STATE OF SOUTH DAKOTA
George T. Mickelson, Governor

STATE GEOLOGICAL SURVEY
E. P. Rothrock, State Geologist

REPORT OF INVESTIGATIONS

No. 56

GROUND WATER RESOURCES

of the

SIOUX FALLS AREA, SOUTH DAKOTA

Part II - Tables

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HYDROLOGY by E. G. Otton

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TABLE I

Logs of Wells in the Sioux Falls, South Dakota Area

The data for the following well records was obtained from the files of the City Engineer of Sioux Falls, South Dakota State Geological Survey, the Layne-Western Company of Minneapolis, Minnesota, the Federal Geological Survey, and from private individuals. The altitudes given refer to the altitude of the ground in feet above mean sea level at the site of the well.

Well 19 (City of Sioux Falls producing well 19) NW. ¼, NW. ¼, Sec. 9, T. 101 N., R. 49 W. Altitude 1422'.

Material	Thickness (feet)	Depth (feet)
Soil and clay	8	8
Sand and gravel	28	36
Clay	inches	36 +

Well 22 (Test well H-1) NW. ¼, NW. ¼, Sec. 5, T. 103 N., R. 49 W. Altitude 1462' ±.

Material	Thickness (feet)	Depth (feet)
Fill and alluvium	10	10
Clean, coarse sand	10	20
Quartzite	inches	20 +

Well 23 (Test well H-2) NE. ¼, NE. ¼, Sec. 6, T. 103 N., R. 49 W. Altitude 1460' ±.

Material	Thickness (feet)	Depth (feet)
Soil and sand	15	15
Coarse sand	10	25
Gravel and small amount of sand	8	33
Quartzite	inches	33 +

Well 25 (Test well H-3) NW. ¼, NE. ¼, Sec. 6, T. 103 N., R. 49 W. Altitude 1456' ±.

Material	Thickness (feet)	Depth (feet)
Clay and soil	15	15
Coarse and fine sand	5	20
Coarse sand and gravel	5	25
Coarse gravel and quartzite boulders	5	30
Same	4	34
Quartzite	1	35

Well 26 (Test well H-4) NE. ¼, NW. ¼, Sec. 6, T. 103 N., R. 49 W. Altitude 1460' ±.

Material	Thickness (feet)	Depth (feet)
Soil and clay	15	15
Clay, sand and gravel	5	20
Very coarse gravel	5	25
Sand and gravel	5	30
Sandy clay	3	33

Well 27 (Test well G-2) SW. ¼, SE. ¼, Sec. 8, T. 103 N., R. 49 W. Altitude 1453' ±.

Material	Thickness (feet)	Depth (feet)
Clay and sand	9	9
Coarse sand	5	14
Coarse sand and gravel	11	25
Coarse gravel and boulders	3	28
Sandy clay	1½	29½

Well 28 (Test well G-1) SW. ¼, SW. ¼, Sec. 9, T. 103 N., R. 49 W. Altitude 1454' ±.

Material	Thickness (feet)	Depth (feet)

Well 29 (Test well G-3) NE. ¼ NW. ¼, Sec. 17, T. 103 N., R. 49 W. Altitude 1455' ±.

Material	Thickness (feet)	Depth (feet)
Clay, blue, and sand	15	15
Coarse sand and gravel, clean	5	20
Coarse gravel	8	28
Fine sand and loam	2	30
Coarse sand and gravel, clean	5	35
Clean dark sand and gravel	5	40
Clay, blue	½	40½

Well 30 (Test well G-4) NE. ¼ NE. ¼, Sec. 18, T. 103 N., R. 49 W. Altitude 1456' +.

Material	Thickness (feet)	Depth (feet)
Soil	9	9
Coarse sand and gravel	6	15
Coarse sand	10	25
Gravel and sand	10	35
Sandy clay	3	38

Well 31 (Test well F-3) NW. ¼ SE. ¼, Sec. 20, T. 103 N., R. 49 W. Altitude 1453' +.

Material	Thickness (feet)	Depth (feet)
Soil and sandy clay	10	10
Silt, sand, and gravel	5	15
Sand and gravel	10	25
Fine sand	5	30
Sand and gravel	10	40
Clay, sandy	1	41

Well 32 (Test well F-2) NW. ¼ SW. ¼, Sec. 21, T. 103 N., R. 49 W. Altitude 1450' +.

Material	Thickness (feet)	Depth (feet)
Sand, fine, and clay	10	10
Coarse sand	10	20
Gravel, fine	5	25
Gravel, coarse	5	30
Gravel and sand	5	35
Clay, yellow, sandy	2½	37½

Well 33 (Test well F-1) NE. ¼ SW. ¼, Sec. 21, T. 103 N., R. 49 W. Altitude 1449' +.

Material	Thickness (feet)	Depth (feet)
Soil and fine sand	15	15
Coarse sand and gravel	5	20
Sand and some gravel	10	30
Gravel with small amount of sand	5	35
Sand and gravel	1	36
Clay	inches	36 +

Well 34 (Test well E-1) NE. ¼, NE. ¼, Sec. 4, T. 102 N., R. 49 W. Altitude 1442'±.

Material	Thickness (feet)	Depth (feet)
Soil and silt	10	10
Sand, coarse, dirty	10	20
Sand and some gravel	5	25
Gravel, fine, and sandy	5	30
Sand, medium	5	35
Gravel and sand	5	40
Sand, medium	5	45
Gravel, coarse, clean	2	47
Clay, blue	inches	47 +

Well 35 (Test well E-2) NW. ¼, NE. ¼, Sec. 4, T. 102 N., R. 49 W. Altitude 1442'±.

Material	Thickness (feet)	Depth (feet)
Soil and silt	12	12
Sand, fine	3	15
Sand, coarse in upper part	15	30
Gravel, sandy	2	32
Sand, very fine	3	35
Gravel, coarse	7	42
Clay	inches	42 +

Well 36 (Test well E-3) NW. ¼, NW. ¼, Sec. 4, T. 102 N., R. 49 W. Altitude 1444' ±.

Material	Thickness (feet)	Depth (feet)
No sample	10	10
Sand and gravel, fine	2	12
Sand, coarse, clean	3	15
Gravel, coarse	5	20
Sand (wood fragments at 20½)	5	25
Sand or gravel	3	28
Clay	inches	28 +

Well 37 (Test well E-4) NW. ¼, NE. ¼, Sec. 5, T. 102 N., R. 49 W. Altitude 1445' ±.

Material	Thickness (feet)	Depth (feet)
Soil and fine sand	5	5
Coarse sand	5	10
Clay, sandy	2	12
Coarse sand	3	15
Gravel	11	26
Clay	½	26½

Well 38 (Test well D-4) SW. ¼, SW. ¼, Sec. 8, T. 102 N., R. 49 W. Altitude 1436'.

Material	Thickness (feet)	Depth (feet)
No sample	11	11
Sand, fine	1	12
Gravel, fine, clean at base	8	20
Gravel, fine, medium	5	25
Sand, fine, clean	5	30
Gravel, coarse, sandy at top	10	40
Same, presumably	3	43
Clay, blue	inches	43 +

Well 41 (Test well D-1) NW. ¼ NE. ¼, Sec. 16, T. 102 N., R. 49 W. Altitude 1439 +.

Material	Thickness (feet)	Depth (feet)
Soil and clay, depth uncertain	9	9
Gravel, coarse, sandy at top	8	17
Sand, silty	3	20
Gravel and sand	10	30
Gravel, coarse	2	32
Clay, blue	4	36

Well 43 (Test well D-2) NW. ¼ NW. ¼, Sec. 16, T. 102 N., R. 49 W. Altitude 1438' ±.

Material	Thickness (feet)	Depth (feet)
No sample	9	9
Gravel, coarse, clean, fine at top	6	15
Gravel, coarse, clean, some sand at base	9	24
Gravel	2½	26½
Clay, sandy, yellow	18½	45
Clay	15	60

Well 44 (Test well D-3) NW. ¼ NE. ¼, Sec. 17, T. 102 N., R. 49 W. Altitude 1434' ±.

Material	Thickness (feet)	Depth (feet)
Coarse sand	10	10
Gravel and sand, clean at top	10	20
Sand and gravel, coarse at base	10	30
Sand, clean, coarse	7	37
Clay, blue, sandy	½	37½

Well 50 (Test well C-3) SW. ¼ SE. ¼, Sec. 20, T. 102 N., R. 49 W. Altitude 1430'.

Material	Thickness (feet)	Depth (feet)
Soil and clay	8	8
Gravel, coarse	2	10
Gravel and sand	20	30
Sand, clean	8	38
Clay	inches	38 +

Well 51 (Test well C-4) SE. ¼ SW. ¼, Sec. 20, T. 102 N., R. 49 W. Altitude 1428' --,

Material	Thickness (feet)	Depth (feet)
Soil and loam	9	9
Sand and gravel	6	15
Gravel	5	20
Sand	5	25
Gravel	20	45
Sand and gravel	5	50

Well 52 (Test well C-2) SW. ¼ SW. ¼, Sec. 21, T. 102 N., R. 49 W. Altitude 1430'.

Material	Thickness (feet)	Depth (feet)
No sample	9	9
Sand and gravel	1	10
Sand	10	20
Sand, coarse, some gravel	5	25
Sand, medium, clean	7	32
Clay	inches	32 +

Well 53 (Test well C-1) SW. ¼ SE. ¼, Sec. 21, T. 102 N., R. 49 W. Altitude 1430' +.

Material	Thickness (feet)	Depth (feet)
Soil and clay	5½	5½
Gravel	7½	13
Sand, fine	3	16
Sand, coarse	5	21
Gravel, coarse (boulders & clay streaks)	5	26
Sand and gravel	8	34
Clay	inches	34 +

Well 54 (Test well B-1) SE. ¼ SW. ¼, Sec. 28, T. 102 N., R. 49 W. Altitude 1428' +.

Material	Thickness (feet)	Depth (feet)
No sample	9	9
Gravel	15	24
Gravel and sand	4	28
Clay	½	28½

Well 55 (Test well B-2) SW. ¼ SW. ¼, Sec. 28, T. 102 N., R. 49 W. Altitude 1427' +.

Material	Thickness (feet)	Depth (feet)
Soil and clay	5	5
Gravel, fine sand at base	17	23
Gravel, coarse	13½	36½

Well 56 (Test well B-3) SE. ¼ SE. ¼, Sec. 29, T. 102 N., R. 49 W. Altitude 1428'.

Material	Thickness (feet)	Depth (feet)
No sample	10	10
Gravel	20	30
Gravel, fine	3	33
Gravel, very coarse	2½	35½
Clay	inches	35½ +

Well 58 (Test well B-4) SW. ¼ SW. ¼, Sec. 29, T. 102 N., R. 49 W. Altitude 1429' +.

Material	Thickness (feet)	Depth (feet)
No sample	10	10
Gravel, coarse, some clay at top	7	17
Gravel	8	25
Sand, fine	2	27
Clay	inches	27 +

Well 69 (Test well A-1) NE. ¼, NW. ¼, Sec. 4, T. 101 N., R. 49 W. Altitude 1424' ±.

Material	Thickness (feet)	Depth (feet)
No sample	10	10
Sand and gravel	2	12
Gravel, coarse	9	21
Gravel, sandy	4	25
Gravel, coarse, with quartzite pebbles	6	31
Clay, blue	inches	31 +

Well 75A (Test well 46A) NW. ¼, NW. ¼, Sec. 5, T. 101 N., R. 49 W.

Material	Thickness (feet)	Depth (feet)
Soil and loam	6	6
Sand, brown, silty	1	7
Gravel, fine, clean	5	12
Gravel, clean, medium	8	20
Sand, coarse, clean	5	25
Sand, coarse; gravel, clean, medium	10	35
Sand and gravel	5	40
Clay, gray, pebbles (till)	inches	40 +

Well 107 (Test well 50) NE. ¼ NE. ¼, Sec. 6, T. 101 N., R. 49 W. Altitude 1421'.

Material	Thickness (feet)	Depth (feet)
Soil and clay	6	6
Sand and gravel, reddish	6	12
Sand and gravel	4	16
Sand, silty, fine (termed quicksand)	1½	17½
Sand and gravel	20½	38
Clay	inches	38 +

Well 108 (Test well A-6) NW. ¼ NE. ¼, Sec. 6, T. 101 N., R. 49 W. Altitude 1421'.

Material	Thickness (feet)	Depth (feet)
Soil and clay	6	6
Gravel, dirty	10	16
Gravel, coarse, clean	19	29
Gravel, sandy	2	31
Sand and gravel (fragment of soft, white rock)	2	33
Clay	½	33½

Well 123 (gravel pit test well) SE. ¼ SW. ¼, Sec. 11, T. 101 N., R. 49 W.

Material	Thickness (feet)	Depth (feet)
Gravel, coarse and fine (one thin clay seam)	85	85
Rock, blue	inches	85 +

Well 159 (Test well J-3) SE. ¼ NE. ¼, Sec. 9, T. 101 N., R. 50 W. Altitude 1443'.

Material	Thickness (feet)	Depth (feet)
Soil and clay, brown, silty	3	3
Sand and gravel, fine, reddish	2	5
Sand, medium; gravel, fine	5	10
Gravel, fine, clean	8	18
Clay, brown, silty, with small pebbles	inches	18 +

Well 160 (Test well J-4) NE. ¼ SE. ¼, Sec. 9, T. 101 N., R. 50 W. Altitude 1443'.

Material	Thickness (feet)	Depth (feet)
Soil and clay, brown, silty	6	6
Gravel, coarse	11	17
Quartzite	inches	17 +

Well 162 (J. Morrell test) SW. ¼, SE. ¼, Sec. 10, T. 101 N., R. 50 W.

Material	Thickness (feet)	Depth (feet)
Soil, dark	2	2
Clay, yellow	12	14
Clay, brown and yellow	8	22
Clay, sandy at top	14	36
Boulders	1	37
Clay, gray, gritty at base	7½	44½
Clay; rotten rock	2½	47
Quartzite	inches	47

Well 163 (J. Morrell test) SW. ¼ SE. ¼, Sec. 10, T. 101 N., R. 50 W.

Material	Thickness (feet)	Depth (feet)
Soil, dark	2	2
Clay, yellow	14	16
Gravel, coarse, and sand	3	19
Quartzite	inches	19 +

Well 164 (J. Morrell well) SW. ¼ SE. ¼, Sec. 10, T. 101 N., R. 50 W.

Material	Thickness (feet)	Depth (feet)
Soil	3	3
Sand, dark	1	4
Clay, brown	6	10
Sand, coarse, with clay balls	7	17
Sand, incoherent, medium and coarse	20½	37½
Quartzite	1½	39

Well 170 (Test well I-4) SW. ¼, SW. ¼, Sec. 13, T. 101 N., R. 50 W. Altitude 1433'.

Material	Thickness (feet)	Depth (feet)
Soil and clay with some mixed gravel	15	15

Well 171 SW. ¼, SW. ¼, Sec. 13, T. 101 N., R. 50 W.

Material	Thickness (feet)	Depth (feet)
Gravel and silty clay, mixed	12	12
Clay, blue	30	42
Quartzite, hard	142	184

Well 173 (Test well J-2) NW. ¼, NW. ¼, Sec. 15, T. 101 N., R. 50 W. Altitude 1436'.

Material	Thickness (feet)	Depth (feet)
Soil and loam	4	4
Gravel, medium to fine, loose	1	5
Gravel and sand	5	10
Gravel, fine and medium, some pebbles up to 1" in width	8	18
Clay, silty, buff, sticky	2	20
Quartzite	inches	20 +

Well 174 (Test well J-1) NW. ¼, SW. ¼, Sec. 15, T. 101 N., R. 50 W.

Material	Thickness (feet)	Depth (feet)
Soil and loam	3	3
Sand and gravel, rust-colored	2	5
Gravel, fine and medium, clean	5	10
Sand, fine to medium gray	5	15
No sample	5	20
Clay, stiff, dark gray	3	23
Clay, small gravel pebbles	1	24
Sand and gravel, medium	1	25
Sand, very coarse; gravel, medium	5	30
No sample	2	32
Quartzite	inches	32 +

Well 177 (Test well I-1) SE. ¼, NE. ¼, Sec. 23, T. 101 N., R. 50 W. Altitude 1432'.

Material	Thickness (feet)	Depth (feet)
No sample	10	10
Gravel, fine and medium, clean	5	15
Sand with some gravel, clean	15	30
Gravel, fine and coarse, wood fragments	27	57
Clay, gray, stiff	inches	57 +

Well 178 (Test well I-2) NE. ¼, SE. ¼, Sec. 23, T. 101 N., R. 50 W. Altitude 1420'.

Material	Thickness (feet)	Depth (feet)
Soil and loam	3	3
Gravel and silt, rust-brown	2	5
Sand and gravel, medium	25	30
Sand, medium, clean	5	35
Sand, brown, fine; gravel	10	45
Sand, coarse; gravel	9	54
Clay, gray, stiff	inches	54 +

Well 180 (Test well I-3) NW. ¼, SW. ¼, Sec. 24, T. 101 N., R. 50 W. Altitude 1422'.

Material	Thickness (feet)	Depth (feet)
No sample	10	10
Sand and gravel, clean	5	15
Gravel, clean	5	20
Same	7	27
Clay, dark gray	inches	27 +

Well 181 (Test well K-1) NW. ¼, SE. ¼, Sec. 24, T. 101 N., R. 50 W. Altitude 1415'.

Material	Thickness (feet)	Depth (feet)
Soil and loam	5	5
Sand and gravel	25	30
Gravel, fine	5	35
Sand, gray, medium	5	40
No sample	2	42
Clay, gray	1	43
Sand, poorly sorted	9	52
Clay, gray, sticky	1	53
Quartzite	inches	53 +

Well 182 (Test well K-2) NW. ¼, SE. ¼, Sec. 24, T. 101 N., R. 50 W. Altitude 1413'.

Material	Thickness (feet)	Depth (feet)
Soil, gray, clayey	6	6
Gravel, clean, fine	4	10
Sand, coarse; gravel	10	20
Gravel, fine and coarse, some pebbles up to 4" in width	5	25
Sand, medium, small shale fragments	6	31
Clay, brown, stiff	1	32
Clay, stiff, with small pebbles	6	38

Well 183 (Test well K-3) SE. ¼, SE. ¼, Sec. 24, T. 101 N., R. 50 W. Altitude 1411'.

Material	Thickness (feet)	Depth (feet)
Soil and clay	4	4
Gravel, brown, dirty	1	5
Gravel, clean, fine and medium	10	15
Same as above	22	37
Clay, tough, gray	½	37½

Well 184 (Test well L-2) NE. ¼, NW. ¼, Sec. 25, T. 101 N., R. 50 W. Altitude 1419'.

Material	Thickness (feet)	Depth (feet)
Soil and loam	3	3
Sand and gravel, fine reddish	2	5
Gravel, medium, red-brown	5	10
Sand, fine, well-sorted	5	15
Gravel and sand	25	40
Sand, medium, coarse, clean	7	47
Clay, dark gray, stiff	1	48

Well 185 (Test well L-3) NE. ¼ NE. ¼, Sec. 25, T. 101 N., R. 50 W. Altitude 1411'.

Material	Thickness (feet)	Depth (feet)
Soil, black; clay, sandy	8	8
Same, grading into med. clean gravel	2	10
Gravel, clean	20	30
Sand, medium, clean, small amount of gravel	26	56
Clay balls, tough, silty; grades into clay, sticky, gray	2	58

Well 186 (Test well L-1) NW. ¼, SE. ¼, Sec. 25, T. 101 N., R. 50 W. Altitude 1412'.

Material	Thickness (feet)	Depth (feet)
Soil and clay, sandy	8	8
Gravel, fine and medium, clean	6	14
Clay, gray, with a few small pebbles	5	19
Sand, coarse, with gravel	6	25
Clay, gray, with small pebbles (glacial till)	22	47
Clay, dark gray, quartzite pebble near base	23	70
Quartzite	inches	70 +

TABLE II

Screen Tests on Sands and Gravels from Test Wells

Well 69 (Test well A-1) NE. ¼ NW. ¼, Sec. 4, T. 101 N., R. 49 W.

Depth Feet	*R. 10	*P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10-12	37.6	15.3	18.2	21.7	5.4	.04	.01	98.2
13-16.5	55.8	13.1	17.4	10.8	2.3	.12	.02	99.5
19-24	36.2	24.4	20.0	13.4	5.7	.04	0	100.1
25-26	1.9	3.7	16.5	73.2	4.1	.03	0	99.7
26-31	86.7	6.8	4.1	1.8	.2	.02	0	99.6
31-32	76.4	7.8	7.8	4.7	.7	.03	.6	98.3

Well 72 (Test well A-2) NE. ¼ NE. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
8-14	40.6	10.9	17.7	26.0	3.9	.2	.3	99.6
14-20	60.4	15.0	10.8	9.9	3.7	.1	.6	100.5
20-26	57.7	13.1	11.8	14.4	2.8	.2	0	100.0
26-32	33.4	14.0	28.6	22.6	1.3	0	0	99.9
32-39	35.2	12.4	21.4	25.8	4.8	.2	0	99.8
39-41	30.4	9.7	21.6	32.0	6.0	.1	.1	99.9

Well 73 (Test well A-3) NW. ¼ NE. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
5-11	52.4	30.3	15.2	1.9	.2	0	0	100
11-17	44.4	9.5	14.5	28.9	2.4	.05	.1	99.8
17-23	77.1	11.0	7.1	4.5	0.2	0	0	99.9
23-28	2.3	1.9	11.4	72.0	11.3	0.4	.2	99.5
28-36	42.2	22.9	21.8	12.1	1.2	0	0	100.2
36-43	75.3	15.1	7.1	2.3	0.1	0	0	99.9

Well 74 (Test well A-4) NE. ¼ NW. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
8-12	1.9	0	43.9	51.1	1.9	0.1	1.1	98.9
12-16	59.7	16.1	14.4	8.4	0.6	0.02	0.8	100.0
16-20	18.0	23.4	39.2	18.5	0.7	0.0	0.0	99.8
20-26	44.6	16.1	25.4	12.5	.1	.06	0.2	99.3
26-32	86.4	7.2	4.9	0.1	0.0	0	0	98.6

*P. - passing
*R. - retained on

Well 75 (Test well A-5) NW. ¼ NW. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
9-14	18.6	16.4	25.9	32.3	5.5	0.3	0.8	99.8
14-17	49.1	15.4	20.7	14.2	0.4	.05	0.1	100.4
17-24	79.5	13.6	5.7	1.1	.1	0	0	100.0
24-30	69.1	17.9	10.9	1.8	.1	0	0	99.8
30-36	55.0	14.1	19.2	10.5	0.9	0	0	99.7
36-40	79.8	14.9	3.7	1.0	.1	0	0	99.5

Well 108 (Test well A-6) NW. ¼ NE. ¼, Sec. 6, T. 101 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
6-12	17.8	11.9	22.3	43.4	2.9	5.83	1.2	105
12-13	40.9	12.0	17.3	14.3	5.0	2.1	8.3	99.9
13-20	36.0	17.2	21.1	21.0	3.9	.1	.4	99.9
20-26	68.2	19.2	10.3	7.1	.2	0	0	100.0
26-30	44.8	19.1	24.1	11.2	.7	.6	0	100.5
30-335	.7	2.9	13.3	67.8	14.0	.8	0	99.5

Well 54 (Test well B-1) NE. ¼ NW. ¼, Sec. 33, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
9-16	60.7	11.8	9.9	12.4	2.1	.4	2.2	99.5
16-21	75.2	8.7	7.3	6.5	1.8	.01	.1	99.6
21-24	37.8	29.5	22.3	7.8	2.3	.2	0	99.9
24-25	0.1	12.9	39.5	38.8	8.0	.3	0	99.6
25	87.0	8.2	3.1	1.2	.4	0	0	99.9
28	No sample							

Well 55 (Test well B-2) SW. ¼ SW. ¼, Sec. 28, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
5-15	72.0	6.3	7.8	10.6	2.8	.1	.2	99.8
12-20	87.3	4.7	4.7	2.4	.2	.08	.2	99.5
15-20	64.5	18.7	11.2	3.7	1.6	.1	.0	99.8
21-23	13.1	7.3	15.3	41.7	21.2	.9	.2	99.7
23-27	62.9	18.6	12.7	5.0	.7	.05	.0	99.9
27-29	80.3	10.3	5.5	3.2	.5	.2	.05	100.0
29-32	73.4	11.9	9.0	5.2	.4	.0	.0	99.9
32-36.7	67.3	15.7	8.9	7.6	.3	.05	.07	99.8

Well 56 (Test well B-3) SE. ¼ SE. ¼, Sec. 29, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
11-17	58.5	21.2	14.9	4.5	.3	.1	.3	99.8
17-21	54.0	16.4	20.3	8.4	.7	.04	0	99.8
21-24	14.8	33.8	35.7	14.0	.15	.06	0	99.8
24-26	93.3	4.3	1.7	.2	.07	.02	0	99.5
26-29	80.1	12.8	5.6	1.2	.1	.0	0	99.8
29-34	6.1	11.2	41.5	39.3	1.9	.05	0	100.0

Well 58 (Test well B-4) SW. ¼ SW. ¼, Sec. 29, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10-14	74.3	10.1	5.5	5.2	1.9	0.6	2.0	99.6
14-20	12.9	22.6	39.6	22.0	.1	0.3	.1	97.6
20-25	40.0	22.4	16.2	19.3	.2	.0	.0	98.1
25-27	1.2	2.4	31.2	59.3	5.0	.01	.01	94.6

Well 53 (Test well C-1) SW. ¼ SE. ¼, Sec. 21, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
5-13	19.5	12.9	23.9	30.1	8.3	.4	.7	95.8
13-17	54.4	15.9	15.1	11.1	2.9	.2	.4	100.0
17-20	0	0	.8	6.5	75.6	14.5	.1	97.5
20-25	52.5	12.2	17.9	14.2	2.3	.1	.2	99.4
25-29	73.5	9.4	8.9	4.7	2.7	.7	.0	99.9
29-34	35.5	22.2	22.0	13.9	4.3	1.0	.9	99.8
35	42.1	17.1	19.4	16.9	3.6	.4	.2	99.7

Well 52 (Test well C-2) NW. ¼ NW. ¼, Sec. 28, T. 102 N., R. 49 W.

Depth Feet	T. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	83.9	8.4	4.3	2.6	.3	.0	.4	99.6
12	52.3	19.9	18.8	7.8	.6	.05	.3	100.2
15	37.3	21.9	24.7	13.9	.1	0	0	97.9
20	38.5	16.7	26.0	17.3	1.2	0	0	99.7
25	27.5	30.1	28.7	12.9	.7	.04	.3	100.2
32	76.1	8.6	5.1	7.8	1.8	.5	.07	100.6
40	12.3	32.2	37.5	16.7	1.0	0	.1	99.8

Well 50 (Test well C-3) NW. ¼ NE. ¼, Sec. 29 T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
8	42.0	16.5	16.0	22.6	1.5	0.2	.9	99.7
No sample								
25	52.1	14.2	12.8	17.0	3.3	.2	.2	99.8
30	77.5	10.9	8.3	2.7	.4	.05	0	99.8
35	42.7	14.9	18.7	19.8	3.6	.1	0	99.8

Well 51 (Test well C-4) SE. ¼ SW. ¼, Sec. 20, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	.03	1.5	14.4	63.2	14.6	2.2	3.8	99.7
15	10.5	34.0	39.3	9.0	2.0	1.0	3.9	99.7
20	51.0	23.4	10.6	4.3	2.3	1.4	6.7	99.7
25	0	.1	1.4	74.6	22.8	.4	.4	99.7
28	53.6	13.0	11.6	16.5	4.9	.1	0	99.7
30	70.6	7.2	17.0	4.3	.4	0	0	99.5
35	57.2	24.2	15.2	3.3	.2	0	0	100.1
40	60.6	13.2	19.0	6.6	.4	.04	.04	99.8
45	82.4	5.1	6.9	4.9	.5	0	0	99.8
50	14.6	28.7	48.3	6.5	1.7	.1	0	99.9

Well 41 (Test well D-1) NW. ¼ NE. ¼, Sec. 16, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	38.1	18.8	20.2	19.2	2.7	.2	.6	99.8
15	11.4	17.1	33.6	34.2	3.0	.1	.5	99.9
17	87.5	8.1	1.6	1.5	.4	0	.7	99.8
19	70.5	10.9	6.7	5.2	2.4	1.1	3.0	99.8
20	26.7	27.7	21.5	19.4	2.7	.5	1.2	99.7
25	44.7	17.9	22.6	14.1	.5	0	0	99.8
30	47.8	7.1	11.0	23.2	9.6	.4	0	99.1

Well 43 (Test well D-2) NW. ¼ NW. ¼, Sec. 16, T. 102 N., R. 49 W.

No samples

Well 43 (Test well D-3) NW. ¼ NE. ¼, Sec. 17, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	44.5	28.9	14.6	7.6	1.4	.5	2.2	99.7
15	88.6	3.6	2.5	4.2	.5	.01	.4	99.8
20	59.6	18.6	55.1	6.2	.4	0	0	
25	.9	.7	2.6	83.3	11.0	0	2	98.7
30	87.7	6.5	3.6	2.0	.1	.02	.1	99.8
35	25.8	46.4	23.1	4.2	.2	.01	.01	99.7

Well 38 (Test well D-4) SW. ¼ SW. ¼, Sec. 8 T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
12								
15	79.4	11.1	4.47	4.55	1.62	1.01	4.04	105
20	64.0	18.5	14.30	2.23	.34	.09	.35	99.6
25	92.2	3.29	.66	.29	.08	.15	.33	97
26	23.8	6.2	12.8	45.2	11.4	.30	.16	99.8
30	12.5	12.8	23.8	17.5	32.8	.43	0	99.8
35	78.5	10.4	2.01	7.22	1.83	.07	.03	99.9
40	89.2	1.6	1.8	6.48	.05	.01	.02	99.0

Well 34 (Test well E-1) NE. ¼ NE. ¼, Sec. 4, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 P.250	P.250	% Total
10	13.0	32.8	34.8	12.9	2.6	1.1	2.8	100
20	53.6	23.4	13.1	7.4	1.8	.1	.2	99.6
25	57.6	17.9	17.7	6.1	.5	.2	.6	100.4
30	60.6	20.7	12.8	5.1	.5	.02	.05	99.7
35	77.0	10.1	9.8	3.1	.2	0	0	100.2
40	30.2	16.0	23.9	23.6	5.9	.3	0	99.9
45	92.6	5.5	1.2	.3	0	0	0	99.6

Well 35 (Test well E-2) NW. ¼ NE. ¼, Sec. 4, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
12	11.6	14.4	26.6	39.3	5.2	.7	2.2	100.0
15	27.9	52.6	29.1	17.3	2.1	.2	.7	99.9
20	38.0	18.4	24.5	16.4	2.2	.1	.1	99.7
25	28.2	11.8	22.4	33.6	3.6	.1	.05	99.7
30	60.0	27.4	10.7	1.5	.1	0	0	99.7
32½	1.6	4.2	26.5	62.2	4.7	.2	.2	99.6
35	67.8	9.6	8.8	10.5	2.2	.1	.5	99.5
40	72.2	7.1	7.3	10.6	2.1	.1	.4	99.8

Well 36 (Test well E-3) NW. ¼ NW. ¼, Sec. 4, T. 102 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	11.0	22.3	26.0	28.4	7.4	1.3	3.5	99.9
12	36.1	35.9	16.7	7.6	1.6	.5	.1	98.5
15	29.3	20.9	18.2	23.9	6.5	.2	.8	99.8
20	79.1	5.2	5.7	7.7	1.3	.3	.5	99.8
25	32.7	9.6	19.8	30.2	6.8	.4	.1	99.6

Well 37 (Test well E-4) SW. ¼ SE. ¼, Sec. 32, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	15.3	35.2	33.1	11.4	1.93	1.1	2.9	100.9
12	3.9	16.7	23.7	12.1	12.1	7.9	23.5	99.9
15	27.7	31.3	28.8	11.6	.58	.1	.4	100.4
20	78.5	9.3	6.2	5.4	.5	0	0	99.9
25	74.4	16.9	6.6	1.7	.03	0	0	99.9

Well 33 (Test well F-1) NE. ¼ SW. ¼, Sec. 21, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	55.9	15.2	14.8	9.9	1.2	.05	2.5	99.5
15	73.4	12.6	7.5	4.3	0.9	.02	.1	99.0
20	65.5	15.4	13.9	4.6	.5	0	0	99.9
25	45.9	20.8	22.2	10.4	0.7	0	0	100.0
30	77.6	9.2	5.1	4.2	.5	0	0	96.6
35	58.5	8.8	12.4	17.4	2.3	0	0	99.4

Well 32 (Test well F-2) NW. ¼ SW. ¼, Sec. 21, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	17.2	8.6	23.0	43.3	4.2	.7	2.9	99.9
15	58.9	16.8	14.8	8.2	.6	.09	.3	99.7
20	22.3	35.3	29.4	11.8	.7	.03	.1	99.6
25	68.9	16.7	8.8	5.1	.3	0	0	99.8
30	89.5	4.7	3.8	.1	0	0	0	98.1
35	67.5	12.6	11.2	7.7	.7	0	.01	99.7

Well 31 (Test well F-3) NW. ¼ SE. ¼, Sec. 20, T. 103 N. R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	15.4	22.4	26.3	18.7	5.4	2.8	9.0	100.0
15	53.4	19.5	10.7	6.7	4.0	1.9	3.8	100.0
20	93.0	4.5	1.1	.44	.13	.25	.52	99.8
25	88.2	5.8	3.5	1.4	.44	.1	.3	99.7
30	38.7	10.7	16.4	28.6	5.2	0	0	99.6
35	55.2	11.0	10.8	18.9	4.4	0	0	100.3
40	47.5	19.8	21.2	10.6	.6	.4	0	99.2

Well 28 (Test well G-1) SW. ¼ SW. ¼, Sec. 9, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
15	35.1	2.38	20.5	11.8	3.3	1.5	3.9	99.9
20	25.2	13.8	29.6	26.0	2.6	.7	2.0	99.9
25	9.7	12.2	23.7	23.5	29.4	1.3	.8	100.6
30	25.9	14.0	32.5	25.4	1.9	.1	.06	99.8

Well 27 (Test well G-2) SW. ¼ SE. ¼, Sec. 8, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
14	29.6	12.2	18.1	36.8	2.1	.1	.7	99.6
20	82.1	4.2	6.2	6.3	.4	.09	.5	99.7
25	21.0	15.1	47.5	15.7	.4	.08	.1	99.8

Well 29 (Test well G-3) NW. ¼ NW. ¼, Sec. 17, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
15	1.1	4.0	13.1	45.5	20.9	4.4	11.1	100.1
20	80.0	8.8	5.4	4.9	.6	.07	.2	99.9
28	93.5	2.6	2.4	1.2	0	0	0	99.7
30	8.1	5.2	17.4	44.7	18.3	5.4	.5	99.6
35	45.6	10.0	15.6	24.0	2.5	.1	0	97.8
40	28.8	8.7	26.2	28.5	6.2	.8	.4	99.6

Well 30 (Test well G-4) NE. ¼ NE. ¼, Sec. 18, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
10	8.6	14.7	34.4	35.0	5.8	.4	.6	99.5
15	94.0	2.1	1.5	1.3	.5	.1	.5	100.0
20	60.0	20.7	15.8	3.1	.4	0	0	100.0
25	66.2	17.6	12.8	2.9	.3	0	0	99.8
30	67.7	13.9	12.3	5.4	.3	.03	.03	99.6
35	72.5	12.4	11.1	3.3	0	0	0	99.6

Well 22 (Test well H-1) NE. ¼ NW. ¼, Sec. 5, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
20	.05	.6	9.9	82.5	5.9	0	.6	98.9

Well 23 (Test well H-2) NE. ¼ NE. ¼, Sec. 6, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
20	55.2	26.6	11.4	4.92	.77	.02	.8	99.6
25	71.9	12.2	9.1	6.0	.5	.04	.1	99.7
30	91.7	6.5	1.2	.3	0	0	0	99.7
33	82.3	8.9	5.1	2.8	.2	.06	.3	99.6

Well 25 (Test well H-3) NW. ¼ NE. ¼, Sec. 6, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
15	43.0	14.8	23.6	15.7	2.2	.1	.4	99.8
20	.1	.6	4.7	64.4	27.6	1.6	.8	99.8
25	64.4	14.3	10.1	9.3	1.5	.08	.08	99.7
30	94.0	5.5	.4	.1	0	0	0	100.0
35	67.1	14.2	11.4	6.7	.4	0	0	99.8

Well 26 (Test well H-4) NE. ¼ NW. ¼, Sec. 6, T. 103 N., R. 49 W.

Depth Feet	R. 10	P. 10 R. 30	P. 30 R. 60	P. 60 R.100	P.100 R.150	P.150 R.250	P.250	% Total
15	25.3	19.2	28.1	21.7	2.7	.6	2.3	99.9
20	23.3	14.7	21.8	34.7	4.6	.2	.4	99.7
25	87.2	10.5	1.8	.1	.04	0	.07	99.6
30	63.1	13.7	15.0	6.4	.5	.03	.1	98.8

TABLE III

Well 69 (Test well A-1) NE. ¼ NW. ¼, Sec. 4, T. 101 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	50	2.6	917
15	52.4	8.3	2929
20	35.2	1.8	635
26	38.1	4.3	1517
28	82.6	68.5	24180
31.5	62.6	8.4	2965

Well 72 (Test well A-2) NE. ¼ NE. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
12	29.2	13.8	487
18	58.8	27.6	9742
22	63.2	1.25	441
28	9.5	15.4	5436
34	32.9	31.8	11225
40	8.2	18	6354

Well 73 (Test well A-3) NN. ¼ NE. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
15	12.5	4.37	1517
21	48.4	24.13	8507
27	13.4	2.7	9531
33	18.5	8.8	3106
39	37.1	28.3	9989

Well 74 (Test well A-4) NE. ¼ NW. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	13.8	1.8	635
14	23.7	13.1	4624
18	28.5	9.1	3212
24	33.3	14.4	5083
30	80.7	85.08	30005

Well 75 (Test well A-5) NW. ¼ NW. ¼, Sec. 5, T. 101 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
11	30.7	3.71	1309.63
17	61.4	6.8	2400
23	76.6	95.8	33817.4
27	50	84.6	29652
33	43.3	19.7	6707
39	77.1	64.8	22592

Well 108 (Test well A-6) NW. ¼ NE. ¼, Sec. 6, T. 101 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
8	16.25	4.5	1588
12	8	0.49	172
16	32.8	23	81190
22	69.3	23.8	8401
26	25	25.7	8172
30	13	2.13	7518

Well 54 (Test well B-1) NE. ¼ NW. ¼, Sec. 33, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
12	65	5.16	1800
17	69.4	17.16	6036
22	61.5	10.78	3812
25	34.9	4.22	1482
28	72	1.3	4589

Well 55 (Test well B-2) SW. ¼ SW. ¼, Sec. 28, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	28.3	5.5	1941
15	78.1	39	13767
20	69.6	31.7	11180
22	14.5	1.18	388
25	64.9	8.8	3106
27	77.1	15.8	5577
30	55.4	42.4	14967
32	54	19.2	6777

Well 56 (Test well B-3) SE. ¼ SE. ¼, Sec. 29, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
15	56.6	25.4	8966
20	55.7	7.1	2506
23	49	16.8	5930
25	75.5	249	87897
27	69.6	73.1	25804
30	53.6	5.56	1941

Well 58 (Test well B-4) SW. ¼ SW. ¼, Sec. 29, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
12	54.1	18.5	6530
17	48.6	3.2	1129
22	36.8	2.7	943
27	28.4	3.6	1270

Well 53 (Test well C-1) SW. ¼ SE. ¼, Sec. 21, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
8	34.7	11.4	4024.2
13	25	37.8	13343.4
18	37.5	5.24	1849.72
22	26.6	4.96	1750.88
26	48.8	50.6	17861.8
30	38.6	3.45	1217.85

Well 52 (Test well C-2) NW. ¼ NW. ¼, Sec. 28, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	83.1	60.9	21497
12	66.67	11.73	4140
15	40.2	8.07	2847
20	55.4	6.77	2389
25	63.3	11.2	3953
32	51.3	10.4	3671
40	39.5	10.05	3547

Well 50 (Test well C-3) NW. ¼ NE. ¼, Sec. 29, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
8	51.7	5.3	1870
25	61.5	3.5	1235
30	54.4	30.15	10625
35	54.1	4.24	1496

Well 51 (Test well C-4) SE. ¼ SW. ¼, Sec. 20, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	11.4	.11	38
15	23.6	0.3	105
20	32.6	1.25	440
25	19.3	2.63	928
28	57.4	2.77	976
30	72.2	15.8	557
35	76.1	15.9	560
40	64.9	5.61	1880
45	69.6	19.12	6749
50	57.2	7.41	2615

Well 41 (Test well D-1) NW. ¼ NE. ¼, Sec. 16, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	44.4	3.4	1200
15	39.3	2.2	776
17 ?	33.3	2.12	748
19	43.9	.63	222
20	34.5	2.3	811
25	77.1	10.1	3565
30	34.6	1.9	670
32	53.6	49.7	17544.1

Well 43 (Test well D-2) NW. ¼ NW. ¼, Sec. 16, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
9	58.2	11.5	---
15	52.2	34.4	---
20	80.6	77.9	---
24	25.6	1.14	

Well 43 (Test well D-3) NW. ¼ NE. ¼, Sec. 17, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	55.1	2.37	856.61
15	81.3	231	80543
20	69.2	26.06	9478
25	32.6	2.67	918.84
30	86.2	88.7	31064
35	69.7	33.9	11649

Well 38 (Test well D-4) SW. ¼ SW. ¼, Sec. 8, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
12	35.4	1.84	650
15	55.4	4.62	1629
20	72.4	39.7	14.014
25	76.1	264.5	93.2
26	18.6	1.9	671
30	37.9	3.1	1094
35	69	66.2	23368.6
40	62.2	58.2	20544.6

Well 34 (Test well E-1) NE. ¼ NE. ¼, Sec. 4, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	35	2.1	741
20	53	8.9	3141
25	71.4	15.6	5506
30	47	15.2	5365
35	61.9	26.4	9319
40	46	2.5	8825
45	75.7	139	49067

Well 35 (Test well E-2) NW. ¼ NE. ¼, Sec. 4, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
12	39	1.5	529
15	48	5.87	2072
20	29	5.06	1786
25	34	2.16	762
30	82.4	38.8	13696
32½	48.3	4.04	1426
35	63.6	19.9	7024
40	64	11.7	4110

Well 36 (Test well E-3) NW. ¼ NW. ¼, Sec. 4, T. 102 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	20.6	.446	157.438
12	55.8	11.2	3973.6
15	36.8	2.68	946
20	50.3	43.6	15390.8
25	39.2	2.73	963.69

Well 37 (Test well E-4) SW. ¼ SE. ¼, Sec. 4, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	52.7	5.12	1807.36
12	7.5	.158	55.774
15	57.9	13.43	4740.79
20	68.3	48.2	16944
25	68.9	24.8	8472

Well 33 (Test well F-1) NE. ¼ SW. ¼, Sec. 21, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	60.2	9.01	3180
15	73.7	26.9	9495
20	44.2	28.5	10060
25	76.1	10.13	3575
30	68.6	63.6	22450
35	63.1	4.93	1740

Well 32 (Test well F-2) NW. ¼ SW. ¼, Sec. 21, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	27.8	1.52	536
15	63.3	7.06	4292
20	63	10.3	3635
25	79.8	16.8	5930
30	92.6	192.4	67917
35	66.1	9.21	3251

Well 31 (Test well F-3) NW. ¼ SE. ¼, Sec. 20, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	3.07	.086	30
15	48.9	10.3	363
20	77.8	355	124315
25	65.5	143	50479
30	47.7	2.75	970
35	47.3	3.05	1076
40	45.6	6.3	2223

Well 28 (Test well G-1) SW. ¼ SW. ¼, Sec. 9, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
15	19.5	2.45	864
20	47.2	2.22	783
25	22.2	1.12	395
30	45.7	3.18	1122

Well 27 (Test well G-2) SW. ¼ SE. ¼, Sec. 8, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
14	41.1	3.52	1242
20	70.3	86.61	30643
25	64.9	19.58	3734

Well 29 (Test well G-3) NW. ¼ NW. ¼, Sec. 17, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
15	8	.24	84
20	75.4	3.70	1306
28	87.6	90.9	32087
30	22.2	1.90	670
35	52	3.29	1161
40	35.1	1.74	614

Well 30 (Test well G-4) NE. ¼ NE. ¼, Sec. 18, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
10	43.7	3.51	1179
15	87.1	165.5	58421
20	75.3	15.7	5542
25	66.3	19.3	6812
30	67	17.8	6283
35	74.5	21.94	7744

Well 22 (Test well H-1) NE. ¼ NW. ¼, Sec. 5, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
20	28.6	23.8	8401

Well 23 (Test well H-2) NE. ¼ NE. ¼, Sec. 6, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
20	70	20.1	7060
25	57.8	12.3	43419
30	76.1	111.4	39183
33	86.6	125.7	44125

Well 25 (Test well H-3) NW. ¼ NE. ¼, Sec. 6, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity %	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
20	16.6	2.22	783
15	50	3.79	1337
25	57.3	8.31	2933
30	88.8	235.4	82086
35	45.7	10.9	3847

Well 26 (Test well H-4) NE. ¼ NW. ¼, Sec. 6, T. 103 N., R. 49 W.

Depth Feet	Effective Porosity	Coeff. cm. per min.	Coeff. gal. per sq. ft. per day
14	49.05	2.14	706
20	34.3	2.07	706
25	79.1	146.5	51538
30	68.8	13.3	4589

TABLE IV

Analyses of water from wells in the Sioux Falls area, in parts per million, except pH. All analyses by Guy G. Frary, State Chemist, except where otherwise noted.

Well number	3	4	8	9	10	11	12
Date of analysis	3/9/45	3/9/45	2/20/45	2/20/45	1/31/45	1/31/45	8/21/43
Silica (SiO_2)	25	24	21	21	20	15	23
Calcium (Ca)	144	176	108	146	165	73	129
Magnesium (Mg)	52	36	33	44	42	29	44
Iron (Fe)	0.5	2.8	2.4	6.4	6.0	0.4	2.8
Manganese (Mn)	none	1.4	1.8	2.4	2.0	none	2.5
Sulfate (SO_4)	247	371	223	128	270	126	246
Chloride (Cl)	6	11	5.8	7.5	6.6	6.1	9.5
Fluoride (Fl)	0.3	0.2	0.2	0.1	0.2	0.2	0.3
Alkalinity to phenolphthalein	none	none	none	none	none	15	none
Alkalinity to methyl orange	248	276	272	270	299	178	248
Total hardness as $CaCO_3$	574	588	406	546	588	305	504
Total Solids	657	883	520	721	774	421	682
pH	--	--	--	--	--	--	--

Well number	13	14[a]	15[b]	16[c]	17[d]	18[e]	19[f]	20[g]
Date of analysis	8/21/43	4/23/43	8/11/43	8/11/43	1/6/45	1/6/45	6/14/43	3/29/45
Silica (SiO_2)	19	14	22	28	19	22	24	15
Calcium (Ca)	113	78	85	74	100	96	108	113
Magnesium (Mg)	43	25	26	22	31	30	30	43
Iron (Fe)	2.8	2.0	1.0	0.8	1.6	2.4	2.4	0.6
Manganese (Mn)	2.0	0.5	0.6	0.6	1.4	1.4	1.2	1.8
Sulfate (SO_4)	193	101	86	82	136	109	281	214
Chloride (Cl)	4.9	5.8	3.3	6	2.9	3.1	8.3	13.5
Fluoride (Fl)	0.2	0.4	0.3	0.4	0.3	0.3	0.4	.1
Alkalinity to phenolphthalein	none	none	none	none	15	21	none	none
Alkalinity to methyl orange	280	205	264	206	224	224	252	262
Total hardness as $CaCO_3$	459	296	320	276	378	366	393	460
Total solids	667	358	425	385	503	461	502	633
pH	---	---	---	---	---	---	---	---

Well number	50	157[h]	181	Skunk[i] Creek	Big[i] Sioux River	Big[i] Sioux River	Split[i] Rock Creek
Date of analysis	11/14/44	11/19/41	10/5/44	3/12/42	3/12/42	6/16/43	3/12/42
Silica (SiO_4)	24	16	30	10	7	190	15
Calcium (Ca)	90	---	271	57	86	60	61
Magnesium (Mg)	9	---	91	19	35	18	24
Iron (Fe)	3.6	0.4	3.6	0.4	0.6	8.0	0.6
Manganese (Mn)	1.0	---	1.8	0.2	0.2	0.1	trace
Sulfate (SO_4)	116	---	737	135	197	176	68
Chloride (Cl)	1.9	---	2.2	6.0	12	1.4	6
Fluoride (Fl)	0.4	---	0.2	---	---	---	---
Alkalinity to phenolphthalein	17	---	trace	none	none	none	none
Alkalinity to methyl orange	185	---	364	141	223	45	168
Total hardness as $CaCO_3$	264	872	1054	220	362	224	253
Total solids	468	---	1604	562	547	800	278
pH	---	7.3	---	7.5	7.5	7.1	7.3

TABLE V

Analyses of composite samples of raw water from the Sioux Falls well field in chronological order from April, 1913, to March, 1945. Results expressed in parts per million.

Month and year of analysis		SiO_2	Ca	Mg	Fe	Mn	SO_4	Cl	Fl	Total hardness as $CaCO_3$	Total solids
April	1913				4.0			5		342	497
February	1924	(f)						6		342	517
October	1928	(f)13	106	34	--	--	150	4	--	---	570
January	1930	(f)26	105	35	0.1	--	159	6.3	--	405	515
July	1936	22	124	37	2.0	--	221	8	--	466	---
May	1937	22	121	37	2.8	1.3	229	4.0	0.4	521	622
March	1939	22	107	35	3.5	1.6	188	7.0	0.2	418	536
July	1939	26	120	36	0.5	--	247	7.0	--	449	673
September	1939	32	120	38	2.0	1.4	221	6.0	0.4	459	616
January	1940	21	138	42	3.6	1.5	259	7.0	--	531	687
August	1940	22	116	37	0.3	1.4	199	5.7	0.4	443	574
February	1941	20	115	37	1.4	1.4	194	7.0	0.4	445	563
February	1942	17	137	41	0.2	1.6	254	6.6	0.3	512	651
May	1942	18	135	41	2.8	1.8	275	6.7	0.2	507	736
September	1942	15	132	44	2.8	1.6	276	6.0	0.4	---	679
November	1942	18	137	43	4.8	1.6	281	6.0	0.4	518	698
January	1943	22	136	46	4.0	1.6	292	6.6	0.4	529	722
March	1943	15	139	43	3.6	1.6	261	6.5	0.4	527	700
May	1943	15	127	39	3.0	0.8	110	6.6	0.4	478	649
July	1943	18	95	29	3.0	1.4	129	7.0	0.4	357	489
September	1943	20	121	40	2.5	1.6	207	6.8	0.4	468	620
November	1943	20	92	31	2.0	1.2	114	4.0	0.2	357	455
January	1944	22	97	24	10.0	1.4	111	3.0	0.3	341	463
March	1944	21	98	27	0.8	1.0	133	3.6	0.3	356	462
July	1944	19	107	31	1.0	1.0	154	3.5	0.3	397	522
December	1944	22	116	35	6.4	1.2	179	3.6	0.3	435	568

(f) Sample of filtered water

All samples taken after 1930 analysed by Guy G. Frary, State Chemist

FOOTNOTES TO TABLES IV AND V

a--Well 14 placed in service April 18, 1943

b--Well 15 placed in service July 14, 1943

c--Well 16 placed in service July 22, 1943

d--Well 17 placed in service August 29, 1943

e--Well 18 placed in service January 20, 1944

f--Well 19 placed in service June 25, 1945

g--Well 20 not in service as of March, 1945

h--Analysis by A.C. Stringfellow, Culligan Zeolite Company, Northbrook, Illinois. Analysis furnished through courtesy W.Z. Utley, Water Softener Service Company, Sioux Falls

i--Analysis by L.L. Bradney, Operating Chemist, Sewage Disposal Plant, Sioux Falls

TABLE VI

Water temperatures of the Big Sioux River during 1941 and 1942. Measurements made near bridge U.S. Highway 16 west of Sioux Falls.*

Date		Temperature (°F.)	Date		Temperature (°F.)	Date		Temperature (°F.)
Jan.	3	32	Sep.	3	77	May	6	44
	10	32		10	73		13	61
	16	32		17	68		20	64
	22	33		23	64		27	68
	29	32	Oct.	2	62	Jun.	3	70
Feb.	5	33		8	55		10	71
	12	33		16	57		17	66
	19	32		23	62		21	68
	26	32		29	41	Jul.	1	71
Mar.	5	32	Nov.	6	35		8	75
	12	32		12	37		15	77
	20	33		19	43		22	73
	26	33		26	35		29	73
April	2	41	Dec.	3	41	Aug.	5	73
	9	46		10	33		12	75
	16	57		17	35		19	75
	23	52		24	33		26	73
May	2	66	Jan.	2(1942)	32	Sep.	3	70
	7	59		7	33		9	70
	14	73		14	33		16	70
	28	73		25	32		24	48
Jun.	3	73	Feb.	4	32		30	53
	11	68		11	32	Oct.	7	61
	18	80		18	32		14	59
	25	82		23	33		21	48
Jul.	2	70	Mar.	4	33		28	39
	9	84		11	35	Nov.	4	59
	16	75		18	33		12	41
	23	88		25	50		18	41
	30	82	April	2	48		25	35
Aug.	6	84		8	43	Dec.	2	32
	13	79		15	61		9	32
	20	75		22	62		16	32
	27	68		29	64		23	33

*Measurements by L.L. Bradney, Operating Chemist, Sewage Disposal Plant, Sioux Falls, South Dakota.

TABLE VII

Water levels in selected observation wells in the vicinity of Sioux Falls, South Dakota

Well 8 (City of Sioux Falls public-supply well) NE. ¼ NW. ¼, Sec. 7, T. 101 N., R. 49 W. Diameter 18 feet, depth 45 feet. Altitude measuring point, well platform, 1425.8 feet. Measuring point equivalent to land-surface datum.

Water level in feet below land-surface datum, 1944 and 1945*

Date	Water level	Date	Water level	Date	Water level
Aug. 2	14.10	Oct. 12	15.70	Dec. 26	16.21
7	13.77	16	15.59	Jan. 2	15.84
10	14.02	19	15.85	8	18.99
17	14.39	23	27.20	15	16.18
21	14.55	26	15.93	29	23.62
24	15.58	Nov. 2	15.90	Feb. 5	15.96
Sep. 11	14.77	13	16.02	13	15.99
18	27.16	16	24.83	19	16.02
21	15.80	20	24.60	Mar. 5	16.03
25	27.10	27	16.09	12	20.93
Oct. 2	17.89	Dec. 4	16.14	26	12.78
5	15.67	11	16.32	Apr. 2	12.99
9	15.72	18	21.93	9	14.34
				23	13.73

Well 50 (City of Sioux Falls test well C-3) Center section line, Secs. 20 and 29, T. 102 N., R. 49 W. Diameter 6 inches, depth 26.5 feet below land-surface datum. Altitude measuring point, top of casing, 1433.2 feet. Measuring point 3.5 feet above land-surface datum.

Water level in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Aug. 3	5.26	Sep. 12	5.66	Oct. 19	6.17
7	4.65	19	5.80	Nov. 11	6.20
14	5.28	25	5.82	21	6.23
21	5.59	Oct. 4	6.00	28	6.27
28	5.39	10	6.06	Dec. 8	6.26
Sep. 4	5.27				

* Measurements by Carl Dahlund, Sioux Falls Water Department.

Well 56 (City of Sioux Falls test well B-3) SW. ¼ SW. ¼ Sec. 29, T. 102 N., R. 49 W. Diameter 6 inches, depth 33.4 feet. Altitude measuring point, platform well recorder, 1431.7 feet. Land-surface datum 3.1 feet below measuring point.

Water level in feet below land-surface datum, 1944 and 1945 (from recorder charts)

Date	Water level	Date	Water level	Date	Water level
Jan. 1('44)	8.20	May 7	5.92	Sep. 13	8.02
7	8.13	14	5.98	21	8.12
14	8.19	21	6.04	28	8.18
21	8.18	25	4.05	Oct. 4	8.25
28	8.18	Jun. 2	7.85	14	8.36
Feb. 5	8.20	9	6.70	19	8.40
12	8.23	16	6.60	26	8.44
19	8.26	23	6.52	Nov. 2	8.50
26	8.15	Jul. 2	7.15	9	8.52
Mar. 4	6.70	9	7.45	12	8.48
11	6.92	15	6.55	19	8.46
18	6.80	24	7.05	28*	8.50
25	6.73	29	7.42	Dec. 8	8.52
Apr. 2	6.51	Aug. 4	7.60	Jan. 3('45)	8.71
9	6.70	8	7.56	16	8.89
16	6.92	11	7.72	Feb. 9	8.81
23	7.01	23	8.00	Mar. 21	5.41
30	6.95	30	7.90	Apr. 3	5.98
		Sep. 6	7.84	24	7.42

Well 72 (City of Sioux Falls test A-2) NE. ¼ NE. ¼ Sec. 5, T. 101 N., R. 49 W. Diameter 6 inches, depth 38.0 feet. Altitude measuring point, top of steel cap, 1423.8 feet. Land-surface datum 1.0 feet below measuring point.

Water level in feet below land-surface datum, 1944 and 1945

Date	Water level	Date	Water level
Sep. 25('44)	7.87	Dec. 8	9.50
Oct. 4	8.04	Jan. 3('45)	10.35
19	8.47	16	10.93
Nov. 21	9.50	Feb. 8	11.55

* Recorder temporarily removed on this date; placed in operation again on April 24, 1945.

Well 66 (City of Sioux Falls test well 42) SE. ¼ SW. ¼ Sec. 32, T. 102 N., R. 49 W. Diameter 6 inches, depth 35.7 feet below land-surface. Altitude measuring point, top of casing, 1427.13 feet. Measuring point 2.0 feet above land-surface datum.

Water level in feet below land-surface datum, 1944 and 1945*

Date	Water level	Date	Water level	Date	Water level
Aug. 2('44)	10.69	Sep. 28	11.44	Dec. 18	12.31
7	10.72	Oct. 5	11.50	26	12.37
10	10.83	9	11.58	Jan. 2('45)	12.18
14	11.07	12	11.60	8	12.34
17	11.06	16	11.67	15	12.47
21	11.15	19	11.70	22	12.30
24	11.26	23	11.77	29	12.48
28	11.27	26	11.82	Feb. 5	12.57
31	11.22	30	11.88	13	12.49
Sep. 5	11.19	Nov. 2	11.91	19	11.80
7	11.76	13	12.01	26	11.59
11	11.34	16	12.05	Mar. 5	11.78
14	11.39	20	12.14	12	11.57
18	11.36	27	12.20	19	11.77
21	11.39	Dec. 4	12.27	26	10.17
25	11.38	11	12.29		

Well 109 (City of Sioux Falls test well 51) SE. ¼ NE. ¼ Sec. 6, T. 101 N., R. 49 W. Diameter 6 inches, depth 40.6 feet below land-surface datum. Altitude measuring point, top of casing, 1423.04 feet. Measuring point 1.6 feet above land-surface datum.

Water level in feet below land-surface datum, 1944 and 1945*

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 2	6.60	Sep. 14	7.62	Oct. 26	7.98	Jan. 8	7.40
8	6.93	18	7.66	30	7.93	15	7.28
10	6.94	21	7.55	Nov. 2	7.95	22	7.21
14	7.28	25	7.56	13	7.80	29	7.20
17	7.26	28	7.64	16	7.83	Feb. 5	7.26
21	7.47	Oct. 2	7.70	20	7.86	13	6.46
24	7.55	5	7.70	27	7.81	19	4.82
28	7.17	9	7.73	Dec. 4	7.64	26	4.71
31	7.02	12	7.87	11	7.66	Mar. 5	5.86
Sep. 5	7.26	16	7.82	18	7.60	12	4.12
7	7.43	19	7.86	26	7.50	19	2.87
11	7.58	23	7.88	Jan. 2	7.44	26	5.94

* Measurements by Carl Dahlund, Sioux Falls water works.

Well 75 (City of Sioux Falls test well 46) NW. ¼ NW. ¼ Sec. 5, T. 101 N., R. 49 W. Diameter 6 inches, depth 38.7 feet below land-surface datum. Altitude measuring point, top of casing, 1425.78 feet. Measuring point 1.8 feet above land-surface datum.

Water level in feet below land-surface datum, 1944 and 1945

Date	Water level	Date	Water level	Date	Water level
Nov. 20	7.94	Jan. 8	8.26	Feb. 26	2.82
27	8.06	15	8.40	Mar. 5	3.37
Dec. 4	8.09	22	8.42	12	2.52
11	8.12	29	8.34	19	2.70
18	8.18	Feb. 5	8.36	26	3.64
26	8.23	13	2.20	Apr. 2	4.48
Jan. 2('45)	8.24	19	3.30	9	5.13

Well 159 (City of Sioux Falls test well J-2) NW. ¼ NW. ¼ Sec. 15, T. 101 N., R. 50 W. Diameter 6 inches, depth 17.5 feet below land-surface datum. Measuring point, top of casing, 3.0 feet above land-surface datum.

Water level in feet below land-surface datum, 1944 and 1945

Date	Water level	Date	Water level	Date	Water level
Aug. 1	8.72	Sep. 25	9.18	Dec. 8	9.82
7	7.02	Oct. 3	9.43	21	9.98
14	8.50	10	9.56	Jan. 3	10.11
21	8.94	21	9.75	Feb. 7	10.22
28	8.42	27	9.84	Mar. 20	7.37
Sep. 4	8.50	Nov. 14	9.68		
19	9.10	28	9.77		

Well 178 (City of Sioux Falls test well I-2) NE. ¼ SE. ¼ Sec. 23, T. 101 N., R. 50 W. Diameter 6 inches, depth 53.8 feet below land-surface datum. Measuring point, top of casing, 3.2 feet above land-surface datum.

Water level in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Jul. 31	9.01	Sep. 11	8.94	Oct. 27	9.61
Aug. 7	8.34	19	9.08	Nov. 13	9.68
14	8.80	25	9.08	28	9.82
21	8.90	Oct. 3	9.26	Dec. 8	9.87
28	8.84	10	9.34		
Sep. 4	8.70	21	9.53		

Well 104 (Sioux Falls test well 13, series 1922) SE. ¼ SW. ¼ Sec. 5, T. 101 N., R. 49 W. Diameter 6 inches, depth 38.4 feet below land-surface datum. Altitude measuring point, top of casing, 1420.8 feet. Measuring point 2.8 feet above land-surface datum. Water level affected by pumping from nearest well.

Water level in feet below land-surface datum, 1944 and 1945*

Date	Water level	Date	Water level	Date	Water level
Nov. 20	12.36	Jan. 8	12.27	Feb. 19	12.52
Dec. 4	12.13	15	12.46	26	12.44
11	12.12	22	12.27	Mar. 5	12.36
18	12.44	29	12.36	12	12.30
26	12.32	Feb. 5	12.54	19	11.78
Jan. 2('45)	12.35	13	12.56	28	11.23

Well 173 (City of Sioux Falls test well J-2) NW. ¼ NW. ¼ Sec. 15, T. 101 N., R. 50 W. Diameter 6 inches, depth 17.5 feet below land-surface datum. Measuring point, top of casing, 3.0 feet above land-surface datum.

Water level in feet below land-surface datum, 1944 and 1945

Date	Water level	Date	Water level	Date	Water level
Aug. 1	8.72	Sep. 25	9.18	Dec. 8	9.82
7	7.02	Oct. 3	9.43	21	9.98
14	8.50	10	9.56	Jan. 3('45)	10.11
21	8.94	21	9.75	Feb. 7	10.22
28	8.42	27	9.84	Mar. 20	7.37
Sep. 4	8.50	Nov. 14	9.68		
19	9.10	28	9.77		

Well 174 (dug well) NE. ¼ NE. ¼ Sec. 22, T. 101 N., R. 50 W. Diameter 24 inches, depth 8 feet. Measuring point NW. side cement casing.

Water level in feet below measuring point, 1944

Date	Water level
Sep. 25	2.94
Oct. 21	3.34

TABLE VIII

Chronological record of the altitude of the water table as measured in wells in the Sioux Falls well field from 1921 to early in 1945

Altitude of the water table in feet above mean sea level

Month and year of measurement	Well 3	Well 8	Well 9	Well 11	Well 77	Well 78
-------- 1921						
February 1922	1405.4					
March 1922						
April 1925						
April 1926		1410.0				
September 1931						
January 1936				1409.0		
May 1938			1410.3			
January 1940					1413.0	1417.4
February 1942	1403.4	1405.8	1401.9	1406.0		
February 1945	1408.5	1408.8	1405.6	1407.3	1406*	1406*
Net change in ft. from highest previous el. to el. on February, 1945	+3.1	-1.2	-4.7	-1.7	-7	-11

*Altitude obtained by interpolation from Figure 6 as these wells were destroyed prior to February, 1945

Altitude of the water table in feet above mean sea level

Month and year of measurement	Well 81	Well 94	Well 104	Well 105	Well 112
--------- 1921				1412.6	
February 1922			1408.7		
March 1922					1410.9
April 1925	1412.9	1409.8			
April 1926					
September 1931	1409.2	1409.2			
January 1936					
May 1938					
January 1940					
February 1942					
February 1945	1403.3	1400.9	1405.4	1405*	1408*
Net change in ft. from highest previous el. to el. on February, 1945	-5.9	-8.9	-3.3	-7.6	-2.9

*Altitude obtained by interpolation from Figure 6 as these wells were destroyed prior to February, 1945

TABLE IX

Record of wells in the vicinity of Sioux Falls, South Dakota

Well Number	Owner	Location	Owner's Designation	Date Completed
1	City of Sioux Falls	NW.¼ NW.¼ Sec. 9, T.101N., R.49W.	1	1906
2	" " " "	SW.¼ SW.¼ Sec. 4, " "	2	1909
3	" " " "	SW.¼ SE.¼ Sec. 5, " "	3	1911
4	" " " "	SE.¼ SW.¼ Sec. 5, " "	4	1913
5	" " " "	SW.¼ SW.¼ Sec. 5, " "	5	1921
6	" " " "	NW.¼ NW.¼ Sec. 9, " "	6	1922
7	" " " "	SW.¼ SW.¼ Sec. 4, " "	7	1922
8	" " " "	NW.¼ NE.¼ Sec. 7, " "	8	1926
9	" " " "	NW.¼ SE.¼ Sec. 5, " "	9	1926
10	" " " "	SW.¼ SW.¼ Sec. 5, " "	10	1934
11	" " " "	SE.¼ NW.¼ Sec. 5, " "	11	1934
12	" " " "	SE.¼ NW.¼ Sec. 5, " "	12	1941
13	" " " "	SW.¼ SW.¼ Sec. 5, " "	13	1942
14	" " " "	SW.¼ SW.¼ Sec. 4, " "	14	1942
15	" " " "	NE.¼ SE.¼ Sec. 5, " "	15	1942
16	" " " "	SE.¼ NE.¼ Sec. 5, " "	16	1943
17	" " " "	NE.¼ NE.¼ Sec. 5, " "	17	1943
18	" " " "	NW.¼ NE.¼ Sec. 5, " "	18	1943
19	" " " "	NW.¼ NW.¼ Sec. 9, " "	19	1943
20	" " " "	SW.¼ SW.¼ Sec.32, T.102N., R.49W.	20	1944
21	" " " "	NW.¼ NW.¼ Sec. 5, T.101N., R.49W.	21	
* 22	" " " "	NW.¼ NW.¼ Sec. 5, T.103N., R.49W.	H-1	1943
23	" " " "	NE.¼ NE.¼ Sec. 6, " "	H-2	1943
24	Unknown	NW.¼ NE.¼ Sec. 6, " "	Baltic	---
25	City of Sioux Falls	NW.¼ NE.¼ Sec. 6, " "	H-3	1943
26	" " " "	NE.¼ NW.¼ Sec. 6, " "	H-4	1943
27	" " " "	SW.¼ SE.¼ Sec. 8, " "	G-2	1943
28	" " " "	SW.¼ SW.¼ Sec. 9, " "	G-1	"
29	" " " "	NE.¼ NW.¼ Sec.17, " "	G-3	"
30	" " " "	NE.¼ NE.¼ Sec.18, " "	G-4	"
31	" " " "	NW.¼ SE.¼ Sec.20, " "	F-3	"
32	" " " "	NW.¼ SW.¼ Sec.21, " "	F-2	"
33	" " " "	NE.¼ SW.¼ Sec.21, " "	F-1	"
34	" " " "	NE.¼ NE.¼ Sec. 4, T.102N., R.49W.	E-1	"
35	" " " "	NW.¼ NE.¼ Sec. 4, " "	E-2	"
36	" " " "	NW.¼ NW.¼ Sec. 4, " "	E-3	"
37	" " " "	NW.¼ NE.¼ Sec. 5, " "	E-4	"
38	" " " "	SW.¼ SW.¼ Sec. 8, " "	D-4	"
39	D.A. Corbett	SE.¼ SE.¼ Sec. 9, " "	--	---
40	F.L. Berry	NE.¼ NE.¼ Sec.16, " "	--	--
41	City of Sioux Falls	NW.¼ NE.¼ Sec.16, " "	D-1	1943
42	Town of Renner	NW.¼ NW.¼ Sec.16, " "	--	--
43	City of Sioux Falls	NW.¼ NW.¼ Sec.16, " "	D-2	1943
44	" " " "	NW.¼ NE.¼ Sec.17, " "	D-3	"

* Diameter for these wells given in feet.

Altitude of ground surface (ft. above m.s.l.)	Diameter (inches)	Depth	Use	Remarks
--	20*	26	Abandoned	---
--	35*	31	"	---
1411	50*	33	Public supply	Chem. analysis available
1421	50*	38	" "	" " "
--	18*	34	Abandoned	---
--	18*	40	"	---
--	18*	40	"	---
	18*	45	Public supply	Chem. analysis available
1423	18*	45	" "	" " "
1419	20*	45	" "	" " "
1422	20*	45	" "	Temporarily out of use
1422	20*	45	" "	Chem. analysis available
1423	40*	39	" "	" " "
--	40*	35	" "	" " "
1425	40*	40	" "	" " "
1425	40*	40	" "	" " "
1425	40*	37	" "	" " "
1426	40*	39	" "	" " "
1422	26	38	" "	5 ft. bronze screen
1428	40*		" "	Put in service in 1945
			" "	Proposed well
--	6	20	Test well	See log in table
--	6	33	" "	" " " "
--			Observation	---
--	6	35	Test well	See log in table
--	6	33	" "	" " " "
1453	6	30	" "	" " " "
--	6			
--	6	40½	" "	" " " "
--	6	38	" "	" " " "
--	6	41	" "	" " " "
--	6	37	" "	" " " "
--	6	36	" "	" " " "
--	6	47	" "	" " " "
--	6	42	" "	" " " "
--	6	28	" "	Used as observation well
--	6	26½	" "	See log in table
1436	6	43	" "	" " " "
--	4	24	Domestic	Has screen at bottom
--	--	--	Domestic	Has well plunger pump
--	6	36	Test well	See log in table
1436	1¼	--	Observation well	
--	6	60	Test well	See log in table
--	6	37½	" "	" " " "

Well Number	Owner	Location	Owner's Designation	Date Completed
45	A.L. Larsen	SE.¼ NE.¼ Sec.18, T.102N., R.49W.	---	---
46	" " "	NE.¼ SE.¼ Sec.18, " "	---	---
47	Allen Nelson	SE.¼ SE.¼ Sec.18, " "	---	---
48	" "	SE.¼ SE.¼ Sec.18, " "	---	---
49	H.S. Gamble	SE.¼ SE.¼ Sec.19, " "	---	---
50	City of Sioux Falls	SE.¼ SW.¼ Sec.20, " "	C-3	1943
51	U.S.G.S.	SW.¼ SE.¼ Sec.20, " "	C-4	1944
52	City of Sioux Falls	SW.¼ SW.¼ Sec.21, " "	C-2	1943
53	" " " "	SW.¼ SE.¼ Sec.21, " "	C-1	"
54	" " " "	SW.¼ SE.¼ Sec.28, " "	B-1	"
55	" " " "	SW.¼ SW.¼ Sec.28, " "	B-2	"
56	" " " "	SE.¼ SE.¼ Sec.29, " "	B-3	"
57	Albert Knochenmus	NW.¼ NE.¼ Sec.29, " "	---	---
58	City of Sioux Falls	SW.¼ SW.¼ Sec.29, " "	B-4	1943
59	Unknown	SE.¼ SW.¼ Sec.31, " "	---	---
60	Stuebing and Meldrum	SE.¼ SW.¼ Sec.31, " "	---	---
62	City of Sioux Falls	SW.¼ SW.¼ Sec.32, " "	43A	1944
63	U.S.G.S.	SW.¼ SW.¼ Sec.32, " "	20N	"
64	U.S.G.S.	SW.¼ SW.¼ Sec.32, " "	20SE	"
65	City of Sioux Falls	SW.¼ SW.¼ Sec.32, " "	20A	"
66	" " " "	SE.¼ SW.¼ Sec.32, " "	42	1943
67	" " " "	SW.¼ SE.¼ Sec.32, " "	41	"
68	Unknown	NE.¼ NE.¼ Sec. 4, T.101N., R.49W.	---	---
69	City of Sioux Falls	NE.¼ NW.¼ Sec. 4, " "	A-1	1943
70	" " " "	SW.¼ SW.¼ Sec. 4, " "	T7	1922
71	" " " "	SW.¼ SW.¼ Sec. 4, " "	6	"
72	" " " "	NE.¼ NE.¼ Sec. 5, " "	A-2	1943
73	" " " "	NW.¼ NE.¼ Sec. 5, " "	---	"
74	" " " "	NE.¼ NW.¼ Sec. 5, " "	47	"
75	" " " "	NW.¼ NW.¼ Sec. 5, " "	46	"
75A	" " " "	NW.¼ NW.¼ Sec. 5, " "	46A	1944
76	" " " "	SW.¼ NW.¼ Sec. 5, " "	48	1943
77	" " " "	SE.¼ NW.¼ Sec. 5, " "	10	1933
78	" " " "	SE.¼ NW.¼ Sec. 5, " "	9	1933
79	" " " "	SE.¼ NE.¼ Sec. 5, " "	39	1943
80	" " " "	NE.¼ NE.¼ Sec. 5, " "	44	"
81	" " " "	SE.¼ NE.¼ Sec. 5, " "	11	1926
82	" " " "	SE.¼ NE.¼ Sec. 5, " "	38	1941
83	" " " "	NW.¼ SE.¼ Sec. 5, " "	24	1933
84	" " " "	SE.¼ NW.¼ Sec. 5, " "	11	"

Altitude of ground surface (ft. above m.s.l.)	Diameter (inches)	Depth	Use	Remarks
---	---	28	Domestic	Has plunger type pump
---	---	30	"	Dug well with sand point
---	4	80	"	Water level 25' below ground Sept., 1944
---	14	19	"	Water level 13' below ground Sept., 1944
---	---	24½	"	Water level 18' below ground Sept., 1944
1430	6	26½	Test well	See log in table Chem. analysis available
1430	1¼	50	Observation well	See discussion pump test
---	6	32	Test well	See log in table
---	6	38	" "	" " " "
1428	6	28	" "	" " " "
---	6	37	" "	" " " "
1428	6	33	Observation well	" " " "
---	30	19	Domestic	Has electric pump
---	6	27	Test well	See log in table
---	---	15	Stock well	Water level 10' below ground Oct., 1944
---	3	--	Abandoned	Well in dry pit 5' deep
1427	6	42	Observation well	See table on water levels
1420	1¼	14	Observation well	Drive point well
1425	1¼	26	" "	" " "
---	6	45½	" "	5 to 10 east of well 20
1425	6	36	" "	Also test well
1426	6	49	Test well	See log in table
1429	1¼	16	Observation well	Pump broken off
---	6	32	Test well	See log in table
1420	6	33	" "	Depth to clay in Fig. 12
1420	6	32	" "	" " " " " "
1423	6	38	Observation well	See log in table
---	6	---	" "	Located near well 18
1422	6	32	Test well	See log in table
1424	6	40	" "	" " " "
---	6	40	" "	" " " "
1422	6	42½	" "	" " " "
1423	6	40	" "	Depth to clay in Fig. 12
1423	6	42	" "	" " " " " "
1422	6	39	Observation well	
1421	6	35½	Test well	See log in table
1421	6	36	" "	Depth to clay in Fig. 12
---	6	35	Observation well	" " " " " "
1419	6	37	Test well	" " " " " "
1422	6	37	" "	" " " " " "

Well Number	Owner	Location	Owner's Desig-nation	Date Com-pleted
85	City of Sioux Falls	SE.¼ NW.¼ Sec. 5, T.101N., R.49W.	7	1933
86	" " " "	SE.¼ NW.¼ Sec. 5, " "	5	"
87	" " " "	NE.¼ SW.¼ Sec. 5, " "	3	"
88	" " " "	SW.¼ NW.¼ Sec. 5, " "	49	1943
89	" " " "	NW.¼ SW.¼ Sec. 5, " "	14	1933
90	" " " "	NE.¼ SW.¼ Sec. 5, " "	2	"
91	" " " "	NE.¼ SW.¼ Sec. 5, " "	4	"
92	" " " "	NW.¼ SE.¼ Sec. 5, " "	25	"
93	" " " "	NW.¼ SE.¼ Sec. 5, " "	19	"
94	" " " "	NE.¼ SE.¼ Sec. 5, " "	10	1926
95	" " " "	NE.¼ SE.¼ Sec. 5, " "	35	1941
96	" " " "	NE.¼ SE.¼ Sec. 5, " "	37	1941
97	" " " "	NE.¼ SE.¼ Sec. 5, " "	36	"
98	" " " "	NW.¼ SE.¼ Sec. 5, " "	13	1933
99	" " " "	SE.¼ SE.¼ Sec. 5, " "	9	1922
100	" " " "	SW.¼ SE.¼ Sec. 5, " "	10	"
101	" " " "	SW.¼ SE.¼ Sec. 5, " "	11	"
102	" " " "	SE.¼ SW.¼ Sec. 5, " "	12	"
103	" " " "	NE.¼ SW.¼ Sec. 5, " "	1	1933
104	" " " "	SW.¼ SW.¼ Sec. 5, " "	13	1922
105	" " " "	SW.¼ SW.¼ Sec. 5, " "	14	"
106	" " " "	SW.¼ SW.¼ Sec. 5, " "	15	1933
107	" " " "	NE.¼ NE.¼ Sec. 6, " "	50	1943
108	" " " "	NW.¼ NE.¼ Sec. 6, " "	A-6	"
109	" " " "	SE.¼ NE.¼ Sec. 6, " "	51	"
110	" " " "	SE.¼ SE.¼ Sec. 6, " "	17	1933
111	" " " "	SE.¼ SE.¼ Sec. 6, " "	15	1922
112	" " " "	SE.¼ SE.¼ Sec. 6, " "	16	"
113	U.S. Army	SE.¼ SE.¼ Sec. 6, " "	--	1944
114	H.P. Pathial	NW.¼ SE.¼ Sec. 7, " "	--	--
115	West Sioux Grocery	SW.¼ SE.¼ Sec. 7, " "	--	--
116	Unknown	SE.¼ SE.¼ Sec. 7, " "	--	--
117	E.M. Peterson	NE.¼ SE.¼ Sec. 8, " "	--	--
118	City of Sioux Falls	NW.¼ NW.¼ Sec. 9, " "	19A	1922
119	U.S.G.S.	NW.¼ NW.¼ Sec. 9, " "	--	1944
120	Morrell and Co.	NE.¼ NW.¼ Sec. 9, " "	Morrell well	--
121	Joe Clennon	NE.¼ NW.¼ Sec. 9, " "	--	--
122	J. Morrell and Co.	SW.¼ NE.¼ Sec. 9, " "	--	1936
123	Frank Lacey	SE.¼ SW.¼ Sec.11, " "	--	--
124	Sioux Falls Park Dept.	SE.¼ SE.¼ Sec.16, " "	Drake well	--
125	U.S.Army	SW.¼ NW.¼ Sec.17, " "	--	--
126	Lige Udell	NW.¼ SW.¼ Sec.17, " "	--	--
127	L.H. Wehlage	SW.¼ SE.¼ Sec.21, " "	--	1942
128	Mathews	NW.¼ SW.¼ Sec.27, " "	--	--
129	A.L. Blanchard	SE.¼ SE.¼ Sec.28, " "	--	--

Altitude of ground surface (ft. above m.s.l.)	Diameter (inches)	Depth	Use	Remarks
1423	6	41	Test well	Depth to clay in Fig. 12
--	6	33	" "	" " " " " "
1420	6	39	" "	" " " " " "
1421	6	35	" "	See log in table
1422	6	37	" "	Depth to clay to Fig. 12
1417	6	36	" "	" " " " " "
1422	6	41	" "	" " " " " "
1420	6	38	" "	" " " " " "
1421	6	39	" "	" " " " " "
1420	6	28	Observation well	
1420	6	36	" "	Located near well 15
1420	6	32	Test well	Depth to clay in Fig. 12
1420	6	30	" "	" " " " " "
1417	6	30	" "	" " " " " "
1419	6	28	" "	" " " " " "
1419	6	33	" "	" " " " " "
1420	6	35	" "	" " " " " "
1422	6	42	" "	" " " " " "
1420	6	42	" "	" " " " " "
1419	6	42	" "	" " " " " "
1422	6	40	" "	" " " " " "
1420	6	35	" "	" " " " " "
1421	6	38½	" "	See log in table
1421	6	33½	" "	" " " "
1421	6	40	Observation well	" " " "
1416	6	31	Test well	Depth to clay in Fig. 12
1420	6	36	" "	" " " " " "
1420	6	41	" "	" " " " " "
1418	1¼		Observation well	Drive point well
1429	6	30	Domestic	Well seldom used
--	6	29	"	Equipped with elec. pump
--	4	20	Abandoned	Well clogged at depth 6'
1419	14 & 6	13	Domestic	Drive point inside 6"
1422	6	27	Observation well	Loc. 50' W. well 19
1422	1¼	34	" "	Drive point well
1420	6	32	" "	Water levels available
--	5	10½	Unused	Well almost dry
--	8	115	Industrial	Temporarily abandoned
--	6	80-90	Abandoned	Gravel pit test well
	240 & 6	100 +	Supplies pool	Drake springs well
1418	36		Unused	Dug well, tile casing
--	5	11	Domestic	Has pitcher pump
--	6	38	Test well	Unsuccessful, no water
--	4	16½	Domestic	
--	18	13	"	Pitcher pump

Well Number	Owner	Location	Owner's Designation	Date Completed
130	Keeler's Gardens	NW.¼ SW.¼ Sec.28, T.101N., R.49W.	--	--
131	" "	NE.¼ SW.¼ Sec.28, " "	--	--
132	Unknown	NW.¼ SW.¼ Sec.28 " "	--	--
133	"	NE.¼ NW.¼ Sec.29, " "	--	--
134	E. Mussler	SE.¼ NW.¼ Sec.29, " "	--	--
135	Unknown	NW.¼ SW.¼ Sec.29, " "	--	--
136	L.R. Willard	SW.¼ SW.¼ Sec.29, " "	--	--
137	Charles Iseman	SE.¼ NW.¼ Sec.30, " "	--	1944
138	H. Metzger	SW.¼ SE.¼ Sec.30, " "	--	--
139	" "	SW.¼ SE.¼ Sec.30, " "	--	--
140	Carl Peterson	NW.¼ NE.¼ Sec.31, " "	--	--
141	" "	NW.¼ NE.¼ Sec.31, " "	--	--
142	Shupe and Newcombe	SW.¼ NE.¼ Sec.31, " "	--	--
143	Robert G. Ferris	SE.¼ SE.¼ Sec.31, " "	--	--
144	Glen Rush	SW.¼ SW.¼ Sec.32, " "	--	--
145	G.J. Gough	SW.¼ NW.¼ Sec.32, " "	--	--
146	N. Zachte	NW.¼ NW.¼ Sec.32, " "	--	1944
147	Standard Oil Co.	NW.¼ NE.¼ Sec.32, " "	--	--
148	G.A. Odegaard	NE.¼ NE.¼ Sec.32, " "	--	--
149	" " "	NE.¼ NE.¼ Sec.32, " "	--	--
150	Charles Scriver	SE.¼ NE.¼ Sec.32, " "	--	--
151	Nat Ross	SE.¼ NE.¼ Sec.32, " "	--	--
152	" "	NE.¼ SE.¼ Sec.32, " "	--	1944
153	Verne Shields	NW.¼ SW.¼ Sec.33, " "	--	--
154	Malcom Nielsen	NW.¼ NW.¼ Sec.33, " "	--	--
155	South Sioux Falls	NE.¼ NW.¼ Sec.33, " "	--	--
156	Ralph Rogers	NE.¼ NE.¼ Sec.10, T.100N., R.49W.	--	--
157	Dr. S.A. Donahoe	NW.¼ NW.¼ Sec.11, " "	--	--
158	W.C. Foster	NW.¼ NW.¼ Sec.11, " "	--	1927
159	City Sioux Falls-U.S.G.S.	SE.¼ NE.¼ Sec. 9, T.101N., R.50W.	J-3	1944
160	" " " " " " "	NE.¼ SE.¼ Sec. 9, " "	J-4	1944
161	C. St. P. & O. RR.	NW.¼ SW.¼ Sec.10, " "		--
162	J. Morrell and Co.	SW.¼ SE.¼ Sec.10, " "	1	1941
163	" " " "	SW.¼ SE.¼ Sec.10, " "	2	"
164	" " " "	SW.¼ SE.¼ Sec.10, " "	3	"
165	U.S.G.S.	NE.¼ NE.¼ Sec.12, " "	--	1944
166	John Sechser	SW.¼ SW.¼ Sec.12, " "	--	--
167	Sioux Empire Fair Co.	SE.¼ NE.¼ Sec.13, " "	--	--
168	" " " "	SE.¼ NE.¼ Sec.13, " "	--	--
169	Unknown	NW.¼ SW.¼ Sec.13, " "	--	--
170	City Sioux Falls-U.S.G.S.	SW.¼ SW.¼ Sec.13, " "	I-4	1944

Altitude of ground surface (ft. above m.s.l.)	Diameter (inches)	Depth	Use	Remarks
1418	48	15	Observation well	Abandoned by owner
--	54	16	Domestic	Well never dry
--	--	25	Abandoned	Well to be plugged
--	4	--	Domestic	
--	4	40½	"	Water level 36' below ground Sept., 1944
--	24	--	"	Shallow
--	36	16	"	Dug well
--	6	138	"	10' sand at bottom
--	4	26½	"	Fails after heavy pumping
--	36	--	Stock well	Reported deeper than 137'
--	4	30	Domestic	Fails after heavy pumping
--	--	80	Stock well	Has electric pump
--	--	30	Commercial	Serves private airport
--	24	13	Stock well	Caisson type dug well
--	--	--	Domestic	Probably ends in quartzite
--	--	--	"	Water from gravel
--	36	13½	"	Water level 12½' below floor
--	6 or 8	60	Industrial	
1414	10	16	Observation well	Unused by owner
--	1¼	12	Domestic	Drive point well
--	72	11	"	Water level 6' below floor (1944)
--	--	37	"	
--	1¼	35	"	Rock at depth 33'
--	6	160	Stock well	Depth questionable
--	6	--	Domestic	
1414	4	40	Abandoned	School destroyed by fire
--	6	280	Domestic	Deep plunger pump
--	5	169	"	Reports water from rock
--	4	268	"	Reports yield 2½ g.p.m.
1443	6	18	Test well	Loc. ¼ mile N. of Ellis
1443	6	17	" "	Loc. at Ellis, S.D.
--	16	12	Stock well	
--	4	46½	Test well	Ellis farm test
--	4	19	" "	" " "
--	16	37½	Supply well	Successful test
1425	5	15	Observation well	Loc. near road corner
--	6	265	Domestic	Water level reported 90' below ground
1415	6	14	Domestic	Used only for a few weeks
--	1¼	18	Stock well	Drive point well
--	about 36	25	" "	Dug well, wood casing
1433	6		Test well	See log in table

Well Number	Owner	Location	Owner's Desig-nation	Date Com-pleted
171	Frederickson's Station	SW.¼ SW.¼ Sec.13, T.101N., R.50W.	--	--
172	Jewell Estate	NW.¼ SE.¼ Sec.14, " "	--	1932
173	City Sioux Falls-U.S.G.S.	NW.¼ NW.¼ Sec.15, " "	J-2	1944
174	" " " " " " "	NW.¼ SW.¼ Sec.15, " "	J-1	"
175	Martin Kuehn	NE.¼ NE.¼ Sec.22, " "	--	--
176	" "	NE.¼ NE.¼ Sec.22, " "	--	--
177	City Sioux Falls-U.S.G.S.	SE.¼ NE.¼ Sec.23, " "	I-1	1944
178	" " " " " " "	NE.¼ SE.¼ Sec.23, " "	I-2	"
179	Station KSOO & KELO	NE.¼ NW.¼ Sec.24, " "	--	--
180	City Sioux Falls-U.S.G.S.	NW.¼ SW.¼ Sec.24, " "	I-3	1944
181	City Sioux Falls-U.S.G.S.	NW.¼ SE.¼ Sec.24, " "	K-1	1944
182	" " " " " " "	NW.¼ SE.¼ Sec.24, " "	K-2	"
183	" " " " " " "	SE.¼ SE.¼ Sec.24, " "	K-3	"
184	" " " " " " "	NE.¼ NW.¼ Sec.25, " "	L-2	"
185	" " " " " " "	NE.¼ NE.¼ Sec.25, " "	L-3	"
186	" " " " " " "	NW.¼ SE.¼ Sec.25, " "	L-1	"
187	John Muller	SE.¼ SW.¼ Sec.25, " "	--	--
188	Martin Johnson	NE.¼ NE.¼ Sec.36, " "	--	--
189	U.S.G.S.	SE.¼ NE.¼ Sec.26, " "	--	1944

Altitude of ground surface (ft. above m.s.l.)	Diameter (inches)	Depth	Use	Remarks
---	6	172	Domestic	Water from quartzite
--	6	150	"	Did not enter rock
1436	6	17½	Test well	See log in table
--	6		" "	" " " "
--	6	30	Domestic	Seldom used
--	24	8	Stock well	
1432	6	67	Test well	See log in table
1420	6	54	" "	" " " "
--	1¼	32	Commercial	Water level reported 28' below ground
1422	6		Test well	
1415	6	53	" "	See log in table
1413	6	38	" "	" " " "
1411	6	37½	" "	Water level 8' below ground Oct., 1944
1419	6	38	" "	See log in table
1411	6	58	" "	" " " "
1412	6	73	" "	Quartzite at depth 73'
--	---	80	Domestic	Flowed 4 to 5 g.p.m.
--	5	16	"	Water level 6.5' below ground Aug., 1944
---	3	7½	Observation well	Hand augered

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