray	92	163
Clay, gray, sandy	8	171
Clay, gray, cobbly	49	220

133-60-23DBD

Traut Wells, Inc.

Elevation: 1405
(ft, msl)

Date Drilled: 8/9/77

	Thickness	Depth
Sand, fine	10	10
Clay	20	30
Clay, interbedded sand	7	37
Clay	14	51
Sand, coarse	2	53
Clay, silty, sandy	21	74
Sand, coarse	2	76
Clay, sandy	3	79
Sand, fine	16	95
Sand, coarse	5	100
Sand, fine	34	134
Clay	6	140

133-60-25AAC

M & W Drilling

Elevation: 1395
(ft, msl)

Date Drilled: 2/4/78

	Thickness	Depth
Topsoil	1	1
Sand, fine	12	13
Clay, brown	8	21
Silt, gray	18	39
Sand, coarse, clayey	2	41
Clay, gray, interbedded sand and gravel (till)	119	160
Clay, gray (till)	46	206
Sand, coarse, gravelly	33	239
Clay, cobbly	2	241

133-60-25BAC

M & W Drilling

Elevation: 1395
(ft, msl)

Date Drilled: 2/3/78

	Thickness	Depth
Topsoil	1	1
Sand, brown, fine	9	10
Sand, brown, medium	6	16
Clay, gray (till)	10	26
Sand, medium	3	29
Clay, gray, bouldery, interbedded sand and gravel (till)	176	205
Sand, gravelly	32	237
Clay, cobbly	3	240

133-60-25CBD
M & W Drilling

Elevation: 1403
(ft, msl)

Date Drilled: 2/14/77

	Thickness	Depth
Topsoil	1	1
Sand, fine	13	14
Sand, fine, silty	4	18
Clay, gray (till)	5	23
Silt, clayey	24	47
Sand, medium to coarse	4	51
Clay, cobbly (till)	9	60
Clay, interbedded sand and gravel (till)	60	120
Clay, gray (till)	96	216
Gravel, coarse	11	227
Clay, cobbly	2	229

133-60-25DEA
M & W Drilling

Elevation: 1397
(ft, msl)

Date Drilled: 2/13/78

	Thickness	Depth
Topsoil	1	1
Sand, fine, oxidized	13	14
Sand, fine, unoxidized	4	18
Clay, gray (till)	24	42
Sand, medium to coarse, clayey	16	58
Sand, coarse, gravelly	15	73
Gravel, interbedded clay and sand	6	79
Sand, clayey, gravelly	78	157
Sand, medium	5	162
Sand, fine, interbedded clay and gravel	43	205
Clay, gray	2	207
Sand, medium to coarse, gravelly	24	231
Clay, cobbly	4	235

133-60-25DDB

M & W Drilling

Elevation: 1397
(ft, msl)

Date Drilled: 2/9/77

	Thickness	Depth
Topsoil	1	1
Sand, fine	10	11
Clay, brown	13	24
Clay, gray, interbedded sand and gravel (till)	54	78
Gravel, sandy, cobbly	14	92
Clay, gray, interbedded silt (till)	18	110
Sand, gravelly	112	222
Shale	3	225

133-60-26CCA

LTP Enterprises, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 9/30/80

	Thickness	Depth
Topsoil	1	1
Sand, fine	8	9
Clay, sandy	30	39
Clay	15	54
Clay, sandy	149	203
Sand	5	208
Clay, sandy	1	209
Sand	1	210
Clay, sandy	15	225
Clay, sandy, shaley	17	242

133-60-26DAA

LTP Enterprises, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 9/3/80

	Thickness	Depth
Topsoil	1	1
Sand, fine	18	19
Clay, silty	4	23
Sandy, clay, interbedded sand	183	206
Sand	4	210
Sand, interbedded clay	5	215
Sand, shaley	6	221

133-60-26DAB

LTP Enterprises, Inc.

Elevation: 1402
(ft, msl)

Date Drilled: 9/3/80

	Thickness	Depth
Topsoil	2	2
Sand, fine	36	38
Clay, silty	9	47
Clay, sandy	12	59
Sand, fine	9	68
Clay, silty, sandy	16	84
Clay, sandy	20	104
Clay, sandy, interbedded gravel	7	111
Clay, sandy	9	120
Boulder	2	122
Clay, sandy, interbedded sand	99	221
Clay, sandy, shaley	11	232

133-60-26DDB

LTP Enterprises, Inc.

Elevation: 1402
(ft, msl)

Date Drilled: 9/3/80

	Thickness	Depth
Topsoil	1	1
Sand, fine	8	9
Clay, sandy	34	43
Sand, shaley	17	60
Clay, sandy	27	87
Sand	10	97
Clay, sandy, interbedded sand	11	108
Sand, medium	8	116
Sand, fine, clayey	13	129
Clay, sandy	21	150
Sand	2	152
Clay, sandy	53	205
Sand	9	214
Clay, sandy, shaley	26	240

133- 59-30BDB

LTP Enterprises, Inc.

Elevation: 1390
(ft, msl)

Date Drilled: 5/13/81

	Thickness	Depth
Sand	7	7
Clay, sandy, interbedded sand	83	90
Sand	13	103
Clay, sandy	6	109
Sand, fine	3	112
Clay, sandy	39	151
Sand, coarse	4	155
Clay, sandy	42	197
Sand, clayey, interbedded clay	3	200
Clay, sandy, interbedded sand	6	206
Sand	22	228
Boulder	4	232
Clay, sandy	10	242

133-60-36CCD

Lenius Well Drilling

Elevation: 1396
(ft, msl)

Date Drilled: 4/18/82

	Thickness	Depth
Topsoil	2	2
Clay, yellow	17	19
Clay, blue	26	45
Sand, fine	3	48
Clay, blue	42	90
Sand, fine	15	105
Clay, blue	103	208
Bedrock	17	225

Domestic Well

S.I. = 215' - 225'

134-60-07CCC

Traut Wells, Inc.

Elevation: 1420
(ft, msl)

Date Drilled: 2/20/76

	Thickness	Depth
Topsoil	2	2
Clay, brown, sandy	10	12
Clay, gray, sandy	22	34
Clay, gray, interbedded gravel	37	71
Clay, gray, sandy	36	107
Sand, coarse, clayey	13	120
Clay, gray, sandy	26	146
Sand, fine, clayey	22	168
Clay, gray, sandy	7	175

Domestic Well

S.I. = 37' - 71', 107' - 175'

134-60-19BBB

Traut Wells, Inc.

Elevation: 1415
(ft, msl)

Date Drilled: 5/16/79

	Thickness	Depth
Clay, brown	23	23
Clay, brown, interbedded sand	15	38
Clay, gray	175	213
Sand, coarse	42	255
Shale	5	260

Domestic Well

S.I. = 233' - 253'

134-60-26ABD

Frederickson's, Inc.

Elevation: 1422
(ft, msl)

Date Drilled: 2/2/65

	Thickness	Depth
Topsoil	2	2
Clay, sandy	33	35
Sand, clayey	5	40
Clay, sandy, bouldery	21	61
Sand	9	70
Clay, sandy	121	191
Sand	2	193
Clay	5	198
Sand	21	219
Clay	2	221

134-60-32ACD

Elevation: 1390
(ft, msl)

	Thickness	Depth
Topsoil	1	1
Clay, brown	33	34
Clay, interbedded sand (till)	123	157
Sand, medium to coarse	29	186
Clay (till)	14	200

134-60-32BAC

Traut Wells, Inc.

Elevation: 1405
(ft, msl)

Date Drilled: 4/4/77

	Thickness	Depth
Topsoil	2	2
Clay, brown	14	16
Clay, gray, interbedded sand	124	140
Clay, gray, sandy	80	220

134-60-32BDD

Traut Wells, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 4/4/77

	Thickness	Depth
Topsoil	1	1
Clay, yellow	5	6
Clay, brown	8	14
Clay, sandy	24	38
Sand, gravelly, interbedded clay	16	54
Sand, gravelly, clayey	6	60
Clay, sandy	93	153
Sand, medium, clayey	7	160
Clay, gray, sandy	44	204
Sand, coarse, interbedded clay	36	240
Clay, gray	10	250

Observation Well
S.I. = 200' - 240'

134-60-35DBC

Traut Wells, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 9/22/76

	Thickness	Depth
Clay, brown, sandy	23	23
Clay, gray, sandy, bouldery	84	107
Sand, interbedded clay	83	190
Sand, fine to coarse	20	210
Gravel, interbedded clay and sand	13	223
Shale	17	240

Observation Well

S.I. = 200'- 210'

134-60-35DBD

Traut Wells, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 3/7/77

	Thickness	Depth
Topsoil	2	2
Clay, brown	19	21
Clay, gray, sandy	173	194
Sand, coarse, interbedded clay	8	202
Sand, gravelly, clayey	2	204
Sand, interbedded clay	16	220
Clay, gray	20	240

Irrigation Well

S.I. = 195'- 214'
(Abandoned)

134-60-36AAD

Traut Wells, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 4/23/77

	Thickness	Depth
Topsoil	2	2
Clay, brown	14	16
Clay, brown, sandy	22	38
Clay, gray	145	183
Clay, gray, sandy	10	193
Sand, interbedded clay	7	200
Clay	20	220

134-60-36ABD

Traut Wells, Inc.

Elevation: 1400
(ft, msl)

Date Drilled: 4/26/77

	Thickness	Depth
Topsoil	5	5
Clay, brown	13	18
Clay, gray	22	40
Clay, gray, sandy	20	60
Clay, gray, interbedded sand	20	80
Clay, gray	105	185
Sand, gravelly	15	200
Sand, fine	10	210
Clay, gray		

Irrigation Well

S.I. = 185' - 200'
(Abandoned)

134-60-36ACC

Traut Wells, Inc.

Elevation: 1405
(ft, msl)

Date Drilled: 4/23/77

	Thickness	Depth
Topsoil	2	2
Clay, brown	19	21
Clay, gray	49	70
Clay, interbedded sand	13	83
Clay, gray	97	180
Sand, fine, interbedded clay	10	190
Sand, coarse, interbedded clay	30	220
Clay, sandy	15	235

134-60-36CBA

Traut Wells, Inc.

Elevation: 1397
(ft, msl)

Date Drilled: 9/22/76

	Thickness	Depth
Topsoil	1	1
Clay, brown	6	7
Clay, brown, sandy	28	35
Clay, gray	21	56
Sand, fine, silty	51	107
Clay, gray, sandy	66	173
Sand, silty, clayey	30	203
Sand, coarse	31	234
Shale	6	240

Observation Well

S.I. = 216' - 236'
(Destroyed)

134-60-36CBB

Traut Wells, Inc.

Elevation: 1395
(ft, msl)

Date Drilled: 7/27/76

	Thickness	Depth
Topsoil	1	1
Clay, brown	19	20
Clay, gray, sandy	170	190
Sand, gravelly	41	231
Clay, gray	4	235

134-60-36CCB

Traut Wells, Inc.

Elevation: 1395
(ft, msl)

Date Drilled: 10/7/76

	Thickness	Depth
Topsoil	1	1
Clay, brown, sandy	22	23
Clay, gray, sandy, cobbly	84	107
Clay, sandy	83	190
Sand, coarse	20	210
Gravel	15	225
Shale	15	240

Irrigation Well

S.I. = 200' - 225'
(Abandoned)

134-61-03CCC

Traut Wells, Inc.

Elevation: 1443
(ft, msl)

Date Drilled: 8/3/81

	Thickness	Depth
Topsoil	2	2
Clay, brown	39	41
Gravel, coarse	3	44
Clay, gray	2	46
Clay, brown	2	48
Clay, gray	138	186
Clay, gray, pebbly	94	280

134-61-06CDD

Traut Wells, Inc.

Elevation: 1435
(ft, msl)

Date Drilled: 3/30/79

	Thickness	Depth
Clay, brown, sandy	9	9
Sand	10	19
Clay, brown	23	42
Clay, brown, interbedded sand	42	84
Clay, gray	58	142
Clay, gray, sandy	6	148
Clay, gray, shaley	52	200

134-61-12ABC

Traut Wells, Inc.

Elevation: 1410
(ft, msl)

Date Drilled: 1/29/79

	Thickness	Depth
Clay, brown	6	6
Sand, brown, fine	1	7
Clay, brown	11	18
Sand	16	34
Clay, gray	221	255

134-61-12ADA

Traut Wells, Inc.

Elevation: 1415
(ft, msl)

Date Drilled: 1/29/79

	Thickness	Depth
Clay, brown	9	9
Boulder	1	10
Clay, brown	8	18
Sand	16	34
Clay, gray	9	43
Sand	13	56
Clay, gray, silty	144	200
Clay, gray	30	230

134-61-12ADB

Traut Wells, Inc.

Elevation: 1410
(ft, msl)

Date Drilled: 1/27/77

	Thickness	Depth
Topsoil	4	4
Clay, white to yellow	5	9
Clay, brown	9	18
Clay, gray	2	20
Clay, sandy	5	25
Sand, gravelly	13	38
Clay, gray, sandy	110	148
Sand	2	150
Clay, gray, sandy	30	180

134-61-24DCC
M & W Drilling

Elevation: 1428
(ft, msl)

Date Drilled: 8/17/83

	Thickness	Depth
Topsoil	1	1
Clay, brown	17	18
Clay, gray	37	55
Sand, medium	6	61
Clay, gray (till)	128	189
Sand, medium	4	193
Clay, gray (till)	32	225
Gravel, sandy	10	235
Sand, medium	7	242
Sand, gravelly	6	248
Shale		

Domestic Well
S.I. = 225' - 235'

TABLE 2

Water levels in selected wells

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-057-01CCC

AQUIFER

WELL SCREENED FROM 158-161 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1304.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/14/79	21.12	1283.08	11/29/83	26.35	1277.85
08/28/79	21.12	1283.08			
09/11/79	21.34	1282.86			
09/25/79	21.50	1282.70			
10/09/79	21.64	1282.56			
10/23/79	21.73	1282.47			
12/12/79	21.63	1282.57			
04/01/80	21.43	1282.77			
05/22/80	21.41	1282.79			
06/17/80	21.37	1282.83			
07/16/80	21.67	1282.53			
08/13/80	22.15	1282.05			
09/10/80	22.83	1281.37			
10/08/80	23.25	1280.95			
11/05/80	23.39	1280.81			
12/03/80	23.48	1280.72			
04/14/81	23.20	1281.00			
05/13/81	23.14	1281.06			
06/12/81	23.18	1281.02			
07/08/81	23.39	1280.81			
08/05/81	23.67	1280.53			
09/01/81	24.30	1279.90			
10/01/81	25.11	1279.09			
10/27/81	25.39	1278.81			
11/23/81	25.43	1278.77			
12/29/81	25.25	1278.95			
04/13/82	24.36	1279.84			
05/11/82	24.22	1279.98			
06/09/82	23.84	1280.36			
07/07/82	23.88	1280.32			
08/04/82	24.34	1279.86			
09/01/82	25.45	1278.75			
09/28/82	26.53	1277.67			
10/27/82	26.86	1277.34			
12/01/82	26.76	1277.44			
04/26/83	25.08	1279.12			
05/24/83	24.79	1279.41			
06/22/83	24.64	1279.56			
07/19/83	24.55	1279.65			
08/16/83	25.03	1279.17			
09/14/83	25.99	1278.21			
10/18/83	26.46	1277.74			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-057-03AAA

. AQUIFER

WELL SCREENED FROM 108-111 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1318.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/14/79	26.92	1291.88
08/28/79	27.06	1291.74
09/11/79	27.43	1291.37
09/25/79	27.74	1291.06
10/09/79	27.97	1290.83
10/23/79	28.15	1290.65
12/12/79	27.84	1290.96
04/01/80	28.00	1290.80
05/22/80	28.02	1290.78
06/17/80	27.75	1291.05
07/16/80	27.92	1290.88
08/13/80	28.89	1289.91
09/10/80	29.65	1289.15
10/08/80	29.86	1288.94
11/05/80	29.81	1288.99
12/03/80	29.70	1289.10
04/14/81	29.50	1289.30
05/13/81	29.70	1289.10
06/12/81	29.88	1288.92
07/08/81	29.83	1288.97
09/01/81	30.87	1287.93
10/01/81	31.62	1287.18
10/27/81	31.56	1287.24
12/29/81	31.10	1287.70
04/13/82	30.55	1288.25
05/11/82	30.25	1288.55
06/09/82	29.65	1289.15
07/07/82	29.54	1289.26
08/04/82	30.14	1288.66
09/01/82	31.36	1287.44
09/28/82	32.24	1286.56
10/27/82	32.01	1286.79
12/01/82	31.65	1287.15
04/26/83	30.26	1288.54
05/24/83	23.40	1295.40
06/22/83	29.74	1289.06
07/19/83	29.74	1289.06
08/16/83	30.50	1288.30
09/14/83	31.67	1287.13
10/18/83	31.74	1287.06
11/29/83	31.34	1287.46

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-057-05BBB1

. AQUIFER

WELL SCREENED FROM 153-156 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1301.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/14/79	8.22	1293.68	11/29/83	9.22	1292.68
08/28/79	9.77	1292.13			
09/11/79	9.12	1292.78			
09/25/79	8.59	1293.31			
10/09/79	8.29	1293.61			
10/23/79	8.02	1293.88			
12/12/79	7.24	1294.66			
04/01/80	7.98	1293.92			
05/22/80	7.12	1294.78			
06/17/80	6.89	1295.01			
07/16/80	10.69	1291.21			
08/13/80	13.20	1288.70			
09/10/80	10.23	1291.67			
10/08/80	10.05	1291.85			
11/05/80	9.40	1292.50			
12/03/80	9.04	1292.86			
04/14/81	8.92	1292.98			
05/13/81	9.30	1292.60			
06/12/81	10.13	1291.77			
07/08/81	10.27	1291.63			
08/05/81	13.47	1288.43			
09/01/81	14.89	1287.01			
10/01/81	12.23	1289.67			
10/27/81	10.79	1291.11			
11/23/81	10.14	1291.76			
12/29/81	9.79	1292.11			
04/13/82	8.72	1293.18			
05/11/82	8.23	1293.67			
06/09/82	7.62	1294.28			
07/06/82	11.44	1290.46			
08/04/82	17.22	1284.68			
09/01/82	16.60	1285.30			
09/28/82	13.62	1288.28			
10/27/82	11.05	1290.85			
12/01/82	9.82	1292.08			
04/26/83	8.63	1293.27			
05/24/83	8.17	1293.73			
06/22/83	8.70	1293.20			
07/19/83	12.35	1289.55			
08/16/83	18.83	1283.07			
09/14/83	14.00	1287.90			
10/18/83	11.27	1290.63			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-057-05BBB2

. AQUIFER

WELL SCREENED FROM 100-103 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1301.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/14/79	8.22	1293.58	11/29/83	10.15	1291.65
08/28/79	9.69	1292.11			
09/11/79	8.96	1292.84			
09/25/79	8.46	1293.34			
10/09/79	8.18	1293.62			
10/23/79	7.95	1293.85			
12/12/79	7.16	1294.64			
04/01/80	7.90	1293.90			
05/22/80	7.02	1294.78			
06/17/80	6.79	1295.01			
07/16/80	10.64	1291.16			
08/13/80	13.00	1288.80			
09/10/80	10.56	1291.24			
10/08/80	9.89	1291.91			
11/05/80	9.30	1292.50			
12/03/80	9.01	1292.79			
04/14/81	8.85	1292.95			
05/13/81	9.17	1292.63			
06/12/81	10.00	1291.80			
07/08/81	10.23	1291.57			
08/05/81	13.32	1288.48			
09/01/81	14.82	1286.98			
10/01/81	12.03	1289.77			
10/27/81	10.66	1291.14			
11/23/81	10.03	1291.77			
12/29/81	9.70	1292.10			
04/13/82	8.62	1293.18			
05/11/82	8.13	1293.67			
06/09/82	7.54	1294.26			
07/06/82	11.80	1290.00			
08/04/82	17.22	1284.58			
09/01/82	16.46	1285.34			
09/28/82	13.42	1288.38			
10/27/82	10.90	1290.90			
12/01/82	9.70	1292.10			
04/26/83	8.56	1293.24			
05/24/83	8.07	1293.73			
06/22/83	8.63	1293.17			
07/19/83	12.23	1289.57			
08/16/83	18.79	1283.01			
09/14/83	13.85	1287.95			
10/18/83	11.15	1290.65			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-057-08DDD1

AQUIFER

WELL SCREENED FROM 143-146 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1292.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/15/79	1.88	1290.32
08/28/79	3.28	1288.92
09/11/79	4.16	1288.04
09/25/79	2.75	1289.45
10/09/79	1.90	1290.30
10/23/79	1.35	1290.85
05/22/80	0.58	1291.62
06/17/80	0.43	1291.77
07/16/80	5.05	1287.15
08/13/80	8.53	1283.67
09/10/80	6.14	1286.06
10/08/80	4.29	1287.91
11/05/80	3.10	1289.10
12/03/80	2.42	1289.78
04/14/81	1.98	1290.22
05/13/81	3.44	1288.76
06/11/81	4.75	1287.45
07/08/81	4.55	1287.65
08/05/81	7.76	1284.44
09/01/81	9.86	1282.34
10/01/81	7.91	1284.29
10/27/81	5.34	1286.86
11/23/81	4.04	1288.16
12/29/81	4.29	1287.91
04/13/82	2.17	1290.03
05/11/82	2.00	1290.20
06/09/82	1.17	1291.03
07/06/82	3.25	1288.95
08/04/82	10.18	1282.02
09/01/82	13.75	1278.45
09/28/82	10.13	1282.02
10/27/82	6.23	1285.97
12/01/82	3.04	1289.16
04/26/83	1.97	1290.23
05/24/83	1.60	1290.60
06/22/83	1.92	1290.28
07/19/83	6.36	1285.84
08/16/83	12.42	1279.78
09/14/83	9.54	1282.66
10/18/83	5.85	1286.35
11/29/83	3.95	1288.25

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-057-08DDD2

. AQUIFER

WELL SCREENED FROM 33- 36 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1292. 6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/14/79	4. 05	1288. 55	11/29/83	6. 60	1286. 00
08/28/79	4. 19	1288. 41			
09/11/79	4. 57	1288. 03			
09/25/79	4. 97	1287. 63			
10/09/79	5. 17	1287. 43			
10/23/79	5. 13	1287. 47			
12/12/79	4. 83	1287. 77			
04/01/80	5. 10	1287. 50			
05/22/80	4. 67	1287. 93			
06/17/80	4. 24	1288. 36			
07/16/80	5. 32	1287. 28			
08/13/80	5. 98	1286. 62			
09/10/80	6. 38	1286. 22			
10/08/80	6. 68	1285. 92			
11/05/80	6. 34	1286. 26			
12/03/80	6. 45	1286. 15			
04/14/81	6. 05	1286. 55			
05/13/81	6. 08	1286. 52			
06/11/81	5. 90	1286. 70			
07/08/81	5. 85	1286. 75			
08/05/81	6. 27	1286. 33			
09/01/81	6. 86	1285. 74			
10/01/81	7. 32	1285. 28			
10/27/81	6. 90	1285. 70			
11/23/81	6. 96	1285. 64			
12/29/81	7. 06	1285. 54			
04/13/82	5. 63	1286. 97			
05/11/82	5. 35	1287. 25			
06/09/82	4. 89	1287. 71			
07/06/82	5. 50	1287. 10			
08/04/82	5. 42	1287. 18			
09/01/82	7. 18	1285. 42			
09/28/82	7. 49	1285. 11			
10/27/82	6. 25	1286. 35			
12/01/82	6. 09	1286. 51			
04/26/83	5. 39	1287. 21			
05/24/83	5. 16	1287. 44			
06/22/83	5. 60	1287. 00			
07/19/83	5. 67	1286. 93			
08/16/83	6. 47	1286. 13			
09/14/83	6. 93	1285. 67			
10/18/83	6. 84	1285. 76			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-057-17BBB

AQUIFER

WELL SCREENED FROM 198-201 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1331.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/24/80	44.18	1287.32
07/29/80	44.90	1286.60
08/13/80	46.02	1285.48
09/10/80	44.33	1287.17
10/08/80	41.84	1289.66
11/05/80	40.85	1290.65
12/03/80	40.40	1291.10
04/14/81	40.09	1291.41
05/13/81	41.18	1290.32
06/11/81	42.32	1289.18
07/08/81	42.10	1289.40
08/05/81	45.76	1285.74
09/01/81	47.17	1284.33
10/01/81	44.89	1286.61
10/27/81	42.68	1288.82
11/23/81	41.70	1289.80
12/29/81	41.12	1290.38
04/13/82	40.02	1291.48
05/11/82	39.58	1291.92
06/09/82	38.92	1292.58
07/06/82	41.91	1289.59
08/04/82	48.64	1282.86
09/01/82	50.46	1281.04
09/28/82	46.80	1284.70
10/27/82	43.32	1288.18
12/01/82	41.51	1289.99
04/26/83	39.91	1291.59
05/24/83	39.52	1291.98
06/22/83	39.92	1291.58
07/19/83	44.64	1286.86
08/16/83	50.99	1280.51
09/14/83	46.64	1284.86
10/18/83	43.16	1288.34
11/29/83	41.71	1289.79

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

130-058-09AAA

. AQUIFER

WELL SCREENED FROM 158-161 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1407.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/14/79	89.10	1318.10
08/28/79	88.82	1318.38
09/11/79	89.00	1318.20
09/25/79	89.03	1318.17
10/09/79	89.03	1318.17
10/23/79	89.12	1318.08
12/12/79	89.01	1318.19
04/01/80	89.00	1318.20
05/21/80	88.97	1318.23
06/17/80	89.04	1318.16
08/13/80	89.34	1317.86
09/10/80	89.52	1317.68
10/08/80	89.38	1317.82
11/05/80	89.44	1317.76
12/11/80	89.62	1317.58
04/14/81	90.09	1317.11
05/13/81	89.85	1317.35
06/11/81	89.89	1317.31
07/08/81	89.80	1317.40
09/01/81	90.34	1316.86
10/01/81	90.36	1316.84
10/27/81	90.19	1317.01
11/23/81	90.22	1316.98
12/29/81	90.45	1316.75
04/13/82	90.31	1316.89
05/11/82	90.39	1316.81
06/09/82	90.31	1316.89
07/06/82	90.39	1316.81
08/04/82	91.57	1315.63
09/01/82	91.12	1316.08
09/28/82	90.80	1316.40
10/27/82	90.83	1316.37
12/01/82	90.65	1316.55
04/26/83	90.83	1316.37
05/24/83	91.00	1316.20
06/22/83	90.06	1317.14
07/19/83	91.10	1316.10
08/16/83	91.40	1315.80
09/14/83	91.70	1315.50
10/18/83	91.47	1315.73
11/29/83	91.39	1315.81

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-057-31CCC

AQUIFER

WELL SCREENED FROM 198-201 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1303.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/23/80	13.37	1290.03
07/29/80	14.04	1289.36
08/13/80	15.08	1288.32
09/10/80	12.57	1290.83
10/08/80	11.66	1291.74
11/05/80	10.96	1292.44
12/03/80	10.60	1292.80
04/14/81	10.45	1292.95
05/13/81	11.00	1292.40
06/12/81	11.87	1291.53
07/08/81	11.69	1291.71
08/05/81	15.27	1288.13
09/01/81	16.38	1287.02
10/01/81	14.17	1289.23
10/27/81	12.53	1290.87
11/23/81	12.01	1291.39
12/29/81	11.22	1292.18
04/13/82	10.32	1293.08
05/11/82	9.83	1293.57
06/09/82	9.19	1294.21
07/06/82	12.25	1291.15
08/04/82	18.25	1285.15
09/01/82	18.46	1284.94
09/28/82	15.60	1287.80
10/27/82	13.88	1289.52
12/01/82	11.47	1291.93
04/26/83	10.23	1293.17
05/24/83	9.78	1293.62
06/22/83	10.30	1293.10
07/19/83	14.22	1289.18
08/16/83	20.21	1283.19
09/14/83	16.00	1287.40
10/18/83	13.01	1290.39
11/29/83	11.85	1291.55

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-058-20BBB

. AQUIFER

WELL SCREENED FROM 188-191 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1328.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/23/80	23.82	1304.88
08/13/80	23.92	1304.78
09/10/80	20.71	1307.99
10/08/80	20.26	1308.44
11/05/80	20.14	1308.56
12/03/80	20.10	1308.60
04/14/81	20.54	1308.16
05/13/81	23.39	1305.31
06/11/81	21.27	1307.43
07/08/81	21.27	1307.43
08/05/81	25.50	1303.20
09/01/81	27.09	1301.61
10/01/81	22.80	1305.90
10/27/81	21.42	1307.28
11/23/81	21.17	1307.53
12/29/81	21.15	1307.55
04/13/82	20.95	1307.75
05/11/82	21.01	1307.69
06/09/82	20.58	1308.12
07/06/82	26.35	1302.35
08/04/82	31.14	1297.56
09/01/82	29.03	1299.67
09/28/82	23.89	1304.81
10/27/82	22.51	1306.19
12/01/82	22.00	1306.70
04/26/83	21.52	1307.18
05/23/83	21.50	1307.20
06/22/83	22.38	1306.32
07/19/83	24.90	1303.80
08/16/83	32.44	1296.26
09/14/83	24.82	1303.88
10/18/83	23.14	1305.56
11/29/83	22.65	1306.05

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-058-27ABA

. AQUIFER

WELL SCREENED FROM 208-211 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1334.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/24/79	25.31	1309.39	07/19/83	29.77	1304.93
05/22/79	24.72	1309.98	08/16/83	34.72	1299.98
06/20/79	24.31	1310.39	09/14/83	30.34	1304.36
07/17/79	25.57	1309.13	10/18/83	28.95	1305.75
08/14/79	27.17	1307.53	11/29/83	28.51	1306.19
08/28/79	26.70	1308.00			
09/11/79	26.85	1307.85			
09/25/79	25.85	1308.85			
10/09/79	25.55	1309.15			
10/23/79	25.41	1309.29			
12/12/79	25.25	1309.45			
04/01/80	25.52	1309.18			
05/21/80	25.86	1308.84			
06/17/80	25.72	1308.98			
07/16/80	28.08	1306.62			
08/13/80	29.08	1305.62			
09/10/80	27.10	1307.60			
10/08/80	26.67	1308.03			
11/05/80	26.53	1308.17			
12/03/80	26.55	1308.15			
04/14/81	26.84	1307.86			
05/13/81	28.24	1306.46			
06/11/81	27.49	1307.21			
07/08/81	27.28	1307.42			
08/05/81	30.23	1304.47			
09/01/81	31.13	1303.57			
10/01/81	28.24	1306.46			
10/27/81	27.65	1307.05			
11/23/81	27.42	1307.28			
12/29/81	27.38	1307.32			
04/13/82	27.16	1307.54			
05/11/82	27.04	1307.66			
06/09/82	26.77	1307.93			
07/06/82	29.90	1304.80			
08/04/82	34.25	1300.45			
09/01/82	32.89	1301.81			
09/28/82	29.83	1304.87			
10/27/82	28.42	1306.28			
12/01/82	27.99	1306.71			
04/26/83	27.61	1307.09			
05/24/83	27.54	1307.16			
06/22/83	28.31	1306.39			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-058-32BCC1

AQUIFER

WELL SCREENED FROM 148-151 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1305.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/23/80	3.80	1302.00
08/13/80	3.03	1302.77
05/13/81	10.05	1295.75
06/11/81	1.20	1304.60
07/08/81	0.57	1305.23
08/05/81	12.22	1293.58
09/01/81	10.72	1295.08
10/01/81	0.65	1305.15
10/27/81	1.41	1304.39
07/06/82	19.54	1286.26
08/04/82	23.10	1282.70
09/01/82	14.18	1291.62
09/28/82	1.45	1304.35
10/27/82	0.37	1305.43
04/26/83	1.48	1304.32
05/24/83	1.50	1304.30
06/22/83	0.26	1305.54
07/19/83	3.87	1301.93
08/16/83	23.43	1282.37
09/14/83	2.26	1303.54
10/18/83	0.24	1305.56

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-058-32BCC2

AQUIFER

WELL SCREENED FROM 31- 34 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1305.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/23/80	7.60	1298.10
08/13/80	7.46	1298.24
09/10/80	7.74	1297.96
10/08/80	7.90	1297.80
11/05/80	7.87	1297.83
12/03/80	7.87	1297.83
04/14/81	8.19	1297.51
05/13/81	7.96	1297.74
06/11/81	7.90	1297.80
07/08/81	7.04	1298.66
08/05/81	6.91	1298.79
09/01/81	7.17	1298.53
10/01/81	7.45	1298.25
10/27/81	7.32	1298.38
11/23/81	7.39	1298.31
12/29/81	7.55	1298.15
04/13/82	6.88	1298.82
05/11/82	6.57	1299.13
06/09/82	6.09	1299.61
07/06/82	6.48	1299.22
08/04/82	6.87	1298.83
09/01/82	7.40	1298.30
09/28/82	7.70	1298.00
10/27/82	6.35	1299.35
12/01/82	6.20	1299.50
04/26/83	6.03	1299.67
05/24/83	5.69	1300.01
06/22/83	5.74	1299.96
07/19/83	5.15	1300.55
08/16/83	5.39	1300.31
09/14/83	5.72	1299.98
10/18/83	5.90	1299.80
11/29/83	5.85	1299.85

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-01CCC

. AQUIFER

WELL SCREENED FROM 172-175 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1336.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/26/78	19.64	1316.66	04/13/82	22.59	1313.71
06/07/78	20.17	1316.13	05/11/82	22.90	1313.40
06/21/78	21.40	1314.90	06/09/82	21.51	1314.79
07/07/78	20.95	1315.35	07/06/82	55.85	1280.45
07/17/78	22.35	1313.95	08/04/82	78.04	1258.26
08/02/78	27.00	1309.30	09/01/82	73.60	1262.70
08/17/78	30.02	1306.28	09/28/82	42.71	1293.59
08/19/78	30.22	1306.08	10/27/82	32.25	1304.05
09/14/78	28.79	1307.51	12/01/82	27.29	1309.01
09/26/78	27.12	1309.18			
12/04/78	22.18	1314.12	04/26/83	21.79	1314.51
			05/24/83	21.58	1314.72
04/24/79	19.45	1316.85	06/22/83	28.85	1307.45
05/22/79	19.23	1317.07	07/19/83	48.45	1287.85
06/20/79	20.43	1315.87	08/16/83	84.56	1251.74
07/17/79	24.01	1312.29	09/14/83	56.40	1279.90
08/14/79	28.28	1308.02	10/18/83	34.93	1301.37
08/28/79	28.51	1307.79	11/29/83	31.16	1305.14
09/11/79	28.79	1307.51			
09/25/79	27.92	1308.38			
10/09/79	26.08	1310.22			
10/23/79	24.85	1311.45			
11/15/79	23.22	1313.08			
12/12/79	21.83	1314.47			
04/01/80	19.73	1316.57			
05/21/80	22.57	1313.73			
06/17/80	23.67	1312.63			
07/15/80	29.65	1306.65			
08/13/80	33.08	1303.22			
09/10/80	28.83	1307.47			
10/08/80	26.81	1309.49			
11/05/80	24.55	1311.75			
12/03/80	23.09	1313.21			
04/14/81	20.62	1315.68			
05/13/81	22.95	1313.35			
06/11/81	27.30	1309.00			
07/08/81	28.42	1307.88			
08/05/81	38.07	1298.23			
09/03/81	46.90	1289.40			
10/01/81	33.40	1302.90			
10/27/81	28.73	1307.57			
11/23/81	26.04	1310.26			
12/29/81	24.13	1312.17			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-01DDA

SPW. AQUIFER

WELL SCREENED FROM 163-166 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1328.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/13/76	13.97	1314.43	09/10/80	20.72	1307.68
06/10/76	14.43	1313.97	10/08/80	19.64	1308.76
07/07/76	15.60	1312.80	11/05/80	18.82	1309.58
08/03/76	16.43	1311.97	12/03/80	18.28	1310.12
09/08/76	16.55	1311.85			
10/27/76	15.80	1312.60	04/14/81	17.42	1310.98
12/01/76	15.52	1312.88	05/13/81	18.40	1310.00
			06/11/81	20.14	1308.26
03/15/77	15.27	1313.13	07/08/81	20.25	1308.15
04/12/77	15.35	1313.05	08/05/81	25.62	1302.78
05/10/77	15.66	1312.74	09/02/81	29.04	1299.36
06/09/77	16.73	1311.67	10/01/81	23.59	1304.81
08/02/77	20.77	1307.63	10/27/81	21.25	1307.15
09/07/77	19.95	1308.45	11/23/81	20.05	1308.35
10/13/77	18.39	1310.01	12/29/81	19.24	1309.16
04/26/78	16.40	1312.00	04/13/82	18.50	1309.90
06/07/78	16.44	1311.96	05/11/82	18.25	1310.15
06/21/78	17.25	1311.15	06/09/82	18.01	1310.39
07/07/78	16.90	1311.50	07/06/82	29.57	1298.83
07/17/78	17.54	1310.86	08/04/82	44.70	1283.70
08/02/78	19.63	1308.77	09/01/82	43.98	1284.42
08/17/78	20.88	1307.52	09/28/82	29.74	1298.66
08/29/78	21.10	1307.30	10/27/82	23.87	1304.53
09/14/78	20.32	1308.08	12/01/82	21.37	1307.03
09/26/78	19.52	1308.88			
12/04/78	17.34	1311.06	04/26/83	18.78	1309.62
			05/24/83	18.72	1309.68
04/24/79	16.25	1312.15	06/22/83	21.82	1306.58
05/22/79	16.06	1312.34	07/19/83	31.10	1297.30
06/20/79	16.17	1312.23	08/16/83	46.26	1282.14
07/17/79	18.00	1310.40	09/14/83	36.85	1291.55
08/14/79	20.10	1308.30	10/18/83	25.48	1302.92
08/28/79	20.17	1308.23	11/29/83	22.54	1305.86
09/11/79	20.22	1308.18			
09/25/79	19.58	1308.82			
10/09/79	18.88	1309.52			
10/23/79	18.27	1310.13			
11/15/79	17.17	1311.23			
12/12/79	17.11	1311.29			
04/01/80	16.29	1312.11			
05/21/80	17.38	1311.02			
06/17/80	17.85	1310.55			
07/15/80	20.73	1307.67			
08/13/80	23.09	1305.31			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-02AAA

SPW. AQUIFER

WELL SCREENED FROM 158-161 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1316.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/14/75	0.81	1315.69	12/03/80	5.63	1310.87
06/18/75	0.14	1316.36			
07/17/75	0.15	1316.35	04/14/81	3.14	1313.36
08/14/75	2.02	1314.48	05/13/81	5.20	1311.30
09/11/75	0.18	1316.32	06/11/81	9.82	1306.68
10/07/75	0.44	1316.06	07/08/81	11.47	1305.03
			08/05/81	20.59	1295.91
05/04/76	1.50	1315.00	09/03/81	30.52	1285.98
06/10/76	0.41	1316.09	10/01/81	16.69	1299.81
07/07/76	2.47	1314.03	10/27/81	11.38	1305.12
08/03/76	3.66	1312.84	11/23/81	8.62	1307.88
09/08/76	3.47	1313.03	12/29/81	6.46	1310.04
10/07/76	2.14	1314.36			
			04/13/82	5.09	1311.41
04/26/78	1.83	1314.67	05/11/82	4.47	1312.03
06/07/78	2.23	1314.27	06/09/82	4.01	1312.49
06/21/78	3.50	1313.00	07/06/82	35.39	1281.11
07/07/78	3.05	1313.45	08/04/82	61.62	1254.88
07/17/78	4.25	1312.25	09/01/82	55.06	1261.44
08/02/78	8.70	1307.80	09/28/82	25.82	1290.68
08/17/78	11.65	1304.85	10/27/82	15.03	1301.47
08/29/78	12.13	1304.37	12/01/82	9.95	1306.55
09/14/78	10.99	1305.51			
09/26/78	9.38	1307.12	04/26/83	4.28	1312.22
12/04/78	4.40	1312.10	05/24/83	4.09	1312.41
			06/22/83	11.37	1305.13
04/24/79	1.68	1314.82	07/19/83	30.80	1285.70
05/22/79	1.48	1315.02	08/16/83	64.25	1252.25
06/20/79	2.97	1313.53	09/14/83	39.45	1277.05
07/17/79	6.34	1310.16	10/18/83	17.85	1298.65
08/14/79	10.45	1306.05	11/29/83	13.92	1302.58
08/28/79	10.90	1305.60			
09/11/79	10.17	1306.33			
09/25/79	10.47	1306.03			
10/09/79	8.70	1307.80			
10/23/79	7.47	1309.03			
11/15/79	5.83	1310.67			
12/12/79	4.43	1312.07			
05/21/80	4.88	1311.62			
06/17/80	6.12	1310.38			
07/15/80	11.64	1304.86			
08/13/80	15.45	1301.05			
09/10/80	11.42	1305.08			
10/08/80	9.44	1307.06			
11/05/80	7.15	1309.35			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-03BAA

SPW. AQUIFER

WELL SCREENED FROM 197-200 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1334.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/27/81	28.35	1305.65
09/03/81	28.51	1305.49
09/30/81	19.00	1315.00
10/29/81	13.91	1320.09
11/24/81	11.70	1322.30
04/14/82	7.33	1326.67
05/12/82	10.03	1323.97
06/08/82	7.28	1326.72
07/08/82	30.02	1303.98
08/05/82	46.68	1287.32
09/01/82	43.77	1290.23
09/29/82	28.58	1305.42
10/28/82	20.51	1313.49
12/01/82	16.50	1317.50
05/12/83	10.29	1323.71
05/24/83	10.66	1323.34
06/22/83	18.67	1315.33
07/20/83	28.09	1305.91
08/17/83	46.38	1287.62
09/15/83	34.18	1299.82
10/18/83	22.22	1311.78
11/30/83	17.94	1316.06

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-03BBB

SPW. AQUIFER

WELL SCREENED FROM 178-184 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1326.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/14/75	0.35	1326.25	11/05/80	6.49	1320.11
06/18/75	0.49	1326.11	12/03/80	4.51	1322.09
07/17/75	0.47	1326.13			
08/14/75	0.47	1326.13	04/14/81	3.96	1322.64
09/11/75	0.47	1326.13	05/13/81	7.81	1318.79
10/07/75	0.42	1326.18	06/11/81	9.98	1316.62
11/13/75	0.41	1326.19	07/07/81	10.18	1316.42
			08/05/81	19.90	1306.70
05/04/76	0.35	1326.25	09/03/81	28.70	1297.90
06/10/76	0.62	1325.98	10/01/81	14.54	1312.06
07/07/76	0.56	1326.04	10/29/81	9.44	1317.16
08/03/76	0.11	1326.49	11/24/81	7.23	1319.37
09/08/76	1.06	1325.54			
10/07/76	0.45	1326.15	05/12/82	5.59	1321.01
			06/08/82	2.84	1323.76
04/26/78	0.78	1325.82	07/08/82	25.53	1301.07
06/07/78	1.22	1325.38	08/05/82	42.04	1284.56
06/21/78	3.18	1323.42	09/01/82	39.08	1287.52
07/07/78	1.89	1324.71	09/29/82	24.00	1302.60
07/17/78	2.52	1324.08	10/28/82	16.01	1310.59
08/02/78	8.72	1317.88	12/01/82	12.01	1314.59
08/17/78	12.55	1314.05			
08/29/78	12.97	1313.63	04/27/83	6.25	1320.35
09/14/78	14.26	1312.34	05/24/83	6.26	1320.34
09/26/78	10.12	1316.48	06/22/83	14.32	1312.28
12/05/78	0.74	1325.86	07/20/83	23.54	1303.06
			08/17/83	41.64	1284.96
04/25/79	0.43	1326.17	09/15/83	29.60	1297.00
05/22/79	0.37	1326.23	10/18/83	17.77	1308.83
06/20/79	5.54	1321.06	11/30/83	13.50	1313.10
07/17/79	7.28	1319.32			
08/14/79	9.74	1316.86			
08/28/79	11.14	1315.46			
09/11/79	14.60	1312.00			
09/25/79	10.94	1315.66			
10/09/79	3.00	1323.60			
10/23/79	8.94	1317.66			
11/15/79	4.88	1321.72			
12/07/79	3.30	1323.30			
05/21/80	7.44	1319.16			
06/17/80	5.08	1321.52			
07/15/80	18.10	1308.50			
08/13/80	22.49	1304.11			
09/10/80	13.51	1313.09			
10/08/80	10.93	1315.67			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-05AAA

SPW. AQUIFER

WELL SCREENED FROM 187-190 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1346.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/27/81	44.74	1301.96
09/03/81	44.39	1302.31
09/30/81	31.78	1314.92
10/29/81	27.04	1319.66
11/24/81	25.00	1321.70
01/13/82	22.92	1323.78
04/14/82	20.80	1325.90
05/12/82	24.54	1322.16
06/08/82	20.86	1325.84
07/07/82	38.08	1308.62
08/05/82	53.97	1292.73
09/01/82	53.50	1293.20
09/29/82	40.37	1306.33
10/28/82	33.07	1313.63
12/01/82	31.14	1315.56
04/27/83	24.09	1322.61
05/24/83	23.75	1322.95
06/22/83	31.92	1314.78
07/20/83	39.25	1307.45
08/17/83	53.69	1293.01
09/15/83	44.60	1302.10
10/18/83	36.67	1310.03
11/30/83	32.37	1314.33

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-05BAA1

SPW. AQUIFER

WELL SCREENED FROM 166-171 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1351.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	44.82	1306.68
10/28/82	36.22	1315.28
12/01/82	28.45	1323.05
04/27/83	28.05	1323.45
05/24/83	27.72	1323.78
06/22/83	35.42	1316.08
07/20/83	43.50	1308.00
08/17/83	58.08	1293.42
09/15/83	49.09	1302.41
10/18/83	38.97	1312.53
11/30/83	34.62	1316.88

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-05BAA2

. AQUIFER

WELL SCREENED FROM 98-103 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1351.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	12.93	1338.87
10/28/82	13.39	1338.41
12/01/82	13.72	1338.08
04/27/83	14.40	1337.40
05/24/83	14.17	1337.63
06/22/83	13.96	1337.84
07/20/83	13.96	1337.84
08/17/83	14.26	1337.54
09/15/83	14.55	1337.25
10/18/83	15.08	1336.72
11/30/83	15.48	1336.32

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-05BAA3

UNN. AQUIFER

WELL SCREENED FROM 52- 57 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1351.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	12.00	1339.50
10/28/82	12.43	1339.07
12/01/82	12.64	1338.86
04/27/83	12.98	1338.52
05/24/83	12.59	1338.91
06/22/83	12.54	1338.96
07/20/83	12.67	1338.83
08/17/83	13.00	1338.50
09/15/83	13.59	1337.91
10/18/83	14.21	1337.29
11/30/83	14.70	1336.80

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-05BBB

AQUIFER

WELL SCREENED FROM 158-161 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1349.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
01/23/75	17.73	1331.47	07/15/80	35.80	1313.40
05/12/75	17.55	1331.65	08/13/80	41.19	1308.01
06/18/75	17.39	1331.81	09/10/80	32.30	1316.90
07/17/75	16.94	1332.26	10/07/80	30.90	1318.30
08/14/75	18.27	1330.93	11/05/80	26.38	1322.82
09/11/75	18.28	1330.92	12/03/80	24.52	1324.68
10/07/75	17.66	1331.54			
11/06/75	17.48	1331.72	04/14/81	23.50	1325.70
12/02/75	17.53	1331.67	05/13/81	26.47	1322.73
			06/11/81	29.50	1319.70
03/09/76	17.32	1331.88	07/07/81	28.49	1320.71
04/13/76	17.16	1332.04	08/05/81	38.22	1310.98
05/04/76	16.95	1332.25	09/03/81	46.26	1302.94
06/10/76	18.04	1331.16	09/30/81	33.98	1315.22
07/07/76	18.81	1330.39	10/29/81	28.97	1320.23
08/03/76	20.41	1328.79	11/24/81	26.82	1322.38
09/08/76	21.30	1327.90			
			01/13/82	24.64	1324.56
04/26/78	20.66	1328.54	04/14/82	22.57	1326.63
06/07/78	20.83	1328.37	05/12/82	22.78	1326.42
06/21/78	22.80	1326.40	06/08/82	22.64	1326.56
07/07/78	21.73	1327.47	07/07/82	37.75	1311.45
07/17/78	22.05	1327.15	08/05/82	55.05	1294.15
08/01/78	27.52	1321.68	09/01/82	55.05	1294.15
08/17/78	30.79	1318.41	09/29/82	42.75	1306.45
08/29/78	31.60	1317.60	10/28/82	35.00	1314.20
09/14/78	33.25	1315.95	12/01/82	29.38	1319.82
09/26/78	29.73	1319.47			
12/05/78	23.15	1326.05	04/27/83	25.76	1323.44
			05/24/83	25.40	1323.80
04/25/79	20.05	1329.15	06/22/83	32.72	1316.48
05/21/79	19.76	1329.44	07/20/83	41.32	1307.88
06/20/79	24.10	1325.10	08/17/83	55.81	1293.39
07/17/79	26.25	1322.95	09/15/83	46.98	1302.22
08/14/79	28.60	1320.60	10/18/83	34.51	1314.69
08/28/79	29.97	1319.23	11/30/83	30.52	1318.68
09/11/79	32.95	1316.25			
09/25/79	30.30	1318.90			
10/09/79	27.54	1321.66			
10/23/79	28.18	1321.02			
11/15/79	24.80	1324.40			
12/06/79	22.91	1326.29			
04/01/80	21.72	1327.48			
05/21/80	24.91	1324.29			
06/17/80	24.93	1324.27			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-05DDD

AQUIFER

WELL SCREENED FROM 15- 20 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1296.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
12/01/83	5.48	1291.02
01/16/84	5.02	1291.48

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-08ABB

SPW. AQUIFER

WELL SCREENED FROM 155-160 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1346.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	40.95	1305.85
10/28/82	33.22	1313.58
12/01/82	29.29	1317.51
04/27/83	23.83	1322.97
05/24/83	23.41	1323.39
06/22/83	30.88	1315.92
07/20/83	39.26	1307.54
08/17/83	53.05	1293.75
09/15/83	45.04	1301.76
10/18/83	34.80	1312.00
11/30/83	30.41	1316.39

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-10BBA

. AQUIFER

WELL SCREENED FROM 196-199 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1341.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/26/78	14.81	1326.29	04/14/82	17.02	1324.08
06/07/78	15.14	1325.96	05/12/82	19.35	1321.75
06/21/78	17.23	1323.87	06/08/82	17.69	1323.41
07/07/78	15.99	1325.11	09/01/82	53.56	1287.54
07/17/78	16.58	1324.52	09/29/82	38.50	1302.60
08/02/78	22.73	1318.37	10/28/82	30.37	1310.73
08/17/78	26.47	1314.63	12/01/82	26.28	1314.82
08/29/78	26.90	1314.20			
09/14/78	28.36	1312.74	04/27/83	20.40	1320.70
09/26/78	24.23	1316.87	05/24/83	20.21	1320.89
12/05/78	17.34	1323.76	06/22/83	28.08	1313.02
			07/20/83	37.90	1303.20
04/24/79	14.42	1326.68	08/17/83	55.84	1285.26
05/22/79	14.07	1327.03	09/15/83	44.06	1297.04
06/20/79	19.19	1321.91	10/18/83	32.07	1309.03
07/17/79	21.22	1319.88	11/30/83	27.75	1313.35
08/14/79	23.70	1317.40			
08/28/79	25.10	1316.00			
09/11/79	28.65	1312.45			
09/25/79	25.13	1315.97			
10/09/79	22.20	1318.90			
10/23/79	23.08	1318.02			
11/15/79	18.90	1322.20			
12/07/79	17.47	1323.63			
04/01/80	15.95	1325.15			
05/21/80	21.04	1320.06			
06/17/80	19.28	1321.82			
07/15/80	31.87	1309.23			
08/13/80	36.57	1304.53			
09/10/80	27.42	1313.68			
10/08/80	26.11	1314.99			
11/05/80	20.67	1320.43			
12/03/80	18.78	1322.32			
04/14/81	18.10	1323.00			
05/13/81	21.75	1319.35			
06/11/81	24.10	1317.00			
07/07/81	24.02	1317.08			
08/05/81	34.01	1307.09			
09/03/81	42.59	1298.51			
09/30/81	28.78	1312.32			
10/29/81	23.67	1317.43			
11/24/81	21.42	1319.68			
01/13/82	19.60	1321.50			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-12CCC

. AQUIFER

WELL SCREENED FROM 208-211 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1368.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/26/78	57.87	1310.33	04/13/82	59.64	1308.56
06/07/78	58.05	1310.15	05/12/82	59.68	1308.52
06/21/78	58.53	1309.67	06/09/82	59.39	1308.81
07/07/78	58.23	1309.97	07/06/82	65.36	1302.84
07/17/78	59.22	1308.98	08/04/82	71.84	1296.36
08/02/78	60.75	1307.45	09/01/82	71.36	1296.84
08/17/78	61.06	1307.14	09/28/82	64.66	1303.54
08/29/78	60.74	1307.46	10/27/82	62.22	1305.98
09/14/78	59.75	1308.45	12/01/82	61.20	1307.00
09/26/78	59.22	1308.98			
12/04/78	58.10	1310.10	04/26/83	60.28	1307.92
			05/24/83	60.28	1307.92
04/24/79	57.69	1310.51	06/22/83	61.75	1306.45
05/22/79	57.45	1310.75	07/19/83	65.64	1302.56
06/20/79	57.33	1310.87	08/16/83	73.74	1294.46
07/17/79	58.90	1309.30	09/14/83	67.80	1300.40
08/14/79	60.48	1307.72	10/18/83	63.26	1304.94
08/28/79	59.75	1308.45	11/29/83	62.45	1305.75
09/11/79	59.88	1308.32			
09/25/79	58.94	1309.26			
10/09/79	58.55	1309.65			
10/23/79	58.27	1309.93			
11/15/79	58.27	1309.93			
12/12/79	57.86	1310.34			
04/01/80	57.67	1310.53			
05/21/80	58.51	1309.69			
06/17/80	58.42	1309.78			
07/15/80	61.48	1306.72			
08/13/80	62.14	1306.06			
09/10/80	60.03	1308.17			
10/08/80	59.43	1308.77			
11/05/80	58.12	1310.08			
12/03/80	59.00	1309.20			
04/14/81	58.91	1309.29			
05/13/81	60.32	1307.88			
06/11/81	60.14	1308.06			
07/08/81	60.37	1307.83			
08/05/81	63.16	1305.04			
09/03/81	64.73	1303.47			
10/01/81	61.52	1306.68			
10/27/81	60.59	1307.61			
11/23/81	60.14	1308.06			
12/29/81	59.94	1308.26			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-15AAA1

SPW. AQUIFER

WELL SCREENED FROM 188-194 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1346.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
01/23/75	31.06	1314.94	05/21/80	39.10	1306.90
05/14/75	30.49	1315.51	06/17/80	38.51	1307.49
06/18/75	31.50	1314.50	07/15/80	50.28	1295.72
07/17/75	32.92	1313.08	08/13/80	48.34	1297.66
08/14/75	33.33	1312.67	09/10/80	41.56	1304.44
09/11/75	31.48	1314.52	10/08/80	40.32	1305.68
10/07/75	30.87	1315.13	11/05/80	38.11	1307.89
11/13/75	30.33	1315.67			
12/02/75	30.18	1315.82	04/14/81	34.52	1311.48
			05/13/81	40.85	1305.15
03/09/76	29.73	1316.27	06/11/81	41.85	1304.15
04/13/76	29.68	1316.32	07/07/81	44.69	1301.31
05/04/76	29.65	1316.35	08/05/81	52.43	1293.57
06/10/76	32.90	1313.10	09/03/81	59.44	1286.56
07/07/76	36.63	1309.37	10/01/81	46.42	1299.58
08/03/76	37.27	1308.73	10/27/81	42.12	1303.88
09/08/76	35.90	1310.10	11/23/81	39.69	1306.31
10/27/76	33.19	1312.81	12/29/81	37.90	1308.10
12/01/76	32.41	1313.59			
			04/13/82	36.34	1309.66
04/26/78	33.55	1312.45	05/11/82	36.50	1309.50
06/07/78	35.25	1310.75	06/09/82	35.83	1310.17
06/21/78	35.92	1310.08	07/06/82	75.97	1270.03
07/07/78	36.12	1309.88	08/04/82	90.73	1255.27
07/17/78	40.07	1305.93	09/01/82	88.42	1257.58
08/02/78	44.82	1301.18	09/28/82	54.75	1291.25
08/17/78	50.25	1295.75	10/27/82	45.60	1300.40
08/29/78	47.47	1298.53	12/01/82	40.88	1305.12
09/14/78	42.88	1303.12			
09/26/78	40.78	1305.22	04/26/83	35.74	1310.26
12/05/78	35.98	1310.02	05/24/83	35.60	1310.40
			06/22/83	35.34	1310.66
04/24/79	33.28	1312.72	07/19/83	62.63	1283.37
05/22/79	33.09	1312.91	08/16/83	105.30	1240.70
06/20/79	34.67	1311.33	09/14/83	67.95	1278.05
07/17/79	40.77	1305.23	10/18/83	47.82	1298.18
08/14/79	45.87	1300.13	11/29/83	44.42	1301.58
08/28/79	45.10	1300.90			
09/11/79	45.64	1300.36			
09/25/79	42.17	1303.83			
10/09/79	39.78	1306.22			
10/23/79	38.55	1307.45			
11/15/79	36.96	1309.04			
12/12/79	35.67	1310.33			
04/01/80	33.64	1312.36			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-15AAA2

. AQUIFER

WELL SCREENED FROM 44- 47 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1345.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/26/78	32.00	1313.70	04/13/82	32.10	1313.60
06/07/78	31.89	1313.81	05/11/82	32.13	1313.57
06/21/78	31.87	1313.83	06/09/82	32.14	1313.56
07/07/78	31.82	1313.88	07/06/82	33.19	1312.51
07/17/78	31.80	1313.90	08/04/82	32.20	1313.50
08/02/78	31.79	1313.91	09/01/82	32.23	1313.47
08/17/78	31.77	1313.93	09/28/82	32.25	1313.45
08/29/78	31.75	1313.95	10/27/82	32.26	1313.44
09/14/78	31.73	1313.97	12/01/82	32.34	1313.36
09/26/78	31.73	1313.97			
12/05/78	31.64	1314.06	04/26/83	32.55	1313.15
			05/24/83	32.60	1313.10
04/24/79	31.60	1314.10	06/22/83	32.64	1313.06
05/22/79	31.43	1314.27	07/19/83	32.67	1313.03
06/20/79	31.23	1314.47	08/16/83	32.67	1313.03
07/17/79	31.21	1314.49	09/14/83	32.74	1312.96
08/14/79	31.10	1314.60	10/18/83	32.80	1312.90
08/28/79	31.05	1314.65	11/29/83	32.83	1312.87
09/11/79	31.05	1314.65			
09/25/79	31.01	1314.69			
10/09/79	31.00	1314.70			
10/26/79	31.05	1314.65			
11/15/79	30.99	1314.71			
12/12/79	31.65	1314.05			
04/01/80	31.02	1314.68			
05/21/80	31.07	1314.63			
06/17/80	31.09	1314.61			
07/15/80	31.13	1314.57			
08/13/80	31.16	1314.54			
09/10/80	31.20	1314.50			
10/08/80	31.24	1314.46			
11/05/80	31.28	1314.42			
12/03/80	31.34	1314.36			
04/14/81	31.55	1314.15			
05/13/81	31.55	1314.15			
06/11/81	31.60	1314.10			
07/07/81	31.66	1314.04			
08/05/81	31.69	1314.01			
09/03/81	31.77	1313.93			
10/01/81	31.83	1313.87			
10/27/81	31.22	1314.48			
11/23/81	31.90	1313.80			
12/29/81	31.91	1313.79			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-15BBB

AQUIFER

WELL SCREENED FROM 178-184 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1341.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
01/23/75	39.65	1301.65	05/21/80	84.67	1256.63
05/14/75	38.59	1302.71	06/17/80	61.88	1279.42
06/18/75	43.09	1298.21	07/15/80	53.00	1288.30
07/17/75	78.14	1263.16	08/13/80	53.46	1287.84
08/14/75	47.74	1293.56	09/10/80	44.97	1296.33
09/11/75	39.75	1301.55	10/08/80	43.21	1298.09
10/07/75	38.97	1302.33	11/05/80	42.29	1299.01
11/13/75	38.08	1303.22	12/03/80	41.66	1299.64
12/02/75	37.84	1303.46			
			04/14/81	40.31	1300.99
03/09/76	37.11	1304.19	05/13/81	47.86	1293.44
04/13/76	36.91	1304.39	06/11/81	69.45	1271.85
05/04/76	36.78	1304.52	07/07/81	70.60	1270.70
06/10/76	87.53	1253.77	08/05/81	70.55	1270.75
07/07/76	109.47	1231.83	09/03/81	69.13	1272.17
08/03/76	83.38	1257.92	10/01/81	46.82	1294.48
09/08/76	62.04	1279.26	10/29/81	44.50	1296.80
10/27/76	41.49	1299.81	11/24/81	43.55	1297.75
12/01/76	40.38	1300.92			
			01/13/82	42.60	1298.70
04/26/78	39.76	1301.54	04/14/82	41.34	1299.96
06/06/78	42.64	1298.66	05/12/82	42.66	1298.64
06/21/78	42.60	1298.70	06/08/82	41.39	1299.91
07/07/78	41.49	1299.81	07/07/82	114.85	1226.45
07/17/78	60.95	1280.35	08/05/82	117.35	1223.95
08/02/78	90.32	1250.98	09/01/82	106.89	1234.41
08/17/78	83.78	1257.52	09/29/82	54.84	1286.46
08/29/78	63.73	1277.57	10/28/82	48.67	1292.63
09/14/78	55.52	1285.78	12/01/82	45.90	1295.40
09/26/78	46.00	1295.30			
12/05/78	41.03	1300.27	04/27/83	42.29	1299.01
			05/24/83	42.05	1299.25
04/25/79	38.97	1302.33	06/22/83	46.87	1294.43
05/21/79	38.60	1302.70	07/20/83	77.37	1263.93
06/20/79	40.18	1301.12	08/17/83	123.15	1218.15
07/17/79	47.15	1294.15	09/15/83	67.30	1274.00
08/14/79	72.34	1268.96	10/18/83	49.56	1291.74
08/28/79	92.30	1249.00	11/30/83	46.85	1294.45
09/11/79	112.55	1228.75			
09/25/79	57.01	1284.29			
10/09/79	46.31	1294.99			
10/23/79	43.82	1297.48			
11/15/79	42.14	1299.16			
12/07/79	40.75	1300.55			
04/01/80	39.54	1301.76			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-17DCC

. AQUIFER

WELL SCREENED FROM 121-124 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1299.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/26/78	1.37	1297.93	08/05/82	11.10	1288.20
06/07/78	1.01	1298.29	09/01/82	17.48	1281.82
06/21/78	0.93	1298.37	09/29/82	9.82	1289.48
07/06/78	0.70	1298.60	10/28/82	7.87	1291.43
07/17/78	1.92	1297.38	12/01/82	6.46	1292.84
08/01/78	3.13	1296.17			
08/17/78	3.38	1295.92	04/27/83	4.20	1295.10
08/29/78	3.20	1296.10	05/24/83	4.02	1295.28
09/14/78	3.19	1296.11	06/22/83	4.78	1294.52
09/26/78	2.59	1296.71	07/20/83	7.79	1291.51
			08/17/83	11.99	1287.31
04/25/79	0.25	1299.05	09/15/83	9.65	1289.65
07/17/79	0.10	1299.20	10/18/83	7.64	1291.66
08/14/79	2.13	1297.17	11/30/83	6.26	1293.04
08/28/79	3.53	1295.77			
09/11/79	5.21	1294.09			
09/25/79	3.59	1295.71			
10/09/79	2.98	1296.32			
10/23/79	2.60	1296.70			
11/15/79	2.40	1296.90			
12/06/79	2.01	1297.29			
05/21/80	5.99	1293.31			
06/17/80	6.18	1293.12			
07/15/80	3.46	1295.84			
08/13/80	3.54	1295.76			
09/10/80	3.24	1296.06			
10/08/80	3.07	1296.23			
11/05/80	2.90	1296.40			
12/03/80	2.75	1296.55			
04/14/81	2.50	1296.80			
05/13/81	2.72	1296.58			
06/11/81	3.78	1295.52			
07/07/81	4.52	1294.78			
08/05/81	4.59	1294.71			
09/03/81	5.21	1294.09			
09/30/81	4.44	1294.86			
10/29/81	4.06	1295.24			
11/24/81	3.82	1295.48			
01/13/82	3.52	1295.78			
04/14/82	2.92	1296.38			
05/12/82	2.79	1296.51			
06/08/82	2.99	1296.31			
07/07/82	8.31	1290.99			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-20AAA1

. AQUIFER

WELL SCREENED FROM 168-174 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1330.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
01/23/75	32.27	1297.73	05/21/80	44.53	1285.47
05/14/75	31.23	1298.77	06/17/80	43.58	1286.42
06/18/75	31.43	1298.57	07/15/80	37.18	1292.82
07/17/75	63.02	1266.98	08/13/80	36.27	1293.73
08/14/75	35.59	1294.41	09/10/80	32.92	1297.08
09/11/75	29.05	1300.95	10/08/80	31.88	1298.12
10/07/75	30.21	1299.79	11/05/80	31.38	1298.62
11/06/75	28.89	1301.11	12/03/80	31.04	1298.96
12/02/75	28.42	1301.58			
			04/14/81	30.10	1299.90
03/09/76	27.80	1302.20	05/13/81	32.01	1297.99
04/13/76	27.58	1302.42	06/11/81	43.50	1286.50
05/04/76	27.43	1302.57	07/07/81	42.03	1287.97
06/10/76	52.92	1277.08	08/05/81	42.54	1287.46
07/07/76	66.76	1263.24	09/03/81	44.87	1285.13
08/03/76	62.30	1267.70	09/30/81	34.41	1295.59
09/08/76	40.26	1289.74	10/29/81	32.99	1297.01
10/27/76	31.42	1298.58	11/24/81	32.40	1297.60
12/01/76	30.62	1299.38			
			01/13/82	31.65	1298.35
04/26/78	29.69	1300.31	04/14/82	30.87	1299.13
06/07/78	30.20	1299.80	05/12/82	31.10	1298.90
06/21/78	31.10	1298.90	06/08/82	34.96	1295.04
07/07/78	30.30	1299.70	07/07/82	61.38	1268.62
07/17/78	32.25	1297.75	08/05/82	81.05	1248.95
08/01/78	41.27	1288.73	09/01/82	69.32	1260.68
08/17/78	49.60	1280.40	09/29/82	40.76	1289.24
08/29/78	41.18	1288.82	10/28/82	36.85	1293.15
09/14/78	38.64	1291.36	12/01/82	34.85	1295.15
09/26/78	33.18	1296.82			
12/05/78	30.25	1299.75	04/27/83	31.86	1298.14
			05/24/83	31.82	1298.18
04/25/79	28.68	1301.32	06/22/83	34.32	1295.68
05/21/79	28.35	1301.65	07/20/83	54.65	1275.35
06/20/79	28.90	1301.10	08/17/83	102.45	1227.55
07/17/79	31.80	1298.20	09/15/83	47.50	1282.50
08/14/79	41.20	1288.80	10/18/83	38.57	1291.43
08/28/79	46.48	1283.52	11/30/83	38.57	1291.43
09/11/79	55.47	1274.53			
09/25/79	39.41	1290.59			
10/09/79	33.56	1296.44			
10/23/79	32.22	1297.78			
11/15/79	31.09	1298.91			
12/06/79	30.44	1299.56			
04/01/80	29.29	1300.71			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-20AAA2

. AQUIFER

WELL SCREENED FROM 83- 86 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1329.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/26/78	31.48	1298.42	04/14/82	33.27	1296.63
06/07/78	31.11	1298.79	05/12/82	33.09	1296.81
06/21/78	31.00	1298.90	06/08/82	33.28	1296.62
07/07/78	30.82	1299.08	07/07/82	37.15	1292.75
07/17/78	31.00	1298.90	09/01/82	43.24	1286.66
08/01/78	31.96	1297.94	09/29/82	41.13	1288.77
08/17/78	32.90	1297.00	10/28/82	38.89	1291.01
08/29/78	33.41	1296.49	12/01/82	37.20	1292.70
09/14/78	33.50	1296.40			
09/26/78	32.95	1296.95	04/27/83	34.67	1295.23
12/05/78	31.60	1298.30	05/24/83	34.46	1295.44
			06/22/83	35.28	1294.62
04/25/79	30.43	1299.47	07/20/83	38.67	1291.23
05/21/79	30.14	1299.76	08/17/83	42.94	1286.96
06/20/79	29.97	1299.93	09/15/83	40.93	1288.97
07/17/79	30.14	1299.76	10/18/83	37.27	1292.63
08/14/79	31.83	1298.07	11/30/83	36.92	1292.98
08/28/79	32.70	1297.20			
09/11/79	34.30	1295.60			
09/25/79	34.23	1295.67			
10/09/79	33.55	1296.35			
10/23/79	33.09	1296.81			
11/15/79	32.49	1297.41			
12/06/79	32.10	1297.80			
04/01/80	31.31	1298.59			
05/21/80	33.12	1296.78			
06/17/80	33.86	1296.04			
07/15/80	33.62	1296.28			
08/13/80	33.79	1296.11			
09/10/80	33.49	1296.41			
10/08/80	33.28	1296.62			
11/05/80	33.12	1296.78			
12/03/80	33.00	1296.90			
04/14/81	32.78	1297.12			
05/13/81	32.88	1297.02			
06/11/81	33.77	1296.13			
07/07/81	34.03	1295.87			
08/05/81	34.82	1295.08			
09/03/81	35.47	1294.43			
09/30/81	34.85	1295.05			
10/29/81	34.43	1295.47			
11/24/81	34.20	1295.70			
01/13/82	33.85	1296.05			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-22ABB

. AQUIFER

WELL SCREENED FROM 197-200 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1340.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/28/82	41.65	1299.15
10/27/82	40.51	1300.29
12/01/82	41.75	1299.05
04/26/83	38.85	1301.95
05/24/83	39.57	1301.23
06/22/83	45.12	1295.68
07/19/83	43.55	1297.25
08/16/83	59.00	1281.80
09/14/83	43.59	1297.21
10/19/83	41.02	1299.78
11/29/83	40.45	1300.35

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-25BDB

AQUIFER

WELL SCREENED FROM 159-165 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1333.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/27/78	35.38	1297.82	07/06/82	46.89	1286.31
06/08/78	23.95	1309.25	09/01/82	39.07	1294.13
06/21/78	38.65	1294.55	09/28/82	28.65	1304.55
07/06/78	25.70	1307.50	10/27/82	26.88	1306.32
07/17/78	29.33	1303.87	12/01/82	26.26	1306.94
08/02/78	28.98	1304.22			
08/16/78	28.07	1305.13	04/26/83	25.73	1307.47
08/29/78	35.30	1297.90	05/24/83	25.73	1307.47
09/14/78	25.52	1307.68	10/18/83	27.55	1305.65
09/25/78	24.58	1308.62	11/29/83	26.94	1306.26
12/04/78	23.30	1309.90			
04/24/79	23.15	1310.05			
05/22/79	22.66	1310.54			
06/20/79	27.02	1306.18			
07/17/79	35.92	1297.28			
08/14/79	42.19	1291.01			
08/28/79	38.90	1294.30			
09/11/79	26.87	1306.33			
09/25/79	24.02	1309.18			
10/09/79	23.54	1309.66			
10/23/79	23.25	1309.95			
11/15/79	23.10	1310.10			
12/12/79	23.05	1310.15			
04/01/80	23.18	1310.02			
06/17/80	23.94	1309.26			
09/10/80	25.29	1307.91			
10/08/80	24.57	1308.63			
11/05/80	24.36	1308.84			
12/03/80	28.83	1304.37			
04/14/81	24.81	1308.39			
05/13/81	30.37	1302.83			
06/11/81	25.85	1307.35			
07/08/81	26.13	1307.07			
08/05/81	32.85	1300.35			
09/01/81	44.62	1288.58			
10/01/81	30.72	1302.48			
10/27/81	25.76	1307.44			
11/23/81	24.69	1308.51			
12/29/81	25.39	1307.81			
04/13/82	25.17	1308.03			
05/11/82	25.45	1307.75			
06/09/82	25.29	1307.91			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-26BCB

AQUIFER

WELL SCREENED FROM 43- 46 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1341.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
12/30/81	39.11	1302.09
04/12/82	39.41	1301.79
05/12/82	39.38	1301.82
06/10/82	39.36	1301.84
07/07/82	39.36	1301.84
08/03/82	39.60	1301.60
08/31/82	39.49	1301.71
09/29/82	39.62	1301.58
10/26/82	39.65	1301.55
11/30/82	39.78	1301.42
04/25/83	40.04	1301.16
05/23/83	40.04	1301.16
06/22/83	40.10	1301.10
07/20/83	40.07	1301.13
08/15/83	40.01	1301.19
09/13/83	39.98	1301.22
10/17/83	40.07	1301.13
11/28/83	40.14	1301.06
04/10/84	40.03	1301.17
05/15/84	40.00	1301.20
06/12/84	40.01	1301.19
07/10/84	39.96	1301.24
08/07/84	39.84	1301.36
09/11/84	39.74	1301.46
10/07/84	39.86	1301.34
11/16/84	39.96	1301.24
12/11/84	40.00	1301.20

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-27CBB1

AQUIFER

WELL SCREENED FROM 127-132 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1310.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/03/82	20.57	1289.93
08/31/82	21.50	1289.00
09/29/82	14.77	1295.73
10/26/82	12.80	1297.70
11/30/82	11.81	1298.69
04/25/83	10.58	1299.92
05/23/83	10.53	1299.97
06/22/83	11.17	1299.33
07/20/83	17.10	1293.40
08/15/83	24.19	1286.31
09/13/83	16.22	1294.28
10/17/83	13.10	1297.40
11/28/83	12.06	1298.44
04/10/84	10.90	1299.60
05/15/84	10.76	1299.74
06/12/84	12.26	1298.24
07/10/84	15.60	1294.90
08/07/84	22.34	1288.16
09/11/84	19.41	1291.09
10/07/84	14.55	1295.95
11/16/84	12.68	1297.82
12/11/84	12.08	1298.42

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-27CBB2

AQUIFER

WELL SCREENED FROM 47- 52 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1310.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/03/82	10.95	1299.35
08/31/82	11.17	1299.13
09/29/82	11.78	1298.52
10/26/82	11.59	1298.71
11/30/82	11.64	1298.66
04/25/83	11.40	1298.90
05/23/83	11.30	1299.00
06/22/83	11.24	1299.06
07/20/83	11.20	1299.10
08/15/83	11.35	1298.95
09/13/83	11.82	1298.48
10/17/83	12.08	1298.22
11/28/83	12.10	1298.20
04/10/84	10.98	1299.32
05/15/84	10.48	1299.82
06/12/84	10.23	1300.07
07/10/84	9.94	1300.36
08/07/84	10.42	1299.88
09/11/84	11.19	1299.11
10/07/84	11.66	1298.64
11/16/84	11.85	1298.45
12/11/84	11.72	1298.58

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-34BCC2

AQUIFER

WELL SCREENED FROM 30- 35 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1311.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/03/82	10.00	1301.20
08/31/82	10.84	1300.36
09/29/82	11.02	1300.18
10/26/82	10.46	1300.74
11/30/82	10.18	1301.02
04/25/83	9.88	1301.32
05/23/83	9.85	1301.35
06/22/83	9.69	1301.51
07/20/83	9.54	1301.66
08/15/83	10.54	1300.66
09/13/83	10.91	1300.29
10/17/83	10.66	1300.54
11/28/83	10.50	1300.70
04/10/84	9.09	1302.11
05/15/84	8.72	1302.48
06/12/84	8.44	1302.76
07/10/84	7.90	1303.30
08/07/84	9.17	1302.03
09/11/84	10.37	1300.83
10/07/84	10.47	1300.73
11/16/84	10.04	1301.16
12/11/84	9.93	1301.27

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

131-059-36BBB

. AQUIFER

WELL SCREENED FROM 58- 61 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1341.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
12/30/81	36. 20	1304. 80
04/12/82	36. 64	1304. 36
05/12/82	36. 52	1304. 48
06/10/82	36. 58	1304. 42
07/07/82	36. 70	1304. 30
08/03/82	36. 70	1304. 30
08/31/82	36. 72	1304. 28
09/29/82	37. 06	1303. 94
10/26/82	36. 92	1304. 08
11/30/82	37. 25	1303. 75
04/25/83	37. 38	1303. 62
06/22/83	37. 48	1303. 52
07/20/83	37. 42	1303. 58
08/15/83	37. 40	1303. 60
09/13/83	37. 49	1303. 51
10/17/83	37. 54	1303. 46
11/28/83	37. 57	1303. 43
04/10/84	37. 50	1303. 50
05/15/84	37. 25	1303. 75
06/12/84	37. 19	1303. 81
07/10/84	37. 07	1303. 93
08/07/84	36. 88	1304. 12
09/11/84	36. 98	1304. 02
10/07/84	37. 21	1303. 79
11/16/84	37. 27	1303. 73
12/11/84	37. 10	1303. 90

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-058-30DAA

. AQUIFER

WELL SCREENED FROM 147-152 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1320.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/22/82	23.79	1296.21
10/28/82	20.42	1299.58
12/22/82	17.39	1302.61
03/17/83	14.51	1305.49
04/26/83	13.68	1306.32
05/24/83	13.29	1306.71
06/22/83	13.42	1306.58
07/19/83	13.19	1306.81
08/16/83	19.26	1300.74
09/14/83	22.84	1297.16
10/18/83	20.76	1299.24
11/29/83	18.89	1301.11

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-058-31AAA

AQUIFER

WELL SCREENED FROM 150-155 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1327.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/22/82	36.31	1290.69
10/28/82	26.64	1300.36
12/22/82	21.03	1305.97
03/17/83	17.71	1309.29
04/26/83	16.88	1310.12
05/24/83	16.56	1310.44
06/22/83	19.82	1307.18
07/19/83	25.54	1301.46
08/16/83	37.60	1289.40
09/14/83	38.27	1288.73
10/18/83	28.57	1298.43
11/29/83	25.15	1301.85

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-04CCC

. AQUIFER

WELL SCREENED FROM 195-198 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1367.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/21/79	31.51	1335.69	07/20/83	45.67	1321.53
07/25/79	38.43	1328.77	08/17/83	57.92	1309.28
08/09/79	39.44	1327.76	09/15/83	50.82	1316.38
08/28/79	40.87	1326.33	10/19/83	43.85	1323.35
09/12/79	40.68	1326.52	11/30/83	40.38	1326.82
09/26/79	39.09	1328.11			
10/09/79	36.53	1330.67			
10/24/79	36.10	1331.10			
11/15/79	33.96	1333.24			
12/05/79	32.71	1334.49			
04/01/80	30.70	1336.50			
04/24/80	30.04	1337.16			
05/21/80	35.80	1331.40			
06/17/80	33.43	1333.77			
07/15/80	36.13	1331.07			
08/13/80	38.50	1328.70			
09/10/80	39.48	1327.72			
10/10/80	37.89	1329.31			
11/07/80	35.07	1332.13			
12/10/80	33.46	1333.74			
04/16/81	31.42	1335.78			
05/21/81	37.57	1329.63			
06/11/81	36.74	1330.46			
07/10/81	41.58	1325.62			
08/07/81	44.25	1322.95			
09/04/81	49.38	1317.82			
09/30/81	41.60	1325.60			
10/29/81	37.86	1329.34			
11/24/81	36.10	1331.10			
01/13/82	34.30	1332.90			
04/14/82	31.87	1335.33			
05/13/82	32.59	1334.61			
06/08/82	31.70	1335.50			
07/08/82	48.55	1318.65			
08/05/82	61.08	1306.12			
09/01/82	62.55	1304.65			
09/29/82	48.16	1319.04			
10/28/82	42.67	1324.53			
12/01/82	39.56	1327.64			
04/27/83	34.83	1332.37			
05/24/83	34.05	1333.15			
06/22/83	38.48	1328.72			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-04DCC

. AQUIFER

WELL SCREENED FROM 158-161 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1363.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/21/79	32.75	1330.35	07/20/83	49.97	1313.13
07/25/79	43.10	1320.00	08/17/83	66.92	1296.18
08/09/79	53.20	1309.90	09/15/83	54.28	1308.82
08/28/79	47.67	1315.43	10/18/83	45.40	1317.70
09/12/79	43.64	1319.46	11/30/83	41.58	1321.52
09/26/79	40.48	1322.62			
10/09/79	36.80	1326.30			
10/24/79	36.78	1326.32			
11/14/79	34.15	1328.95			
12/05/79	33.08	1330.02			
04/01/80	31.05	1332.05			
04/24/80	30.13	1332.97			
05/21/80	49.97	1313.13			
06/17/80	33.40	1329.70			
07/15/80	63.38	1299.72			
08/13/80	53.90	1309.20			
09/10/80	40.44	1322.66			
10/10/80	38.87	1324.23			
11/07/80	35.32	1327.78			
12/10/80	33.59	1329.51			
04/16/81	32.14	1330.96			
05/21/81	41.57	1321.53			
06/11/81	39.69	1323.41			
07/10/81	56.60	1306.50			
08/07/81	47.69	1315.41			
09/04/81	54.02	1309.08			
09/30/81	42.66	1320.44			
10/29/81	37.33	1325.77			
11/24/81	36.35	1326.75			
01/13/82	34.26	1328.84			
04/14/82	32.15	1330.95			
05/13/82	33.65	1329.45			
06/08/82	32.24	1330.86			
07/08/82	63.56	1299.54			
08/05/82	82.62	1280.48			
09/01/82	81.26	1281.84			
09/29/82	50.14	1312.96			
10/28/82	43.73	1319.37			
12/01/82	40.35	1322.75			
04/27/83	35.20	1327.90			
05/24/83	34.85	1328.25			
06/22/83	39.81	1323.29			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-09CDD

SPW. AQUIFER

WELL SCREENED FROM 162-165 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1363.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/15/80	54.51	1309.29
08/13/80	54.63	1309.17
09/10/80	43.81	1319.99
10/10/80	40.87	1322.93
11/07/80	38.20	1325.60
12/10/80	35.35	1328.45
04/16/81	34.27	1329.53
05/21/81	50.00	1313.80
06/11/81	40.78	1323.02
07/10/81	48.61	1315.19
08/07/81	51.18	1312.62
09/04/81	57.57	1306.23
09/30/81	44.72	1319.08
10/29/81	40.10	1323.70
11/24/81	38.09	1325.71
05/13/82	35.75	1328.05
06/08/82	33.91	1329.89
07/08/82	64.67	1299.13
08/05/82	79.00	1284.80
09/01/82	72.04	1291.76
09/29/82	52.67	1311.13
10/28/82	45.75	1318.05
12/01/82	42.20	1321.60
04/27/83	37.00	1326.80
05/24/83	37.17	1326.63
06/22/83	43.36	1320.44
08/17/83	69.73	1294.07
09/15/83	57.22	1306.58
10/19/83	47.37	1316.43
11/30/83	43.47	1320.33

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-17CDD2

UNN. AQUIFER

WELL SCREENED FROM 123-128 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1356.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	20.79	1335.81
10/28/82	19.50	1337.10
12/01/82	18.80	1337.80
04/27/83	17.44	1339.16
05/24/83	17.26	1339.34
06/22/83	18.19	1338.41
07/20/83	19.75	1336.85
08/17/83	22.70	1333.90
09/15/83	21.92	1334.68
10/18/83	19.73	1336.87
11/30/83	19.92	1336.68

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-17DCD1 SPW. AQUIFER

WELL SCREENED FROM 188-193 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1371.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	60.92	1310.18
10/28/82	53.75	1317.35
12/01/82	50.14	1320.96
04/27/83	44.86	1326.24
05/24/83	45.66	1325.44
06/22/83	52.57	1318.53
07/20/83	60.37	1310.73
08/17/83	75.42	1295.68
09/15/83	65.50	1305.60
10/18/83	55.47	1315.63
11/30/83	51.45	1319.65

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-17DCD2

. AQUIFER

WELL SCREENED FROM 114-119 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1371.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	37.60	1333.60
10/28/82	35.04	1336.16
12/01/82	33.52	1337.68
04/27/83	31.46	1339.74
05/24/83	31.28	1339.92
06/22/83	33.12	1338.08
07/20/83	36.12	1335.08
08/17/83	41.99	1329.21
09/15/83	39.25	1331.95
10/18/83	36.18	1335.02
11/30/83	34.51	1336.69

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-17DCD3

UNN. AQUIFER

WELL SCREENED FROM 58- 63 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1371.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	25.24	1345.86
10/28/82	24.64	1346.46
12/01/82	24.30	1346.80
04/27/83	24.05	1347.05
05/24/83	23.85	1347.25
06/22/83	24.21	1346.89
07/20/83	24.87	1346.23
08/17/83	26.34	1344.76
09/15/83	26.35	1344.75
10/18/83	25.89	1345.21
11/30/83	25.64	1345.46

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-18DCC

SPW. AQUIFER

WELL SCREENED FROM 245-250 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1363.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	50.75	1312.95
10/28/82	44.18	1319.52
12/01/82	40.77	1322.93
04/27/83	35.65	1328.05
05/24/83	35.70	1328.00
06/22/83	41.57	1322.13
07/20/83	49.08	1314.62
08/17/83	63.00	1300.70
09/15/83	54.57	1309.13
10/18/83	45.80	1317.90
11/30/83	42.37	1321.33

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-19AAA

. AQUIFER

WELL SCREENED FROM 238-241 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1369.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/21/79	40.80	1328.60	07/20/83	56.35	1313.05
07/25/79	46.60	1322.80	08/17/83	71.10	1298.30
08/09/79	44.29	1325.11	09/15/83	61.74	1307.66
08/28/79	46.87	1322.53	10/18/83	52.44	1316.96
09/12/79	49.28	1320.12	11/30/83	48.56	1320.84
09/26/79	46.28	1323.12			
10/09/79	43.98	1325.42			
10/24/79	44.27	1325.13			
11/15/79	40.96	1328.44			
12/05/79	39.52	1329.88			
04/01/80	37.97	1331.43			
04/24/80	36.99	1332.41			
05/21/80	43.59	1325.81			
06/17/80	40.89	1328.51			
07/15/80	53.60	1315.80			
08/13/80	56.85	1312.55			
09/10/80	49.25	1320.15			
10/10/80	46.07	1323.33			
11/07/80	42.33	1327.07			
12/10/80	40.59	1328.81			
04/16/81	39.50	1329.90			
05/21/81	50.24	1319.16			
06/11/81	45.44	1323.96			
07/10/81	49.00	1320.40			
08/07/81	53.63	1315.77			
09/04/81	73.62	1295.78			
09/30/81	49.75	1319.65			
10/29/81	45.23	1324.17			
11/24/81	43.27	1326.13			
01/13/82	41.14	1328.26			
04/14/82	39.07	1330.33			
05/12/82	41.05	1328.35			
06/08/82	39.03	1330.37			
07/08/82	58.71	1310.69			
08/05/82	71.96	1297.44			
09/01/82	69.55	1299.85			
09/29/82	57.68	1311.72			
10/28/82	50.83	1318.57			
12/01/82	47.29	1322.11			
04/27/83	42.12	1327.28			
05/24/83	42.43	1326.97			
06/22/83	48.69	1320.71			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-21BBA

. AQUIFER

WELL SCREENED FROM 213-216 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1377.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/21/79	50.73	1327.07	07/20/83	67.54	1310.26
07/25/79	57.48	1320.32	08/17/83	84.21	1293.59
08/09/79	55.54	1322.26	09/15/83	72.70	1305.10
08/28/79	58.10	1319.70	10/18/83	62.49	1315.31
09/12/79	60.03	1317.77	11/30/83	58.41	1319.39
09/26/79	56.39	1321.41			
10/09/79	54.04	1323.76			
10/24/79	54.16	1323.64			
11/15/79	50.59	1327.21			
12/05/79	49.11	1328.69			
04/01/80	47.60	1330.20			
04/24/80	46.56	1331.24			
05/21/80	55.73	1322.07			
06/17/80	50.68	1327.12			
07/15/80	66.48	1311.32			
08/13/80	68.04	1309.76			
09/10/80	60.08	1317.72			
10/10/80	55.86	1321.94			
11/07/80	51.94	1325.86			
12/10/80	50.40	1327.40			
04/16/81	51.42	1326.38			
05/21/81	63.20	1314.60			
06/11/81	55.55	1322.25			
07/10/81	61.94	1315.86			
08/06/81	64.53	1313.27			
09/04/81	61.55	1316.25			
09/30/81	59.75	1318.05			
10/29/81	54.94	1322.86			
11/24/81	52.89	1324.91			
01/13/82	50.75	1327.05			
04/14/82	48.64	1329.16			
05/12/82	50.83	1326.97			
06/08/82	48.51	1329.29			
07/08/82	74.02	1303.78			
08/05/82	88.30	1289.50			
09/01/82	82.54	1295.26			
09/29/82	68.00	1309.80			
10/28/82	60.76	1317.04			
12/01/82	57.13	1320.67			
04/27/83	51.79	1326.01			
05/24/83	52.79	1325.01			
06/22/83	59.79	1318.01			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-27ADD

SPW. AQUIFER

WELL SCREENED FROM 153-156 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1327.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/15/80	15.44	1311.86
08/13/80	19.36	1307.94
09/10/80	12.50	1314.80
10/08/80	12.48	1314.82
11/05/80	5.38	1321.92
12/03/80	3.59	1323.71
04/14/81	2.70	1324.60
05/13/81	6.44	1320.86
06/11/81	8.36	1318.94
07/08/81	9.31	1317.99
08/05/81	16.91	1310.39
09/03/81	25.73	1301.57
09/30/81	12.26	1315.04
10/29/81	7.86	1319.44
11/24/81	5.85	1321.45
01/13/82	5.27	1322.03
04/14/82	6.59	1320.71
05/12/82	8.09	1319.21
06/08/82	7.52	1319.78
07/08/82	22.57	1304.73
08/05/82	38.53	1288.77
09/01/82	35.50	1291.80
09/29/82	20.83	1306.47
10/28/82	13.87	1313.43
12/01/82	10.56	1316.74
04/27/83	9.58	1317.72
05/24/83	9.89	1317.41
06/22/83	12.11	1315.19
07/20/83	20.21	1307.09
08/17/83	37.93	1289.37
09/15/83	26.19	1301.11
10/18/83	14.60	1312.70
11/30/83	11.67	1315.63

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-27CCC

. AQUIFER

WELL SCREENED FROM 23- 28 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1299.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
12/01/83	5.95	1293.75
01/16/84	5.95	1293.75

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-27CDC1

. AQUIFER

WELL SCREENED FROM 209-214 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1332.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
10/18/83	21.52	1310.88
11/30/83	15.12	1317.28

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-27CDC2

AQUIFER

WELL SCREENED FROM 105-110 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1332.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
10/18/83	24.68	1308.12
11/30/83	23.30	1309.50
12/06/83	23.30	1309.50

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-27CDD

. AQUIFER

WELL SCREENED FROM 49- 54 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1317.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
12/01/83	7.78	1309.42
01/16/84	7.82	1309.38

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-29DDD

AQUIFER

WELL SCREENED FROM 192-195 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1355.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/01/80	26.55	1329.15
05/21/80	30.11	1325.59
06/17/80	29.49	1326.21
07/15/80	39.35	1316.35
08/13/80	44.38	1311.32
09/10/80	36.89	1318.81
10/07/80	35.54	1320.16
11/05/80	21.32	1334.38
12/03/80	29.56	1326.14
04/14/81	28.37	1327.33
05/13/81	31.37	1324.33
06/11/81	34.08	1321.62
07/07/81	33.48	1322.22
08/05/81	42.09	1313.61
09/03/81	49.74	1305.96
09/30/81	38.70	1317.00
10/29/81	34.13	1321.57
11/24/81	32.06	1323.64
01/13/82	30.15	1325.55
04/14/82	27.80	1327.90
05/12/82	29.63	1326.07
06/08/82	27.67	1328.03
07/07/82	42.95	1312.75
08/05/82	57.75	1297.95
09/01/82	57.69	1298.01
09/29/82	46.85	1308.85
10/28/82	39.96	1315.74
12/01/82	36.33	1319.37
04/27/83	30.93	1324.77
05/24/83	30.69	1325.01
06/22/83	37.30	1318.40
07/20/83	44.87	1310.83
08/17/83	59.56	1296.14
09/15/83	50.47	1305.23
10/18/83	41.28	1314.42
11/30/83	37.32	1318.38

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-059-35CCC

SPW. AQUIFER

WELL SCREENED FROM 177-180 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1339.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/27/81	44.20	1295.00
09/03/81	45.19	1294.01
09/30/81	31.46	1307.74
10/29/81	26.08	1313.12
11/24/81	23.60	1315.60
01/13/82	21.02	1318.18
04/14/82	18.98	1320.22
05/12/82	20.29	1318.91
06/08/82	18.85	1320.35
07/08/82	46.05	1293.15
08/05/82	65.02	1274.18
09/01/82	60.66	1278.54
09/29/82	39.25	1299.95
10/28/82	30.09	1309.11
12/01/82	25.54	1313.66
04/27/83	19.52	1319.68
05/24/83	19.31	1319.89
06/22/83	27.14	1312.06
07/20/83	41.13	1298.07
08/17/83	64.83	1274.37
09/15/83	47.95	1291.25
10/18/83	32.25	1306.95
11/30/83	28.00	1311.20

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-060-01DCC

SPW. AQUIFER

WELL SCREENED FROM 203-208 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1357.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	32.10	1325.50
10/28/82	27.45	1330.15
12/01/82	25.98	1331.62
04/27/83	21.61	1335.99
05/24/83	21.15	1336.45
06/22/83	23.43	1334.17
07/20/83	26.96	1330.64
08/17/83	33.20	1324.40
09/15/83	32.90	1324.70
10/19/83	29.29	1328.31
11/30/83	26.71	1330.89

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-060-10BAA

SPW. AQUIFER

WELL SCREENED FROM 203-208 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1384.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	55.83	1328.27
10/28/82	53.93	1330.17
12/01/82	52.21	1331.89
04/27/83	48.70	1335.40
05/24/83	48.30	1335.80
06/22/83	49.32	1334.78
07/20/83	52.20	1331.90
08/17/83	54.85	1329.25
09/15/83	56.19	1327.91
10/19/83	54.51	1329.59
11/30/83	52.68	1331.42

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-060-11BAA

SPW. AQUIFER

WELL SCREENED FROM 203-208 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1384.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/29/82	58.08	1326.12
10/28/82	55.12	1329.08
12/01/82	52.99	1331.21
04/27/83	48.96	1335.24
05/24/83	48.49	1335.71
06/22/83	52.02	1332.18
07/20/83	52.60	1331.60
08/17/83	57.57	1326.63
09/15/83	58.33	1325.87
10/19/83	55.79	1328.41
11/30/83	53.52	1330.68

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

132-060-12BBB

AQUIFER

WELL SCREENED FROM 210-216 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1369.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/21/79	29.68	1339.92	07/20/83	38.59	1331.01
07/25/79	31.83	1337.77	08/17/83	44.58	1325.02
08/09/79	32.30	1337.30	09/15/83	44.47	1325.13
08/28/79	33.53	1336.07	10/19/83	41.10	1328.50
09/12/79	34.80	1334.80	11/30/83	38.58	1331.02
09/26/79	34.73	1334.87			
10/09/79	33.96	1335.64			
10/24/79	33.67	1335.93			
11/15/79	32.34	1337.26			
12/05/79	31.38	1338.22			
04/01/80	29.34	1340.26			
04/24/80	28.96	1340.64			
05/21/80	29.82	1339.78			
06/17/80	30.89	1338.71			
07/15/80	34.09	1335.51			
08/13/80	38.69	1330.91			
09/10/80	36.55	1333.05			
10/10/80	35.54	1334.06			
11/07/80	35.61	1333.99			
12/10/80	32.38	1337.22			
04/16/81	30.15	1339.45			
05/21/81	32.34	1337.26			
06/11/81	33.21	1336.39			
07/10/81	33.20	1336.40			
08/07/81	37.22	1332.38			
09/04/81	41.05	1328.55			
09/30/81	38.44	1331.16			
10/29/81	36.00	1333.60			
11/24/81	34.70	1334.90			
01/13/82	32.96	1336.64			
04/14/82	30.95	1338.65			
05/13/82	31.24	1338.36			
06/08/82	30.69	1338.91			
07/08/82	34.87	1334.73			
08/05/82	42.25	1327.35			
09/01/82	46.42	1323.18			
09/29/82	43.78	1325.82			
10/28/82	40.25	1329.35			
12/01/82	37.90	1331.70			
04/27/83	33.54	1336.06			
05/24/83	33.13	1336.47			
06/22/83	35.24	1334.36			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-04AAA

SPW. AQUIFER

WELL SCREENED FROM 342-345 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1404.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/28/81	53.97	1350.33
09/04/81	54.04	1350.26
09/30/81	54.15	1350.15
10/29/81	54.21	1350.09
11/24/81	54.95	1349.35
04/14/82	54.54	1349.76
05/13/82	54.66	1349.64
06/08/82	54.59	1349.71
07/08/82	54.70	1349.60
08/05/82	54.60	1349.70
09/02/82	54.73	1349.57
09/30/82	55.25	1349.05
10/29/82	55.37	1348.93
12/02/82	55.82	1348.48
04/27/83	56.52	1347.78
05/25/83	56.61	1347.69
06/23/83	56.65	1347.65
07/21/83	56.50	1347.80
08/18/83	56.74	1347.56
09/16/83	56.95	1347.35
10/19/83	57.19	1347.11
12/01/83	57.41	1346.89

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-04DCC

. AQUIFER

WELL SCREENED FROM 205-210 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1395.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	50.01	1344.99
10/19/83	50.68	1344.32
12/01/83	50.64	1344.36

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-05CDD1

. AQUIFER

WELL SCREENED FROM 197-202 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1390.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	43.98	1346.12
10/19/83	45.45	1344.65
12/01/83	46.45	1343.65

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-05CDD2

. AQUIFER

WELL SCREENED FROM 54- 59 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1390.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	14.68	1375.62
10/19/83	14.87	1375.43
12/01/83	15.08	1375.22

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-06DDD

AQUIFER

WELL SCREENED FROM 197-203 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1375.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	28.84	1346.26
10/19/83	29.90	1345.20
12/01/83	29.93	1345.17

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-07BAA1

. AQUIFER

WELL SCREENED FROM 292-297 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1385.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/15/83	43.55	1342.35
12/01/83	42.65	1343.25

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-07BAA2

AQUIFER

WELL SCREENED FROM 197-202 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1386.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/15/83	42.97	1343.43
10/19/83	47.22	1339.18
12/01/83	43.17	1343.23

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-09BBB1

AQUIFER

WELL SCREENED FROM 211-216 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1390.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	43.90	1346.70
10/19/83	46.22	1344.38
12/01/83	45.48	1345.12

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-09BBB2

. AQUIFER

WELL SCREENED FROM 60- 65 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1390.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	15.53	1375.17
10/19/83	15.85	1374.85
12/01/83	15.55	1375.15

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-14CCC

SPW. AQUIFER

WELL SCREENED FROM 167-170 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1364.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/26/81	13.71	1350.39
09/04/81	14.12	1349.98
09/30/81	14.90	1349.20
10/29/81	14.96	1349.14
11/24/81	14.98	1349.12
01/13/82	14.59	1349.51
04/14/82	13.57	1350.53
05/13/82	13.44	1350.66
06/08/82	13.21	1350.89
07/07/82	13.36	1350.74
08/05/82	14.32	1349.78
09/02/82	16.40	1347.70
09/30/82	17.93	1346.17
10/29/82	17.98	1346.12
12/02/82	17.85	1346.25
04/27/83	16.26	1347.84
05/25/83	15.99	1348.11
06/23/83	15.97	1348.13
07/20/83	16.18	1347.92
08/18/83	17.24	1346.86
09/15/83	18.40	1345.70
10/19/83	18.93	1345.17
11/30/83	17.72	1346.38

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-14CDD

SPW. AQUIFER

WELL SCREENED FROM 167-179 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1369.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/26/81	19.34	1350.46
09/04/81	19.79	1350.01
09/30/81	20.49	1349.31
10/29/81	20.55	1349.25
11/23/81	20.55	1349.25
04/14/82	19.13	1350.67
05/13/82	18.99	1350.81
06/08/82	18.76	1351.04
07/07/82	18.93	1350.87
08/05/82	19.97	1349.83
09/02/82	22.12	1347.68
09/30/82	23.62	1346.18
10/29/82	23.51	1346.29
12/02/82	23.45	1346.35
04/27/83	21.83	1347.97
05/25/83	21.57	1348.23
06/23/83	21.55	1348.25
07/20/83	21.76	1348.04
08/18/83	22.88	1346.92
09/15/83	24.05	1345.75
10/19/83	24.50	1345.30
11/30/83	24.27	1345.53

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-15AAA

SPW. AQUIFER

WELL SCREENED FROM 167-170 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1376.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/28/81	25.80	1350.90
09/04/81	26.13	1350.57
09/30/81	26.90	1349.80
10/29/81	27.08	1349.62
11/24/81	27.14	1349.56
01/13/82	26.70	1350.00
04/14/82	25.80	1350.90
05/13/82	25.66	1351.04
06/08/82	25.43	1351.27
07/07/82	25.53	1351.17
08/05/82	26.25	1350.45
09/02/82	28.14	1348.56
09/30/82	29.80	1346.90
10/29/82	29.99	1346.71
12/02/82	29.94	1346.76
04/27/83	28.46	1348.24
05/25/83	28.20	1348.50
06/23/83	28.13	1348.57
07/21/83	28.30	1348.40
08/18/83	29.17	1347.53
09/15/83	30.30	1346.40
10/19/83	28.94	1347.76
11/30/83	30.84	1345.86

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-15CCC2

SPW. AQUIFER

WELL SCREENED FROM 188-191 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1387.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
01/13/82	38.84	1348.26
04/14/82	37.87	1349.23
05/13/82	37.73	1349.37
06/08/82	37.48	1349.62
07/07/82	37.59	1349.51
09/02/82	40.47	1346.63
09/30/82	42.20	1344.90
10/29/82	42.27	1344.83
12/02/82	42.13	1344.97

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-19BAA

SPW. AQUIFER

WELL SCREENED FROM 196-199 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1382.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/25/81	42.83	1339.87
09/04/81	43.83	1338.87
09/30/81	44.07	1338.63
10/29/81	42.83	1339.87
11/24/81	41.95	1340.75
01/13/82	40.25	1342.45
04/14/82	38.58	1344.12
05/13/82	38.46	1344.24
06/08/82	38.25	1344.45
07/07/82	38.93	1343.77
08/05/82	43.04	1339.66
09/02/82	47.60	1335.10
09/30/82	48.35	1334.35
10/29/82	46.49	1336.21
12/02/82	44.82	1337.88
04/27/83	41.14	1341.56
05/25/83	40.78	1341.92
06/23/83	41.30	1341.40
07/20/83	42.51	1340.19
08/18/83	45.75	1336.95
09/15/83	47.82	1334.88
10/19/83	47.08	1335.62
11/30/83	45.42	1337.28

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-20ABB

SPW. AQUIFER

WELL SCREENED FROM 197-200 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1386.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/25/81	46.98	1339.02
09/04/81	47.81	1338.19
09/30/81	48.88	1337.12
10/29/81	46.41	1339.59
11/24/81	45.47	1340.53
01/13/82	43.98	1342.02
04/13/82	42.12	1343.88
05/13/82	41.91	1344.09
06/08/82	41.70	1344.30
07/07/82	42.62	1343.38
08/05/82	47.33	1338.67
09/02/82	52.03	1333.97
09/30/82	52.26	1333.74
10/29/82	50.13	1335.87
12/02/82	48.33	1337.67
04/27/83	44.58	1341.42
05/25/83	44.21	1341.79
06/23/83	44.95	1341.05
07/20/83	46.30	1339.70
08/18/83	49.91	1336.09
09/15/83	51.80	1334.20
10/19/83	50.73	1335.27
11/30/83	48.93	1337.07

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-20BBB

SPW. AQUIFER

WELL SCREENED FROM 197-200 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1386.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/25/81	46.59	1339.51
09/04/81	47.56	1338.54
09/30/81	47.66	1338.44
10/29/81	46.39	1339.71
11/24/81	45.45	1340.65
01/13/82	43.75	1342.35
04/14/82	42.07	1344.03
05/13/82	41.97	1344.13
06/08/82	41.74	1344.36
07/07/82	42.51	1343.59
08/05/82	46.87	1339.23
09/02/82	51.49	1334.61
09/30/82	52.00	1334.10
10/29/82	50.06	1336.04
12/02/82	48.33	1337.77
04/27/83	44.57	1341.53
05/25/83	44.25	1341.85
06/23/83	44.84	1341.26
07/20/83	46.13	1339.97
08/18/83	49.58	1336.52
09/15/83	51.54	1334.56
10/19/83	50.66	1335.44
11/30/83	48.94	1337.16

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-21BAA

SPW. AQUIFER

WELL SCREENED FROM 231-234 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1381.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/25/81	32.19	1349.71
09/04/81	32.79	1349.11
09/30/81	33.52	1348.38
10/29/81	33.48	1348.42
11/24/81	33.39	1348.51
01/13/82	32.70	1349.20
04/14/82	31.54	1350.36
05/13/82	31.39	1350.51
06/08/82	31.16	1350.74
07/07/82	31.34	1350.56
08/05/82	32.60	1349.30
09/02/82	35.30	1346.60
09/30/82	37.00	1344.90
10/29/82	36.77	1345.13
12/02/82	36.37	1345.53
04/27/83	34.18	1347.72
05/25/83	33.95	1347.95
06/23/83	33.95	1347.95
07/20/83	34.29	1347.61
08/18/83	35.63	1346.27
09/15/83	37.05	1344.85
10/19/83	36.47	1345.43
11/30/83	37.08	1344.82

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-27000

SPW. AQUIFER

WELL SCREENED FROM 164-169 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1365.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	35.80	1329.60
10/28/82	32.73	1332.67
12/02/82	30.56	1334.84
04/27/83	26.65	1338.75
05/25/83	26.23	1339.17
06/23/83	27.78	1337.62
07/20/83	30.10	1335.30
08/17/83	34.97	1330.43
09/15/83	35.85	1329.55
10/19/83	33.43	1331.97
11/30/83	31.20	1334.20

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-27DCC

SPW. AQUIFER

WELL SCREENED FROM 168-173 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1370.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	41.25	1329.45
10/28/82	38.08	1332.62
12/02/82	35.90	1334.80
04/27/83	31.90	1338.80
05/25/83	31.56	1339.14
06/23/83	33.24	1337.46
07/20/83	35.68	1335.02
08/17/83	40.74	1329.96
09/15/83	41.43	1329.27
10/19/83	38.80	1331.90
11/30/83	36.54	1334.16

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-28000

SPW. AQUIFER

WELL SCREENED FROM 195-200 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1378.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	48.26	1330.04
10/28/82	45.44	1332.86
12/02/82	43.33	1334.97
04/27/83	39.35	1338.95
05/25/83	39.00	1339.30
06/23/83	40.29	1338.01
07/20/83	42.33	1335.97
08/17/83	46.82	1331.48
09/15/83	48.20	1330.10
10/19/83	46.15	1332.15
11/30/83	44.02	1334.28

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-28CDD

SPW. AQUIFER

WELL SCREENED FROM 204-209 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1384.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	54.50	1329.70
10/28/82	51.57	1332.63
12/02/82	49.41	1334.79
04/27/83	47.30	1336.90
05/25/83	45.02	1339.18
06/23/83	46.84	1337.36
07/20/83	48.63	1335.57
08/17/83	53.32	1330.88
09/15/83	54.50	1329.70
10/19/83	52.23	1331.97

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-29DCC

SPW. AQUIFER

WELL SCREENED FROM 198-203 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1374.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	44.60	1330.20
10/28/82	41.84	1332.96
12/02/82	39.75	1335.05
04/27/83	35.72	1339.08
05/25/83	35.37	1339.43
06/23/83	36.59	1338.21
07/20/83	38.55	1336.25
08/17/83	42.96	1331.84
09/15/83	44.44	1330.36
10/19/83	42.46	1332.34
11/30/83	40.35	1334.45

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-30CCC

SPW. AQUIFER

WELL SCREENED FROM 225-230 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1394.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	62.36	1331.84
10/28/82	60.09	1334.11
12/02/82	58.23	1335.97
04/27/83	54.30	1339.90
05/25/83	54.04	1340.16
06/23/83	54.88	1339.32
07/20/83	56.47	1337.73
08/17/83	60.20	1334.00
09/15/83	62.00	1332.20
10/19/83	60.73	1333.47
11/30/83	58.85	1335.35

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-30CDD

SPW. AQUIFER

WELL SCREENED FROM 214-219 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1385.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	54.53	1331.17
10/28/82	52.10	1333.60
12/02/82	50.17	1335.53
04/27/83	46.30	1339.40
05/25/83	45.88	1339.82
06/23/83	46.87	1338.83
07/20/83	48.56	1337.14
08/17/83	52.50	1333.20
09/15/83	54.23	1331.47
10/19/83	52.75	1332.95
11/30/83	50.80	1334.90

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-32BBB

. AGUIFER

WELL SCREENED FROM 198-201 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1373.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
10/07/75	25.72	1347.78	08/28/79	32.90	1340.60
11/05/75	25.70	1347.80	09/12/79	33.75	1339.75
12/04/75	25.56	1347.94	09/26/79	34.14	1339.36
			10/09/79	33.83	1339.67
03/09/76	25.38	1348.12	10/24/79	33.35	1340.15
04/13/76	25.39	1348.11	11/15/79	32.46	1341.04
05/04/76	25.34	1348.16	12/05/79	31.65	1341.85
06/10/76	25.53	1347.97			
07/07/76	25.70	1347.80	04/01/80	29.50	1344.00
08/03/76	26.02	1347.48	04/24/80	29.30	1344.20
09/08/76	26.32	1347.18	05/21/80	29.50	1344.00
12/03/76	26.55	1346.95	06/17/80	30.73	1342.77
			07/15/80	32.20	1341.30
08/04/77	34.47	1339.03	08/13/80	36.60	1336.90
08/09/77	35.51	1337.99	09/10/80	36.00	1337.50
08/17/77	36.92	1336.58	10/10/80	35.08	1338.42
08/22/77	37.55	1335.95	11/07/80	33.70	1339.80
08/31/77	37.49	1336.01	12/10/80	32.66	1340.84
09/06/77	38.70	1334.80			
09/14/77	38.44	1335.06	04/16/81	30.27	1343.23
09/20/77	38.34	1335.16	05/21/81	31.29	1342.21
09/26/77	37.90	1335.60	06/11/81	32.42	1341.08
10/06/77	37.52	1335.98	07/10/81	32.40	1341.10
11/01/77	36.00	1337.50	08/07/81	35.42	1338.08
12/12/77	33.85	1339.65	09/04/81	38.53	1334.97
			09/30/81	37.72	1335.78
01/10/78	33.00	1340.50	10/29/81	35.98	1337.52
02/23/78	31.61	1341.89	11/24/81	34.89	1338.61
04/10/78	30.76	1342.74			
05/09/78	30.25	1343.25	01/13/82	33.17	1340.33
06/06/78	29.97	1343.53	04/14/82	31.39	1342.11
06/23/78	30.27	1343.23	05/13/82	31.24	1342.26
07/07/78	30.14	1343.36	06/08/82	31.00	1342.50
07/18/78	30.12	1343.38	07/07/82	32.64	1340.86
08/02/78	31.18	1342.32	08/05/82	38.37	1335.13
08/17/78	33.97	1339.53	09/01/82	43.12	1330.38
08/30/78	35.75	1337.75	09/30/82	42.48	1331.02
09/15/78	37.10	1336.40	10/28/82	39.85	1333.65
09/26/78	36.79	1336.71	12/02/82	37.81	1335.69
11/28/78	33.70	1339.80			
			04/27/83	33.87	1339.63
04/23/79	29.84	1343.66	05/25/83	33.49	1340.01
05/21/79	29.46	1344.04	06/23/83	34.59	1338.91
06/21/79	29.42	1344.08	07/20/83	36.52	1336.98
07/25/79	30.80	1342.70	08/17/83	40.69	1332.81
08/09/79	31.82	1341.68	09/15/83	42.30	1331.20

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
10/19/83	40.52	1332.98
11/30/83	38.45	1335.05

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-34AAA2

SPW. AQUIFER

WELL SCREENED FROM 168-173 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1358.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	29.43	1329.17
10/28/82	26.17	1332.43
12/02/82	23.98	1334.62
04/27/83	19.98	1338.62
05/25/83	19.60	1339.00
06/23/83	21.37	1337.23
07/20/83	23.92	1334.68
08/17/83	29.13	1329.47
09/15/83	29.62	1328.98
10/19/83	26.89	1331.71
11/30/83	24.60	1334.00

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-35AAA

SPW. AQUIFER

WELL SCREENED FROM 193-198 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1355.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	25.94	1329.86
10/28/82	22.85	1332.95
12/02/82	20.60	1335.20
04/27/83	16.74	1339.06
05/25/83	16.38	1339.42
06/22/83	17.90	1337.90
07/20/83	20.23	1335.57
08/17/83	25.15	1330.65
09/15/83	26.00	1329.80
10/19/83	23.52	1332.28
11/30/83	21.28	1334.52

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-059-35ABB

SPW. AQUIFER

WELL SCREENED FROM 162-165 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1355.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/27/81	21.83	1333.77
09/04/81	22.05	1333.55
09/30/81	20.13	1335.47
10/29/81	17.95	1337.65
11/24/81	16.75	1338.85
01/13/82	15.03	1340.57
04/14/82	13.20	1342.40
05/13/82	13.07	1342.53
06/08/82	12.93	1342.67
07/08/82	16.36	1339.24
08/05/82	23.29	1332.31
09/01/82	28.06	1327.54
09/30/82	25.09	1330.51
10/28/82	21.85	1333.75
12/02/82	19.60	1336.00
04/27/83	15.62	1339.98
05/25/83	15.25	1340.35
06/22/83	17.02	1338.58
07/20/83	19.65	1335.95
08/17/83	24.85	1330.75
09/15/83	25.32	1330.28
10/19/83	22.58	1333.02
11/30/83	20.26	1335.34

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-01CCC

. AQUIFER

WELL SCREENED FROM 209-214 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1403.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/15/83	62.84	1340.56
12/01/83	65.69	1337.71

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-01DDD

AQUIFER

WELL SCREENED FROM 193-196 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1405.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/11/77	56.76	1348.94	10/24/79	62.57	1343.13
06/14/77	59.55	1346.15	11/14/79	62.01	1343.69
06/23/77	59.47	1346.23	12/04/79	61.43	1344.27
06/29/77	59.39	1346.31			
07/06/77	60.57	1345.13	04/02/80	59.37	1346.33
07/14/77	63.02	1342.68	04/24/80	59.24	1346.46
07/20/77	64.29	1341.41	05/21/80	59.17	1346.53
07/28/77	65.19	1340.51	06/17/80	59.81	1345.89
08/04/77	66.08	1339.62	07/15/80	60.40	1345.30
08/09/77	66.34	1339.36	08/13/80	63.05	1342.65
08/17/77	66.94	1338.76	09/10/80	64.19	1341.51
08/22/77	68.58	1337.12	10/10/80	64.82	1340.88
08/31/77	74.48	1331.22	11/07/80	63.19	1342.51
09/06/77	68.50	1337.20	12/10/80	62.26	1343.44
09/14/77	68.54	1337.16			
09/20/77	68.06	1337.64	04/16/81	60.03	1345.67
09/26/77	67.78	1337.92	05/21/81	60.33	1345.37
10/06/77	67.52	1338.18	06/10/81	61.02	1344.68
11/01/77	66.18	1339.52	07/10/81	61.39	1344.31
12/12/77	64.16	1341.54	08/07/81	62.70	1343.00
			09/03/81	64.94	1340.76
01/11/78	63.25	1342.45	09/30/81	65.75	1339.95
02/24/78	61.88	1343.82	10/29/81	65.95	1339.75
03/22/78	61.40	1344.30	11/24/81	64.28	1341.42
04/10/78	61.02	1344.68	12/29/81	63.37	1342.33
05/10/78	60.47	1345.23			
06/06/78	60.15	1345.55	04/14/82	61.28	1344.42
06/23/78	60.21	1345.49	05/13/82	61.08	1344.62
07/07/78	59.94	1345.76	06/08/82	60.88	1344.82
07/18/78	60.07	1345.63	07/08/82	61.16	1344.54
08/02/78	60.97	1344.73	08/05/82	64.15	1341.55
08/17/78	64.70	1341.00	09/02/82	68.21	1337.49
08/30/78	65.83	1339.87	09/30/82	69.70	1336.00
09/15/78	66.75	1338.95	10/29/82	68.47	1337.23
09/26/78	66.44	1339.26	12/02/82	67.10	1338.60
11/28/78	63.83	1341.87			
			04/27/83	63.76	1341.94
04/23/79	60.06	1345.64	05/25/83	63.45	1342.25
05/21/79	59.69	1346.01	06/23/83	63.66	1342.04
06/21/79	59.40	1346.30	07/21/83	64.48	1341.22
07/25/79	60.28	1345.42	08/18/83	66.90	1338.80
08/09/79	60.67	1345.03	09/15/83	69.10	1336.60
08/27/79	61.73	1343.97	10/19/83	69.03	1336.67
09/12/79	62.28	1343.42	12/01/83	67.70	1338.00
09/26/79	62.66	1343.04			
10/10/79	62.68	1343.02			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-02CDD

AQUIFER

WELL SCREENED FROM 255-260 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1398.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/15/83	61.54	1336.56
10/18/83	61.70	1336.40
12/01/83	60.45	1337.65

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-04DCC

. AQUIFER

WELL SCREENED FROM 211-216 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1407.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	70.60	1337.30
10/18/83	70.93	1336.97
12/01/83	69.92	1337.98

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-05DAA1

AQUIFER

WELL SCREENED FROM 217-222 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1409.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	72.24	1337.56
10/20/83	72.77	1337.03
12/01/83	71.77	1338.03

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-05DAA2

. AQUIFER

WELL SCREENED FROM 220-225 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1406.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	32.85	1373.55
10/20/83	33.03	1373.37
12/01/83	32.94	1373.46

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-10ABB

AQUIFER

WELL SCREENED FROM 220-225 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1406.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	69.70	1336.70
10/19/83	69.75	1336.65
12/01/83	68.60	1337.80

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-10BBB1

. AQUIFER

WELL SCREENED FROM 227-232 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1416.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	79.00	1337.10
10/19/83	79.19	1336.91
12/01/83	78.15	1337.95

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-10BBB2

. AQUIFER

WELL SCREENED FROM 77- 82 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1416.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	30.43	1386.27
10/19/83	31.50	1385.20
12/01/83	31.57	1385.13

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-11BBB

. AQUIFER

WELL SCREENED FROM 227-232 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1406.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/15/83	69.45	1336.75
10/19/83	69.69	1336.51
12/01/83	68.50	1337.70

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-12BAA

. AQUIFER

WELL SCREENED FROM 197-202 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1406.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/15/83	53.61	1352.39
10/19/83	69.56	1336.44
12/01/83	68.22	1337.78

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-23AAA

SPW. AQUIFER

WELL SCREENED FROM 217-220 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1391.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/26/81	51.74	1339.86
09/04/81	52.54	1339.06
09/30/81	53.13	1338.47
10/29/81	52.06	1339.54
11/24/81	51.26	1340.34
04/14/82	48.06	1343.54
05/13/82	47.84	1343.76
06/08/82	47.67	1343.93
07/07/82	48.35	1343.25
07/07/82	55.95	1335.65
08/05/82	51.66	1339.94
09/02/82	56.08	1335.52
09/30/82	57.28	1334.32
10/29/82	55.74	1335.86
12/02/82	54.07	1337.53
04/27/83	50.56	1341.04
05/25/83	50.23	1341.37
06/23/83	50.53	1341.07
07/20/83	51.54	1340.06
08/18/83	54.42	1337.18
09/15/83	56.64	1334.96
10/19/83	56.26	1335.34
12/01/83	54.71	1336.89

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-23ABB

SPW. AQUIFER

WELL SCREENED FROM 211-214 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1399.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/26/81	59.68	1340.02
09/04/81	60.60	1339.10
09/30/81	61.21	1338.49
10/29/81	60.15	1339.55
11/24/81	59.37	1340.33
04/14/82	56.20	1343.50
05/13/82	55.99	1343.71
06/08/82	55.78	1343.92
07/07/82	48.35	1351.35
07/07/82	55.95	1343.75
08/05/82	59.65	1340.05
09/02/82	64.03	1335.67
09/30/82	65.47	1334.23
10/29/82	63.85	1335.85
12/02/82	62.27	1337.43
04/27/83	58.66	1341.04
05/25/83	58.37	1341.33
06/23/83	58.67	1341.03
07/20/83	59.63	1340.07
08/18/83	62.45	1337.25
09/15/83	64.68	1335.02
10/19/83	64.57	1335.13
12/01/83	62.85	1336.85

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-24AAA

SPW. AQUIFER

WELL SCREENED FROM 207-210 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1393.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/28/81	53.48	1339.62
09/04/81	53.60	1339.50
09/30/81	53.99	1339.11
10/29/81	53.40	1339.70
11/24/81	52.65	1340.45
01/13/82	51.16	1341.94
04/14/82	49.02	1344.08
05/13/82	50.06	1343.04
06/08/82	48.92	1344.18
07/07/82	48.84	1344.26
08/05/82	49.67	1343.43
09/02/82	50.88	1342.22
09/30/82	52.16	1340.94
10/29/82	53.12	1339.98
12/02/82	53.70	1339.40
04/27/83	51.64	1341.46
05/25/83	51.28	1341.82
06/23/83	51.52	1341.58
07/20/83	52.33	1340.77
08/18/83	53.40	1339.70
09/15/83	54.44	1338.66
10/19/83	55.42	1337.68
11/30/83	55.81	1337.29

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-24BAA

SPW. AQUIFER

WELL SCREENED FROM 217-220 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1384.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/28/81	44.40	1339.90
09/04/81	45.09	1339.21
09/30/81	45.58	1338.72
10/29/81	44.52	1339.78
11/24/81	43.72	1340.58
04/14/82	40.50	1343.80
05/13/82	40.30	1344.00
06/08/82	40.11	1344.19
07/07/82	40.57	1343.73
08/05/82	44.20	1340.10
09/02/82	47.65	1336.65
09/30/82	49.80	1334.50
10/29/82	48.19	1336.11
12/02/82	46.61	1337.69
04/27/83	43.00	1341.30
05/25/83	42.67	1341.63
06/23/83	43.02	1341.28
07/20/83	44.05	1340.25
08/18/83	46.97	1337.33
09/15/83	49.18	1335.12
10/19/83	48.74	1335.56
11/30/83	47.21	1337.09

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-25BBB

AQUIFER

WELL SCREENED FROM 218-221 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1395.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/21/79	50.76	1345.04	07/20/83	56.59	1339.21
07/25/79	51.60	1344.20	08/18/83	59.68	1336.12
08/09/79	52.31	1343.49	10/19/83	61.21	1334.59
08/28/79	53.35	1342.45	12/01/83	59.54	1336.26
09/12/79	54.07	1341.73			
09/26/79	54.51	1341.29			
10/09/79	54.64	1341.16			
10/24/79	54.24	1341.56			
11/15/79	53.61	1342.19			
12/05/79	52.96	1342.84			
04/01/80	50.83	1344.97			
04/24/80	50.67	1345.13			
05/21/80	50.62	1345.18			
06/17/80	51.51	1344.29			
07/15/80	52.44	1343.36			
08/13/80	55.70	1340.10			
09/10/80	56.49	1339.31			
10/10/80	55.92	1339.88			
11/07/80	54.88	1340.92			
12/10/80	54.04	1341.76			
04/16/81	51.70	1344.10			
05/21/81	52.15	1343.65			
06/10/81	53.07	1342.73			
07/10/81	53.33	1342.47			
08/07/81	55.16	1340.64			
09/04/81	57.80	1338.00			
09/30/81	58.15	1337.65			
10/29/81	56.96	1338.84			
11/24/81	56.10	1339.70			
01/13/82	54.58	1341.22			
04/14/82	52.86	1342.94			
05/13/82	52.68	1343.12			
06/08/82	52.45	1343.35			
07/07/82	53.05	1342.75			
08/05/82	56.90	1338.90			
09/02/82	61.44	1334.36			
09/30/82	62.40	1333.40			
10/28/82	60.64	1335.16			
12/02/82	59.00	1336.80			
04/27/83	55.32	1340.48			
05/25/83	54.98	1340.82			
06/23/83	55.44	1340.36			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-25CCC

SPW. AQUIFER

WELL SCREENED FROM 208-213 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1399.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	65.55	1333.45
10/28/82	63.72	1335.28
12/02/82	62.03	1336.97
04/27/83	58.34	1340.66
05/25/83	58.02	1340.98
06/23/83	58.55	1340.45
07/20/83	59.73	1339.27
08/17/83	62.82	1336.18
09/15/83	65.00	1334.00
10/19/83	64.27	1334.73
11/30/83	62.64	1336.36

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-26DCC

SPW. AQUIFER

WELL SCREENED FROM 202-207 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1391.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	57.57	1334.13
10/28/82	55.91	1335.79
12/02/82	54.33	1337.37
04/27/83	50.73	1340.97
05/25/83	50.40	1341.30
06/23/83	50.76	1340.94
07/20/83	51.86	1339.84
08/17/83	54.73	1336.97
09/15/83	56.92	1334.78
10/19/83	56.46	1335.24
11/30/83	55.00	1336.70

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-36BAA

SPW. AQUIFER

WELL SCREENED FROM 218-223 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1396.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/30/82	64.23	1332.67
10/28/82	62.14	1334.76
12/02/82	60.42	1336.48
04/27/83	56.74	1340.16
05/25/83	56.31	1340.59
06/23/83	57.00	1339.90
07/20/83	58.40	1338.50
08/17/83	61.83	1335.07
09/15/83	63.85	1333.05
10/19/83	62.78	1334.12
11/30/83	60.98	1335.92

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

133-060-36DDD

AQUIFER

WELL SCREENED FROM 212-215 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1383.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
11/05/75	36.22	1346.88	06/17/80	41.22	1341.88
12/04/75	36.06	1347.04	07/15/80	42.98	1340.12
			08/13/80	47.22	1335.88
03/09/76	35.88	1347.22	09/10/80	46.54	1336.56
04/13/76	35.89	1347.21	10/10/80	45.73	1337.37
05/04/76	35.80	1347.30	11/07/80	44.28	1338.82
06/10/76	36.01	1347.09	12/10/80	43.13	1339.97
07/07/76	36.15	1346.95			
08/03/76	36.57	1346.53	04/16/81	40.80	1342.30
09/08/76	36.94	1346.16	05/21/81	42.00	1341.10
			06/11/81	43.09	1340.01
08/04/77	45.05	1338.05	07/10/81	43.07	1340.03
08/09/77	46.01	1337.09	08/07/81	46.13	1336.97
08/17/77	47.32	1335.78	09/04/81	49.38	1333.72
08/22/77	47.87	1335.23	09/30/81	48.35	1334.75
08/31/77	47.88	1335.22	10/29/81	46.48	1336.62
09/06/77	48.93	1334.17	11/24/81	45.37	1337.73
09/14/77	48.87	1334.23			
09/20/77	48.55	1334.55	01/13/82	43.17	1339.93
09/26/77	48.15	1334.95	04/14/82	41.84	1341.26
10/06/77	47.74	1335.36	05/13/82	41.80	1341.30
11/01/77	46.20	1336.90	06/08/82	41.48	1341.62
12/12/77	44.10	1339.00	07/08/82	43.60	1339.50
			08/05/82	49.35	1333.75
01/10/78	43.30	1339.80	09/01/82	53.94	1329.16
03/22/78	41.50	1341.60	09/30/82	53.00	1330.10
04/10/78	41.11	1341.99	10/28/82	50.42	1332.68
05/09/78	40.70	1342.40	12/02/82	48.34	1334.76
06/06/78	40.40	1342.70			
06/23/78	40.76	1342.34	04/27/83	44.31	1338.79
07/07/78	40.59	1342.51	05/25/83	43.97	1339.13
			06/22/83	45.13	1337.97
06/21/79	40.09	1343.01	07/20/83	47.35	1335.75
07/25/79	41.45	1341.65	08/17/83	51.77	1331.33
08/09/79	42.30	1340.80	09/15/83	53.10	1330.00
08/28/79	43.40	1339.70	10/19/83	51.11	1331.99
09/12/79	44.36	1338.74	11/30/83	48.98	1334.12
09/26/79	44.66	1338.44			
10/09/79	44.28	1338.82			
10/24/79	43.90	1339.20			
11/15/79	42.93	1340.17			
12/05/79	42.12	1340.98			
04/01/80	40.02	1343.08			
04/24/80	39.77	1343.33			
05/21/80	40.10	1343.00			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-059-31CBB AQUIFER

WELL SCREENED FROM 177-182 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1389.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	43.01	1346.59
10/19/83	43.87	1345.73
12/01/83	44.00	1345.60

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-059-31CCC

AQUIFER

WELL SCREENED FROM 178-184 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1386.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
01/23/75	32.56	1354.14	07/18/78	35.00	1351.70
05/14/75	32.28	1354.42	08/02/78	35.74	1350.96
06/18/75	32.26	1354.44	08/17/78	43.86	1342.84
07/17/75	31.67	1355.03	08/30/78	44.46	1342.24
08/13/75	32.04	1354.66	09/15/78	48.62	1338.08
09/11/75	31.90	1354.80	09/26/78	44.59	1342.11
10/07/75	31.62	1355.08	11/28/78	38.69	1348.01
11/03/75	31.57	1355.13			
12/02/75	31.58	1355.12	04/23/79	34.75	1351.95
			05/21/79	34.38	1352.32
03/09/76	31.24	1355.46	06/21/79	33.98	1352.72
04/13/76	31.14	1355.56	07/25/79	36.65	1350.05
05/04/76	31.08	1355.62	08/09/79	35.70	1351.00
06/10/76	31.37	1355.33	08/27/79	37.15	1349.55
07/07/76	31.50	1355.20	09/12/79	36.28	1350.42
12/03/76	33.00	1353.70	09/26/79	35.88	1350.82
			10/10/79	35.60	1351.10
05/11/77	31.91	1354.79	10/24/79	35.45	1351.25
06/14/77	43.80	1342.90	11/14/79	35.08	1351.62
06/23/77	39.82	1346.88	12/04/79	34.79	1351.91
06/29/77	38.43	1348.27			
07/06/77	41.68	1345.02	04/02/80	33.51	1353.19
07/14/77	51.12	1335.58	04/24/80	33.38	1353.32
07/20/77	48.62	1338.08	05/21/80	33.34	1353.36
07/28/77	49.48	1337.22	06/16/80	33.22	1353.48
08/04/77	55.39	1331.31	07/15/80	33.43	1353.27
08/09/77	55.82	1330.88	08/13/80	33.88	1352.82
08/17/77	53.52	1333.18	09/10/80	34.69	1352.01
08/22/77	58.10	1328.60	10/10/80	35.19	1351.51
08/31/77	58.13	1328.57	11/07/80	35.22	1351.48
09/06/77	51.32	1335.38	12/10/80	35.32	1351.38
09/14/77	48.95	1337.75			
09/20/77	47.24	1339.46	04/16/81	34.30	1352.40
09/26/77	45.89	1340.81	05/21/81	34.30	1352.40
10/06/77	44.43	1342.27	06/10/81	34.27	1352.43
11/01/77	41.60	1345.10	07/10/81	34.51	1352.19
12/12/77	38.97	1347.73	08/07/81	34.71	1351.99
			09/03/81	35.53	1351.17
01/11/78	37.93	1348.77	09/30/81	36.44	1350.26
02/24/78	36.56	1350.14	10/29/81	36.87	1349.83
03/22/78	36.09	1350.61	11/24/81	37.05	1349.65
04/10/78	35.55	1351.15	12/29/81	36.95	1349.75
05/10/78	35.10	1351.60			
06/06/78	34.80	1351.90	04/14/82	35.73	1350.97
06/23/78	35.26	1351.44	05/13/82	35.61	1351.09
07/07/78	34.60	1352.10	06/08/82	35.39	1351.31

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/08/82	35.40	1351.30
08/05/82	35.80	1350.90
09/02/82	37.34	1349.36
09/30/82	39.28	1347.42
10/29/82	39.88	1346.82
12/02/82	40.07	1346.63
04/27/83	38.51	1348.19
05/25/83	38.32	1348.38
06/23/83	38.16	1348.54
07/21/83	38.20	1348.50
08/18/83	38.84	1347.86
09/16/83	40.06	1346.64
10/19/83	40.92	1345.78
12/01/83	41.00	1345.70

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-16CCC

. AQUIFER

WELL SCREENED FROM 212-215 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1418.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/11/77	27.75	1391.05	11/14/79	27.32	1391.48
06/23/77	27.20	1391.60	12/04/79	26.86	1391.94
06/29/77	27.17	1391.63			
07/06/77	27.29	1391.51	04/02/80	26.74	1392.06
07/14/77	27.23	1391.57	04/24/80	26.76	1392.04
07/20/77	27.37	1391.43	05/21/80	26.89	1391.91
07/28/77	27.44	1391.36	06/16/80	26.80	1392.00
08/04/77	27.49	1391.31	07/14/80	27.00	1391.80
08/09/77	27.45	1391.35	08/13/80	26.07	1392.73
08/17/77	27.53	1391.27	09/10/80	27.11	1391.69
08/22/77	27.50	1391.30	10/10/80	27.13	1391.67
08/31/77	27.49	1391.31	11/07/80	27.02	1391.78
09/06/77	27.47	1391.33	12/10/80	27.19	1391.61
09/14/77	27.55	1391.25			
09/20/77	27.42	1391.38	04/15/81	27.30	1391.50
09/26/77	27.33	1391.47	05/16/81	27.39	1391.41
10/06/77	27.53	1391.27	06/10/81	27.40	1391.40
11/01/77	27.38	1391.42	07/10/81	27.60	1391.20
12/12/77	27.20	1391.60	08/06/81	27.59	1391.21
			09/03/81	27.80	1391.00
01/11/78	27.29	1391.51	09/30/81	27.84	1390.96
02/24/78	27.27	1391.53	10/29/81	27.78	1391.02
03/22/78	27.45	1391.35	11/23/81	27.83	1390.97
04/10/78	27.44	1391.36	12/29/81	27.81	1390.99
05/09/78	27.53	1391.27			
06/06/78	27.65	1391.15	04/14/82	27.90	1390.90
06/23/78	27.70	1391.10	05/13/82	28.08	1390.72
07/06/78	26.52	1392.28	06/08/82	28.14	1390.66
07/18/78	27.66	1391.14	07/08/82	28.38	1390.42
08/02/78	27.75	1391.05	08/05/82	28.48	1390.32
08/17/78	27.78	1391.02	09/02/82	28.57	1390.23
08/30/78	27.85	1390.95	09/30/82	28.65	1390.15
09/15/78	27.60	1391.20	10/29/82	28.25	1390.55
09/26/78	27.56	1391.24	12/02/82	28.17	1390.63
11/29/78	27.40	1391.40			
			04/27/83	28.29	1390.51
04/23/79	26.85	1391.95	05/25/83	28.35	1390.45
05/21/79	26.90	1391.90	06/23/83	28.50	1390.30
06/22/79	26.98	1391.82	07/21/83	28.56	1390.24
07/25/79	27.19	1391.61	08/18/83	28.68	1390.12
08/09/79	27.09	1391.71	09/16/83	28.70	1390.10
08/27/79	27.15	1391.65	10/20/83	28.73	1390.07
09/12/79	27.14	1391.66	12/01/83	28.70	1390.10
09/26/79	27.14	1391.66			
10/10/79	27.09	1391.71			
10/24/79	27.12	1391.68			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-20ADD

. AQUIFER

WELL SCREENED FROM 317-322 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1396.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	17.23	1378.87
10/20/83	16.88	1379.22
12/01/83	16.66	1379.44

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-25DDD

. AQUIFER

WELL SCREENED FROM 200-205 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1392.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	46.13	1346.67
10/19/83	47.06	1345.74
12/01/83	47.21	1345.59

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-26BBB

AQUIFER

WELL SCREENED FROM 218-221 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1419.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/11/77	63.94	1355.46	10/24/79	67.46	1351.94
06/14/77	74.95	1344.45	11/14/79	67.09	1352.31
06/23/77	72.14	1347.26	12/04/79	66.75	1352.65
06/29/77	70.62	1348.78			
07/06/77	72.67	1346.73	04/01/80	65.57	1353.83
07/14/77	76.04	1343.36	04/24/80	65.44	1353.96
07/20/77	79.93	1339.47	05/21/80	65.35	1354.05
07/28/77	82.81	1336.59	06/16/80	66.24	1353.16
08/04/77	85.63	1333.77	07/14/80	65.39	1354.01
08/09/77	83.81	1335.59	08/13/80	65.68	1353.72
08/17/77	84.30	1335.10	09/10/80	66.31	1353.09
08/22/77	85.95	1333.45	10/10/80	66.81	1352.59
08/31/77	85.79	1333.61	11/07/80	66.87	1352.53
09/06/77	82.78	1336.62	12/10/80	67.06	1352.34
09/14/77	80.56	1338.84			
09/20/77	78.88	1340.52	04/15/81	66.28	1353.12
09/26/77	77.58	1341.82	05/15/81	66.20	1353.20
10/06/77	76.20	1343.20	06/10/81	66.16	1353.24
11/01/77	73.52	1345.88	07/10/81	66.38	1353.02
12/12/77	70.97	1348.43	08/06/81	66.53	1352.87
			09/03/81	67.30	1352.10
01/11/78	70.00	1349.40	09/30/81	68.19	1351.21
02/24/78	68.67	1350.73	10/29/81	68.65	1350.75
03/22/78	68.20	1351.20	11/23/81	68.90	1350.50
04/10/78	67.59	1351.81	12/29/81	68.85	1350.55
05/09/78	67.24	1352.16			
06/06/78	66.92	1352.48	04/14/82	67.68	1351.72
06/23/78	67.49	1351.91	05/13/82	67.56	1351.84
07/06/78	66.91	1352.49	06/08/82	67.39	1352.01
07/18/78	67.24	1352.16	07/08/82	67.40	1352.00
08/02/78	68.49	1350.91	08/05/82	67.70	1351.70
08/17/78	78.88	1340.52	09/02/82	69.10	1350.30
08/30/78	77.22	1342.18	09/30/82	71.03	1348.37
09/15/78	79.64	1339.76	10/29/82	71.70	1347.70
09/26/78	76.54	1342.86	12/02/82	71.97	1347.43
11/29/78	70.75	1348.65			
			04/27/83	70.58	1348.82
04/23/79	66.85	1352.55	05/25/83	70.40	1349.00
05/21/79	66.55	1352.85	06/23/83	70.24	1349.16
06/22/79	66.14	1353.26	07/21/83	70.17	1349.23
07/25/79	67.97	1351.43	08/18/83	70.79	1348.61
08/09/79	67.90	1351.50	09/16/83	72.01	1347.39
08/27/79	69.40	1350.00	10/19/83	72.94	1346.46
09/12/79	68.38	1351.02	12/01/83	73.07	1346.33
09/26/79	67.91	1351.49			
10/10/79	67.59	1351.81			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-26CBB

AQUIFER

WELL SCREENED FROM 225-230 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1412.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	65.14	1347.26
10/19/83	66.06	1346.34
12/01/83	66.07	1346.33

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-26DCC

. AQUIFER

WELL SCREENED FROM 198-201 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1405.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/11/77	50.74	1355.06	10/24/79	53.80	1352.00
06/14/77	62.27	1343.53	11/14/79	53.40	1352.40
06/23/77	60.42	1345.38	12/04/79	53.08	1352.72
06/29/77	57.05	1348.75			
07/06/77	59.58	1346.22	04/02/80	51.90	1353.90
07/14/77	63.31	1342.49	04/24/80	51.77	1354.03
07/20/77	69.67	1336.13	05/21/80	51.70	1354.10
07/28/77	71.30	1334.50	06/16/80	51.57	1354.23
08/04/77	74.76	1331.04	07/15/80	51.73	1354.07
08/09/77	72.39	1333.41	08/13/80	52.00	1353.80
08/17/77	71.52	1334.28	09/10/80	52.66	1353.14
08/22/77	73.95	1331.85	10/10/80	53.19	1352.61
08/31/77	70.22	1335.58	11/07/80	53.23	1352.57
09/06/77	69.44	1336.36	12/10/80	53.42	1352.38
09/14/77	67.13	1338.67			
09/20/77	65.45	1340.35	04/15/81	52.62	1353.18
09/26/77	64.09	1341.71	05/15/81	52.52	1353.28
10/06/77	62.66	1343.14	06/10/81	52.49	1353.31
11/01/77	59.90	1345.90	07/10/81	52.70	1353.10
12/12/77	57.33	1348.47	08/06/81	52.85	1352.95
			09/03/81	53.63	1352.17
01/11/78	56.34	1349.46	09/30/81	54.50	1351.30
02/24/78	54.96	1350.84	10/29/81	54.95	1350.85
03/22/78	54.48	1351.32	11/23/81	55.25	1350.55
04/10/78	53.90	1351.90	12/29/81	55.19	1350.61
05/09/78	53.56	1352.24			
06/06/78	53.25	1352.55	04/14/82	54.02	1351.78
06/23/78	53.80	1352.00	05/13/82	53.90	1351.90
07/06/78	53.26	1352.54	06/08/82	53.73	1352.07
07/18/78	55.21	1350.59	07/08/82	53.74	1352.06
08/02/78	54.80	1351.00	08/05/82	54.02	1351.78
08/17/78	68.09	1337.71	09/02/82	55.41	1350.39
08/30/78	63.75	1342.05	09/30/82	57.43	1348.37
09/15/78	66.39	1339.41	10/29/82	58.00	1347.80
09/26/78	63.04	1342.76	12/02/82	58.29	1347.51
11/29/78	57.12	1348.68			
			04/27/83	56.90	1348.90
04/23/79	53.20	1352.60	05/25/83	56.73	1349.07
05/21/79	52.87	1352.93	06/23/83	56.58	1349.22
06/22/79	52.57	1353.23	07/21/83	56.51	1349.29
07/25/79	54.85	1350.95	08/18/83	57.10	1348.70
08/09/79	54.29	1351.51	09/16/83	58.33	1347.47
08/27/79	55.80	1350.00	10/19/83	59.25	1346.55
09/12/79	54.74	1351.06	12/01/83	59.39	1346.41
09/26/79	54.27	1351.53			
10/10/79	53.93	1351.87			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-28ADD

AQUIFER

WELL SCREENED FROM 178-181 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1412.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/23/80	64.71	1347.79
08/13/80	57.91	1354.59
09/10/80	59.41	1353.09
10/10/80	59.88	1352.62
11/07/80	59.92	1352.58
12/10/80	60.07	1352.43
04/15/81	59.33	1353.17
05/15/81	59.27	1353.23
06/10/81	59.27	1353.23
07/10/81	59.51	1352.99
08/06/81	59.68	1352.82
09/03/81	60.60	1351.90
09/30/81	61.49	1351.01
10/29/81	61.86	1350.64
11/23/81	62.10	1350.40
04/14/82	60.58	1351.92
05/13/82	60.62	1351.88
06/08/82	60.49	1352.01
07/08/82	60.50	1352.00
08/05/82	61.00	1351.50
09/02/82	62.68	1349.82
09/30/82	64.59	1347.91
10/29/82	65.07	1347.43
12/02/82	65.22	1347.28
04/27/83	63.74	1348.76
05/25/83	63.53	1348.97
06/23/83	63.43	1349.07
07/21/83	63.40	1349.10
08/18/83	64.20	1348.30
09/16/83	65.55	1346.95
10/12/83	66.35	1346.15
12/01/83	66.32	1346.18

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-29AAA

AQUIFER

WELL SCREENED FROM 238-241 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1402.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/22/80	48.39	1354.11
08/13/80	48.28	1354.22
09/10/80	47.77	1354.73
10/10/80	49.10	1353.40
11/07/80	49.13	1353.37
12/10/80	49.28	1353.22
04/15/81	48.80	1353.70
05/15/81	48.80	1353.70
06/10/81	48.82	1353.68
07/10/81	49.10	1353.40
08/06/81	49.39	1353.11
09/03/81	50.66	1351.84
09/30/81	51.47	1351.03
10/29/81	51.62	1350.88
11/23/81	51.73	1350.77
12/29/81	51.50	1351.00
04/14/82	50.21	1352.29
05/13/82	50.10	1352.40
06/08/82	50.05	1352.45
07/08/82	50.16	1352.34
08/05/82	51.17	1351.33
09/02/82	53.37	1349.13
09/30/82	55.12	1347.38
10/29/82	55.30	1347.20
12/02/82	55.15	1347.35
04/27/83	53.46	1349.04
05/25/83	53.27	1349.23
06/23/83	53.22	1349.28
07/21/83	53.48	1349.02
08/18/83	54.70	1347.80
09/16/83	56.14	1346.36
10/20/83	56.64	1345.86
12/01/83	56.29	1346.21

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-29BBB2

AQUIFER

WELL SCREENED FROM 278-281 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1378.4

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/22/80	24.16	1354.24
08/13/80	24.21	1354.19
09/10/80	24.64	1353.76
10/10/80	24.94	1353.46
11/07/80	24.94	1353.46
12/10/80	25.32	1353.08
04/15/81	24.65	1353.75
05/15/81	24.60	1353.80
06/10/81	24.72	1353.68
07/10/81	25.03	1353.37
08/06/81	25.33	1353.07
09/03/81	26.70	1351.70
09/30/81	26.38	1352.02
10/29/81	27.58	1350.82
11/23/81	27.63	1350.77
06/08/82	25.97	1352.43
07/08/82	26.09	1352.31
08/05/82	27.20	1351.20
09/02/82	29.60	1348.80
09/30/82	31.29	1347.11
10/29/82	31.33	1347.07
04/27/83	29.38	1349.02
05/25/83	29.19	1349.21
06/23/83	29.15	1349.25
07/21/83	29.49	1348.91
08/18/83	30.88	1347.52
09/16/83	32.32	1346.08
10/20/83	32.71	1345.69
12/02/83	32.30	1346.10

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-29DAA

. AQUIFER

WELL SCREENED FROM 217-222 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1410.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	72.19	1337.91
10/20/83	72.79	1337.31
12/01/83	71.85	1338.25

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-29DDD

AQUIFER

WELL SCREENED FROM 207-212 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1404.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	66.82	1337.78
10/20/83	67.29	1337.31
12/01/83	67.37	1337.23

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-30BBB

AQUIFER

WELL SCREENED FROM 230-235 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1411.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	64.90	1347.00
10/19/83	65.14	1346.76
12/02/83	64.82	1347.08

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-30CBB

AQUIFER

WELL SCREENED FROM 205-210 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1401.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	54.80	1346.90
10/20/83	55.28	1346.42
12/02/83	55.04	1346.66

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-32DDD

. AQUIFER

WELL SCREENED FROM 218-224 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1405.8

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/18/75	57.29	1348.51	08/02/78	61.31	1344.49
07/17/75	57.83	1347.97	08/17/78	65.53	1340.27
08/13/75	57.09	1348.71	08/30/78	65.59	1340.21
09/11/75	57.12	1348.68	09/15/78	66.72	1339.08
10/07/75	56.90	1348.90	09/26/78	66.35	1339.45
11/03/75	56.87	1348.93	11/29/78	64.09	1341.71
12/02/75	57.00	1348.80			
			04/23/79	60.35	1345.45
03/09/76	56.41	1349.39	05/21/79	60.25	1345.55
04/13/76	56.37	1349.43	06/22/79	60.68	1345.12
05/04/76	56.32	1349.48	07/25/79	60.44	1345.36
06/10/76	56.50	1349.30	08/09/79	60.45	1345.35
07/07/76	56.63	1349.17	08/27/79	61.43	1344.37
08/03/76	56.89	1348.91	09/12/79	61.80	1344.00
09/08/76	57.07	1348.73	09/26/79	62.12	1343.68
			10/10/79	62.23	1343.57
05/11/77	57.27	1348.53	10/24/79	62.29	1343.51
06/14/77	59.33	1346.47	11/14/79	61.94	1343.86
06/23/77	59.42	1346.38	12/04/79	61.42	1344.38
06/29/77	59.26	1346.54			
07/06/77	60.25	1345.55	04/02/80	59.55	1346.25
07/14/77	63.55	1342.25	04/24/80	59.41	1346.39
07/20/77	65.52	1340.28	05/21/80	59.31	1346.49
07/28/77	66.30	1339.50	06/16/80	59.63	1346.17
08/04/77	66.66	1339.14	07/14/80	60.10	1345.70
08/09/77	66.43	1339.37	08/13/80	61.76	1344.04
08/17/77	66.88	1338.92	09/10/80	63.25	1342.55
08/22/77	68.68	1337.12	10/10/80	63.20	1342.60
08/31/77	68.87	1336.93	11/07/80	62.67	1343.13
09/06/77	68.17	1337.63	12/10/80	62.15	1343.65
09/14/77	68.15	1337.65			
09/20/77	67.90	1337.90	04/15/81	60.29	1345.51
09/26/77	67.65	1338.15	05/15/81	60.24	1345.56
10/06/77	67.48	1338.32	06/10/81	60.71	1345.09
11/01/77	66.30	1339.50	07/10/81	61.27	1344.53
12/12/77	64.40	1341.40	08/06/81	61.88	1343.92
			09/02/81	63.70	1342.10
01/11/78	63.53	1342.27	09/30/81	64.20	1341.60
02/24/78	62.20	1343.60	10/29/81	64.64	1341.16
03/22/78	61.75	1344.05	11/23/81	64.21	1341.59
04/10/78	61.32	1344.48	12/29/81	63.45	1342.35
05/09/78	60.80	1345.00			
06/06/78	60.46	1345.34	04/14/82	61.50	1344.30
06/23/78	60.39	1345.41	05/13/82	61.27	1344.53
07/06/78	60.26	1345.54	06/08/82	61.10	1344.70
07/18/78	60.28	1345.52	07/08/82	61.13	1344.67

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
08/05/82	62.95	1342.85
09/02/82	66.41	1339.39
09/30/82	68.65	1337.15
10/29/82	68.17	1337.63
12/02/82	67.17	1338.63
04/27/83	64.10	1341.70
05/25/83	63.83	1341.97
06/23/83	63.81	1341.99
07/21/83	64.29	1341.51
08/18/83	65.95	1339.85
09/16/83	68.25	1337.55
10/20/83	68.80	1337.00
12/01/83	67.81	1337.99

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-33BCC

. AQUIFER

WELL SCREENED FROM 217-222 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1404.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	66.80	1337.80
10/20/83	68.37	1336.23
12/01/83	66.43	1338.17

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-35BBB

AQUIFER

WELL SCREENED FROM 190-195 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1405.6

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	48.41	1357.19
10/19/83	59.32	1346.28
12/01/83	59.50	1346.10

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-35CBB1

AQUIFER

WELL SCREENED FROM 195-200 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1400.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	52.88	1347.22
10/19/83	53.76	1346.34
12/01/83	53.76	1346.34

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-35CBB2

AQUIFER

WELL SCREENED FROM 65- 70 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1399.9

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/16/83	8.80	1391.10
10/19/83	9.00	1390.90
12/01/83	9.05	1390.85

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-35000

AQUIFER

WELL SCREENED FROM 255-261 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1397.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/14/75	48.52	1348.48	07/18/78	51.52	1345.48
06/18/75	48.62	1348.38	08/01/78	52.58	1344.42
07/17/75	48.05	1348.95	08/17/78	56.80	1340.20
08/13/75	48.29	1348.71	08/30/78	58.63	1338.37
09/11/75	48.31	1348.69	09/15/78	58.00	1339.00
10/07/75	47.97	1349.03	09/26/78	57.65	1339.35
11/03/75	47.98	1349.02	11/29/78	55.34	1341.66
12/02/75	47.89	1349.11			
			04/23/79	51.60	1345.40
03/09/76	47.51	1349.49	05/21/79	51.20	1345.80
04/13/76	47.49	1349.51	06/21/79	50.91	1346.09
05/04/76	47.42	1349.58	07/25/79	51.72	1345.28
06/10/76	47.68	1349.32	08/09/79	51.80	1345.20
07/07/76	47.77	1349.23	08/27/79	52.80	1344.20
08/03/76	48.01	1348.99	09/12/79	53.24	1343.76
09/08/76	48.19	1348.81	09/26/79	53.59	1343.41
12/03/76	48.64	1348.36	10/10/79	53.68	1343.32
			10/24/79	53.70	1343.30
05/11/77	48.40	1348.60	11/14/79	53.24	1343.76
06/14/77	51.08	1345.92	12/04/79	52.78	1344.22
06/23/77	50.51	1346.49			
06/29/77	50.39	1346.61	04/02/80	51.79	1345.21
07/06/77	52.99	1344.01	04/24/80	50.68	1346.32
07/14/77	56.85	1340.15	05/21/80	50.65	1346.35
07/20/77	58.40	1338.60	06/16/80	50.97	1346.03
07/28/77	57.88	1339.12	07/15/80	51.50	1345.50
08/04/77	58.49	1338.51	08/13/80	53.42	1343.58
08/09/77	58.31	1338.69	09/10/80	54.89	1342.11
08/17/77	58.10	1338.90	10/10/80	54.79	1342.21
08/22/77	60.05	1336.95	11/07/80	54.14	1342.86
08/31/77	59.89	1337.11	12/10/80	53.54	1343.46
09/06/77	59.50	1337.50			
09/14/77	59.48	1337.52	04/15/81	51.55	1345.45
09/20/77	59.24	1337.76	05/15/81	51.54	1345.46
09/26/77	58.97	1338.03	06/10/81	52.10	1344.90
10/06/77	58.77	1338.23	07/10/81	52.58	1344.42
11/01/77	57.56	1339.44	08/06/81	53.42	1343.58
12/12/77	55.63	1341.37	09/03/81	55.39	1341.61
			09/30/81	56.55	1340.45
01/11/78	54.75	1342.25	10/29/81	56.09	1340.91
02/24/78	53.41	1343.59	11/23/81	55.60	1341.40
04/10/78	52.52	1344.48	12/29/81	54.75	1342.25
05/09/78	51.99	1345.01			
06/06/78	51.66	1345.34	04/14/82	52.70	1344.30
06/28/78	51.63	1345.37	05/13/82	52.51	1344.49
07/06/78	51.48	1345.52	06/08/82	52.36	1344.64

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/08/82	52.44	1344.56
08/05/82	54.56	1342.44
09/02/82	60.26	1336.74
09/30/82	60.36	1336.64
10/29/82	59.61	1337.39
12/02/82	58.50	1338.50
04/27/83	55.32	1341.68
05/25/83	55.04	1341.96
06/23/83	55.02	1341.98
07/21/83	55.65	1341.35
08/18/83	57.54	1339.46
09/16/83	59.89	1337.11
10/19/83	60.23	1336.77
12/01/83	59.17	1337.83

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-060-36CBB1

AQUIFER

WELL SCREENED FROM 216-219 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1394.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
05/11/77	39.45	1355.25	07/15/80	41.05	1353.65
06/14/77	55.40	1339.30	08/13/80	41.33	1353.37
07/06/77	51.68	1343.02	09/10/80	41.25	1353.45
07/20/77	64.33	1330.37	10/10/80	41.78	1352.92
07/28/77	62.28	1332.42	11/07/80	41.88	1352.82
08/04/77	67.73	1326.97	12/10/80	42.02	1352.68
08/09/77	66.43	1328.27			
08/17/77	61.60	1333.10	04/16/81	41.85	1352.85
08/22/77	66.80	1327.90	06/10/81	41.80	1352.90
08/31/77	62.79	1331.91	07/10/81	42.00	1352.70
09/06/77	58.73	1335.97	08/07/81	42.15	1352.55
09/14/77	56.43	1338.27	09/03/81	42.89	1351.81
09/20/77	54.67	1340.03	09/30/81	43.79	1350.91
09/26/77	53.34	1341.36	10/29/81	44.26	1350.44
10/06/77	51.89	1342.81	11/24/81	44.55	1350.15
11/01/77	49.11	1345.59			
			05/13/82	43.18	1351.52
03/23/78	43.58	1351.12	06/08/82	42.93	1351.77
04/11/78	43.02	1351.68	07/08/82	43.00	1351.70
05/10/78	42.70	1352.00	08/05/82	43.30	1351.40
06/06/78	42.38	1352.32	09/02/82	44.67	1350.03
07/07/78	42.25	1352.45	09/30/82	46.64	1348.06
07/18/78	46.28	1348.42	10/29/82	47.28	1347.42
08/02/78	43.92	1350.78	12/02/82	47.57	1347.13
08/30/78	52.90	1341.80			
09/15/78	55.75	1338.95	04/27/83	46.15	1348.55
09/26/78	52.25	1342.45	05/25/83	45.97	1348.73
11/28/78	46.23	1348.47	06/23/83	45.80	1348.90
			10/19/83	48.50	1346.20
04/23/79	42.42	1352.28	12/01/83	48.61	1346.09
05/21/79	42.04	1352.66			
06/21/79	41.69	1353.01			
07/25/79	45.20	1349.50			
08/09/79	43.50	1351.20			
08/27/79	45.02	1349.68			
09/12/79	43.96	1350.74			
09/26/79	43.50	1351.20			
10/10/79	43.16	1351.54			
10/24/79	43.04	1351.66			
11/14/79	42.64	1352.06			
12/05/79	42.29	1352.41			
04/02/80	41.10	1353.60			
04/24/80	39.16	1355.54			
05/21/80	40.89	1353.81			
06/17/80	38.73	1355.97			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-04DDD

AQUIFER

WELL SCREENED FROM 256-259 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1435.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/22/79	83.48	1352.22	07/21/83	87.94	1347.76
07/25/79	83.38	1352.32	08/18/83	89.05	1346.65
08/09/79	83.40	1352.30	09/21/83	90.60	1345.10
08/27/79	83.57	1352.13	10/20/83	90.85	1344.85
09/12/79	83.70	1352.00	12/02/83	90.58	1345.12
09/26/79	83.78	1351.92			
10/10/79	83.47	1352.23			
10/24/79	83.72	1351.98			
11/14/79	83.50	1352.20			
12/04/79	83.39	1352.31			
04/02/80	82.60	1353.10			
04/24/80	82.54	1353.16			
05/21/80	82.53	1353.17			
06/16/80	82.32	1353.38			
07/14/80	82.46	1353.24			
08/13/80	82.55	1353.15			
09/10/80	82.82	1352.88			
10/09/80	82.90	1352.80			
11/06/80	82.93	1352.77			
12/10/80	83.11	1352.59			
04/15/81	82.99	1352.71			
05/15/81	83.01	1352.69			
06/10/81	83.00	1352.70			
07/09/81	83.27	1352.43			
08/06/81	83.40	1352.30			
09/03/81	84.43	1351.27			
09/30/81	85.27	1350.43			
10/30/81	85.50	1350.20			
11/23/81	85.66	1350.04			
12/29/81	85.53	1350.17			
04/14/82	84.52	1351.18			
05/13/82	84.45	1351.25			
06/08/82	84.40	1351.30			
07/08/82	84.57	1351.13			
08/05/82	85.23	1350.47			
09/02/82	87.59	1348.11			
09/30/82	89.34	1346.36			
10/29/82	89.50	1346.20			
12/02/82	89.42	1346.28			
04/28/83	87.93	1347.77			
05/25/83	87.76	1347.94			
06/23/83	87.69	1348.01			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-06CBB

AQUIFER

WELL SCREENED FROM 268-271 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1441.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
07/22/80	119.20	1322.30
09/11/80	119.80	1321.70
10/09/80	118.73	1322.77
11/06/80	119.60	1321.90
12/02/80	119.81	1321.69
04/15/81	119.90	1321.60
05/15/81	120.05	1321.45
06/09/81	120.24	1321.26
07/09/81	120.53	1320.97
09/03/81	120.86	1320.64
09/30/81	119.75	1321.75
10/30/81	120.67	1320.83
11/23/81	120.58	1320.92
12/29/81	120.67	1320.83
04/14/82	118.78	1322.72
06/08/82	118.77	1322.73
07/08/82	119.09	1322.41
08/05/82	119.55	1321.95
09/02/82	120.38	1321.12
09/30/82	120.39	1321.11
10/19/82	119.68	1321.82
10/29/82	119.89	1321.61
12/02/82	119.88	1321.62
04/28/83	118.37	1323.13
05/25/83	118.50	1323.00
06/23/83	118.77	1322.73
07/21/83	118.95	1322.55
08/18/83	119.70	1321.80
09/21/83	119.84	1321.66
10/20/83	119.45	1322.05
12/02/83	119.93	1321.57
12/07/83	119.98	1321.52
02/01/83	120.14	1321.36
03/02/83	120.00	1321.50

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-10CBB

AQUIFER

WELL SCREENED FROM 237-242 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1413.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/21/83	68.84	1344.66
10/20/83	67.76	1345.74
12/02/83	67.54	1345.96

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-11AAA

. AQUIFER

WELL SCREENED FROM 148-151 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1411.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/22/79	48.00	1363.20	07/21/83	51.60	1359.60
07/25/79	47.90	1363.30	08/18/83	52.54	1358.66
08/09/79	48.03	1363.17	09/20/83	53.89	1357.31
08/27/79	48.25	1362.95	10/20/83	54.16	1357.04
09/12/79	48.34	1362.86	12/02/83	53.96	1357.24
09/26/79	48.22	1362.98			
10/10/79	48.29	1362.91			
10/24/79	48.30	1362.90			
11/14/79	48.07	1363.13			
12/04/79	47.95	1363.25			
04/02/80	47.33	1363.87			
04/24/80	47.29	1363.91			
05/21/80	47.27	1363.93			
06/16/80	47.12	1364.08			
07/14/80	46.94	1364.26			
08/13/80	47.07	1364.13			
09/10/80	46.24	1364.96			
10/09/80	47.50	1363.70			
11/06/80	47.47	1363.73			
12/10/80	47.68	1363.52			
04/15/81	47.59	1363.61			
05/15/81	47.62	1363.58			
06/10/81	47.62	1363.58			
07/09/81	47.90	1363.30			
08/06/81	48.06	1363.14			
09/03/81	49.04	1362.16			
09/30/81	49.29	1361.91			
10/30/81	49.94	1361.26			
11/23/81	50.02	1361.18			
12/29/81	49.87	1361.33			
04/14/82	48.85	1362.35			
05/13/82	48.83	1362.37			
06/08/82	48.75	1362.45			
07/08/82	48.85	1362.35			
08/05/82	49.53	1361.67			
09/02/82	51.34	1359.86			
09/30/82	52.78	1358.42			
10/28/82	52.95	1358.25			
12/02/82	52.89	1358.31			
04/28/83	51.65	1359.55			
05/25/83	51.49	1359.71			
06/23/83	51.42	1359.78			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-13DAD

. AQUIFER

WELL SCREENED FROM 257-262 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1413.7

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	67.05	1346.65
12/02/83	66.87	1346.83

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-14DDD

. AQUIFER

WELL SCREENED FROM 258-261 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1420.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION	DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/22/79	65.89	1354.11	07/21/83	70.40	1349.60
07/25/79	65.80	1354.20	08/18/83	71.57	1348.43
08/09/79	66.15	1353.85	09/20/83	73.10	1346.90
08/27/79	66.32	1353.68	10/20/83	73.40	1346.60
09/12/79	66.43	1353.57	12/02/83	73.14	1346.86
09/26/79	66.41	1353.59			
10/10/79	66.27	1353.73			
10/24/79	66.31	1353.69			
11/14/79	66.09	1353.91			
12/04/79	65.90	1354.10			
04/02/80	65.09	1354.91			
04/24/80	65.02	1354.98			
05/21/80	64.99	1355.01			
06/16/80	64.80	1355.20			
07/14/80	64.92	1355.08			
08/13/80	65.06	1354.94			
09/10/80	65.33	1354.67			
10/10/80	65.60	1354.40			
11/07/80	65.60	1354.40			
12/10/80	65.78	1354.22			
04/15/81	65.56	1354.44			
05/15/81	65.57	1354.43			
06/10/81	65.56	1354.44			
07/09/81	65.96	1354.04			
08/06/81	66.16	1353.84			
09/03/81	67.28	1352.72			
09/30/81	66.45	1353.55			
10/29/81	68.27	1351.73			
11/23/81	68.40	1351.60			
12/29/81	68.25	1351.75			
04/14/82	67.15	1352.85			
05/13/82	67.05	1352.95			
06/08/82	67.01	1352.99			
07/08/82	67.13	1352.87			
08/05/82	67.95	1352.05			
09/01/82	70.04	1349.96			
09/30/82	71.77	1348.23			
10/29/82	71.97	1348.03			
12/02/82	71.90	1348.10			
04/28/83	70.43	1349.57			
05/25/83	70.25	1349.75			
06/23/83	70.20	1349.80			

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-21DAA

LAM. AQUIFER

WELL SCREENED FROM 47- 50 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1317.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
06/10/81	15. 14	1302. 16
07/09/81	15. 42	1301. 88
08/06/81	15. 63	1301. 67
09/03/81	15. 88	1301. 42
09/30/81	15. 01	1302. 29
10/29/81	15. 47	1301. 83
11/23/81	15. 41	1301. 89
12/29/81	15. 40	1301. 90
04/14/82	14. 40	1302. 90
05/13/82	14. 52	1302. 78
06/08/82	14. 45	1302. 85
07/08/82	15. 17	1302. 13
08/05/82	15. 92	1301. 38
09/02/82	17. 20	1300. 10
09/30/82	15. 80	1301. 50
10/20/82	15. 46	1301. 84
10/29/82	15. 25	1302. 05
12/02/82	14. 98	1302. 32
12/07/82	14. 99	1302. 31
02/01/83	14. 90	1302. 40
03/02/83	14. 88	1302. 42
04/28/83	14. 58	1302. 72
06/23/83	14. 74	1302. 56
07/21/83	15. 44	1301. 86
08/18/83	16. 55	1300. 75
09/20/83	16. 54	1300. 76
10/20/83	16. 15	1301. 15
12/02/83	15. 97	1301. 33

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-24DAA

. AQUIFER

WELL SCREENED FROM 217-222 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1414.0

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	66.75	1347.25
10/20/83	67.01	1346.99
12/02/83	66.68	1347.32

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-24DCC

. AQUIFER

WELL SCREENED FROM 228-231 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1412.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
04/14/82	59.42	1352.78
05/13/82	59.34	1352.86
06/08/82	59.28	1352.92
07/08/82	59.43	1352.77
08/05/82	60.33	1351.87
09/02/82	62.45	1349.75
09/30/82	64.53	1347.67
10/29/82	64.30	1347.90
12/02/82	64.22	1347.98

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-25DDD

AQUIFER

WELL SCREENED FROM 209-214 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1409.5

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
09/20/83	62.90	1346.60
10/20/83	63.30	1346.20
12/02/83	62.98	1346.52

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

134-061-36ADD

. AQUIFER

WELL SCREENED FROM 212-217 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1411.2

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
10/20/83	64.60	1346.60
12/02/83	68.90	1342.30

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

135-061-28CCB

LAM. AQUIFER

WELL SCREENED FROM 37- 40 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1338.3

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
12/02/82	26.25	1312.05
12/07/82	26.26	1312.04
02/01/83	26.24	1312.06
03/02/83	26.23	1312.07
04/06/83	25.91	1312.39
05/11/83	25.86	1312.44
06/02/83	25.96	1312.34
06/30/83	26.04	1312.26
07/27/83	26.43	1311.87
08/24/83	26.88	1311.42
09/21/83	26.93	1311.37
10/20/83	26.84	1311.46
12/02/83	26.67	1311.63
01/19/84	26.76	1311.54

NORTH DAKOTA STATE WATER COMMISSION
OBSERVATION WELL WATER LEVELS

135-062-36DDD

. AQUIFER

WELL SCREENED FROM 248-251 FEET BELOW LAND SURFACE
LAND SURFACE ELEVATION IS 1438.1

DATE	DEPTH TO WATER	WATER LEVEL ELEVATION
01/18/84	56.41	1381.69

TABLE 3-- Chemical analyses Spiritwood aquifer
(Analytical results are in milligrams per liter except where indicated)

Location	Depth of Well (feet)	Date of Collection	(SiO ₂)	(Fe)	(Mn)	(Ca)	(Mg)	(Na)	(K)	(HCO ₃)	(CO ₃)	(SO ₄)	(Cl)	(F)	(NO ₃)	(B)	Total Dissolved Solids	Total Hardness		Percent Sodium	S A R	Specific Conductance	pH
																		as CaCO ₃	Noncarbonate				
130-57- 5888 ₁	153-156	9-21-77	34	1.9	.56	98	26	110	7.4	436	0	230	14	0.2	1.0	.52	739	350	0	40	2.6	955	8.0
130-57- 8000 ₁	143-146	4-26-78	32	2.1	.16	82	28	150	7.6	387	0	220	71	0.3	0.4	.68	785	320	3	50	3.6	1220	7.6
130-57-17BBB	198-201	7-24-80	37	1.5	.15	120	29	130	7.4	381	0	300	79	0.2	1.0	.14	893	420	110	40	2.8	1310	7.7
131-57-31CCC	198-201	7-24-80	45	.80	.07	84	34	140	7.3	506	0	220	28	0.4	0.5	.17	809	350	0	46	3.2	1170	8.0
131-58-20BBB	188-191	7-23-80	38	.40	.08	69	24	200	6.8	522	0	210	61	0.4	1.0	.44	868	270	0	61	5.3	1290	8.0
131-58-27AAA	208-211	11- 6-75	21	.25	.58	110	35	67	8.0	446	0	160	16	0.2	0.6	.48	639	420	54	25	1.4	1020	7.6
131-58-32BCC ₁	148-151	7-23-80	32	.38	.01	13	16	340	6.4	601	0	230	95	0.8	0.1	1.1	1030	100	0	87	15.0	1570	8.2
131-58-34BBB	158-161	11- 6-75	22	.87	.06	51	23	190	8.9	487	0	160	52	0.4	2.4	.88	752	220	0	64	5.6	1210	7.6
132-58-16BBA ₂	166-169	5-22-75	22	.84	.04	44	17	800	14	558	0	1.6	1080	0.9	3.0	2.2	2260	180	0	90	26	4100	8.1
132-58-21BBB ₁	178-181	5-21-75	20	3.2	.04	53	21	840	12	674	0	1.6	1090	1.0	1.0	.43	2380	220	0	89	25	4230	7.9
132-58-30DAA	147-152	10- 4-82	30	.32	.02	20	8.5	820	17	550	0	0.0	860	0.8	6.6	2.0	2040	85	0	94	39	3540	8.1
132-58-31AAA	150-155	10- 7-82	29	.22	.06	23	9.5	460	14	624	0	140	290	0.7	6.7	.67	1280	96	0	90	20	2150	8.2
131-59- 1DDA	163-166	5-14-76	32	1.3	.16	57	24	240	8.0	529	0	230	73	0.5	0.8	1.2	929	240	0	68	6.7	1460	7.7
131-59- 1CCC	172-175	10-27-76	29	1.6	.22	58	23	260	6.9	529	0	260	93	0.4	1.0	1.7	996	240	0	69	7.3	1470	8.2
131-59- 2AAA	158-161	9-27-74	19	2.1	.26	65	21	220	8.1	520	0	230	61	0.7	1.0	.98	890	250	0	65	6.1	1430	7.7
131-59- 2BCC	176-186	9-14-82	30	3.5	.34	54	17	250	12	520	0	210	72	0.6	4.5	1.5	911	205	0	71	7.7	1430	8.1
131-59- 2CCC	?	8- 4-83	31	1.0	.39	51	18	230	9.0	535	0	230	70	0.8	0.3	0.7	906	201	0	70	7.1	1450	7.8
131-59- 3BAA	197-200	9- 4-81	21	.44	.19	46	26	270	11	545	0	260	93	0.9	1.0	0.8	998	220	0	72	7.9	1460	8.0
131-59- 4AAD	151-157	8- 3-83	31	1.5	.21	52	18	250	9.7	532	0	250	46	0.6	0.1	.68	922	204	0	72	7.7	1410	7.7
131-59- 5AAA	187-190	9- 4-81	30	.71	.12	45	31	210	12	553	0	200	46	0.5	1.0	.68	849	240	0	64	5.9	1240	7.9
131-59- 5BAA ₁	166-171	9-22-82	27	.28	.19	40	19	220	13	509	0	200	33	0.5	7.6	.42	792	178	0	71	7.1	1250	8.1
131-59- 5BBB	158-161	10- 1-74	19	.29	.10	42	21	200	9.3	490	0	200	31	0.6	7.4	1.1	773	190	0	68	6.3	1220	8.0
131-59- 8ABB	155-160	9-21-82	29	.58	.03	36	16	230	12	501	0	190	38	0.6	6.2	.74	806	156	0	74	7.9	1250	8.0
131-59-10BBA	196-199	11-17-76	29	.92	.12	48	17	250	7.0	536	0	240	56	0.5	1.0	.89	914	190	0	73	7.9	1350	8.2
131-59-10ADD	TD=210	8- 2-83	31	0.1	.14	58	16	260	9.9	516	0	250	82	0.5	1.0	.81	963	211	0	72	7.8	1480	8.0
131-59-11AAC	184-214	8- 2-83	34	1.3	.17	58	22	260	9.9	512	0	250	85	0.5	0.2	.75	974	235	0	70	7.3	1500	7.9
131-59-12CCC ₁	211-231	8- 4-83	31	.95	.24	60	24	230	9.7	500	0	260	99	0.5	7.6	.68	970	248	0	66	6.3	1550	7.8
131-59-12CCC ₂	208-211	11-17-76	29	1.2	.24	57	21	270	7.3	521	9	250	89	0.4	1.0	1.1	993	230	0	71	7.7	1460	8.4
131-59-15AAA	188-194	9-27-74	26	.51	.24	61	21	240	8.6	560	0	210	78	0.7	8.3	1.2	932	240	0	68	6.7	1480	7.6
131-59-15BBB	178-184	9-25-74	19	2.1	.22	51	18	300	8.3	630	0	180	110	0.8	0.4	1.2	1000	200	0	76	9.2	1630	7.9
131-59-15DCA	161-186	7-15-77	13	.83	.18	58	18	130	6.8	440	0	110	33	0.4	1.0	.59	589	220	0	55	3.8	1010	8.1
131-59-16CCC	164-204	8- 3-77	23	1.6	.08	40	15	210	7.1	509	0	130	63	0.3	2.5	1.0	745	160	0	73	7.2	1180	8.3
131-59-17DCC	121-124	11- 5-76	28	.79	.48	82	23	100	7.1	439	0	120	41	0.2	1.0	.83	620	300	0	41	2.5	943	8.2
131-59-22ABB	197-200	9-21-82	28	.85	.29	82	18	67	7.2	369	0	46	12	0.2	3.6	.24	447	279	0	34	1.7	683	7.9
131-59-22BAA	196-199	9-15-76	32	.79	.34	59	18	40	5.5	304	18	33	4.9	0.1	1.0	.26	363	220	0	28	1.2	556	8.7
131-59-22BAD	213-216	9-15-76	33	.65	.24	55	15	100	6.2	377	20	66	17	0.2	1.0	.34	501	200	0	51	3.1	759	8.7

077

TABLE 3--cont.

Location	Depth of Well (feet)	Date of Collection	(SiO ₂)	(Fe)	(Mn)	(Ca)	(Mg)	(Na)	(K)	(HCO ₃)	(CO ₃)	(SO ₄)	(Cl)	(F)	(NO ₃)	(B)	Total Dissolved Solids	Total Hardness		Percent Sodium	S A R	Specific Conductance	pH
																		as CaCO ₃	Noncarbonate				
131-59-22BDA ₁	215-218	9-15-76	32	.69	.40	81	26	32	4.5	340	17	73	6.2	0.2	1.0	.23	441	310	3	18	0.8	661	8.6
131-59-22BDA ₂	212-215	9-15-76	30	.63	.52	80	27	20	4.9	330	11	65	4.4	0.0	1.0	.23	408	310	21	12	0.5	627	8.5
131-59-22BDA ₃	99-224	9-21-76	31	1.3	.44	78	23	86	6.2	423	0	110	24	0.1	0.2	0.3	569	290	0	39	2.2	858	8.2
131-59-22CCA	TD=172	7-27-76	31	1.4	0.6	81	29	9.6	5.9	381	0	40	2.5	0.6	1.0	.11	391	320	8	6	.23	527	8.2
131-59-22DCA	137-157	7-31-75	20	.44	.58	63	30	18	5.9	292	0	62	5.1	0.6	2.5	0.0	352	280	40	12	0.5	571	7.9
131-59-22CBB ₁	158-161	7-27-82	27	0.0	.42	60	17	95	8.6	384	0	96	12	0.4	1.0	.29	507	220	0	47	2.8	796	7.9
131-59-27CBB ₁	127-132	1-19-83	31	.32	.05	21	9.5	480	11	668	0	92	290	1.0	1.0	1.6	1270	92	0	91	22	2060	8.3
131-59-35BCC ₁	125-130	7-28-82	28	.42	.06	22	8.0	370	10	612	0	150	150	1.4	1.0	.74	1040	88	0	89	17	1040	8.2
132-59-3CCC	118-121	10-30-74	21	.19	.72	63	25	260	11	550	0	310	60	0.4	0.3	1.2	1020	260	0	67	7.0	1700	7.6
132-59-4BBA	165-170	7-29-83	32	2.6	.65	120	33	150	12	533	0	290	28	0.2	1.0	.57	933	435	0	42	3.1	1350	7.8
132-59-4CCB	174-178	1-3-84	27	.69	.54	89	29	83	10	487	0	100	14	0.3	1.0	.54	595	342	0	34	2.0	952	8.0
132-59-4CCC	195-198	8-1-79	29	.06	.22	69	24	260	9.4	516	0	330	67	0.4	1.0	.97	1050	270	0	67	6.9	1560	7.9
132-59-4DCC	158-161	8-1-79	29	.02	.44	87	25	230	9.5	558	0	330	35	0.3	1.0	1.2	1020	320	0	60	5.6	1500	7.9
132-59-9CDD	162-165	7-23-80	30	.17	.32	91	30	210	8.8	540	0	290	39	0.5	0.4	.92	967	350	0	56	4.9	1430	7.9
132-59-17DCD ₁	188-193	9-22-82	29	.06	.14	36	15	270	12	513	0	200	71	0.7	8.5	.83	896	152	0	78	9.6	1420	8.1
132-59-18DCC	245-250	9-22-82	25	.73	.43	100	29	42	9.8	435	0	100	4.1	0.2	4.7	.22	530	369	13	19	0.9	845	7.9
132-59-19AAA	238-241	8-1-79	29	.65	.24	36	15	270	8.9	540	0	230	45	0.5	1.0	1.2	903	150	0	78	9.6	1390	8.0
132-59-21BBA	213-216	7-12-79	7.9	.24	.44	93	29	84	8.9	452	0	130	13	0.2	1.0	.37	591	350	0	34	1.9	933	7.9
132-59-21BAA	150-165	9-14-82	29	.94	.22	49	22	270	13	527	0	250	73	0.6	0.3	1.6	970	213	0	72	81	1520	8.0
132-59-21C	195-210	7-14-77	13	1.1	.24	67	25	180	8.5	519	0	220	29	0.4	1.0	.94	802	270	0	58	4.8	1230	8.0
132-59-23BAB	155-165	9-15-82	32	.98	.05	32	21	330	13	586	0	210	120	0.7	5.5	.073	1050	167	0	80	11	1720	8.0
132-59-27ADD	156-159	7-23-80	32	.10	.15	56	22	290	7.7	593	0	290	69	0.5	0.6	.99	1060	230	0	72	8.3	1610	8.1
132-59-27CDC ₁	209-214	3-8-83	31	.32	.21	45	14	370	10	484	0	380	150	1.3	1.0	.74	1240	170	0	81	12	1970	8.0
132-59-28B	200-225	7-14-77	13	1.2	.42	90	28	97	7.5	460	0	170	15	0.3	1.0	.31	651	340	0	38	23	1000	8.1
132-59-29DAA	183-188	9-14-82	29	1.4	.52	100	28	18	7.9	390	0	100	3.5	0.2	0.1	.18	481	365	45	9	0.4	762	7.8
132-59-33CBC	170-180	8-3-83	34	1.4	.12	69	23	160	10	474	0	200	16	0.5	5.5	.62	753	267	0	55	4.2	1130	7.7
132-59-32CCC	177-182	9-14-82	31	1.4	.07	42	21	200	13	488	0	170	30	0.5	0.2	1.1	750	192	0	68	6.3	1190	8.0
132-59-33CCC	170-180	9-14-82	31	1.1	.12	51	25	200	14	518	0	200	25	0.6	7.8	1.1	812	230	0	64	5.7	1280	8.0
132-59-32DAA	203-208	8-4-83	31	.91	.15	59	23	210	11	511	0	240	26	0.6	1.4	.62	856	242	0	64	5.9	1300	7.7
132-59-35CCC	177-180	9-4-81	30	.31	.34	53	26	240	11	533	0	230	89	0.5	1.0	.85	945	240	0	67	6.7	1390	8.2
132-59-35ABC	172-187	8-2-83	33	1.4	.34	64	26	260	10	548	0	240	74	0.4	0.3	0.7	980	267	0	67	6.9	1530	7.8
132-59-36BCC	154-157	8-2-83	30	2.7	.16	57	21	260	9.9	574	0	250	76	0.5	4.8	.62	996	229	0	70	7.5	1550	7.7
133-59-4AAA	342-345	8-27-81	30	.06	1.3	65	24	350	15	223	0	150	480	0.3	1.0	0.3	1230	260	77	73	9.5	2050	8.0
133-59-4DCC	205-210	9-7-83	32	.02	.16	68	28	260	13	416	0	390	100	0.5	1.3	1.2	1100	285	0	65	6.8	1730	8.0
133-59-5CDD ₁	197-202	9-7-83	32	.32	.17	51	19	250	9.9	479	0	320	36	0.5	1.0	1.1	957	205	0	71	7.5	1470	8.0
133-59-6CBC	233-243	7-26-83	29	2.5	.25	57	26	190	9.5	511	0	220	48	0.4	0.1	.64	835	249	0	61	5.2	1300	7.8

TABLE 3—cont.

Location	Depth of Well (feet)	Date of Collection	(SiO ₂)	(Fe)	(Mn)	(Ca)	(Mg)	(Na)	(K)	(HCO ₃)	(CO ₃)	(SO ₄)	(Cl)	(F)	(NO ₃)	(B)	Total Dissolved Solids	Total Hardness		Percent Sodium	S A R	Specific Conductance	pH
																		as CaCO ₃	Noncarbonate				
133-59- 6DDD	197-202	9- 8-83	31	.51	.09	45	21	270	9.5	512	0	260	100	0.6	1.0	.26	991	199	0	74	8.3	1600	8.0
133-59- 7BAA ₁	292-297	9- 8-83	32	.06	.28	56	28	270	9.7	573	0	160	150	0.6	1.0	.68	990	255	0	69	7.4	1620	8.2
133-59- 7BAA ₂	197-202	9- 8-83	34	.47	.32	51	24	250	9.5	468	12	160	150	0.6	1.0	.48	924	226	0	70	7.2	1510	8.4
133-59- 7DAA	216-225	10- 4-82	30	2.1	.32	51	25	240	10	481	0	290	32	0.7	7.3	1.2	927	230	0	68	6.9	1400	7.8
133-59- 9ADA	200-210	7-26-83	26	1.1	.23	75	22	250	13	450	0	400	64	0.5	0.0	.76	1070	278	0	65	6.5	1590	7.6
133-59- 9BBB ₁	211-216	9- 7-83	31	.20	.13	75	31	240	11	416	0	430	63	0.6	1.0	.64	1090	315	0	61	5.9	1640	8.1
133-59-14CCC	167-170	8-27-81	30	.58	.24	82	33	240	12	502	0	380	57	0.5	1.0	.68	1080	840	0	60	5.7	1520	7.9
133-59-14CDD	167-170	8-27-81	30	1.2	.56	96	36	230	13	475	0	340	100	0.4	1.0	.35	1080	390	0	55	5.1	1550	7.7
133-59-15AAA	167-170	8-27-81	31	.94	.37	82	38	230	14	480	0	330	100	0.4	1.0	.65	1060	360	0	57	5.3	1550	7.8
133-59-15CCC	188-191	9-25-75	21	1.5	.07	84	32	180	9.2	562	0	250	22	0.5	0.0	5.1	882	340	0	53	4.2	1350	7.7
133-59-19BAA	196-199	8-27-81	31	1.5	.16	86	43	130	12	530	0	210	33	0.3	1.0	0.0	809	390	0	41	2.9	1130	7.8
133-59-20BBB	197-200	8-25-81	30	.20	.13	56	32	270	12	550	0	240	120	0.5	1.0	.45	1030	270	0	67	7.2	1510	8.1
133-59-20ABB	197-200	8-25-81	30	.33	.32	78	40	180	12	555	0	240	40	0.4	1.0	.05	895	360	0	51	4.1	1290	7.9
133-59-21BAA	231-234	8-26-81	31	.27	.35	94	43	110	10	562	0	160	27	0.3	1.0	0.0	754	410	0	36	2.4	1070	8.1
133-59-26ADD	176-187	8-27-82	25	.50	.32	22	55	350	13	415	0	340	100	1.3	0.4	2.1	1060	78	0	89	17.0	1700	8.1
133-59-27CCC ₁	164-169	8-26-82	28	.25	.12	55	19	300	20	472	0	410	44	0.5	0.5	1.5	1110	215	0	73	8.8	1680	7.9
133-59-27CCC ₂	178-183	9-14-82	29	.80	.33	64	18	280	15	482	0	380	31	0.5	0.3	1.6	1060	234	0	71	8.0	1560	7.8
133-59-27DCC	168-173	8-26-82	28	1.1	.10	73	33	170	12	530	0	230	17	0.5	0.0	.74	826	318	0	53	4.1	1270	8.0
133-59-28CDD	204-209	8-27-82	26	.44	.08	54	27	220	13	490	0	250	50	0.7	7.5	1.2	891	246	0	65	6.1	1380	8.1
133-59-28CCC	195-200	8-27-82	27	.66	.11	53	25	250	13	498	0	210	110	0.6	0.2	1.2	936	235	0	68	7.0	1490	7.9
133-59-29DCC	198-203	9-23-82	28	1.2	.11	65	23	180	13	495	0	200	17	0.4	6.3	.95	779	257	0	59	4.9	1200	8.0
133-59-30CDD	214-219	9-23-82	29	1.4	.11	71	37	180	13	528	0	240	24	0.5	10.0	8.5	867	329	0	53	4.3	1330	8.0
133-59-30CCC	225-230	9-23-82	29	.43	.25	67	26	140	11	482	0	170	19	.05	5.0	.75	706	274	0	51	3.7	1090	8.1
133-59-31AAA	TD=223	9-15-82	29	5.2	.15	68	30	190	14	516	0	260	19	0.5	6.9	.69	877	294	0	57	4.8	1320	7.9
133-59-31DDB	TD=237	9-15-82	30	3.9	.13	62	32	190	14	516	0	260	26	0.5	7.7	.71	881	286	0	58	4.8	1340	8.0
133-59-32BBB	198-201	9-25-75	20	1.5	.20	61	29	190	10	496	0	250	19	0.5	4.2	4.5	834	270	0	59	5.0	1270	7.7
133-59-34AAA ₃	TD=165	9-14-82	31	1.7	.24	77	28	200	12	527	0	270	28	0.6	4.9	1.2	915	307	0	57	4.9	1400	7.9
133-59-34AAA ₂	168-173	8-26-82	27	1.2	.17	79	31	220	12	511	0	320	37	0.6	0.9	1.1	982	325	0	58	5.3	1490	7.5
133-59-35AAA	193-198	8-26-82	27	1.4	.30	70	28	250	12	420	0	350	59	0.7	0.0	1.1	1030	290	0	64	6.4	1590	8.3
133-59-35ABB	162-165	8-28-81	30	.84	.47	76	34	250	12	542	0	330	72	0.6	1.0	.58	1070	330	0	61	6.0	1550	7.9
134-59-31CBB	177-182	11- 2-83	28	.46	.04	28	11	280	11	475	0	300	23	0.5	11.0	1.2	928	115	0	83	11.4	1440	7.8
134-59-31CCC	178-184	5-22-75	21	.60	.04	33	21	260	6.8	486	0	300	39	.06	1.0	1.4	924	170	0	76	8.7	1430	8.1
132-60- 1DCC	203-208	9-23-82	28	.59	.09	57	30	220	15	515	0	260	28	0.5	11.0	.74	905	266	0	63	5.8	1390	8.0
132-60-10BAA	203-208	8-26-82	28	.03	.23	33	12	260	11	594	0	170	46	0.8	0.0	1.3	855	132	0	79	9.9	1340	8.1
132-60-11BAA	203-208	9-23-82	27	.04	.66	84	26	170	15	489	0	260	15	0.4	6.3	.61	846	317	0	52	4.1	1270	8.1
132-60-12BBB	210-216	8- 1-79	30	.04	.14	61	17	120	9.2	467	0	92	19	0.3	1.0	.67	580	220	0	53	3.5	902	8.0

TABLE 3-cont.

Location	Depth of Well (feet)	Date of Collection	(SiO ₂)	(Fe)	(Mn)	(Ca)	(Mg)	(Na)	(K)	(HCO ₃)	(CO ₃)	(SO ₄)	(Cl)	(F)	(NO ₃)	(B)	Total Dissolved Solids	Total Hardness		Percent Sodium	S A R	Specific Conductance	pH
																		as CaCO ₃	Noncarbonate				
133-60-1CCC	209-214	9- 8-83	32	1.8	.43	110	33	57	9.0	395	0	160	5.6	0.3	1.0	.20	605	410	0	23	1.2	893	8.1
133-60-1DDD	193-196	11-16-76	31	.17	.26	63	25	230	7.6	554	12	140	110	.05	0.4	1.1	894	260	0	65	6.2	1370	8.4
133-60-2BCC	230-240	10- 5-82	30	.63	.14	54	25	220	11	456	0	280	34	0.7	6.2	.96	888	238	0	66	6.2	1340	8.1
133-60-2CDD	255-260	9- 8-83	32	1.1	.17	83	32	200	12	452	0	250	110	0.3	1.0	.51	945	339	0	55	4.7	1450	8.2
133-60-4DCC	211-216	11- 2-83	28	.49	.06	46	24	230	12	473	0	270	29	0.5	0.7	.90	875	214	0	69	6.9	1370	7.8
133-60-5DAA ₁	217-222	1- 4-84	28	.23	.07	53	28	190	12	487	8	210	31	0.4	1.0	.71	802	247	0	61	5.2	1240	8.4
133-60-10ABB	220-225	7-28-83	32	.79	.09	58	32	180	11	472	0	270	32	0.5	0.0	.64	850	276	0	57	4.7	1290	7.8
133-60-10BBB ₁	227-232	9- 8-83	32	.24	.08	52	25	210	13	443	0	320	23	0.4	1.0	1.1	896	233	0	65	6.0	1350	7.8
133-60-10DDC	204-210	9-15-82	27	1.1	.06	27	13	250	12	468	0	250	29	0.6	6.6	1.4	849	121	00	80	9.9	1320	8.0
133-60-11BBB	227-232	9- 8-83	33	.71	.10	50	25	200	11	485	0	240	28	0.5	1.0	.98	829	228	0	64	5.7	1250	7.9
133-60-12BAA	197-202	9- 8-83	29	.35	.67	110	32	67	11	365	0	180	9.3	0.3	1.0	.24	621	406	110	26	1.4	896	7.9
133-60-12CCC	215-225	9-15-82	30	5.1	.21	100	29	99	12	482	0	170	7.5	0.3	3.9	.46	694	369	0	36	2.2	1050	8.0
133-60-23AAA	217-220	8-25-81	31	.49	.17	88	39	140	11	517	0	210	41	0.3	1.0	.05	817	380	0	44	3.1	1140	8.0
133-60-23ABB	211-214	8-27-81	28	.03	.09	49	31	230	12	500	0	250	73	0.5	1.0	.70	921	250	0	65	6.3	1330	8.2
133-60-23BBC	215-219	7-28-83	32	.45	.06	215	11	280	11	488	0	260	44	0.6	0.4	.89	905	108	0	83	12	1380	8.1
133-60-24AAA	207-210	8-27-81	30	.02	.70	83	25	160	12	521	0	190	26	0.4	1.0	.45	786	310	0	52	4.0	1090	8.3
133-60-24BAA	217-220	8-27-81	31	2.0	.20	93	46	150	13	548	0	260	36	0.4	1.0	.30	903	420	0	43	3.2	1260	7.7
133-60-25BBB	218-221	8- 1-79	30	.41	.14	52	24	260	9.1	479	0	290	90	0.4	1.0	1.1	994	230	0	70	7.5	1500	8.0
133-60-25CCC	208-213	9-23-82	29	.14	.04	22	6.0	240	9.5	517	0	82	12	0.6	5.1	.71	662	80	0	85	12	994	8.1
133-60-26DCC	202-207	9-23-82	28	.88	.08	45	15	110	13	449	0	65	2.0	0.5	5.9	.53	507	174	0	56	3.7	809	8.2
133-60-36CCD	215-225	8-27-82	22	.18	.07	19	8.5	290	12	595	0	160	3.8	1.1	0.4	1.6	846	83	0	87	14	1350	8.2
133-60-36BAA	218-223	9-23-82	28	.13	.05	32	11	220	12	542	0	96	29	0.7	7.2	1.1	704	125	0	77	8.4	1090	8.2
133-60-36DDD	212-215	9-24-75	21	.19	.48	61	21	100	9.0	463	0	78	12	0.5	1.0	4.2	536	240	0	46	2.8	868	7.8
134-60-16CCC	212-215	11-16-76	28	1.4	.08	52	17	290	9.1	413	0	290	150	0.1	9.7	1.0	1050	200	0	75	8.9	1600	8.0
134-60-19BBB	233-253	7-26-83	32	.38	.74	79	23	88	9.2	462	0	91	12	0.4	3.8	.40	568	292	0	39	2.2	873	8.0
134-60-20ADD	317-322	9-28-83	29	.10	5.8	580	130	430	25	211	0	2200	130	0.3	1.0	.91	3640	1983	1800	32	4.2	4020	7.9
134-60-25DDD	200-205	11- 2-83	28	.58	.10	25	9.5	290	11	487	0	320	36	0.5	0.2	1.1	962	102	0	85	12.5	1540	7.7
134-60-26ABD	213-219	7-27-83	32	2.0	.05	22	8.5	280	11	455	0	300	25	0.4	8.9	.84	915	90	0	85	13	1380	8.0
134-60-26BBB	218-221	11-16-76	29	.69	.07	41	14	280	8.1	399	0	410	25	0.2	5.9	1.3	1010	160	0	78	9.6	1490	8.2
134-60-26CBB	225-230	9- 8-83	31	.21	.07	51	24	260	12	418	0	390	27	0.5	1.0	1.0	1000	226	0	70	7.5	1500	8.3
134-60-26DCC	198-201	111-17-76	28	1.2	.06	47	15	230	8.3	506	0	260	13	0.2	3.1	1.0	856	180	0	72	7.5	1300	8.2
134-60-28ADD	178-181	7-22-80	33	.41	.13	55	27	190	6.8	481	0	240	29	0.4	0.6	.48	820	250	0	62	5.2	1220	8.1
134-60-29AAA	238-241	7-22-80	31	.15	.21	68	32	160	5.8	481	0	210	28	0.3	0.5	.44	773	300	0	53	4.0	1160	7.8
134-60-29BBB ₂	278-281	7-22-80	33	1.1	.16	73	21	95	6.1	453	0	90	21	0.3	0.1	.48	564	270	0	43	2.5	867	8.0
134-60-29DAA	217-222	9-29-83	34	.49	.47	89	32	120	10	462	0	140	23	0.4	0.0	.41	678	354	0	42	2.8	954	8.1
134-60-29DDD	207-212	9-29-83	28	.61	.13	73	22	120	10	415	0	140	20	0.3	4.4	.44	623	273	0	48	3.2	954	8.0

