

UNITED STATES DEPARTMENT OF THE INTERIOR

Harold L. Ickes, Secretary

GEOLOGICAL SURVEY

W. E. Wrather, Director

---

Water-Supply Paper 990

---

WATER LEVELS AND ARTESIAN PRESSURE  
IN OBSERVATION WELLS IN THE  
UNITED STATES IN 1943

PART 5. NORTHWESTERN STATES

BY

O. E. MEINZER, L. K. WENZEL  
and others

---

Prepared in cooperation with the States of  
COLORADO, IDAHO, MONTANA, OREGON, UTAH, WASHINGTON  
WYOMING, and other agencies



This copy is **PUBLIC PROPERTY** and is not  
to be removed from the official files, PRIVATE POSSESSION  
IS UNLAWFUL (R. S. Sup. Vol. 2, pp. 360, Sec. 749)

UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1946



# CONTENTS

	Page
Introduction, by O. E. Meinzer and L. K. Wenzel . . . . .	1
Significance of records of water level and artesian pressure . .	1
Annual publication of records by Geological Survey . . . . .	1
Scope of present volume . . . . .	2
Land-surface datum . . . . .	2
Network of key observation wells . . . . .	4
General summary of changes in ground-water level in 1943 in the northwestern part of the United States . . . . .	4
Acknowledgments . . . . .	5
Colorado, by S. W. Lohman . . . . .	6
Program of work . . . . .	6
Well descriptions and water-level measurements . . . . .	6
Idaho, by T. E. Eakin . . . . .	8
Program of work . . . . .	8
Fluctuations of water level . . . . .	8
Well-numbering system . . . . .	8
Water-level measurements . . . . .	9
Montana, by C. D. Bue and A. L. Greenlee . . . . .	11
Program of work . . . . .	11
Water-level measurements . . . . .	15
Oregon, by John W. Robinson . . . . .	17
Program of work . . . . .	17
Fluctuations of water level . . . . .	17
Western Oregon . . . . .	17
Eastern Oregon . . . . .	18
Well-numbering system . . . . .	19
Water-level measurements . . . . .	19
Utah, by P. E. Dennis and H. R. McDonald . . . . .	28
Program of work . . . . .	28
Fluctuations of water level . . . . .	31
Well-numbering system . . . . .	38
Well descriptions and water-level measurements . . . . .	39
Washington, by T. E. Eakin, A. M. Piper, and J. W. Robinson . . . . .	144
Scope of the water-level program in 1943 . . . . .	144
Precipitation in 1943 . . . . .	145
Summary of hydrologic features and of water-level fluctuations .	147
Ground-water provinces . . . . .	147
Areas of intensive investigation . . . . .	154
Well-numbering system . . . . .	157
Well descriptions and water-level measurements . . . . .	158
Wyoming, by A. M. Morgan . . . . .	246
Program of work . . . . .	246
Fluctuations of water level . . . . .	246
Egbert-Pine Bluffs-Carpenter area . . . . .	246
Cheyenne area . . . . .	248
Laramie area . . . . .	250
Well-numbering system . . . . .	251
Well descriptions and water-level measurements . . . . .	252

	Page
Figure 1. Outline map of the United States, showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1943. . . . .	3
2. Map of Utah showing location of ground-water areas and average change in water levels during 1943. . . . .	32
3. Graphs showing fluctuations of water level in wells near Salt Lake City and Willard, Utah, and precipitation at nearby stations of the United States Weather Bureau . .	35
4. Graphs showing fluctuations of water level in wells near Milford and Fillmore, Utah, and precipitation at nearby stations of the United States Weather Bureau. . . . .	37
5. Map of Washington showing subdivisions of the four ground-water provinces in the State and the location of the observation wells in each . . . . .	148

# WATER LEVELS AND ARTESIAN PRESSURE IN OBSERVATION WELLS IN THE UNITED STATES IN 1943

---

## Part 5. NORTHWESTERN STATES

---

### INTRODUCTION

By O. E. Meinzer and L. K. Wenzel

#### Significance of records of water level and artesian pressure

The rock formations of the earth are great natural underground reservoirs in which a part of the water derived from rain and snow is stored to supply wells and springs and to maintain the flow of streams during periods of fair weather. Water levels in wells register the stages of these natural reservoirs; they show the extent to which water supplies are depleted by drought or by heavy pumping, whether for public waterworks, irrigation, or industrial uses, and the extent to which they are replenished in seasons of abundant rainfall or melting snow. The changes in pressure recorded on flowing wells indicate depletion or replenishment of the artesian reservoirs.

#### Annual publication of records by Geological Survey

The regular publication of records of water level and artesian pressure in the United States was begun by the Geological Survey in 1935 and has continued yearly since. The records for the entire country were published in a single volume each year through 1939. Beginning with 1940 the records have been published in six volumes, covering the northeastern, southeastern, north-central, south-central, northwestern, and southwestern sections of the country. Hawaii is included in the southwestern section. (See fig. 1.) The following table gives the numbers of these reports. This series of water-supply papers is in a sense an inventory, year by year, of the ground-water supplies of such parts of the country as have been covered.

Water-supply papers on water levels and artesian pressure in  
observation wells in the United States

Year	North- eastern States	South- eastern States	North- central States	South- central States	North- western States	South- western States and Hawaii
1935	777	777	777	777	777	777
1936	817	817	817	817	817	817
1937	840	840	840	840	840	840
1938	845	845	845	845	845	845
1939	886	886	886	886	886	886
1940	906	907	908	909	910	911
1941	936	937	938	939	940	941
1942	944	945	946	947	948	949
1943	986	987	988	989	990	991

Scope of present volume

The present volume covers the northwestern States and gives records of water level and artesian pressure in about 1,050 observation wells of the Geological Survey and cooperating agencies in Colorado, Idaho, Montana, Oregon, Utah, Washington, and Wyoming. Of these wells, 35 are equipped with automatic water-stage recorders. For some wells not previously reported complete records of water level are given in this volume, including those for the years before 1943. For wells whose previous records have been published this volume gives only the current records. If a complete description of a well has been published in a previous report, only the well number or the well number and a brief identifying description are given in this report. The numbers in parentheses immediately following a well number are those of the water-supply papers in which earlier records of that well are given and the pages on which they appear. An asterisk indicates that a description of the well is given in the paper whose number is so marked. This report includes about 8,350 individual determinations of water level and artesian pressure.

Land-surface datum

Hitherto, in Geological Survey reports, the water levels and artesian pressures for some wells have been given in feet above or below the measuring points and for other wells in feet above or below sea level or above or below various assumed datum planes. It was considered inadvisable to adopt a standard procedure in expressing water levels and artesian heads until after a period of trial with datum planes of different kinds. The time has now come, however, for the adoption of a uniform practice as to

datum in making the records to be published in the annual water-level reports. It has become evident that the water levels in each well should be expressed with reference to a permanent datum plane established for that well in order to preserve the continuity of the record if the measuring point is changed. The chief objection to the use of datum planes other

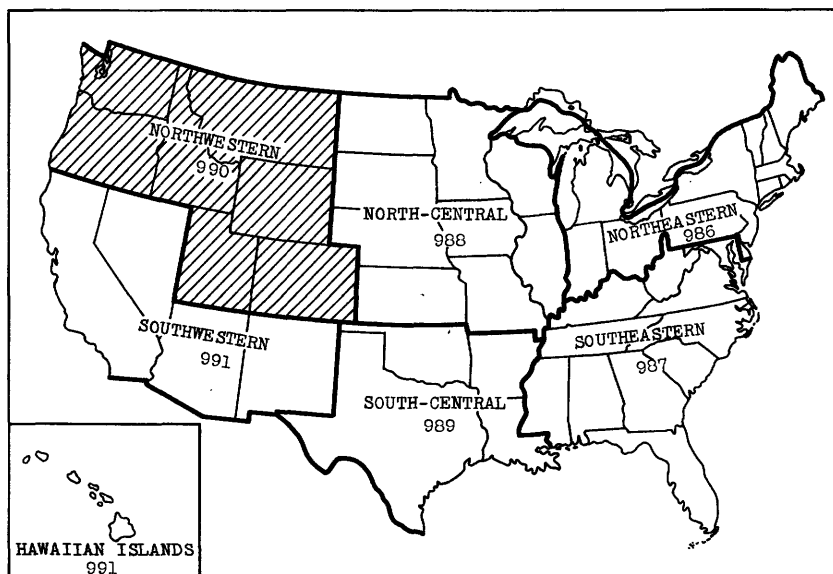


Figure 1.--Outline map of the United States, showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1943. The shaded section represents the part of the country covered by this volume.

than land surface has been that the significance of the water level with respect to the land surface is thereby concealed. It appears, however, that this objection can be overcome by using a precise datum plane that approximates the land surface.

The adoption of land-surface datum planes as the standard to be used in expressing water levels and artesian heads will not prevent the use of other datum planes for the summary tables and for maps and graphs in the annual water-level reports or in other reports. The use of the sea-level datum and the 10-foot datum planes are to be encouraged for purposes of study and interpretation, but the land-surface datum planes will be used exclusively for

publishing original records. Bench marks must be established, as heretofore, near each observation well to prevent the loss of the precise record if the measuring point or the well itself is destroyed. New data as to the positions of the measuring point and of the bench marks, in feet above or below land-surface datum plane, will be published in the appropriate annual reports.

In accordance with the above, the water levels and artesian heads for all wells listed in this report are given in reference to land-surface datum planes. If the water levels or artesian heads are referred to land-surface datum for the first time, a conversion factor is given in the descriptive matter preceding them in order to facilitate comparison of the older and newer records. Wherever the conversion factor is given in the report for 1942, it is not repeated in this report.

#### Network of key observation wells

During 1942 the Geological Survey established a network of key observation wells in order to make available current information on general ground-water conditions over the country. These wells were selected because the fluctuations of water level in them are believed to be typical, and they represent the general fluctuations that occur in the parts of the country in which the wells are situated. At the end of 1942 the network included about 130 wells in 40 States. About 40 of the wells were established expressly for the network in 1942; the other 90 were selected from wells measured regularly in connection with cooperative ground-water investigations. The coverage of the country is still far from adequate, and it is expected that some wells not now included will be added to the network from time to time.

#### General summary of changes in ground-water level in 1943 in the northwestern part of the United States

In 1943 the precipitation in Colorado, Idaho, Oregon, Washington, and Wyoming was below normal, but in Montana and Utah it was above normal. The fluctuations of both water level and artesian pressure in wells depend, however, on many factors besides the amount of precipitation. In certain of the observation wells there are fluctuations caused by differences in the rate of pumping or artesian flow from other wells in the area, but most of the observation wells are not noticeably affected by pumping or artesian flow.



## Acknowledgments

Acknowledgments for effective services in the preparation of this water-supply paper are due Misses Dorothy M. Ireland, Thelma Walls, Nauvoo Morris, and Gladys Case, Mrs. Susan H. Washburn, and Mrs. Bertha K. Dale. Miss Ireland had general charge of the assembling and typing of the several reports; Mrs. Washburn edited all of the reports; and Mrs. Bertha K. Dale prepared the illustrations.

# COLORADO

By S. W. Lohman

## PROGRAM OF WORK

The observation-well program in Colorado, begun in 1942, was continued in 1943 by the Geological Survey, United States Department of the Interior. Of the four wells reported, one--U. S. 80--was observed monthly by the owner, C. M. Ellsworth. The other wells were observed monthly, through the courtesy of Robert Follansbee, district engineer, by engineers of the Denver office of the division of surface water of the water-resources branch of the Geological Survey, two of whom, J. M. Ingles and Ross W. Moore, established bench marks at wells 79 and 81, respectively. During the year 45 wetted-tape measurements were made.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

### Arapahoe County

U. S. 81 (\*948, p. 8). Frank Hornbuckle. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 4 S., R. 68 W. Bench mark, established Dec. 29, 1943, is point on east face of garage foundation wall, 45 feet northwest of well; "BM" is chiseled above point. Measuring point is 2.45 feet above bench mark and 3.0 feet above land-surface datum.

#### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	7.63	Apr. 28	6.89	July 27	6.29	Oct. 28	7.76
Feb. 25	7.85	May 20	7.00	Aug. 26	5.83	Nov. 26	8.48
Mar. 25	7.91	June 22	6.56	Sept. 28	6.14	Dec. 29	8.69

### Garfield County

U. S. 79 (\*948, p. 8). J. F. Smith. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29, T. 7 S., R. 88 W. Two bench marks established Oct. 19, 1943: (1) Top of southwest corner of concrete collar, 33 $\frac{1}{2}$  feet west of well; (2) two nails (0.9 foot above land surface) driven in 18-inch cottonwood, second tree from well and 40 feet southwest of well. Measuring point beginning Sept. 24, 1943, edge of top rim on electric pump, 1.2 feet above platform, 5.0 feet below old measuring point, 4.11 feet below bench mark 1, 3.09 feet below bench mark 2, and 1.7 feet below land-surface datum.

#### Water level, in feet below land-surface datum, 1943

Jan. 19	36.47	Apr. 12	36.55	July 12	28.24	Oct. 19	32.21
Feb. 14	36.85	May 15	27.93	Sept. 24	a 32.81	Nov. 22	34.63
Mar. 19	36.96	June 12	30.49				

a New measuring point.

Pitkin County

U. S. 79a (\*948, p. 8). R. O. Sewell. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 8 S., R. 88 W.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 19	31.23	Apr. 12	24.70	July 12	13.61	Oct. 19	23.26
Feb. 14	31.59	May 15	16.08	Aug. 19	16.67	Nov. 22	28.19
Mar. 19	27.47	June 12	13.05	Sept. 24	23.91		

Pueblo County

U. S. 80 (\*948, p. 8). C. M. Ellsworth. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 20 S., R. 65 W.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.90	Apr. 25	10.87	July 25	9.90	Oct. 25	10.20
Feb. 25	11.05	May 28	10.45	Aug. 25	9.20	Nov. 25	11.1
Mar. 25	11.08	June 25	11.24	Sept. 26	9.95	Dec. 25	11.00

## IDAHO

By T. E. Eakin

### PROGRAM OF WORK

During 1943 water-level measurements were made in four wells in Idaho, all of them in the so-called Rathdrum Prairie area, in Bonner and Kootenai Counties. Because this area is contiguous to Spokane Valley, in Washington, the wells are observed as part of the Spokane Valley project, an investigation of ground-water conditions, mainly in the Spokane River Valley, that is being made by the Geological Survey, United States Department of the Interior, in cooperation with the Washington State Department of Conservation and Development.

In the Idaho part of the Palouse River area, most of which is also in Washington, no wells were observed in 1943.

Measurements were made by tape at approximately monthly intervals in two wells, and once during the year in one well. The float gage in the only well in which a gage has been installed was read weekly by the owner. No new observation wells were established. In all, 66 measurements were made in Idaho during the year.

### FLUCTUATIONS OF WATER LEVEL

Precipitation in the northern part of Idaho was 94 percent of normal, but in all the observation wells in the Rathdrum Prairie area water levels rose considerably. The average year-end water level for the three key wells was 4.90 feet higher in 1943 than in 1942. Apparently, a dominant factor in raising the water levels nearly 5 feet was the unusually heavy snow cover, a carry-over from the latter part of 1942, which brought about a heavy runoff in 1943.

### WELL-NUMBERING SYSTEM

The field numbers used in this report show the location of wells according to the official rectangular system for subdivision of the public land. For example, in the well number 53/4W-24D1 the part preceding the hyphen

indicates township and range, T. 53 N., R. 4 W.; the one or two digits immediately following the hyphen indicate the section; the letter following indicates the 40-acre subdivision of the section, as shown in the accompanying diagram; and the final digit indicates the serial number of the well

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

within that 40-acre tract. Thus, well 24D1 is in the NW $\frac{1}{4}$  sec. 24 and is the first well listed in that tract. Wells in Idaho are located with reference to the Boise base line and meridian.

#### WATER-LEVEL MEASUREMENTS

##### Bonner County - Rathdrum Prairie area

54/4W-27M1 (886, p. 91; \*889-B, p. 137; 910, p. 10; 940, p. 8; 948, p. 10). Erroneously listed as 54/5W-27M1 in previous reports. J. C. Natvig. Land-surface datum is 2,431.37 feet above sea level datum of 1929. Taps water in fluvioglacial gravel. Water level, in feet below land-surface datum, 1943: June 5, 240.67. Measurements discontinued.

##### Kootenai County - Rathdrum Prairie area

50/5W-1A1 (\*883-B, p. 133; 886, p. 91; 910, p. 10; 940, p. 8; 948, p. 10). Washington Water Power Co. well 96. Post Falls Irrigated District. Taps water in fluvioglacial gravel. Pump operating at time of each measurement. Land-surface datum is 2,192.90 feet above sea level datum of 1929. Measurements by Geological Survey or Washington Water Power Co.

##### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	200.28	May 4	199.00	Aug. 13	191.18	Nov.	192.90
Feb. 18	201.27	June 5	196.95	Sept. 9	190.60	Dec. 28	195.26
Apr. 2	201.95	July 6	195.64	Oct. 10	191.87		

51/5W-33D1 (886, p. 92; \*889-B, p. 135; 910, p. 10; 940, p. 9; 948, p. 11). Washington Water Power Co. well 58. Spokane International Railway Co. Taps water in fluvioglacial gravel. Land-surface datum is 2,138.14 feet above sea level datum of 1929. Measurements by Geological Survey or Washington Water Power Co.

##### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	156.48	May 4	151.12	Aug. 13	149.67	Oct. 10 a	150.36
Feb. 18	156.76	June 5	149.97	Sept. 10	149.50	Dec. 28	152.79
Apr. 2	157.21	July 6	149.51				

53/3W-15A1 (\*948, p. 11). Walter Irvin Estate. Land-surface datum is about 2,448 feet above mean sea level. Probably taps water in fluvioglacial gravel. Measurements discontinued after Aug. 12, 1942.

a Pumping.

53/4W-24D1 (886, p. 92; \*889-B, pp. 136-137; 910, p. 10; 940, p. 9; 948, p. 11). Washington Water Power Co. well 91. C. T. Jurgens. Taps water in fluvio-glacial gravel. Land-surface datum is 2,486.53 feet above sea-level datum of 1929. Except as indicated, water levels given are float-gage readings made by owner.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4 a	469.34	Mar. 15 a	469.92	May 31	464.69	Sept. 6	461.62
11	469.41	22 a	469.98	June 5	464.49	10 ab	461.66
18	469.46	29 a	469.96	7	464.21	13 a	461.69
25	469.52	Apr. 5	469.87	14	463.71	20	461.76
Feb. 1	469.58	12 a	469.51	July 12 a	462.56	Oct. 4	461.91
8	469.64	17 a	469.21	19 a	461.96	10 b	462.08
15	469.69	24	469.55	26 a	461.78	18	462.10
18 b	469.66	May 3	467.71	Aug. 2 a	461.63	25	462.21
22	469.75	10	466.59	16 a	461.58	Nov. 1	462.33
Mar. 1	469.82	17	466.07	23	461.54	Dec. 13	463.61
8	469.86	24 a	465.48	30 a	461.59	28 b	463.90

Latah County - Palouse River area

40/6-36F1 (\*845, p. 690; 886, p. 92; 910, p. 10; 940, p. 9; 948, p. 11). Latah County. Measuring point is level with land-surface datum and 18.25 feet above assumed datum previously used. Measurements discontinued after Apr. 1, 1942.

a Pumping.

b Measured by Geological Survey or Washington Water Power Co.

## MONTANA

By C. D. Bue and A. L. Greenlee

### PROGRAM OF WORK

The program of observation wells in the valley and delta area between Kalispell and the head of Flathead Lake, in Flathead County, was continued during 1943. This program was begun in 1928 by the Geological Survey under the authorization of the Federal Power Commission. Measurements were also made on one well in Prairie County and one well in Valley County to obtain information on the fluctuations of the water table in the drainage basins of the Missouri and Yellowstone Rivers in Montana. The records for the wells in Flathead County in 1942 have not previously been published. Hence, the records for both 1942 and 1943 are given in this report. In Flathead County 429 measurements were made in 1942 and 351 measurements were made in 1943. In 1943, a total of 33 measurements was made in the wells in Prairie and Valley Counties.

The purpose of the water-level measurements in Flathead County is to determine the effects of the regulation of the altitude of the water surface in Flathead Lake and Flathead River on the position of the water table in the area. This information is needed in connection with questions relating to the effects of regulation on the agriculture of the area. The results of an investigation based on the records for 1928 to 1937, inclusive, are contained in a report by Cady,<sup>1/</sup> which includes contour maps of the water table during several periods in 1933 and hydrographs showing the fluctuations of water levels in wells 19, 23, and 36 during the period 1928-37. As indicated in Cady's report, records of water levels in 40 observation wells in the 10-year period show that the ground-water levels in the vicinity of the lake and river rise and fall in response to the annual change in stage of the river and lake and that the fluctuations are largest near the river and the lake and less in the interior of the area.

---

<sup>1/</sup> Cady, R. C., Effect upon ground-water levels of proposed surface-water storage in Flathead Lake, Montana: U. S. Geol. Survey Water-Supply Paper 849-B, pp. 59-81, 1941.

Records of water levels in wells in Flathead County from 1928 through 1941 are given in Water-Supply Papers 777, 817, 840, 845, 886, 910, and 940. The measurements in Flathead County in 1942 and 1943 were made under the direction of A. H. Tuttle, district engineer, of the Geological Survey.

In the following tables are given the records of the monthly measurements made on 39 observation wells in Flathead County in 11 months in 1942 and in 9 months in 1943, together with the averages of the water levels by months and comparisons with the average water levels during corresponding months in 1941, 1942, and 1929.

Altitude of measuring points of observation wells in Flathead County, Mont., above sea level and above land-surface datum

Well No.	Ranch name and location	Altitude of measuring point		Water level on Jan. 10, 1942	
		Above sea level (feet)	Above land-surface datum (feet)	Below measuring point (feet)	Below land-surface datum (feet)
1	Beauchamp, center of south edge, SE $\frac{1}{4}$ sec. 17, T. 27 N., R. 20 W.	2,896.64	1.0	8.08	7.08
2	Oldenberg north, center of west edge, NW $\frac{1}{4}$ sec. 22, T. 27 N., R. 20 W.	2,896.06	.6	10.78	10.18
3	Oldenberg east, center of NE $\frac{1}{4}$ sec. 22, T. 27 N., R. 20 W.	2,896.60	.8	15.45	14.65
4	Oldenberg south, SW corner NW $\frac{1}{4}$ sec. 22 T. 27 N., R. 20 W.	2,895.15	1.1	10.58	9.48
5	Van Rinsum, center of west edge SE $\frac{1}{4}$ sec. 24, T. 27 N., R. 20 W.	2,896.86	.3	7.59	7.29
7	Cleary, SE corner SW $\frac{1}{4}$ sec. 13, T. 27 N., R. 21 W.	2,908.17	.1	19.69	19.59
8	Koenig, NW corner NE $\frac{1}{4}$ sec. 23, T. 27 N., R. 21 W.	2,894.82	2.2	6.33	4.13
9	Keller, center of NE $\frac{1}{4}$ sec. 19, T. 27 N., R. 20 W.	2,895.63	.7	6.71	6.01
10	Yeaw, center of NW $\frac{1}{4}$ sec. 20, T. 27 N., R. 20 W.	2,896.50	.7	8.74	8.04
11	Taylor north, NE corner NE $\frac{1}{4}$ sec. 20, T. 27 N., R. 20 W.	2,895.14	1.6	9.61	8.91
13	Conrad south, center of sec. 21, T. 27 N., R. 20 W.	2,892.96	.7	7.42	6.72
14	Rousseille, NE corner NE $\frac{1}{4}$ sec. 21, T. 27 N., R. 20 W.	2,898.36	.8	9.60	8.80
19	Manning, NW corner NW $\frac{1}{4}$ sec. 8, T. 27 N., R. 20 W.	2,891.28	.6	4.99	4.39



Altitude of measuring points of observation wells in Flathead County, Mont., above sea level and above land-surface datum

Well No.	Ranch name and location	Altitude of measuring point		Water level on Jan. 10, 1942	
		Above sea level (feet)	Above land-surface datum (feet)	Below measuring point (feet)	Below land-surface datum (feet)
20	Reed, NE. corner SW $\frac{1}{4}$ sec. 1, T. 27 N., R. 21 W.	2,892.21	0.6	4.61	4.01
21	Thompson, center of north edge of NE $\frac{1}{4}$ sec. 6, T. 27 N., R. 20 W.	2,891.98	.4	2.57	2.17
22	Lowden, center SW. corner NW $\frac{1}{4}$ sec. 32, T. 28 N., R. 20 W.	2,905.62	.7	15.55	14.85
23	Lockheart, north edge of SE $\frac{1}{4}$ sec. 34, T. 28 N., R. 21 W.	2,901.98	.4	12.45	12.05
25	Meuli, center of SE $\frac{1}{4}$ sec. 35, T. 28 N., R. 21 W.	2,905.40	.4	14.88	14.48
26	Caton, SW $\frac{1}{4}$ sec. 35, T. 28 N., R. 21 W.	2,901.95	.6	12.26	11.66
27	Weaver, SE $\frac{1}{4}$ sec. 36, T. 28 N., R. 21 W.	2,897.86	.7	7.33	6.63
28	Hancock, NE $\frac{1}{4}$ sec. 1, T. 27 N., R. 21 W.	2,904.43	1.0	14.98	13.98
29	Syverson, NW $\frac{1}{4}$ sec. 6, T. 27 N., R. 20 W.	2,895.81	2.2	6.25	4.05
30	Hodgeson School, NW. corner NW $\frac{1}{4}$ sec. 5, T. 27 N., R. 20 W.	2,905.87	1.7	17.90	16.20
31	Hartman west, center NW $\frac{1}{4}$ sec. 5, T. 27 N., R. 20 W.	2,906.68	1.0	19.02	18.02
32	Papendicks, center SE $\frac{1}{4}$ sec. 32, T. 28 N., R. 20 W.	2,899.50	.7	11.49	10.79
33	Hartman east, NE. corner NE $\frac{1}{4}$ sec. 5, T. 27 N., R. 20 W.	2,898.63	.7	13.47	12.77
34	O'Connell, center NE $\frac{1}{4}$ sec. 5, T. 27 N., R. 20 W.	2,900.40	1.2	12.88	11.68
35	Bellinger, SE $\frac{1}{4}$ sec. 5, T. 27 N., R. 20 W.	2,901.74	.6	14.93	14.33
36	Wagoner, center SE $\frac{1}{4}$ sec. 8, T. 27 N., R. 20 W.	2,903.32	.5	17.72	17.22
37	Damon, SE. corner SE $\frac{1}{4}$ sec. 8, T. 27 N., R. 20 W.	2,898.19	.2	13.55	13.35
38	Lee pipe, center SW $\frac{1}{4}$ sec. 17, T. 27 N., R. 20 W.	2,890.57	.6	5.57	4.97
39	Conrad north, center NE $\frac{1}{4}$ sec. 21, T. 27 N., R. 20 W.	2,893.16	.6	6.42	5.82
40	Taylor south, center SE $\frac{1}{4}$ sec. 20, T. 27 N., R. 20 W.	2,895.42	1.3	6.29	4.99
41	Zellar, center NE $\frac{1}{4}$ sec. 20, T. 27 N., R. 20 W.	2,897.42	.8	9991	9.11

Altitude of measuring points of observation wells in Flathead County, Mont., above sea level and above land-surface datum

Well No.	Ranch name and location	Altitude of measuring point		Water level on Jan. 10, 1942	
		Above sea level (feet)	Above land-surface datum (feet)	Below measuring point	Below land-surface datum (feet)
42	Kleinhamms, center NE $\frac{1}{4}$ sec. 19, T. 27 N., R. 20 W.	2,898.05	0.6	10.38	9.78
44	Websters, NW. corner NW $\frac{1}{4}$ sec. 19, T. 27 N., R. 20 W.	2,905.16	1.0	17.09	16.09
45	Three Corners, NE. corner NE $\frac{1}{4}$ sec. 23, T. 27 N., R. 21 W.	2,910.82	.7	22.22	21.52
46	Taylor recorder, center NW $\frac{1}{4}$ sec. 21, T. 27 N., R. 21 W.	2,896.60	...	10.47	10.47
47	Parkers recorder, NW $\frac{1}{4}$ sec. 34, T. 28 N., R. 21 W.	2,900.50	...	9.88	9.88

Average of water levels in observation wells in Flathead County, Mont., in 1942, by months, compared with average in the same months in 1929 and 1941

Month	Average, in feet above sea level 1942	Average, in feet below land-surface datum 1942	Difference from average in 1929	Difference from average in 1941
January	87.59	10.39	+1.94	+0.88
February	87.29	10.69	-.50	.....
March	87.44	10.54	-.72	+.61
April	87.45	10.53	-.60	+.67
May	87.65	10.33	-.49	+.81
June	88.14	9.84	-.24	+.93
July	88.25	9.73	-.12	+.85
August	88.14	9.84	+.55	+.73
September	88.09	9.89	.....	+.60
November	88.07	9.91	+.99	+.43
December	88.09	9.89	+1.06	+.41

Average of water levels in observation wells in Flathead County, Mont., in 1943, by months, compared with average in the same months in 1929 and 1942.

Month	Average, in feet above sea level 1943	Average, in feet below land-surface datum 1943	Difference from average in 1929	Difference from average in 1942
January	88.00	9.98	+2.35	+0.41
April	88.43	9.55	+.38	+.98
May	88.54	9.44	+.41	+.89
June	89.37	8.61	+.99	+1.23
July	89.54	8.65	+.97	+1.09
August	88.83	9.15	+1.24	+.69
September	88.71	9.28	.....	+.62
November	88.57	9.41	+1.49	+.50
December	88.39	9.58	+1.36	+.30

## WATER-LEVEL MEASUREMENTS

## Flathead County

Water level, in feet below land-surface datum, 1942

Well No.	Jan. 10	Feb. 19	Mar. 25	Apr. 28	May 29	June 26	July 28	Aug. 27	Sept. 29	Nov. 2	Dec. 2
1	7.08	7.18	6.78	6.68	6.64	6.30	6.33	6.42	6.41	6.52	6.45
2	10.18	10.04	9.94	9.84	9.91	9.78	9.68	9.75	9.61	9.49	9.36
3	14.65	14.42	14.22	13.99	13.92	13.77	13.70	14.17	14.13	13.88	13.65
4	9.48	9.31	9.16	9.02	8.97	8.85	8.75	8.90	8.77	8.65	8.53
5	7.29	7.46	6.95	6.96	6.96	6.80	6.69	6.81	6.89	6.98	6.90
7	19.59	19.60	19.03	19.18	19.21	19.20	19.20	19.18	19.20	19.21	19.20
8	4.13	3.94	3.51	3.34	3.27	3.07	3.24	3.67	3.81	3.74	3.59
9	6.01	6.16	5.76	5.72	5.62	5.33	5.18	5.22	5.34	5.53	5.55
10	8.04	8.03	7.49	7.59	7.38	7.17	7.41	7.35	7.35	7.52	7.40
11	8.01	7.91	7.54	7.44	7.33	7.07	7.02	7.27	7.36	7.35	7.27
13	6.72	6.53	5.04	5.27	5.35	5.00	6.05	6.12	5.74	5.53	5.25
14	8.80	10.33	11.15	11.45	11.06	9.71	8.29	8.00	8.22	8.48	8.76
19	4.39	3.84	2.93	3.43	3.27	2.00	3.78	4.86	4.80	4.48	4.24
20	4.01	3.92	3.75	3.77	3.71	3.53	3.70	3.90	3.81	3.73	3.64
21	2.17	2.56	2.84	3.64	3.71	3.28	2.76	2.60	2.17	2.05	2.05
22	14.85	15.53	15.90	16.19	16.12	15.57	14.84	14.68	14.64	14.66	14.70
23	12.05	15.64	16.74	13.54	9.64	9.02	9.03	9.33	10.11	10.75	11.05
25	14.48	15.28	16.10	16.59	16.35	15.50	14.72	14.26	14.08	14.13	14.28
26	11.66	11.92	12.09	12.52	12.62	12.15	11.76	11.48	11.27	11.19	11.19
27	6.63	9.28	10.41	10.50	9.25	6.67	5.45	5.32	5.91	6.41	6.87
28	13.98	14.71	14.98	15.20	15.05	14.37	13.95	13.68	13.62	13.59	13.68
29	4.05	5.80	6.47	6.36	5.37	3.71	3.01	2.90	3.27	3.53	3.84
30	16.20	16.14	16.12	16.10	16.32	16.17	16.08	16.03	15.93	15.87	15.84
31	18.02	17.96	17.88	17.78	17.88	17.78	17.76	17.77	17.74	17.69	17.67
32	10.79	10.87	9.88	9.74	9.83	9.61	9.54	9.76	9.90	9.95	10.00
33	12.77	12.58	12.11	12.03	12.01	11.85	11.83	12.27	12.28	11.99	11.78
34	11.68	11.76	11.70	11.54	11.58	11.43	11.50	11.43	11.44	11.43	11.44
35	14.33	14.23	13.73	13.71	13.86	13.77	13.77	13.98	14.10	14.06	14.00
36	17.22	17.17	17.01	16.92	16.95	16.82	16.78	16.73	16.78	16.78	16.77
37	13.35	13.27	12.84	12.71	12.73	12.65	12.65	12.75	12.77	12.70	12.63
38	4.97	4.84	4.37	4.36	4.32	4.19	4.39	4.83	4.79	4.60	4.44
39	5.82	6.27	5.99	6.20	6.10	5.63	5.55	5.79	5.57	5.48	5.40
40	4.99	4.91	4.39	4.94	4.84	2.26	1.93	2.80	3.82	4.47	4.55
41	9.11	9.20	8.91	8.79	8.71	8.41	8.24	8.28	8.37	8.43	8.45
43	9.78	9.70	9.59	9.46	9.41	9.37	9.20	9.18	9.18	9.19	9.15
44	16.09	16.04	15.33	15.45	15.52	15.53	15.47	15.63	15.69	15.63	15.58
45	21.52	21.46	21.18	21.09	21.09	21.02	20.98	21.08	21.15	21.14	21.10
46	10.47	10.39	10.17	10.10	10.04	9.86	9.71	9.65	9.60	9.61	9.56
47	9.88	10.93	11.04	11.67	11.20	9.90	9.45	9.83	10.01	9.95	9.79

Water level, in feet below land-surface datum, 1943

Well No.	Jan. 31	Apr. 4	May 20	June 23	July 19	Aug. 18	Sept. 22	Nov. 3	Dec. 8
1	6.37	5.38	5.82	10.79	6.02	6.31	6.25	6.33	6.36
2	9.19	8.72	8.37	8.32	8.26	8.41	8.53	8.38	8.30
3	13.47	13.15	12.74	12.60	12.52	12.64	12.69	12.51	12.39
4	8.31	7.72	7.31	7.21	7.20	7.56	7.69	7.52	7.37
5	6.85	6.14	6.33	6.20	a6.21	6.59	6.53	6.65	6.67
7	19.15	17.96	18.54	18.57	18.57	13.54	18.65	18.59	18.60
8	3.40	2.65	2.39	2.38	2.52	3.02	3.32	3.23	3.20
9	5.46	5.10	5.07	4.92	5.04	5.07	5.04	5.33	5.41
10	7.49	6.59	6.99	6.79	7.24	7.45	7.23	7.34	7.40
11	7.09	6.25	6.34	6.22	6.35	6.58	6.77	6.79	6.75
13	4.40	1.54	3.14	3.44	4.14	4.97	4.69	4.60	4.38
14	9.34	10.60	9.96	9.08	8.02	7.65	7.83	8.54	9.12
19	3.77	1.71	2.81	2.76	2.50	4.55	4.50	3.95	3.75
20	3.60	2.95	2.99	2.90	3.06	3.37	3.32	3.20	3.20
21	2.25	1.27	2.75	2.40	2.00	2.12	1.75	1.60	1.83
22	15.02	15.31	15.15	14.69	14.23	14.22	14.15	14.35	14.64
23	13.45	16.00	11.84	6.75	8.12	8.50	9.52	11.42	12.60

a Estimated.

## Water level, in feet below land-surface datum, 1943--Continued

Well No.	Jan. 31	Apr. 4	May 20	June 23	July 19	Aug. 18	Sept. 22	Nov. 3	Dec. 8
25	14.65	15.45	15.10	7.65	7.66	13.22	13.19	13.50 a	14.44
26	11.39	11.12	11.43	6.55	6.55	10.50	10.40	10.53	10.79
27	8.07	9.88	8.07	5.63	4.57	4.66	5.27	5.63	7.70
28	14.01	14.27	14.00	7.20	13.21	12.99	12.92	13.18	13.53
29	4.80	5.89	4.58	2.67	2.32	2.36	2.69	3.63	4.36
30	15.88	15.76	15.02	15.08	15.09	15.06	15.13	15.15	15.18
31	17.77	17.50	17.15	17.12	17.08	17.01	17.09	17.05	17.09
32	10.10	9.86	9.02	8.94	8.93	9.04	9.23	9.30	9.38
33	11.57	10.08	10.54	10.62	10.65	10.96	11.10	10.96	10.82
34	11.50	11.40	10.92	10.80	10.75	10.81	10.75	10.75	10.85
35	14.03	13.31	13.19	13.25	13.29	13.47	13.63	13.59	13.58
36	16.76	16.59	16.42	16.34	16.29	16.26	16.28	16.26	16.27
37	12.60	11.90	11.73	11.75	11.74	11.93	12.09	12.07	12.13
38	4.26	3.26	3.67	3.67	3.76	4.35	4.31	4.14	3.97
39	5.25	3.59	4.40	4.14	4.79	5.69	5.39	5.33	5.39
40	5.03	3.93	5.00	2.78	1.77	1.61	3.25	4.39	4.78
41	8.15	7.70	7.46	7.49	7.62	7.94	8.12	8.19	8.26
43	9.04	8.71	8.42	8.36	8.37	8.62	8.74	8.75	8.73
44	15.48	14.38	14.62	14.76	14.79	14.94	15.11	15.16	15.15
45	20.97	20.49	20.35	20.34	20.31	20.44	20.56	20.65	20.63
46	9.49	9.02	9.00	8.85	8.78	8.74	8.79	8.82	8.83
47	9.87	9.42	9.50	5.97	7.10	8.62	9.29	9.75	10.00

## Prairie County

133. Vernon Dickson. NW $\frac{1}{4}$  sec. 21, T. 12 N., R. 51 E. Montana prime meridian. Driven sand-point well, diameter 1 $\frac{1}{2}$  inches, depth 29 feet. Measuring point, top of casing, 0.50 foot above land surface.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
June 5	20.84	Aug. 15	20.75	Aug. 29	20.70
15	20.65	22	20.80	Sept. 5	20.65

## Valley County

132. William DeBray. SE $\frac{1}{4}$  sec. 12, T. 28 N., R. 40 E., in the city of Glasgow. Dug domestic well, 36 by 48 inches, depth 31.5 feet. Measuring point, edge of drilled hole in pump platform, 0.25 foot above land surface.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 28	21.80	July 24	20.37	Sept. 12	20.04	Nov. 12	20.77
June 5	21.87	31	20.13	18	20.06	20	20.79
12	21.70	Aug. 7	19.97	25	20.17	27	20.90
19	21.43	14	19.95	Oct. 2	20.34	Dec. 4	20.96
28	21.20	22	19.90	23	20.60	11	21.20
July 10	20.99	28	19.95	30	20.15	25	21.10
17	21.55	Sept. 4	19.96	Nov. 6	20.70		

a Pipe bent by road work but reading probably reliable; may obtain check in spring.

## OREGON

By John W. Robinson

### PROGRAM OF WORK

The cooperative observation-well program in Oregon, which covers six typical areas, was continued during 1943 by the Geological Survey, United States Department of the Interior, and the Oregon State engineer. In all, 634 measurements were made in 61 observation wells; no new observation wells were established and measurements in two were temporarily discontinued. Three float gages were in operation, but no water-level recorders.

A report on a reconnaissance investigation of ground-water conditions in Lake County, made in cooperation with the Oregon Agricultural Experiment Station, is in preparation. A canvass of the public water supplies of the principal communities in Oregon was begun during the last half of the year, and by the end of the year the work in the eastern part of the State was completed.

### FLUCTUATIONS OF WATER LEVEL

The Cascade Range divides Oregon into two parts that differ distinctly in topography and climate, and, consequently, the effect of these factors on the large ground-water bodies of the State also differs in the two parts. Because of this difference, each part is discussed separately in this report, but records of water levels in wells in both parts are listed alphabetically by counties under the common heading "Water-level measurements." For convenience, the two parts of the State are designated as western Oregon and eastern Oregon. The wells in western Oregon are in Benton, Clackamas, Lane, Linn, Marion, Multnomah, and Yamhill Counties; those in eastern Oregon are in Baker, Harney, Lake, Umatilla, and Union Counties.

#### Western Oregon

In the humid western part of Oregon water levels were measured in 17 wells in six counties, all of which are in the Willamette Valley. In 16 of the wells the water levels were measured twice--once in May, by L. C. Huff,

of the Geological Survey, and again late in December, by the writer, also of the Geological Survey. In the remaining well--No. 1N/1-34N1, or U. S. 107, at Portland--13 measurements were made during the year.

The high ground-water levels that prevailed in the Willamette Valley during late 1942 still prevailed during the early months of 1943; even by May the water levels were still above average. But they declined throughout most of the year, and only near the end was there a slight seasonal rise.

#### Eastern Oregon

The five areas in eastern Oregon in which observation wells are maintained, namely, Baker, Fort Rock, and Grande Ronde Valleys and Harney and Walla Walla Basins, are typical of the ground-water areas in this part of the State. In all these areas except Walla Walla Basin water-level measurements were made twice during the year--in May and September--by L. C. Huff.

In Baker Valley, in the four wells measured, the water levels were slightly higher, on the average, in September 1943 than in October 1942.

In Grande Ronde Valley, measurements were made in three wells. Between October 1942 and September 1943 the water level rose 2.62 feet in one well, declined 0.41 foot in another, and rose 0.10 foot in the third.

In Harney Basin, of 10 wells measured 7 showed a net rise in water level and 3 showed a decline between October 1942 and September 1943. The average net change was a rise of 0.37 foot. One well--No. 23/31-33E1--is equipped with a float gage, which was read weekly by Newton Hotchkiss, observer. The year-end water level in this well was 0.79 foot lower than its year-end level in 1942.

Wells in Walla Walla Basin were measured nine times during the year, by W. C. Mason, of the district watermaster's office. In addition, in two wells float gages were maintained, and these were read periodically by the owners, Mrs. Nadine Goodman Whipple and Walter Hermann. In the 18 wells for which records are available, the highest recorded ground-water levels of 1943 were, on the average, above the highest of 1942. In 11 wells the water levels were higher and in 7 they were lower than in 1942, the net average change being a rise of 2.25 feet. By November of 1943, following the late summer and early fall seasonal decline, some recharge had occurred in several wells in the southeast corner of T. 6 N., near the head of the alluvial fan.

## WELL-NUMBERING SYSTEM

The field numbers used in this report show the location of wells according to the official rectangular system for subdivision of the public land. The part preceding the hyphen indicates township and range; the one or two digits immediately following the hyphen indicate the section; the letter following indicates the 40-acre subdivision of the section, as shown in the accompanying diagram; and the final digit indicates the serial number of the

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

well within that 40-acre tract. Locations in Oregon are referred to the Willamette base line and meridian. If no letter appears after the township number, the township lies south of the base line; if no letter appears after the range number, the range lies east of the meridian. Thus, well 3/38-25B1 is in the NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 25. T. 3 S., R. 38 E., and is the first well listed in this tract.

## WATER-LEVEL MEASUREMENTS

Baker County - Baker Valley

7/39-20N1 (\*817, p. 239; 845, p. 405; 886, p. 617; 910, p. 19; 940, p. 16; \*948, p. 16). City of Baker. Permanent observation well. Taps shallow water in alluvium. Land-surface datum is 3,373.80 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 27, 3.20; Sept. 24, 5.95.

8/39-22F1 (\*817, p. 240; 845, p. 405; 886, p. 617; 910, p. 19; 940, p. 16; \*948, p. 16). Baker County. Permanent observation well. Taps shallow water in alluvium. Land-surface datum is 3,385.78 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 27, 3.67; Sept. 23, 4.64.

8/40-19D1 (\*817, p. 240; 845, p. 405; 886, p. 617; 910, p. 19; 940, p. 16; \*948, p. 16). Baker County. Permanent observation well. Taps shallow water in alluvium. Land-surface datum is 3,341.95 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 27, 3.27; Sept. 23, 5.75.

8/40-23A1 (\*817, p. 240; 845, p. 405; 886, p. 617; 910, p. 19; 940, p. 16; \*948, p. 16). Baker County. Permanent observation well. Taps shallow water in alluvium. Land-surface datum is 3,347.24 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 27, 3.01; Sept. 23, 4.34.

Benton County - Willamette Valley

14/5W-10R1 (\*845, p. 413; 886, p. 622; \*890, p. 182; 910, p. 25; 940, p. 17; \*948, p. 16). Designated as well 596 in earlier reports. Mrs. Thomas Harvey. Taps water in old (?) alluvium. Land-surface datum is 267.49 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 10.76; Dec. 30, 11.82.

Clackamas County - Willamette Valley

3/1-30E1 (\*845, p. 412; 886, p. 622; \*890, p. 144; 910, p. 25; \*940, p. 17; \*948, p. 16). Designated as well 100 in earlier reports. Pietro Presutti. Taps confined water in valley fill. Land-surface datum is 158.88 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 47.43; Dec. 27, 46.70.

Harney County - Harney Basin

22/31-34N1 (\*817, p. 243; \*841, p. 152; 845, p. 406; 886, p. 618; 910, p. 19; 940, p. 17; \*948, p. 16). Frank Whiting. Taps confined water in Danforth formation. Land-surface datum is 4,153.17 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, a/8.70; Sept. 22, 10.05.

23/31-3D2 (\*777, p. 151; \*817, p. 244; \*845, p. 406; 886, p. 618; 910, p. 19; 940, p. 17; 948, p. 16). Harney County. Permanent observation well. Taps shallow-water table. Land-surface datum is 4,153.12 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 3.34; Sept. 22, 6.32.

23/31-14A3 (\*777, p. 151; \*817, p. 245; 845, p. 406; 886, p. 618; 910, p. 19; 940, p. 17; \*948, p. 16). Harney County. Permanent observation well. Taps shallow-water table. Land-surface datum is 4,142.55 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 5.73; Sept. 21, 9.54.

23/31-16E1 (\*777, p. 151; \*817, p. 245; 845, p. 406; 886, p. 618; 910, p. 19; 940, p. 17; 948, p. 16). Harney County. Permanent observation well. Taps shallow-water table. Land-surface datum is 4,146.30 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 3.90; Sept. 21, 7.33.

23/31-33E1 (\*777, p. 152; \*817, p. 245; 845, p. 406; 886, p. 618; 910, p. 19; 940, p. 17; \*948, p. 16). U. S. well 109. Harney County. Permanent observation well. Taps shallow-water table. Land-surface datum is 4,134.02 feet above sea-level datum of 1929. Except as indicated, water levels given are float-gage readings by Newton Hotchkiss, observer.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	5.64	Apr. 11	2.39	July 11	1.51	Oct. 3	6.32
10	5.53	18	2.25	18	2.06	10	6.43
17	5.54	25	2.05	25	2.55	17	6.54
24	5.67	28	2.01	28	2.81	24	6.63
28	5.55	May 2	1.82	Aug. 1	3.19	28	6.67
31	5.54	9	1.78	8	3.78	31	6.70
Feb. 7	5.40	16	1.64	15	4.37	Nov. 7	6.72
14	5.46	23	1.61	22	4.85	14	6.73
21	5.06	25	b 1.63	28	5.15	21	6.75
25	4.60	28	1.82	Sept. 5	5.51	28	6.75
28	3.77	30	1.21	12	5.79	Dec. 5	6.75
Mar. 7	3.75	June 6	1.38	19	5.98	12	6.75
14	3.24	13	1.57	21	b 6.03	19	6.78
21	2.95	20	1.55	26	6.15	26	6.82
28	2.63	27	1.27	28	6.20	28	6.81
Apr. 4	2.42	July 4	1.07				

a Pump stopped just before measurement.

b Measurement by Geological Survey.



23/32-71L1 (\*777, p. 152; \*817, p. 245; \*841, p. 163; 845, p. 406; 886, p. 618; 910, p. 19; 940, p. 17; \*948, p. 17). Harney Branch Experiment Station. Taps shallow-water table. Land-surface datum is 4,135.24 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 5.79; Sept. 21, 6.48.

23/32-71L2 (\*777, p. 152; \*817, p. 246; \*841, p. 164; 845, p. 407; 886, p. 618; 910, p. 19; 940, p. 18; \*948, p. 17). Harney Branch Experiment Station. Taps confined water in deep valley fill. Land-surface datum is 4,135.24 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 3.48; Sept. 21, 6.82.

23/32-7Q3 (\*817, p. 246; 845, p. 407; 886, p. 618; 910, p. 20; 940, p. 18; \*948, p. 17). Harney Branch Experiment Station. Taps shallow-water table. Land-surface datum is 4,137.21 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 7.10; Sept. 21, 9.90.

23/32-30R1 (\*777, p. 152; \*817, p. 247; 845, p. 407; 886, p. 618; 910, p. 20; 940, p. 18; \*948, p. 17). Harney County. Permanent observation well. Taps shallow-water table. Land-surface datum is 4,130.77 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 11.72; Sept. 21, 11.87.

24/31-28B1 (\*777, p. 152; \*817, p. 247; 845, p. 407; 886, p. 619; 910, p. 20; 940, p. 18; \*948, p. 17). Harney County. Permanent observation well. Taps shallow-water table. Land-surface datum is 4,124.44 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 6.47; Sept. 21, 8.45.

24/32-24R1 (\*777, p. 152; \*817, p. 247; 845, p. 407; 886, p. 619; 910, p. 20; 940, p. 18; \*948, p. 17). Harney County. Permanent observation well. Taps shallow-water table. Land-surface datum is 4,110.11 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 25, 43.50; Sept. 21, 45.42.

#### Lake County - Fort Rock Valley

25/14-15E1 (\*777, p. 160; \*817, p. 241; \*845, p. 405; 886, p. 617; 910, p. 20; 940, p. 19; \*948, p. 17). Soil Conservation Service; formerly owned by Harry Crampton. Measuring point (3) beginning May 23, 1943, top edge of corrugated-iron well casing, on south side, flush with timber and concrete curb and level with land-surface datum, which is 55.30 feet above assumed datum used prior to 1942. Pump and inner casing removed since last measurement. Taps confined water. Water levels, in feet below land-surface datum, 1943: May 23, 48.53; Sept. 15, 48.32.

26/15-22B1 (\*777, p. 160; 817, p. 241; 845, p. 405; 886, p. 617; 910, p. 20; 940, p. 19; \*948, p. 17). Soil Conservation Service. Taps confined water. Land-surface datum is 34.66 above assumed datum used prior to 1942. Water levels, in feet below land-surface datum, 1943: May 23, 27.89; Sept. 15, 27.68.

26/21-6B1 (\*940, p. 19; \*948, p. 18). C. W. E. Jennings. Taps water table. Land-surface datum is 4,321.6 feet above preliminary sea-level datum. Water levels, in feet below land-surface datum, 1943: May 24, 15.16; Sept. 21, 14.98.

27/15-4G1 (\*777, p. 160; \*817, p. 241; 845, p. 405; 886, p. 617; 910, p. 20; 940, p. 19; \*948, p. 17). H. M. Parks. Taps confined water. Land-surface datum is 48.71 feet above assumed datum used prior to 1942. Water levels, in feet below land-surface datum, 1943: May 23, a/41.75; Sept. 15, b/44.34.

a Static level; pumping level is 3.45 feet lower, after pumping at rate of 1,100 gallons a minute for 50 minutes.

b Pumping at rate of 1,100 gallons a minute for about an hour.

27/15-4G2 (\*777, p. 160; 817, p. 241; \*845, p. 405; 886, p. 617; 910, p. 20; 940, p. 19; \*948, p. 17). H. M. Parks. Taps confined water. Land-surface datum is 49.62 feet above assumed datum used prior to 1942. Water levels, in feet below land-surface datum, 1943: May 23, 42.73; Sept. 15, 42.27.

27/17-22R2 (\*845, p. 406; \*910, p. 20; 940, p. 19; 948, p. 18). W. D. Collins. Taps water table. Land-surface datum is 34.87 feet above assumed datum used prior to 1942. Water levels, in feet below land-surface datum, 1943: May 23, 27.67; Sept. 15, 27.54.

27/18-6E2 (\*910, p. 20; 940, p. 19; \*948, p. 18). W. D. Collins. Taps water table. Land-surface datum is 100.00 feet above assumed datum prior to 1942. Water levels, in feet below land-surface datum, 1943: May 23, 23.32; Sept. 15, 23.07.

27/18-7N1 (\*845, p. 406; 886, p. 617; 910, p. 20; 940, p. 19; \*948, p. 18). M. S. Buchanan. Taps water table. Land-surface datum is 33.62 feet above assumed datum used prior to 1942. Water levels, in feet below land-surface datum, 1943: May 23, 25.69; Sept. 15, 25.71.

#### Lane County - Willamette Valley

15/4W-32M1 (\*777, p. 149; \*817, p. 259; 845, p. 413; 886, p. 623; \*890, p. 187; 910, p. 25; 940, p. 19; \*948, p. 18). Designated as well 636 in several earlier reports. Junction City. Taps water in gravel. Land-surface datum is 323.4 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 6.27; Dec. 28, 6.04.

16/3W-32G1 (\*777, p. 149; \*817, p. 259; 845, p. 413; 886, p. 623; \*890, p. 190; 910, p. 25; 940, p. 19; \*948, p. 18). Designated as well 680 in several earlier reports. Leo Sidwell. Taps water in young alluvium. Land-surface datum is 388.98 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 10.35; Dec. 29, 10.53.

#### Linn County - Willamette Valley

10/4W-12F1 (\*777, p. 147; \*817, p. 257; \*845, p. 412; 886, p. 623; \*890, p. 167; 910, p. 25; 940, p. 20; \*948, p. 18). Designated as well 421 in several earlier reports. Henry Hoefer. Taps water in gravel. Land-surface datum is 185.74 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 19.16; Dec. 28, 20.35.

11/5W-36Q1 (\*777, p. 147; \*817, p. 258; \*845, p. 412; 886, p. 623; \*890, p. 171; 910, p. 25; 940, p. 20; \*948, p. 18). Designated as well 463 in several earlier reports. Oregon Agricultural Experiment Station, East Farm. Taps water in old (?) alluvium. Land-surface datum is 218.27 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 18.72; Dec. 30, 21.

12/3W-9R1 (\*777, p. 148; \*817, p. 258; \*845, p. 413; 886, p. 623; \*890, p. 178; 910, p. 25; \*940, p. 20; \*948, p. 18). Designated as well 553 in several earlier reports. J. H. Swatzka. Taps water in old alluvium. Land-surface datum is 272.79 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 4.95; Dec. 28, 4.17.

12/2W-14B1 (\*940, p. 20; \*948, p. 18). Designated as well 568a in several earlier reports. Sigurd H. Sanstrom. Taps water in alluvium. Land-surface datum is about 346 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 8.19; Dec. 31, 6.62.

13/3W-34N1 (\*777, p. 149; \*817, p. 259; 845, p. 413; 886, p. 623; \*890, p. 182; 910, p. 25; 940, p. 20; \*948, p. 18). Designated as well 590 in several earlier reports. Keeney School District 51. Taps water in old alluvium. Measuring point (lower valve seat of pump), lowered May 21, 1943, is 2.11 feet above land-surface datum, which is 285 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 21, 3.59; Dec. 28, 2.61.

a Pump operating in well 4G1.

b Water level recovering from recent pumping.

Marion County - Willamette Valley

4/2W-4C1 (\*777, p. 145; \*817, p. 256; 845, p. 412; 886, p. 623; \*890, p. 146; 910, p. 25; 940, p. 20; \*948, p. 19). Designated as well 158 in several earlier reports. W. J. Gering. Taps water in young alluvium. Land-surface datum is 123.57 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 11.20; Dec. 27, 14.32.

4/2W-34R1 (\*777, p. 145; \*817, p. 256; \*845, p. 412; 886, p. 623; 890, p. 148; 910, p. 25; \*940, p. 20; \*948, p. 19). Designated as well 171 in several earlier reports. Johnson School. Taps water in valley fill. Land-surface datum is 172.86 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 6.42; Dec. 27, 9.82.

4/1W-2C1 (\*845, p. 412; 886, p. 623; \*890, p. 149; \*910, p. 25; 940, p. 20; \*948, p. 19). Designated as well 172 in several earlier reports. W. F. Keil. Taps water in valley fill. Land-surface datum is 186.69 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 4.15; Dec. 27, 17.85 (both slightly depressed by antecedent pumping).

5/2W-25M1 (\*845, p. 412; 886, p. 623; \*890, p. 153; 910, p. 25; 940, p. 20; \*948, p. 19). Designated as well 245 in several earlier reports. Agricultural Research Corporation (Sam H. Brown). Taps confined water in sand and gravel. Land-surface datum is 180.31 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 15.20; Dec. 27, 18.25.

6/3W-33R1 (\*777, p. 146; 817, p. 257; \*845, p. 412; 886, p. 623; \*890, p. 157; 910, p. 25; 940, p. 20; \*948, p. 19). Designated as well 297 in several earlier reports. Gideon E. Stolz. Taps water in gravel and cobbles. Land-surface datum is 133.14 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 20.64; Dec. 28, a/.

6/1-7M1 (\*777, p. 146; \*817, p. 257; \*845, p. 412; 886, p. 623; \*890, p. 159; 910, p. 25; 940, p. 20; \*948, p. 19). Designated as well 318 in several earlier reports. Fred Lucht. Location is erroneously given in Water-Supply Paper 948 as sec. 1. Taps water in gravel. Land-surface datum is 260.38 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 4.57; Dec. 27, 1.40.

Multnomah County - Willamette Valley

1N/1-34N1 (\*940, p. 20; \*948, p. 19). U. S. well 107. Weisfield & Goldberg. In Portland. Taps confined water in alluvium. Land-surface datum is 37.20 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	27.26	Mar. 17	27.70	June 1	24.54	Sept. 28	29.51
Feb. 1	27.20	31	27.49	30	24.24	Nov. 1	29.22
17	26.39	Apr. 21	25.39	Aug. 2	25.96	29	29.35
Mar. 1	26.99	30	25.33	Sept. 1	27.87		

Umatilla County - Walla Walla Basin

5N/35-1C1 (\*777, p. 159; \*817, p. 255; 840, p. 346; 845, p. 411; 886, p. 619; 910, p. 21; 940, p. 21; \*948, p. 19). John Clark. Taps water table. Land-surface datum is 995.60 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Jan. 14	25.49	Apr. 15	19.84	June 5	19.41	Sept. 24	27.22
Feb. 28	22.45	May 10	18.82	24	22.36	Nov. 1	24.07
Mar. 19	25.07						

a Inaccessible.

5N/35-2C1 (\*777, p. 159; \*817, p. 256; 840, p. 346; 845, p. 411; 886, p. 619; 910, p. 21; 940, p. 21; 948, p. 20). E. J. McSherry. Taps water table. Land-surface datum is 975.82 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	18.35	Apr. 15	18.86	June 5	17.13	Sept. 22	15.72
Feb. 18	22.35	May 10	17.40	24	13.68	Nov. 1	17.73
Mar. 19	18.56						

5N/35-3H1 (\*777, p. 160; \*817, p. 256; 840, p. 346; \*845, p. 412; 886, p. 619; 910, p. 21; 940, p. 21; 948, p. 20). J. M. Morse Estate. Taps water table. Land-surface datum is 958.20 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	33.05	Apr. 15	36.06	June 5	21.33	Sept. 22	17.13
Feb. 28	35.36	May 10	33.58	24	21.05	Nov. 1	31.14
Mar. 19	36.00						

6N/34-13R1 (\*777, p. 155; \*817, p. 251; 840, p. 343; 845, p. 408; 886, p. 619; 910, p. 21; 940, p. 21; 948, p. 20). M. O. Beauchamp. Taps water table. Land-surface datum is 646.87 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	7.08	Apr. 15	7.69	June 5	5.13	Sept. 22	6.29
Feb. 20	7.55	May 10	6.46	24	5.73	Nov. 3	7.24
Mar. 19	8.02						

6N/35-14L1 (\*777, p. 155; \*817, p. 251; 840, p. 343; 845, p. 408; 886, p. 620; 910, p. 22; 940, p. 21; 948, p. 20). Conrad Miller. Taps water table. Land-surface datum is 789.76 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	8.08	Apr. 15	10.11	June 2	9.27	Sept. 24	7.87
Feb. 18	8.84	May 10	9.64	24	8.50	Nov. 1	8.17
Mar. 19	9.73						

6N/35-20G1 (\*777, p. 156; \*817, p. 251; 840, p. 343; 845, p. 408; 886, p. 620; 910, p. 22; 940, p. 22; 948, p. 20). Herman Markman. Taps water table. Land-surface datum is 736.32 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	3.48	Apr. 15	5.60	June 5	2.87	Sept. 22	7.36
Feb. 19	5.03	May 10	3.65	24	2.30	Nov. 1	6.28
Mar. 19	6.20						

6N/35-20Q1 (\*777, p. 166; \*817, p. 251; 840, p. 343; 845, p. 408; 886, p. 620; 910, p. 22; 940, p. 22; 948, p. 21). Mr. Jackson. Taps water table. Land-surface datum is 762.89 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	32.28	Apr. 15	33.42	June 5	28.71	Sept. 22	33.56
Feb. 19	31.22	May 10	29.80	24	26.71	Nov. 1	32.67
Mar. 19	(b)						

6N/35-21H1 (\*777, p. 156; \*817, p. 252; 840, p. 343; 845, p. 408; 886, p. 620; 910, p. 22; 940, p. 22; 948, p. 21). Mr. Behnke. Taps water table. Well drilled in bottom of dug well; pumping plant installed. Land-surface datum is 784.62 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	17.14	Apr. 15	19.38	June 2	17.77	Sept. 24	a 24.76
Feb. 19	22.49	May 10	17.59	22	16.91	Nov. 1	c 24.00
Mar. 19	20.02						

a Pumping.

b Dry.

c Water from dug part of well running down drill hole.

6N/35-24C1 (\*777, p. 156; \*817, p. 252; 840, p. 343; \*845, p. 409; 886, p. 620; 910, p. 22; 940, p. 22; \*948, p. 21). William Pomeroy. Taps water table. Land-surface datum is 851.04 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	29.49	Apr. 15	29.83	June 2	29.50	Sept. 22	29.44
Feb. 18	29.85	May 10	29.82	24	28.49	Nov. 1	29.02
Mar. 19	29.55						

6N/35-24Q1 (\*777, p. 156; \*817, p. 252; 840, p. 344; 845, p. 409; 886, p. 620; 910, p. 22; 940, p. 22; \*948, p. 21). C. B. Miller. Taps water table. Land-surface datum is 862.20 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	9.96	Apr. 15	9.42	June 5	9.45	Sept. 22	14.62
Feb. 18	10.37	May 10	9.63	24	9.67	Nov. 1	14.47
Mar. 19	10.47						

6N/35-26C2 (\*777, p. 157; \*817, p. 252; 840, p. 344; \*845, p. 409; 886, p. 620; 910, p. 22; 940, p. 22; \*948, p. 21). Boerstler Estate. Taps water table. Land-surface datum, is 867.12 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	18.82	Apr. 15	21.04	June 2	12.10	Sept. 25	17.45
Feb. 18	19.44	May 10	17.69	24	9.90	Nov. 1	18.70
Mar. 19	20.24						

6N/35-26P1 (\*777, p. 157; \*817, p. 252; 840, p. 344; 845, p. 409; 886, p. 621; 910, p. 23; 940, p. 23; \*948, p. 21). O. K. Goodman Estate. Taps water table. Land-surface datum is 906.07 feet above sea-level datum of 1929. Except as indicated, water levels given are float-gage readings by Mrs. Nadine Goodman Whipple.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	39.99	Apr. 4	(a)	July 10	22.48	Oct. 10	31.98
4	40.58	10	42.07	16	28.08	14	32.44
10	40.40	15	b 42.08	20	30.78	20	35.43
16	40.54	20	41.01	24	31.28	24	38.79
20	32.96	26	39.60	30	32.96	30	41.30
26	26.02	30	37.68	Aug. 4	34.71	Nov. 4	41.42
30	32.77	May 6	36.37	10	34.81	10	41.37
Feb. 4	40.77	10	b 35.27	16	35.80	14	41.35
10	42.09	14	35.14	20	36.28	20	(a)
12	(a)	20	35.06	26	35.55	24	(a)
18	(a)	26	28.88	30	35.57	30	(a)
26	40.94	30	24.85	Sept. 6	33.06	Dec. 4	(a)
Mar. 6	42.02	June 5	b 22.56	10	33.34	10	(a)
10	42.09	12	16.98	16	35.21	14	(a)
16	(a)	20	19.18	20	34.62	20	(a)
20	(a)	26	22.33	24	b 34.34	24	39.02
24	(a)	30	21.30	30	33.72	30	(a)
30	(a)	July 6	20.13	Oct. 4	33.57		

6N/35-28H1 (\*777, p. 157; \*817, p. 253; 840, p. 345; \*845, p. 410; 886, p. 621; 910, p. 23; 940, p. 23; \*948, p. 22). W. J. Rand. Taps water table. Land-surface datum is 829.06 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	11.52	Apr. 22	11.70	June 2	9.87	Sept. 24	10.70
Feb. 19	11.49	May 10	10.48	24	9.35	Nov. 1	9.70
Mar. 19	12.27						

a Dry.

b Tape measurement by W. C. Mason, watermaster, district 5.

6N/35-28N1 (\*777, p. 157; \*817, p. 254; 840, p. 345; 845, p. 410; 886, p. 621; 910, p. 23; 940, p. 23; \*948, p. 22). Lottie McKnight. Taps water table. Land-surface datum is 817.01 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	20.45	Apr. 15	19.65	June 5	12.05	Sept. 22	17.63
Feb. 19	25.43	May 10	13.67	24	6.91	Nov. 1	10.98
Mar. 19	23.42						

6N/35-30M1 (\*777, p. 158; \*817, p. 254; 840, p. 345; 845, p. 410; \*886, p. 621; 910, p. 24; 940, p. 23; 948, p. 22). S. E. Givens. Taps water table. Land-surface datum is 687.21 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	14.42	Apr. 15	24.14	June 5	15.01	Sept. 22	24.86
Feb. 20	23.41	May 10	20.96	24	11.16	Nov. 3	20.26
Mar. 19	25.33						

6N/35-34C1 (\*777, p. 158; \*817, p. 254; 840, p. 345; 845, p. 410; 886, p. 622; 910, p. 24; 940, p. 24; 948, p. 22). Alpha Reese. Taps water table. Land-surface datum is 881.55 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	47.11	Apr. 15	48.83	June 5	26.50	Sept. 22	35.23
Feb. 19	47.06	May 10	39.97	24	16.72	Nov. 1	27.39
Mar. 19	47.99						

6N/35-36C1 (\*777, p. 158; \*817, p. 254; 840, p. 345; 845, p. 410; 886, p. 622; 910, p. 24; 940, p. 24; 948, p. 22). Mr. Redfern. Taps water table. Land-surface datum is 925.95 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	20.76	Apr. 15	12.63	June 2	13.03	Sept. 24	35.78
Feb. 19	17.67	May 10	11.41	25	16.22	Nov. 1	20.15
Mar. 19	25.24						

6N/35-36H1 (\*777, p. 159; \*817, p. 255; 840, p. 345; 845, p. 411; 886, p. 622; 910, p. 24; 940, p. 24; 948, p. 22). U. S. well 108. Walter Hermann. Taps water table. Land-surface datum is 929.75 feet above sea-level datum. Except as indicated, water levels given are float-gage readings by owner.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	23.3	Apr. 7	16.49	June 28	11.37	Sept. 29	27.06
8	21.24	15	a 14.83	July 3	12.32	Oct. 4	26.72
14	a 19.89	22	14.05	7	13.6	7	27.11
22	21.58	28	13.78	14	17.98	14	27.42
28	24.48	4	13.14	18	19.24	22	29.01
Feb. 2	26.05	6	12.79	22	20.27	28	29.10
7	28.19	10	a 12.27	28	22.07	Nov. 1	a 27.20
9	29.32	16	12.19	Aug. 5	23.95	6	29.25
18	a 30.46	24	12.51	10	24.60	15	29.39
26	23.12	29	11.51	18	25.53	20	30.71
Mar. 4	21.23	June 2	10.61	28	26.46	28	32.67
8	21.72	5	a 9.98	Sept. 4	24.97	Dec. 4	33.96
14	23.6	10	9.43	10	25.30	14	34.71
19	a 25.04	16	8.61	16	25.12	22	34.52
27	26.21	24	a 10.53	22	a 27.22	29	35.85
Apr. 1	20.15						

a Tape measurement by W. C. Mason, watermaster, district 5.

Union County - Grande Ronde Valley

1/39-17L1 (\*910, p. 21; 940, p. 24; \*948, p. 23). A. F. Furman. Taps water table. Land-surface datum is about 2,735 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 28, 23.35; Sept. 24, 22.93.

2/39-26F1 (\*817, p. 242; 845, p. 406; 886, p. 617; 910, p. 21; 940, p. 24; \*948, p. 23). Union County. Taps water table. Land-surface datum is about 2,694 feet above sea-level datum of 1929. Well caved, May 28; measurements temporarily discontinued.

3/38-10B1 (\*817, p. 242; 845, p. 406; 886, p. 617; 910, p. 21; 940, p. 24; \*948, p. 23). Union County. Taps water table. Land-surface datum is 2,727.88 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 28, 6.39; Sept. 24, 7.00.

3/38-25B1 (\*817, p. 242; 845, p. 406; 886, p. 617; 910, p. 21; 940, p. 24; \*948, p. 23). Union County. Taps water table. Land-surface datum is 2,706.83 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 28, 7.03; Sept. 24, 8.67.

Yamhill County - Willamette Valley

5/5W-13B1 (\*777, p. 146; \*817, p. 257; 845, p. 412; 886, p. 623; \*890, p. 150; 940, p. 25; \*948, p. 23). Designated as well 196 in several earlier reports. George Fuller. Taps confined water in gravel and sand. Land-surface datum is 151.09 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 20, 12.85.

## UTAH

By P. E. Dennis and H. R. McDonald

### PROGRAM OF WORK

A systematic investigation of the ground-water resources of Utah by the Geological Survey, United States Department of the Interior, in cooperation with the State engineer of Utah, has been in progress since 1935. It includes a State-wide program of observations of water-level fluctuations based on periodic measurements of selected wells with steel tapes and on charts of automatic water-stage and pressure recorders. The data thus collected are tabulated and summarized for publication in the annual volume on water levels and artesian pressure in observation wells in the north-western States, issued by the Geological Survey as a water-supply paper. As time and facilities permit, detailed investigations of individual ground-water areas are made to determine the source, movement, and disposal of the ground water and to show the relation of present development to the maximum economic development that is possible in those areas. During a detailed investigation the number of observation wells and the frequency of measurements are commonly increased in the area under consideration, with the result that the section of the annual volume dealing with that area is greatly expanded. Like the data on water levels and artesian pressure, the results of these detailed investigations, also, are published by the Geological Survey as water-supply papers. During 1943 comprehensive studies were in progress in the Flowell area in Millard County, in the Escalante Valley in Beaver, Iron, Millard, and Washington Counties, and in the East Shore area in Weber and Davis Counties.

Activities resulting from the war called for large additions to existing water supplies in Utah, and the drilling of wells to meet these needs, which began in 1942, continued in 1943. The records and other information on ground-water supplies available in the offices of the Federal Geological Survey and the State engineer aided materially in this work. About 37 reports on the problems of ground-water supply for war agencies and industries were made by the Geological Survey during the year.



All measurements made in observation wells of the State-wide cooperative program are published in this report, whether made by the Federal Geological Survey or by some other agency. They include some made in Utah County by the staff of the State engineer, others made in Salt Lake County by the Salt Lake City Corporation or obtained by means of automatic water-level recorders maintained by that corporation, and still others made in Wasatch and Summit Counties by the Provo River Water Commissioner and the Bureau of Reclamation, United States Department of the Interior. Measurements made by these agencies in wells other than those measured also by the Geological Survey are not included in this report.

In all, 820 wells were included in the State-wide program during 1943, and 5,245 periodic measurements were made in them. Of the total number of wells, 19 were equipped with automatic water-level recorders and 9 with pressure recorders either throughout the year or until late in the year. In addition, water-level recorders were maintained on 11 other wells for parts of the year.

Investigations were made by the State engineer in 1933 and 1939 to determine the quantity of water withdrawn from each of the principal ground-water areas in the State and the use made of this water. A summary of his findings was published in an earlier report. (See Water-Supply Paper 910, pp. 29-30.) Withdrawals in 1943 from the wells measured in 1938 and 1939 were probably about the same as the withdrawals in each of these two earlier years. In addition, between 20,000 and 40,000 acre-feet of water was pumped from new wells. Thus the total withdrawal from wells in Utah during 1943 may have been as much as 250,000 acre-feet.

The following table shows, by counties and areas within counties, the number of observation wells in Utah in 1943, the number in which measurements were discontinued during the year, the number of automatic water-level and pressure recorders in use, and the number of periodic measurements included in this report.

Distribution, by counties, of observation wells in Utah in 1943

County	Number of observa- tion wells		Number of periodic measure- ments	Wells with recording gages		
	During 1943	Discontinued during year		Throughout year Float	Pressure	Part of year
Beaver						
Beaver Valley	8	1	27	0	0	0
Escalante Valley	81	58	528	2	0	1
Box Elder	39	0	126	1	0	0
Cache	19	6	83	0	1	0
Davis	24	0	154	0	2	0
Duchesne	29	1	45	0	0	1
Garfield	10	0	19	0	0	0
Grand	3	0	5	0	0	0
Iron						
Cedar City Valley	32	1	127	1	0	0
Escalante Valley	98	55	156	0	0	0
Parowan Valley	22	2	50	0	0	1
Juab						
Juab Valley	10	0	20	0	0	0
Snake Valley	8	1	5	0	0	0
Millard						
Escalante Valley	6	2	6	0	0	0
Pavant Valley	65	1	881	2	1	3
Sevier Desert	30	1	227	0	0	0
Snake Valley	8	0	8	0	0	0
Morgan	13	0	35	0	0	0
Piute	5	1	8	0	0	0
Rich	21	0	21	0	0	0
Salt Lake	39	2	594	3	2	1
San Juan	4	1	50	0	0	0
Sanpete	30	1	151	0	1	0
Sevier	16	2	51	0	1	0
Summit	13	2	72	0	0	0
Tooele						
Rush Valley	11	2	20	0	0	0
Salt Lake Desert	2	0	0	0	0	0
Tooele Valley	37	1	224	3	0	0
Uintah	10	1	14	0	0	0
Utah						
Cedar Valley	3	1	5	0	0	0
Goshen Valley	3	0	6	0	0	0
Utah Lake Valley	44	5	865	1	1	1
Wasatch	7	1	191	3	0	0
Washington						
Escalante Valley	6	6	8	0	0	0
Virgin River area	2	0	2	0	0	0
Wayne	3	0	2	0	0	0
Weber						
East Shore area	49	11	347	1	0	3
Ogden Valley	10	2	112	2	0	0
	820	168	5,245	19	9	11

## FLUCTUATIONS OF WATER LEVEL

Utah lies within 3 ground-water provinces as outlined by Meinzer,<sup>1/</sup> who in 1934 divided the United States into 21 such provinces. The three that include parts of Utah are the Southwestern Bolson, the Montana-Arizona Plateau, and the Northern Rocky Mountain provinces, which are approximately coextensive with the Utah portions of the Basin and Range, Colorado Plateau,<sup>2/</sup> and Middle Rocky Mountain physiographic provinces as outlined by Fenneman.<sup>3/</sup> The characteristics peculiar to each of these ground-water provinces have been described in an earlier report.<sup>3/</sup> In the following table the ground-water areas in the State are grouped according to ground-water provinces and are listed approximately in their order from south to north within the provinces. For each area a group of representative observation wells has been selected and net changes in water levels in the group computed for each year since 1935. The same wells are used each year, and the computations are based on measurements made at the same time in each year. December measurements are used for most areas because in most areas they represent the highest water levels attained during the year and are the least likely to be influenced by discharging wells. The tabulated net rise or decline of water level is the mathematical average of the changes in water level in the selected wells making up a group and may be considerably different from the changes in water level in individual wells in any given part of the area. Therefore the figures are intended to show only the general trend of water levels from year to year in each area.

The location of the ground-water areas in relation to the ground-water provinces is shown in figure 2, which also shows the approximate change in water level in each area during the year. The numbers in parentheses following the names of the ground-water areas in the table correspond to numbers on the map indicating the areas.

Water levels declined over most of the State during 1943. Of the 45 ground-water areas listed, 30 showed a net decline in water level for the year, 2 remained practically unchanged, and 13 showed a net rise.

<sup>1/</sup>Meinzer, O. E., The occurrence of ground water in the United States: U. S. Geol. Survey Water-Supply Paper 489, pp. 309-314, 1923.

<sup>2/</sup>Fenneman, N. M., Physical divisions of the United States: U. S. Geol. Survey map, 1:7,000,000, 1930.

<sup>3/</sup>Thomas, H. E., and Bach, W. K., Utah, in Water levels and artesian pressure in observation wells in the United States in 1940, pt. 5, Northwestern States: U. S. Geol. Survey Water-Supply Paper 910, p. 35, 1941.

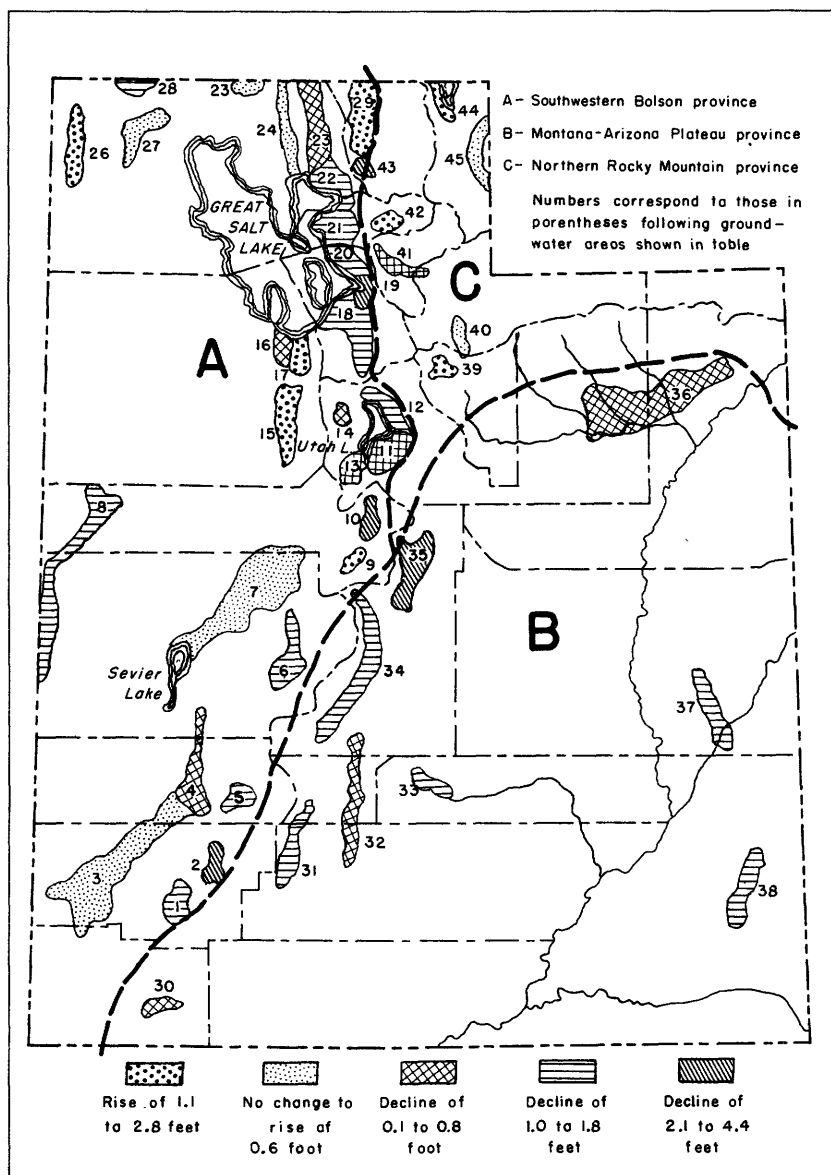


Figure 2.--Map of Utah showing location of ground-water areas and average change in water levels during 1943.

(See fig. 2.) Declines were most widespread in the plateau province, where every one of the 9 areas showed a net decline. In contrast to the rest of the State, most of the small areas of the mountain province showed a rise in water levels over 1942. In the economically important bolson province there was a net decline in all the ground-water areas except two--Cache Valley and Erda Basin.

Summary for 1943 of net changes in water level, in feet, in observation wells in Utah and precipitation, in inches, during the year

Ground-water area	No. of observation wells	Average net change in group of observation wells	Precipitation at nearest U. S. Weather Bureau station		
			Station	Total precipitation	Departure from normal
SOUTHWESTERN BOLSON PROVINCE					
Iron County:					
Cedar City Valley (1)	30	-1.3	Cedar City	10.73	-2.45
Parowan Valley (2)	12	-4.4	Parowan	10.02	-2.87
Escalante Valley (3)	21	0	Modena	13.13	+3.04
Beaver County:					
Escalante Valley (4)	13	-.8	Milford	8.26	-.34
Beaver Valley (5)	4	-1.8			
Millard County:					
Pavant Valley (6)	11	-1.7	Fillmore	10.94	-3.36
Sevier Desert (7)	11	+2	Deseret	5.49	-2.67
Millard and Juab Counties:					
Snake Valley (8)	13	-1.8			
Juab County:					
Chicken Creek Valley (9)	3	+2.4	Levan	12.42	-2.40
Juab Valley (10)	6	-3.0	Nephi	14.30	
Utah County:					
Utah Lake Valley					
South Utah Basin a/ (11)	8	-.4	Payson	15.52	-.80
North Utah Basin a/ (12)	11	-1.5	Utah Lake(Lehi)	9.46	-3.61
Goshen Valley (13)	3	-.3	Elberta	10.55	+0.03
Cedar Valley (14)	2	-.5			
Tooele County:					
Rush Valley (15)	5	+1.1	Government Creek	10.93	-2.22
Tooele Valley	12	+4	Tooele	12.14	-4.84
Grantsville Basin a/ (16)	5	-.2			
Erda Basin a/ (17)	3	+2.8			
Salt Lake County:					
Jordan Valley (18)	30	-1.2	Salt Lake City	12.81	-3.32
Davis County:					
East Shore area	14	-2.3	Farmington	15.83	-4.62
South Davis Basin a/ (19)	8	-3.5			
North Davis Basin a/ (20)	6	-1.0	Farmington	15.83	-4.62
Weber County:					
East Shore area (21)	18	-1.8	Ogden	15.64	-1.93
Box Elder County:					
East Shore area (22)	7	-1.4	Corinne	12.72	-.91
Lower Bear River Valley(23)	7	-.5	Plymouth airport	15.08	
West Box Elder area					
Blue Spring Valley (24)	2	+1			
Curlew Valley (25)	2	0	Snowville	10.99	+3.30
Grouse Creek Valley (26)	1	+1.1			
Park Valley (27)	5	+3	Park Valley	7.20	-3.21
Raft River Valley (28)	3	-1.0	Standrod		

a This unit has been defined and tentatively outlined by the State engineer, pending further detailed study of the ground-water areas. See Humpherys, T. H., 22d Biennial Report of the State engineer of Utah, pp. 122-127, 1940.

Summary for 1943 of net changes in water level, in feet, in observation wells in Utah and precipitation, in inches, during the year--Continued

Ground-water area	No. of observation wells	Average net change in group of observation wells	Precipitation at nearest U. S. Weather Bureau station		
			Station	Total precipitation	Departure from normal
SOUTHWESTERN BOLSON PROVINCE--CONTINUED					
Cache County: Cache Valley (29)	12	+1.7	Logan	18.12	+1.59
MONTANA-ARIZONA PLATEAU PROVINCE					
Washington County: Virgin River area (30)	2	-.4	Zion Nat'l Park	17.41	+3.84
Garfield and Piute Counties: Upper Sevier Valley (31)	9	-1.4	Panguitch	9.28	-.25
Piute and Sevier Counties: Grass Valley (32)	5	-.4			
Wayne County: Fremont Valley (33)	3	-1.5	Loa	7.78	+ .43
Sevier and Sanpete Counties: Central Sevier Valley (34)	14	-1.8	Richfield	7.24	-1.12
Sanpete County: Sanpete Valley (35)	15	-2.9	Manti	12.86	+ .65
Duchesne and Uintah Counties: Uinta Basin (36)	13	-.1	Duchesne	9.33	-.16
Grand County: Colorado River area (37)	3	-1.0	Moab	8.55	-1.10
San Juan County: San Juan River area (38)	4	-1.1	Blanding	9.70	-5.15
NORTHERN ROCKY MOUNTAIN PROVINCE					
Wasatch County: Heber Valley (39)	5	+1.4	Heber	16.00	-.75
Summit County: Rhodes Valley (40)	10	+ .5			
Morgan County: Morgan Valley (41)	10	-.3	Morgan	14.46	-5.15
Weber County: Ogden Valley (42)	7	+1.7			
Box Elder County: Mantua Valley (43)	2	-2.1			
Rich County: Bear Lake Valley (44)	12	+1.7	Laketown	9.85	-3.25
Upper Bear River Valley (45)	7	+ .6	Woodruff	7.42	-2.32

As noted by Thomas in an earlier volume <sup>4/</sup> the ground-water areas in Utah are small, and the distance between the recharge area and the principal areas of ground-water development or of natural discharge is ordinarily only a few miles. Therefore the changes of water level during any year might be expected to correlate more or less closely with the precipitation and runoff during the same year, provided the natural regimen has not been profoundly disturbed by excessive ground-water development. Such

<sup>4/</sup> Op. cit., pp. 30-31.

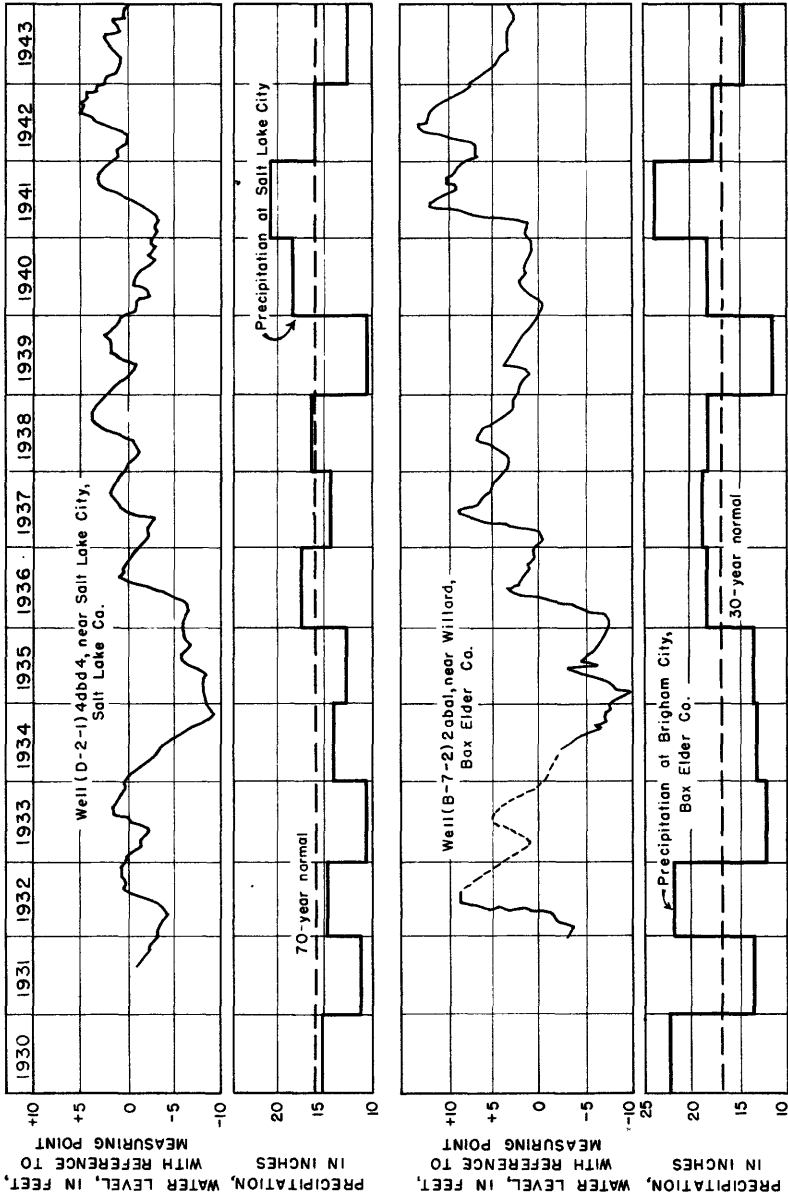


Figure 3.--Graphs showing fluctuations of water level in wells near Salt Lake City and Willard, Utah, and precipitation at nearby stations of the United States Weather Bureau.

correlation is strikingly shown in the graphs which make up figures 3 and 4. The wells chosen for illustration in these graphs are representative, in the general types of water-level fluctuations that they exhibit, of wells in the economically important ground-water basins along the Wasatch front. An analysis of the annual fluctuations in these and other wells appears in the Utah section of the annual water-level report for each of several years and will not be repeated here. It seems desirable, however, to point out the significance of the long period fluctuations in these wells, for which records of 11 to 14 years are available. It will be noted that there has been no continuous decline or rise of water levels in any of the wells. Instead they have gone up and down, above or below a median line, in much the same manner as the precipitation curves go above and below the normal line. There is also a general correspondence in all four wells of periods of high water levels and periods of low water levels. These fluctuations are of the type one would expect if the regimen had not been profoundly disturbed by excessive ground-water development. At Milford and Flowell the observation wells are located within the zone of influence of discharging wells that begin their discharge before the end of the period of spring recharge, and the crest of the seasonal rise occurs in March instead of in June or July, as it does in the Salt Lake and Willard wells. Nevertheless the recharge appears to balance the discharge, both natural and artificial, in all four wells, for the water levels completely recover following years of normal or above-normal precipitation. The highest water levels attained during the last three years are as high as those attained in earlier years, in spite of the fact that the amount of water withdrawn from wells in these areas was considerably greater in the later years than in the earlier years. An examination of the published water levels for the many observation wells in all parts of the State shows that the hydrographs in figures 3 and 4 are exceptional only because of the length and completeness of the records they represent and that fluctuations in other wells bear out the conclusions that may be drawn from these graphs. Thus it appears that the control of ground-water development, placed in the hands of the State engineer, has been effective in preventing overdevelopment in all areas in the State, serious declines in water levels having been noted in only a few restricted areas in which wells drilled prior to 1935 are so closely spaced that they seriously interfere with one another.



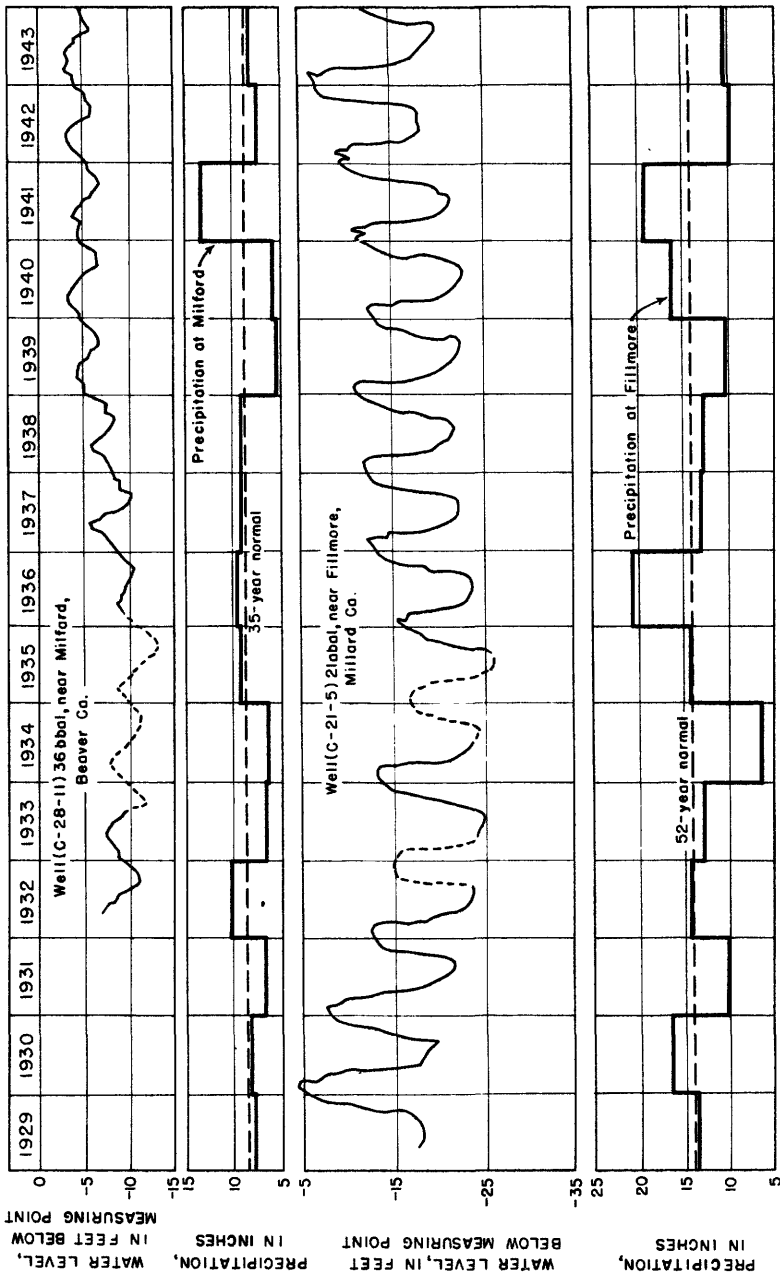


Figure 4.--Graphs showing fluctuations of water level in wells near Milford and Fillmore, Utah, and precipitation at nearby stations of the United States Weather Bureau.

The problem of post-war expansion in agriculture, industry, and commerce is paramount at the present time, and in Utah the first prerequisite to any type of expansion is a source of adequate water supply. The fact that additional supplies of water may be obtained from many of the ground-water reservoirs in the State is apt to be recognized in this peacetime conversion program and a limited expansion in ground-water utilization permitted under the guidance and supervision of the State engineer.

#### WELL-NUMBERING SYSTEM

The numbers used in listing the observation wells in Utah indicate their location with reference to land subdivision, according to a system adopted by the State engineer. The greater part of Utah was surveyed from the Salt Lake base and meridian, which, according to the system adopted, divide the State into quadrants, designated as A, B, C, and D, in the order shown in the accompanying diagram. The well number is made up of two main

B	A
C	D

parts. The first part, enclosed in parentheses, consists of a letter and two numbers representing the quadrant, township, and range; the second part represents the section, progressively smaller subdivisions of the section, and the serial number of the well in the smallest subdivision given. The subdivisions of the section are the quarter-section, the 40-acre tract within the quarter-section, and the 10-acre tract within the 40-acre tract, each indicated by a lower case letter a, b, c, or d, assigned in the same order as the capital letters in the diagram above, a indicating the northeast quarter, b the northwest quarter, c the southwest quarter, and d the southeast quarter. Thus well (C-26-10)32cad 1 is in the  $SE\frac{1}{4}NE\frac{1}{4}SW\frac{1}{4}$  sec. 32, T. 26 N., R. 10 W., and is well 1 in that tract.

Part of Utah, in Duchesne and Uintah Counties, was surveyed from the Uintah special base and meridian. The numbers used in listing observation wells in this area follow the system explained above, except that they are preceded by the capital letter U.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

The records for many of the wells listed in this report include the number assigned the State claim or application for the well as used in the State engineer's records. The claim numbers are reserved for wells used prior to the passage of the ground-water law in 1935;<sup>5/</sup> other wells are assigned application numbers. All altitudes were determined by spirit leveling by the staff of the State engineer's office or the Federal Geological Survey with the exception of those for some of the wells in Wasatch County, whose altitudes were established by the Bureau of Reclamation, United States Department of the Interior. Measurements were made by the Geological Survey except as noted. Artesian wells that were flowing when visited were closed for 10 minutes prior to measurement of the pressure head.

After many of the county names under which the wells are grouped in the following list the name of the appropriate ground-water area has been added.

Beaver County - Beaver Valley

(C-28-7)16aaa 1 (\*940, p. 37; 948, p. 38). Measuring point is 2.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 9, 63.59; Dec. 4, 67.35.

(C-28-7)21add 1 (\*886, p. 773; 910, p. 40; 940, p. 37; 948, p. 38). State claim 8118. E. F. Baldwin. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 9, 29.15; Dec. 4, 31.20.

(C-28-7)21daa 1 (\*817, p. 417; \*840, p. 559; 845, p. 562; \*886, p. 773; 910, p. 40; 940, p. 37; 948, p. 38). E. F. Baldwin. Water levels, in feet below land-surface datum, 1943: Mar. 9, 21.38; Dec. 4, 24.49.

(C-29-7)3cbb 1 (\*845, p. 564; \*886, p. 776; 910, p. 46; 940, p. 37; 948, p. 38). Harry Hodges. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 9, 20.14; Dec. 4, 20.28.

(C-29-7)15b (\*940, p. 37; 948, p. 38). Measurements discontinued after July 22, 1942.

(C-29-7)17cdd 1 (\*817, p. 420; \*840, p. 561; 845, p. 564; \*886, p. 777; 910, p. 46; 940, p. 37; 948, p. 38). State claim 6919. Drought Relief Administration. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 9, 21.09; Dec. 4, 22.31.

(C-29-7)28dbd 1 (\*817, p. 420; 840, p. 562; 845, p. 564; 886, p. 777; \*910, p. 46; \*940, p. 37; 948, p. 38). J. A. Hower. Measuring point is 3.5 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	16.1	Apr. 27	17.1	Aug. 25	15.58	Nov. 27	17.60
Feb. 27	19.35	May 26	13.20	Sept. 28	17.00	Dec. 4	19.38
Mar. 9	19.48	June 26	13.00	Oct. 26	18.04	27	19.60
31	20.00	July 29	15.15				

(C-29-8)25cac 1 (\*817, p. 420; \*840, p. 562; 845, p. 565; 886, p. 777; 910, p. 46; 940, p. 37; 948, p. 38). State claim 13115. Beaver School District. Measuring point is 2.4 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 9, 12.2; Dec. 5, 12.4.

<sup>5/</sup> See "Water laws of Utah--laws of the State of Utah relating to water and water rights," compiled by Ed H. Watson, State engineer, and published by the State of Utah, 95 pp., 1943.

(C-29-8)30acc 1 (\*817, p. 420; \*840, p. 562; 845, p. 565; 886, p. 777; 910, p. 46; 940, p. 37; 948, p. 38). State claim 8119. Drought Relief Administration. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 9, 19.0.

Beaver County - Escalante Valley<sup>6/</sup>

(C-26-10)13cdd 1 (\*940, p. 37; 948, p. 38). G. A. Hansen. Water level, in feet below land-surface datum, 1943: Dec. 6, 67.12.

(C-26-10)31add 1. State claim 10258. Burton Smithson. Unused well, diameter 12 inches, depth 96 feet. Measuring point, top of 3-inch pipe, 3.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 6, 6.79.

(C-26-10)32cad 1 (\*817, p. 416; \*840, p. 559; 845, p. 562; 886, p. 773; 910, p. 40; 940, p. 37; 948, p. 38). State claim 10257. Burton Smithson. Water levels, in feet below land-surface datum, 1943: Mar. 11, 13.07; Dec. 6, 14.16.

(C-26-10)32cda 1 (\*817, p. 416; \*840, p. 559; 845, p. 562; 886, p. 773; 910, p. 40; 940, p. 37; 948, p. 38). Measurements discontinued.

(C-27-10)6dac 1 (\*940, p. 37; 948, p. 38). State claim 7520. J. H. Hedges. Measuring point is 1.0 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 11, 24.22; Dec. 6, 25.60.

(C-27-10)18da (\*940, p. 37; 948, p. 38). Hazel Cannon. Measuring point is 7.5 feet below land-surface datum. Well pumping during measurements. Water levels, in feet below land-surface datum, 1943: Mar. 11, 21.39; Dec. 6, 22.38.

(C-27-10)21abb 1 (\*817, p. 416; \*840, p. 559; 845, p. 562; 886, p. 773; 910, p. 40; \*940, p. 38; 948, p. 39). State claim 11459. John Armstrong & Sons. Water levels, in feet below land-surface datum, 1943: Mar. 11, 54.80; Dec. 6, 55.52.

(C-27-10)29dbc 1 (\*910, p. 40; 940, p. 38; 948, p. 39). State claim 13113. Milford State Bank. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 11, 6.5; Dec. 6, 6.9.

(C-28-10)5daa 1 (\*940, p. 38; 948, p. 39). W. J. Burns. Measuring point is 0.7 foot above datum. Water level, in feet above land-surface datum, 1943: Mar. 10, 3.25.

(C-28-10)6abb 2 (\*845, p. 562; 886, p. 773; 910, p. 40; \*940, p. 38; 948, p. 39). State application 11917. Asa Dixon. Measuring point is 1.0 foot above datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	71.75	Apr. 8	71.60	July 20	73.18	Oct. 7	72.15
Feb. 3	71.68	May 24	71.94	Aug. 30	73.98	Nov. 29	72.20
Mar. 10	71.70	31	72.96				

(C-28-10)6ddc 1 (\*910, p. 40; 940, p. 38; 948, p. 39). State claim 13114. Beaver County School District. Water levels, in feet below land-surface datum, 1943: Mar. 10, 61.90; Dec. 6, 63.00.

(C-23-10)7abb 1 (\*910, p. 40; 940, p. 38; 948, p. 39). State claim 6763. American Telephone & Telegraph Co. Measuring point is 7.7 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 63.73; Dec. 6, 62.30.

(C-23-10)7bdc 1 (\*940, p. 38; 948, p. 39). M. M. White. Measuring point is 3.4 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 54.42; Dec. 6, 58.47.

<sup>6/</sup> For other wells in this valley see pages 67-76, 79-80, 133.

Beaver County - Escalante Valley--Continued

(C-23-10)8abc 1 (\*940, p. 38; 943, p. 39). State claim 13111. C. G. Clarke. Measurements discontinued after Dec. 8, 1942.

(C-28-10)8bad 1 (\*940, p. 38; 943, p. 39). State claim 13110. Milford State Bank. Measurements discontinued.

(C-28-10)8cac 1 (\*910, p. 40; 940, p. 38; 948, p. 39). State claim 14585. C. G. Clarke. Measurements discontinued after Dec. 3, 1942.

(C-23-10)8cdd 1 (\*910, p. 40; \*940, p. 38; 948, p. 39). J. R. Murdock. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	2.63	Apr. 8	1.06	June 7	3.23	Oct. 7	3.67
13	2.61	18	.98	14	3.27	15	3.85
20	2.57	26	2.46	21	3.29	22	3.90
27	2.47	May 3	4.16	29	3.50	30	3.80
Feb. 3	2.05	9	4.15	July 13	3.98	Nov. 5	3.82
11	2.02	17	2.55	20	4.00	22	3.50
18	1.80	24	2.54	Aug. 7	4.18	29	3.44
27	1.78	31	3.22	30	4.47	Dec. 6	3.19
Mar. 10	1.52						

(C-23-10)8dbd 1 (\*910, p. 41; 940, p. 38; 943, p. 40). State claim 14586. C. G. Clarke. Measurements discontinued.

(C-23-10)8dcc 1 (\*910, p. 41; \*940, p. 38; 498, p. 40). Josephine Thompson. Measurements discontinued after Dec. 8, 1942.

(C-28-10)16ddd 1 (\*940, p. 38; 943, p. 40). Beaver County. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 10, 70.25; measurements discontinued.

(C-28-10)17bda 1 (\*940, p. 38; 948, p. 40). State application 11764. I. E. Leck. Measurements discontinued after Dec. 8, 1942.

(C-23-10)17ccc 1 (\*910, p. 41; 940, p. 38; 948, p. 40). State claims 11870 and 17173. Mr. Westfall. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 4.80; Dec. 6, 6.45.

(C-23-10)17cdc 1 (\*910, p. 41; 940, p. 38; 943, p. 40). State claim 1087. Ambrose Bradshaw. Measurements discontinued after Dec. 9, 1942.

(C-23-10)18aca 1 (\*886, p. 773; \*910, p. 39; 948, p. 40). State claim 1089. Mutual Investment & Finance Co. Measuring point is 3.25 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 6	3.51	May 2	4.91	Aug. 23	10.59	Nov. 22	5.70
Feb. 2	3.21	31	5.51	Oct. 7	6.39	29	5.70
Mar. 10	4.20	July 13	6.01	Nov. 5	5.83	Dec. 6	5.67
Apr. 4	4.23						

Beaver County - Escalante Valley--Continued

(C-28-10)18acd 1 (\*910, p. 41; 940, p. 39; 948, p. 40). State claim 1090. Mutual Investment & Finance Co. Measurements discontinued after Dec. 8, 1942.

(C-28-10)19add 1 (\*817, p. 417; \*840, p. 560; 845, p. 562; \*886, p. 774; 910, p. 41; \*940, p. 39; \*948, p. 40). State claim 6564. J. A. Kirk and Sam Cline. Measuring point is 3.3 feet below land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	4.19	May 2	a 15.20	Aug. 23	a 19.64	Oct. 15	5.94
Feb. 2	3.70	31	a 21.55	Sept. 29	a 19.80	Nov. 27	3.77
Mar. 11	4.50	July 6	a 22.60	Oct. 7	4.47	Dec. 6	4.97
Apr. 4	2.73	13	a 20.05				

(C-28-10)19bbc 1 (\*910, p. 41; 940, p. 39; 948, p. 40). State claim 6352. G. T. Martin. Water levels, in feet below land-surface datum, 1943: Mar. 10, 5.08; Dec. 6, 9.30.

(C-28-10)19ccd 1 (\*910, p. 41; 940, p. 39; 948, p. 40). State claim 3993. C. J. Myers and Ivan McKnight. Measurements discontinued after Dec. 9, 1942.

(C-28-10)19ddd 1 (\*910, p. 41; 940, p. 39; 948, p. 40). State claim 2041. Chester Haskell. Measuring point is 1.5 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 5.10; Dec. 6, 7.19.

(C-28-10)20bdd 1 (\*910, p. 41; 940, p. 39; 948, p. 40). State claim 2043. Chester Haskell. Measurements discontinued after Dec. 9, 1942.

(C-28-10)20ccd 1 (\*817, p. 418; \*910, p. 42; 940, p. 39; 948, p. 41). State claim 2044. Chester Haskell. Measurements discontinued after July 24, 1942.

(C-28-10)20ddc 1 (\*910, p. 42; 940, p. 39; 948, p. 41). State claim 10287. Duluth Land Co. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 13.12; Dec. 7, 14.45.

(C-28-10)21cbb 1 (\*940, p. 39; 948, p. 41). State claim 5695. Beaver County. Measuring point is 2.0 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Jan. 6	16.99	Apr. 8	16.67	May 31	15.15	Oct. 15	18.10
Feb. 3	16.78	May 3	17.50	July 13	16.05	Nov. 29	17.74
Mar. 10,	16.56	17	16.75				

a Pumping.

Beaver County - Escalante Valley--Continued

(C-23-10)28caa 1 (\*940, p. 39; 948, p. 41). C. H. Bryan. Measurements discontinued after Dec. 9, 1942.

(C-23-10)29bcc 1 (\*910, p. 42; 940, p. 39; 948, p. 41). State claim 13803. State of Utah. Measurements discontinued after Dec. 9, 1942.

(C-23-10)29bdd 2 (\*910, p. 42; 940, p. 39; 948, p. 41). State claim 2531. State of Utah. Measurements discontinued after Dec. 9, 1942.

(C-23-10)29ccc 1 (\*910, p. 42; 940, p. 40; 948, p. 41). State claim 7801. J. H. Weston. Measuring point is 2.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Apr. 9, 9.06.

(C-23-10)29cdc 1 (\*845, p. 563; 886, p. 774; 910, p. 42; \*940, p. 40; 948, p. 41). State application 11742. J. H. Hanlon. Measuring point is 0.15 foot above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.72	8.47	....	8.13	9.50	12.17	13.88	....	....	....	....	10.20
2	8.70	8.48	....	8.13	9.58	....	13.90	....	....	....	....	10.22
3	8.76	8.48	....	8.11	9.56	....	13.96	....	....	....	....	10.30
4	8.74	8.50	....	....	9.50	....	....	....	....	....	....	....
5	8.70	8.49	....	....	9.44	12.70	....	14.33	....	....	10.65	....
6	8.71	8.49	....	8.08	....	....	14.03	....	....	....	10.66	10.09
7	8.69	8.45	....	8.07	....	12.70	14.09	....	....	11.83	10.66	....
8	8.68	8.51	....	8.07	....	12.68	....	....	....	11.75	10.63	....
9	8.66	8.48	....	8.09	9.43	12.63	14.10	....	....	11.68	....	....
10	8.64	8.50	8.27	8.23	9.51	12.53	14.21	....	....	11.63	....	....
11	8.63	8.48	....	8.24	9.53	12.68	14.22	....	....	11.53	....	....
12	8.64	8.42	....	8.24	9.59	12.78	14.41	....	....	11.43	....	....
13	8.65	8.57	....	8.24	9.44	12.90	14.55	....	....	11.33	....	....
14	8.62	8.37	....	....	9.70	13.00	14.62	....	....	11.32	....	....
15	8.55	8.37	....	....	9.82	....	....	....	....	11.30	....	....
16	8.54	8.38	....	....	10.03	....	14.51	....	....	11.27	....	....
17	8.52	8.38	....	8.24	10.14	....	14.64	....	....	11.21	....	....
18	8.63	8.39	....	8.24	10.43	....	14.70	....	....	11.18	....	....
19	8.61	8.38	....	8.50	11.01	....	14.55	....	....	....	....	....
20	8.53	8.35	....	....	11.24	....	14.80	....	....	....	....	9.99
21	8.52	....	....	....	....	13.50	14.75	....	....	....	....	....
22	8.51	....	....	....	12.34	13.50	....	....	15.34	11.08	10.34	....
23	8.51	....	....	8.57	12.58	13.77	....	....	....	11.06	....	....
24	8.51	....	....	8.62	12.38	13.78	....	....	....	11.05	....	....
25	8.50	8.30	....	8.68	12.35	13.75	15.00	....	....	11.02	....	....
26	8.50	....	....	8.70	....	13.73	15.00	....	....	11.02	....	....
27	8.50	8.23	8.15	8.75	....	13.74	14.76	....	....	11.01	....	....
28	8.46	....	8.14	9.08	....	13.78	14.70	....	....	10.96	....	....
29	8.46	....	8.21	9.28	....	13.85	....	....	....	10.91	10.25	....
30	8.48	....	8.21	9.36	....	....	....	....	....	10.90	10.20	....
31	8.46	....	8.20	9.43	12.20	....	....	....	....	10.85	....	....

(C-23-10)30acd 1 (\*817, p. 418; 840, p. 560; 845, p. 563; 886, p. 774; 910, p. 42; \*940, p. 40; 948, p. 42). State claim 15131. State of Utah.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.66	6.55	6.41	6.29	8.26	8.61	....	10.75	....	11.09	9.32	8.56
2	6.67	6.50	6.37	6.27	8.27	8.50	....	10.79	....	10.89	9.45	8.40
3	6.73	6.53	6.39	6.27	8.30	....	....	10.75	....	11.42	9.28	8.35
4	6.70	6.50	6.43	....	8.40	....	....	10.88	....	10.91	9.18	8.28
5	6.66	6.55	....	....	8.40	....	....	....	....	11.13	9.11	8.23
6	6.70	6.55	....	6.23	7.91	....	....	10.97	....	11.38	....	8.23
7	6.71	6.48	....	6.26	7.54	7.50	....	11.06	....	10.81	9.12	8.18
8	6.69	6.45	....	6.24	7.85	7.52	....	11.23	....	10.56	9.10	8.14
9	6.67	6.50	....	6.23	7.55	7.63	....	11.24	....	10.89	9.04	8.12
10	6.66	....	6.45	6.25	7.33	7.80	....	11.35	....	10.47	9.15	8.16

## Beaver County - Escalante Valley--Continued

(C-28-10)30acd 1. State of Utah--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	6.67	6.49	6.43	6.28	7.24	7.70	.....	11.36	.....	10.54	.....	8.08
12	6.69	6.45	6.46	6.28	8.08	7.85	.....	11.39	.....	10.28	.....	7.90
13	6.68	6.46	6.43	6.26	8.05	7.71	.....	11.32	.....	10.14	.....	.....
14	6.62	6.46	6.40	.....	7.61	7.75	.....	.....	.....	10.05	.....	.....
15	6.57	6.47	6.46	.....	7.42	7.61	.....	.....	.....	.....	.....	.....
16	6.58	6.47	6.46	.....	7.34	7.47	.....	.....	.....	9.86	.....	.....
17	6.56	6.48	6.38	.....	7.60	7.49	.....	.....	.....	9.78	.....	.....
18	6.69	6.48	.....	.....	8.05	8.35	.....	.....	.....	9.92	.....	.....
19	6.64	6.49	.....	8.00	8.05	.....	.....	.....	.....	9.88	.....	.....
20	6.57	6.47	.....	8.15	8.73	.....	.....	.....	.....	9.76	.....	.....
21	6.61	6.43	.....	7.82	.....	6.96	.....	.....	.....	9.66	.....	7.86
22	6.63	6.41	.....	8.23	.....	.....	10.30	.....	.....	9.61	.....	7.86
23	6.59	6	.....	8.25	.....	.....	10.50	.....	11.94	9.57	8.59	7.84
24	6.64	6.42	.....	8.35	8.60	.....	10.65	.....	11.93	9.52	8.57	.....
25	6.65	6.40	.....	8.30	7.91	.....	10.76	.....	12.00	9.46	8.54	.....
26	6.61	6.43	.....	7.84	8.90	.....	10.78	.....	12.05	9.70	8.52	.....
27	6.59	6.40	.....	7.95	9.27	.....	10.93	.....	11.48	9.61	8.49	.....
28	6.55	6.45	6.26	8.10	9.25	.....	10.70	.....	11.80	9.75	8.45	.....
29	6.53	.....	6.31	8.20	8.82	8.78	10.85	.....	11.49	9.51	8.41	.....
30	6.52	.....	6.33	8.25	8.50	.....	10.99	.....	11.33	9.35	8.38	.....
31	6.59	.....	6.31	.....	8.60	.....	10.80	.....	.....	9.45	.....	.....

(C-28-10)30cdc 1 (\*940, p. 41; 948, p. 42). State claim 4056. State of Utah. Measuring point is 0.8 foot below land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-10)31add 1 (\*817, p. 413; 840, p. 561; 845, p. 564; 886, p. 775; 910, p. 44; \*940, p. 41; 948, p. 42). State claim 7640. P. B. Fisher. Water levels, in feet below land-surface datum, 1943: Mar. 10, 9.95; Dec. 6, 10.92.

(C-28-10)31bdd 2 (\*910, p. 44; 940, p. 41; 948, p. 42). State claim 15171. State of Utah. Measuring point is 1.5 feet below land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-10)31cdd 1 (\*940, p. 41; 948, p. 42). State claim 10315. State of Utah. Measuring point is 0.4 foot below land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-10)32add 1 (\*910, p. 44; 940, p. 41; 948, p. 43). Duluth Land Co.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.38	14.58	.....	.....	.....	12.80	.....	14.72	.....	15.00	.....	.....
2	14.38	14.57	.....	.....	al4.96	12.80	.....	14.76	.....	.....	.....	.....
3	14.41	14.57	.....	.....	.....	12.81	.....	14.81	.....	.....	.....	.....
4	14.41	14.58	.....	al4.56	.....	12.82	.....	.....	.....	.....	.....	.....
5	14.41	14.58	.....	.....	.....	12.83	.....	14.74	.....	.....	al5.79	.....
6	14.41	14.60	.....	.....	.....	12.84	al4.10	.....	.....	.....	.....	.....
7	14.47	14.58	.....	.....	.....	12.85	.....	al4.74	.....	al4.88	.....	.....
8	14.48	14.55	.....	.....	.....	12.86	.....	.....	.....	.....	.....	.....
9	14.48	14.55	.....	.....	al4.95	.....	.....	.....	.....	.....	.....	.....
10	14.52	14.61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	14.52	14.63	.....	.....	.....	13.12	.....	.....	.....	.....	.....	.....
12	14.52	14.65	.....	.....	.....	13.14	.....	.....	.....	.....	.....	.....
13	14.50	14.65	.....	.....	.....	13.15	al3.90	al5.17	.....	.....	.....	.....
14	14.48	14.63	.....	.....	.....	13.15	.....	.....	.....	.....	.....	.....



Beaver County - Escalante Valley--Continued

(C-28-10)32add 1. Duluth Land Co.--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	14.47	14.64	.....	.....	.....	13.16	.....	.....	.....	al5.58	.....	.....
16	14.42	14.64	.....	.....	13.37	.....	.....	.....	.....	.....	.....	.....
17	14.43	14.63	.....	.....	13.37	.....	.....	.....	.....	.....	.....	.....
18	14.49	14.64	.....	.....	13.51	.....	.....	.....	.....	.....	.....	.....
19	14.49	14.65	.....	.....	13.54	.....	13.86	.....	.....	.....	.....	.....
20	14.49	14.65	.....	.....	13.85	.....	13.95	.....	.....	.....	.....	.....
21	14.50	14.63	.....	.....	13.56al3.68	14.03	.....	.....	.....	.....	.....	.....
22	14.49	14.59	.....	.....	13.56	.....	14.11	.....	15.32al5.65al5.76	.....	.....	.....
23	14.48	14.58	.....	.....	13.56	.....	14.18al5.24	15.34	.....	.....	.....	.....
24	14.52	14.59	.....	.....	13.55	.....	14.26	.....	15.35	.....	.....	.....
25	14.52	14.59	.....	.....	13.63	.....	14.32	.....	15.26	.....	.....	.....
26	14.51	.....	.....	al4.82	13.72	.....	14.38	.....	15.16	.....	.....	.....
27	14.50	14.40al4.65	.....	.....	13.73	.....	14.46	.....	15.12	.....	.....	.....
28	14.51	.....	.....	.....	13.80	.....	14.52	.....	15.11	.....	.....	.....
29	14.51	.....	.....	.....	.....	al4.08	14.57	.....	14.95	.....	al5.80	.....
30	14.52	.....	.....	.....	.....	.....	14.62al4.92	14.98al5.70	.....	.....	.....	.....
31	14.55	.....	.....	.....	al4.67	.....	14.68	.....	.....	.....	.....	.....

(C-28-10)32bda 1 (\*910, p. 44; 940, p. 41; 948, p. 43). State claim 8757. State of Utah. Measurements discontinued after Dec. 9, 1942.

(C-28-10)32ccc 1 (\*910, p. 44; 940, p. 41; 948, p. 43). State claims 2040 and 3838. State of Utah. Measuring point is 0.3 foot above land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-10)32cdc 1 (\*910, p. 44; 940, p. 41; 948, p. 43). State claim 1421. Oral Williams. Measuring point is 0.3 foot below land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-10)32dbc 1 (\*910, p. 44; 940, p. 41; 948, p. 43). State claim 1423. Oral Williams. Measuring point is 0.5 foot above land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-11)13dca 1 (\*940, p. 42; 948, p. 43). State claim 10324. New Majestic Mining Co. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Mar. 11, 0.6.

(C-28-11)13dca 2 (\*940, p. 42; 948, p. 43). New Majestic Mining Co. Measuring point is 0.8 foot above land-surface datum. No measurements made in 1943.

(C-28-11)22dab 1 (\*940, p. 42; 948, p. 43). Houston &amp; Goff. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 12, 32.16.

(C-28-11)23aab 1 (\*940, p. 42; 948, p. 44). Beaver County. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 6, 24.10; Jan. 20, 24.07; Feb. 2, 23.89.

(C-28-11)24daa 1 (\*886, p. 776; 910, p. 45; \*940, p. 42; 948, p. 44). State claim 11221. State of Utah. Measuring point is 3.6 feet below land-surface datum.

a Tape measurement.

Beaver County - Escalante Valley--Continued

(C-28-11)24daa 1. State of Utah--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	7.09	Mar. 27	5.58	June 7	6.88	Aug. 13	a 14.50
13	6.96	Apr. 4	5.54	14	a 12.40	23	a 11.60
20	5.93	18	5.55	21	7.65	Sept. 22	9.55
27	6.7	26	6.02	29	a 12.52	29	9.58
Feb. 2	6.60	May 3	6.26	July 6	a 14.1	Oct. 22	8.72
11	6.48	9	a 10.63	13	a 14.13	30	8.60
18	6.36	17	a 10.83	20	a 14.18	Nov. 5	8.63
27	6.34	24	a 10.40	27	a 14.25	22	8.20
Mar. 10	6.01	31	a 10.48	Aug. 7	a 14.40	Dec. 6	7.87

(C-28-11)25abd 1 (\*910, p. 45; 940, p. 42; 948, p. 44). State claim 10323. Pacific Bond & Mortgage Co. Water levels, in feet below land-surface datum, 1943: Mar. 10, 3.75; Dec. 6, 5.94.

(C-28-11)25ddd 1 (\*940, p. 42; 948, p. 44). State claim 3392. Kent Smith. Measuring point is 0.7 foot above land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-11)26cdc 1 (\*940, p. 43; 948, p. 44). Jefferson Mercantile Co. No measurements made in 1943.

(C-28-11)26dcb 1 (\*940, p. 43; 948, p. 44). W. W. Cook. No measurements made in 1943.

(C-28-11)26ddd 1 (\*940, p. 43; 948, p. 44). W. W. Cook. Measurements discontinued after Dec. 9, 1942.

(C-28-11)27cab 1 (\*940, p. 43; 948, p. 44). State Building & Loan Association. Measurements discontinued.

(C-28-11)33dac 1 (\*940, p. 43; 948, p. 44). Beaver County. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 27.20; Dec. 8, 27.33.

(C-28-11)34bbc 1 (\*940, p. 43; 948, p. 44). State claim 6677. H. M. Hearn. Water levels, in feet below land-surface datum, 1943: Mar. 12, 24.28; Dec. 8, 25.10.

(C-28-11)34cbb 1 (\*940, p. 43; 948, p. 44). E. M. Nebeker. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 17.99; Dec. 8, 18.77.

(C-28-11)35add 1 (\*910, p. 45; 948, p. 45). State claim 3. W. H. Hendrickson. Measuring point is 0.3 foot above land-surface datum. Measurements discontinued after Dec. 9, 1942.

(C-28-11)35ddd 1 (\*886, p. 776; 910, p. 45; 940, p. 43; 948, p. 45). State claim 3619. State of Utah. Measuring point is 0.5 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 9.98; Dec. 6, 11.00.

(C-28-11)36aad 1 (\*910, p. 45; \*940, p. 43; 948, p. 45). State claim 7662. State of Utah. Measurements discontinued after Apr. 15, 1942.

(C-28-11)36add 1 (\*886, p. 776; 910, p. 45; 948, p. 45). State of Utah. Measuring point is 1.0 foot below land-surface datum.

---

a Adjacent well pumping.

## Beaver County - Escalante Valley--Continued

(C-28-11)36add 1. State of Utah--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	7.90	Apr. 4	6.58	July 6	9.05	Sept. 22	11.04
Feb. 2	7.49	May 3	6.70	Aug. 23	11.02	Nov. 22	9.60
Mar. 12	7.03						

(C-28-11)36bba 1 (\*817, p. 419; \*840, p. 561; 845, p. 564; 886, p. 776; 910, p. 45; \*940, p. 43; 948, p. 45). State claim 5266. Beaver County. Measuring point is 0.4 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	4.52	May 17	3.84	July 13	4.52	Sept. 29	5.85
Feb. 27	4.42	24	4.14	20	4.50	Oct. 22	6.10
Mar. 12	2.72	31	4.20	27	4.67	30	6.00
27	3.36	June 7	4.00	Aug. 7	4.70	Nov. 5	6.02
Apr. 4	3.32	14	4.02	13	4.79	22	5.65
18	3.42	21	4.05	23	5.03	29	5.57
26	3.58	29	4.45	30	5.06	Dec. 6	5.43
May 3	3.65	July 6	4.49	Sept. 22	6.17	20	5.23
9	3.82						

(C-28-11)36bdd 1 (\*940, p. 43; 948, p. 45). State claim 2. W. H. Hendrickson. Measurements discontinued after Dec. 9, 1942.

(C-28-11)36dcc 1 (\*910, p. 45; 940, p. 44; 948, p. 45). State claim 5143. J. C. Whittaker. Measurements discontinued after Dec. 9, 1942.

(C-28-11)36ddd 1 (\*940, p. 44; 948, p. 45). State claim 5296. State of Utah. Measurements discontinued after Dec. 9, 1942.

(C-29-10)5bac 1 (\*910, p. 46; 940, p. 44; 948, p. 45). State claim 6839. Pearl Malstrom. Measurements discontinued after Dec. 9, 1942.

(C-29-10)5cad 1 (\*910, p. 46; \*940, p. 44; 948, p. 45). State claim 10285. Beaver County. Water levels, in feet below land-surface datum, 1943: Mar. 10, 25.62; Dec. 7, 28.74.

(C-29-10)5ccc 1 (\*910, p. 46; 940, p. 44; 948, p. 45). State claim 7641. F. W. Gospill. Measurements discontinued after Dec. 9, 1942.

(C-29-10)6aad 1 (\*817, p. 420; \*845, p. 565; 886, p. 777; 910, p. 46; \*940, p. 44; 948, p. 46). State claim 17295. Edgar Fisher. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	18.90	May 3	a 23.58	Sept. 29	21.91	Nov. 29	21.25
Feb. 2	18.91	June 1	a 24.60	Oct. 7	21.88	Dec. 22	21.20
Mar. 10	19.21	July 6	a 26.15	Nov. 5	20.75	Dec. 6	20.60
Apr. 4	19.15	Aug. 30	21.80				

(C-29-10)6ded 1 (\*777, p. 242; \*817, p. 421; \*840, p. 562; 845, p. 565; 886, p. 778; 910, p. 47; \*940, p. 44; 948, p. 46). State claim 13116. Duluth Land Co. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	27.40	Feb. 2	27.56	Apr. 4	27.24	Aug. 23	28.36
13	27.58	11	27.54	May 5	27.60	Sept. 22	28.45
20	27.23	18	27.52	June 1	28.58	Oct. 15	28.70
27	27.18	27	27.51	July 19	28.01	Nov. 29	28.72

a Pumping.

Beaver County - Escalante Valley--Continued

(C-29-10)7bbd 1 (\*910, p. 47; \*940, p. 44; 948, p. 46). State claim 15658. S. D. Atkin. Measurements discontinued after Dec. 9, 1942.

(C-29-10)7bda 1 (\*940, p. 44; 948, p. 46). State claim 13. S. D. Atkin. Measurements discontinued after Dec. 9, 1942.

(C-29-10)7cdd 1 (\*817, p. 421; 840, p. 564; 845, p. 566; \*886, p. 778; 910, p. 47; \*940, p. 45; 948, p. 46). State claim 10284. Beaver County. Measuring point is 1.5 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	33.65	Mar. 10	37.91	June 1	35.45	Aug. 23	33.06
Feb. 2	33.60	Apr. 8	35.47	July 19	34.04	Dec. 7	39.18

(C-29-10)16ccc 1 (\*840, p. 564; 845, p. 566; 886, p. 778; 910, p. 47; \*940, p. 45; 948, p. 46). G. S. Barclay. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 6	42.25	Apr. 8	44.46	July 19	44.69	Nov. 29	43.96
Feb. 3	42.10	May 3	45.02	Aug. 30	44.20	Dec. 7	44.07
Mar. 12	44.18	31	44.77	Oct. 15	43.75		

(C-29-10)16dcc 1 (\*940, p. 45; 948, p. 46). Duluth Land Co. Measuring point is 2.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 6	72.14	Mar. 12	74.78	May 31	74.08
Feb. 3	72.04	May 3	74.34	July 19	74.75

(C-29-10)17bdd 1 (\*940, p. 45; 948, p. 46). State claim 10233. Duluth Land Co. Measurements discontinued.

(C-29-10)21bcc 1 (\*940, p. 45; 948, p. 47). Beaver County. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 74.09; Dec. 7, 75.05.

(C-29-11)1add 1 (\*817, p. 422; 840, p. 564; 845, p. 566; 886, p. 778; 910, p. 48; \*940, p. 45; 948, p. 47). State claim 10290. Duluth Land Co. Measuring point is 17.0 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	19.52	Apr. 4	18.25	July 20	19.87	Sept. 29	21.25
Feb. 2	18.57	May 3	18.62	Aug. 23	21.16	Nov. 29	21.20
Mar. 10	17.62	31	19.72	Sept. 22	21.86	Dec. 6	19.92

(C-29-11)1cad 2 (\*910, p. 48; 940, p. 45; 948, p. 47). State claim 156. E. A. Hodges. Measurements discontinued after Dec. 9, 1942.

(C-29-11)2add 1 (\*940, p. 45; 948, p. 47). State claim 2561. State of Utah. Measurements discontinued after Dec. 10, 1942.

(C-29-11)2ddd 1 (\*886, p. 779; \*910, p. 48; \*940, p. 45; 948, p. 47). State of Utah. Measuring point is 14.0 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 5	15.00	Apr. 8	14.17	July 19	a 27.72	Sept. 29	a 27.00
Feb. 2	14.70	9	a 22.84	Aug. 23	a 30.32	Nov. 22	15.66
Mar. 12	14.55	June 1	a 22.94				

a Pumping.

Beaver County - Escalante Valley--Continued

(C-29-11)4adb 1 (\*940, p. 48; \*940, p. 45; 948, p. 47). State claim 12129. A. P. Lodge. Water levels, in feet below land-surface datum, 1943: Mar. 12, 8.08; Dec. 8, 8.87.

(C-29-11)4baa 1 (\*940, p. 45; 948, p. 47). W. H. Child. Water level, in feet below land-surface datum, 1943: Dec. 8, 35.24.

(C-29-11)10cad 1 (\*845, p. 566; 886, p. 779; 910, p. 48; \*940, p. 45; 948, p. 47). State claim 7643. Jesse Cook. Measurements discontinued after Dec. 10, 1942.

(C-29-11)11acc 1 (\*910, p. 48; \*940, p. 46; 948, p. 47). State claim 5771. M. W. Husbands. Measurements discontinued after Dec. 10, 1942.

(C-29-11)11cdd 1 (\*840, p. 564; 845, p. 566; 886, p. 779; 910, p. 48; 940, p. 46; 948, p. 47). State claim 7540. Preston Davis.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	17.95	Apr. 9	17.54	July 19	18.82	Sept. 29	19.30
Mar. 12	17.72	June 1	17.52	Aug. 23	19.25	Nov. 22	18.42
Apr. 8	17.58						

(C-29-11)11ddc 1 (\*910, p. 48; \*940, p. 46; 948, p. 47). State claim 1169. Gertrude Cook. Measurements discontinued after Dec. 10, 1942.

(C-29-11)11ddd 1 (\*840, p. 564; \*940, p. 46; 948, p. 47). State claim 1168. Gertrude Cook. Measurements discontinued after Dec. 10, 1942.

(C-29-11)13cca 1 (\*910, p. 48; \*940, p. 46; 948, p. 48). Victor Carlson. Measuring point is 1.2 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 7, 28.09.

(C-29-11)14add 1 (\*910, p. 48; \*940, p. 46; 948, p. 48). State claim 1167. Gertrude Cook. Measurements discontinued after Dec. 10, 1942.

(C-29-11)15abd 1 (\*840, p. 564; 845, p. 566; 886, p. 779; 910, p. 48; \*940, p. 46; 948, p. 48). Howard Cook. Measurements discontinued after Dec. 10, 1942.

(C-29-11)17aa (\*940, p. 46; 948, p. 48). Beaver County. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 13.09; Dec. 7, 13.86.

(C-29-11)19cad 1 (\*910, p. 49; \*940, p. 46; 948, p. 48). Walter Cook. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 45.21; Dec. 7, 45.47.

(C-29-11)20dcd 1 (\*886, p. 779; 910, p. 49; 940, p. 47; 948, p. 48). Public Land. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 1.40; Dec. 7, 2.66.

(C-29-11)21ddd 1 (\*845, p. 566; 886, p. 780; 910, p. 49; \*940, p. 47; 948, p. 48). State claim 8974. Claude Thompson. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 19.35; Dec. 7, 19.40.

(C-29-11)22add 1 (\*910, p. 49; 940, p. 47; 948, p. 48). State claim 17158. P. V. Haworth. Measurements discontinued after Dec. 10, 1942.

(C-29-11)22ddd 1 (\*817, p. 422; 840, p. 564; 845, p. 567; 886, p. 780; 910, p. 49; 940, p. 47; 948, p. 48). State claim 10667. P. V. Haworth. Water level, in feet below land-surface datum, 1943: Dec. 7, 26.11.

(C-29-11)23bcd 1 (\*910, p. 49; 940, p. 47; 948, p. 48). I. E. Leck. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 24.63; Dec. 7, 24.79.

Beaver County - Escalante Valley--Continued

(C-29-11)27dcb 1 (\*910, p. 49; \*940, p. 47; 948, p. 48). Public Land. State claim 2620. Water levels, in feet below land-surface datum, 1943: Mar. 12, 29.08; Dec. 7, 28.16.

(C-29-11)29ada 1 (\*817, p. 422; 840, p. 565; 845, p. 567; 886, p. 780; 910, p. 49; 940, p. 47; 948, p. 48). Public Land. Water levels, in feet below land-surface datum, 1943: Mar. 12, 14.65; Dec. 7, 15.17.

(C-29-11)35acc 1 (\*910, p. 49; \*940, p. 48; 948, p. 48). Public Land. Measurements discontinued after Dec. 7, 1942.

(C-29-11)35bcd 1 (\*817, p. 422; 910, p. 49; 940, p. 48; 948, p. 48). Public Land. Measuring point is 38.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 41.69; Dec. 7, 41.85.

(C-30-10)11cbd 1 (\*940, p. 48; 948, p. 49). Abraham Wood. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 12, 135.99; Dec. 5, 135.11.

(C-30-10)12cda 1 (\*817, p. 423; 840, p. 565; 845, p. 567; 886, p. 780; 910, p. 50; 940, p. 48; 948, p. 49). T. L. Gray. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 12, 29.16; measurements discontinued.

(C-30-11)4cdd 1 (\*817, p. 423; 840, p. 565; 845, p. 567; 886, p. 780; 910, p. 50; 940, p. 48; \*948, p. 49). Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 26.65; Dec. 7, 26.74.

(C-30-11)6dcc 1 (\*986, p. 780; 910, p. 50; 940, p. 48; 948, p. 49). Public Land. Measurements discontinued after July 30, 1942.

(C-30-11)8add 1 (\*940, p. 48; \*948, p. 49). Public Land. Measuring point is 0.3 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 7, 27.64.

(C-30-11)8ddc 1 (\*940, p. 48; 948, p. 49). Public Land. Measuring point is 2.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 27.60; Dec. 7, 27.63.

(C-30-11)9cdd 1 (\*940, p. 48; \*948, p. 49). Public Land. Water levels, in feet below land-surface datum, 1943: Mar. 13, 30.91; Dec. 7, 30.83.

(C-30-11)10caa 1 (\*910, p. 50; \*940, p. 48; \*948, p. 49). Abram Genereaux. Measurements discontinued after Apr. 17, 1942.

(C-30-11)18add 1 (\*940, p. 48; \*948, p. 49). Public Land. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 13, 21.68.

(C-30-11)22ba (\*940, p. 48; \*948, p. 49). Beaver County. No measurements made in 1943.

(C-30-12)3dda 1 (\*910, p. 50; 940, p. 48; 948, p. 49). R. B. Norris. No measurements made in 1943.

(C-30-12)4add 1 (\*910, p. 50; 940, p. 48; 948, p. 49). T. J. Norris. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 109.58; Dec. 7, 109.54.

(C-30-12)9daa 1 (\*910, p. 50; 940, p. 48; 948, p. 49). Public Land. Measuring point is 1.3 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 13, 29.17.

Beaver County - Escalante Valley--Continued

(C-30-12)10abb 1 (\*910, p. 50; 940, p. 48; 948, p. 49). C. S. Hammond. Measuring point is 0.5 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 39.12; Dec. 7, 39.08.

(C-30-12)11bbb 1 (\*817, p. 423; 840, p. 565; 845, p. 567; 886, p. 780; 910, p. 50; 940, p. 48; 948, p. 49). D. L. Barnes. Water levels, in feet below land-surface datum, 1943: Mar. 13, 31.94; Dec. 7, 32.13.

(C-30-12)12bbb 1 (\*817, p. 423; 840, p. 565; 845, p. 567; 886, p. 780; 910, p. 50; 940, p. 48; 948, p. 49). Beaver County. Measurements discontinued after Dec. 10, 1942.

(C-30-12)13bbb 1 (\*886, p. 780; 910, p. 50; 940, p. 48; 948, p. 50). Beaver County. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 7, 8.95.

(C-30-12)20aaa 1 (\*940, p. 48; 948, p. 50). R. C. McCarter. Measurements discontinued after Apr. 18, 1942.

(C-30-12)22aad 1 (\*896, p. 781; 910, p. 50; 940, p. 49; 948, p. 50). Public land. No measurements made in 1943.

(C-30-12)28dab 1 (\*886, p. 781; 910, p. 50; 940, p. 48; 948, p. 50). Public land. No measurements made in 1943.

(C-30-12)29dda 1 (\*886, p. 781; 910, p. 50; 940, p. 49; 948, p. 50). Public land. Measurements discontinued.

(C-30-12)31cab 2 (\*845, p. 567; 886, p. 781; 910, p. 50; \*940, p. 49; 948, p. 50). State claim 13455. Corinne Dibkey. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 16.75; Dec. 8, 17.18.

(C-30-12)33bbd 1 (\*886, p. 781; 910, p. 50; 940, p. 49; 948, p. 50). Measurements discontinued.

(C-30-13)20ddb 1 (\*910, p. 51; \*940, p. 49; 948, p. 50). O. M. Couch. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 13, 107.76.

(C-30-13)21ddd 1 (\*910, p. 51; 940, p. 49; 948, p. 50). M. S. Marsden. Measurements discontinued after July 30, 1942.

(C-30-13)22ddd 1 (\*910, p. 51; \*940, p. 49; 948, p. 50). Public land. State claim 13674. Measuring point is 0.9 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 13, 59.56.

(C-30-13)25abb 1 (\*940, p. 49; 948, p. 50). State claim 12128. W. M. White. Measuring point is 0.8 foot above land-surface datum. Well pumping prior to measurement. Water level, in feet below land-surface datum, 1943: Mar. 13, 35.00.

(C-30-13)25ddd 1 (\*940, p. 49; 948, p. 50). Beaver County. Water levels, in feet below land-surface datum, 1943: Mar. 13, 6.77; Dec. 8, 7.35.

(C-30-13)27dcc 1 (\*910, p. 51; \*940, p. 49; 948, p. 50). C. O. Harris. Measurements discontinued after Apr. 18, 1942.

(C-30-13)29dcc 1 (\*940, p. 49; 948, p. 50). C. D. Vaughn. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 56.00; Dec. 8, 56.08.

(C-30-13)30dcc 1 (\*940, p. 49; 948, p. 50). Beaver County. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 13, 58.87.

(C-30-13)33abb.1 (\*940, p. 49; 948, p. 50). J. F. Dinwiddie. Measuring point is 0.6 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 13, 48.46.

(C-30-13)34bab 1 (\*910, p. 51; 940, p. 49; 948, p. 50). J. F. Dinwiddie. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 13, 43.71.

Beaver County - Escalante Valley--Continued

(C-30-13)34bbb 1 (\*910, p. 51; 940, p. 49; 948, p. 50). J. F. Dinwiddie. Water levels, in feet below land-surface datum, 1943: Mar. 13, 45.88; Dec. 8, 45.99.

Box Elder County

(B-7-2)2aba 1 (\*777, p. 240; 817, p. 386; 840, p. 536; 845, p. 567; 886, p. 781; 910, p. 51; 940, p. 50; 948, p. 51). State claim 11922. Earl Lemon. Measuring point is 43.5 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	36.73	Apr. 25	38.70	July 28	39.63	Oct. 24	40.50
Feb. 21	37.87	May 27	38.09	Aug. 29	39.70	Nov. 28	40.32
Mar. 6	38.23	June 27	40.40	Oct. 3	40.10	Dec. 30	39.94
21	38.47						

(B-7-2)1lcda 1 (\*817, p. 388; 840, p. 537; 845, p. 568; 886, p. 781; 910, p. 51; 940, p. 50; 948, p. 51). State claim 1489. First Savings Bank of Ogden. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 20.00; Dec. 4, 19.55.

(B-8-2)1lbdc 1 (\*817, p. 388; 840, p. 537; 845, p. 568; 886, p. 781; 910, p. 51; 940, p. 50; 948, p. 51). State claim 773. J. A. Ward. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 50.08; Dec. 4, 46.85.

(B-8-2)23cdb 1 (\*817, p. 388; 840, p. 537; 845, p. 568; 886, p. 782; 910, p. 52; 940, p. 50; 943, p. 51). State claims 1284 and 8126. Willard Water Co. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 39.99; Dec. 4, 40.77.

(B-8-2)26cac 1 (\*817, p. 388; 840, p. 537; 845, p. 568; 886, p. 782; \*910, p. 52; 940, p. 50; 948, p. 51). State claim 99. G. L. Braegger. Measuring point is 2.2 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 6, 31.9; Dec. 4, 29.2.

(B-8-2)35add 1 (\*910, p. 52; 940, p. 50; 948, p. 51). M. C. Marsh. Measuring point is 0.6 foot above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.79	22.57	23.18	23.42	22.92	23.07	22.83	23.18	23.52	.....	.....	24.76
2	21.81	22.58	23.21	23.43	22.92	23.07	22.84	23.20	23.53	.....	24.51	24.78
3	21.85	22.61	23.22	23.43	22.90	23.07	22.85	23.62	23.55	.....	24.53	24.79
4	21.35	22.63	23.22	23.44	22.88	23.08	22.86	23.23	23.56	24.04	24.54	24.80
5	21.87	22.67	23.24	23.42	22.89	23.09	22.88	23.25	23.58	24.05	24.56	24.81
6	21.90	22.68	23.25	23.41	22.88	23.10	22.89	23.28	23.59	24.07	24.58	24.83
7	21.93	22.69	23.26	23.40	22.87	23.11	22.91	23.25	23.60	24.09	24.59	24.84
8	21.95	22.71	.....	23.39	22.87	23.11	22.91	23.21	23.63	24.11	24.60	24.85
9	21.98	22.75	.....	23.38	22.87	23.12	22.92	23.24	23.63	24.12	.....	24.86
10	22.02	22.79	.....	23.38	22.88	23.12	22.93	23.28	23.65	24.12	24.58	.....
11	22.04	22.82	23.28	23.37	22.90	23.11	22.93	23.30	23.67	24.14	24.59	.....
12	22.07	22.85	23.29	23.37	22.90	23.11	22.95	23.33	23.69	24.16	24.61	.....
13	22.09	22.86	23.29	23.36	22.90	23.11	22.98	23.35	23.70	24.17	24.62	.....
14	22.10	22.98	23.28	23.33	22.90	23.13	22.98	23.36	23.71	24.19	24.63	.....
15	22.12	22.91	23.31	23.29	22.90	23.11	22.98	23.37	23.73	24.21	24.65	24.39
16	22.16	22.93	23.31	23.27	22.90	23.09	22.98	.....	23.75	24.22	24.66	24.91
17	22.18	22.95	23.30	23.25	22.91	23.06	22.98	.....	23.76	24.23	24.66	24.93
18	22.23	22.98	23.32	23.24	22.93	23.02	22.98	.....	23.78	24.25	24.67	24.95
19	22.25	23.01	23.32	23.20	22.93	23.00	22.99	.....	23.80	24.26	24.68	24.93
20	22.25	23.03	23.33	23.18	22.93	22.99	23.01	.....	23.81	24.27	24.68	24.99
21	22.27	23.04	23.33	23.15	22.94	22.93	23.04	.....	23.82	24.28	24.68	25.01
22	22.29	23.05	23.33	23.13	22.93	22.98	23.07	.....	23.84	24.30	24.70	.....



Box Elder County--Continued

(B-8-2)35add 1. M. C. Marsh--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	22.31	23.08	23.33	23.09	22.91	22.97	23.08	23.47	23.86	24.31	24.71	.....
24	22.35	23.10	23.35	23.06	22.92	22.95	23.10	23.48	23.87	24.34	24.73	.....
25	22.38	23.13	23.35	23.03	22.92	22.95	23.12	23.50	23.89	24.35	24.73	.....
26	22.40	23.15	23.35	23.00	22.94	22.94	23.10	23.51	23.90	24.37	24.74	.....
27	22.43	23.16	23.36	22.97	22.98	22.92	23.11	23.49	.....	24.37	24.75	.....
28	22.45	23.17	23.36	22.97	23.01	22.86	23.13	23.43	.....	24.39	24.76	.....
29	22.48	.....	23.37	22.94	23.02	22.83	23.15	23.43	.....	24.40	24.76	.....
30	22.50	.....	23.39	.....	23.04	22.83	23.17	23.48	.....	24.43	24.76	25.20
31	22.55	.....	23.41	.....	23.07	.....	23.17	23.51	.....	24.44	.....	25.21

(B-9-1)22ccc 1 (\*840, p. 538; 845, p. 568; 886, p. 782; 910, p. 52; 940, p. 50; 949, p. 52). Raymond Jeppesen. Measuring point is 0.5 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 5, 28.25; Dec. 3, 28.01.

(B-9-1)27bbb 1 (\*840, p. 538; 845, p. 568; 886, p. 782; 910, p. 52; 940, p. 50; 949, p. 52). C. M. Jeppesen. Water levels, in feet below land-surface datum, 1943: Mar. 5, 22.14; Dec. 3, 22.63.

(B-9-2)12ccc 1 (\*845, p. 568; 836, p. 782; 910, p. 52; 940, p. 50; 948, p. 52). State claim 499. G. D. Reeder. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 4.97; Sept. 27, 3.65; Dec. 4, 6.02.

(B-9-2)12ccd 1 (\*840, p. 538; 845, p. 568; 886, p. 782; \*910, p. 52; 940, p. 51; 948, p. 52). State claim 500. G. C. Reeder. Measuring point is 1.0 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 15.40; Sept. 27, 14.90; Dec. 4, 15.94.

(B-9-2)14dac 1 (\*317, p. 339; 840, p. 533; 845, p. 563; 836, p. 782; \*910, p. 53; 940, p. 51; 943, p. 52). State claim 549. W. W. and J. F. Knudsen. Measuring point is 1.5 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 21.24; Sept. 27, 18.51; Dec. 4, 20.22.

(B-9-2)25bda 1 (\*840, p. 538; 845, p. 568; 886, p. 782; \*910, p. 52; 940, p. 51; 943, p. 52). State claim 268. First National Bank of Brigham. Measuring point is 0.4 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 6	22.72	Aug. 4	14.30	Sept. 26	13.86	Oct. 26	15.28
July 28	14.49	5	14.68	27	13.92	Dec. 4	13.82

(B-9-2)35dcd 1 (\*317, p. 339; \*840, p. 538; 845, p. 569; 836, p. 782; \*910, p. 53; 940, p. 51; 943, p. 52). State claim 477. F. H. Hansen. Measuring point is 0.2 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 4, 39.24.

(B-9-3)1bbb 1 (\*817, p. 332; \*840, p. 538; 845, p. 569; 836, p. 783; \*910, p. 53; 940, p. 51; 943, p. 52). State claim 8477. Federal Land Bank. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 5.00; Dec. 4, 5.10.

(B-10-3)8dc 1 (\*317, p. 339; 840, p. 533; 845, p. 569; 836, p. 783; 910, p. 53; 940, p. 51; 943, p. 52). S. N. Cole. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 5.39; Dec. 4, 8.28.

(B-10-3)32aaa 1 (\*345, p. 569; 836, p. 783; 910, p. 53; 940, p. 51; 943, p. 52). B. E. Stallings. Water levels, in feet below land-surface datum, 1943: Mar. 5, 4.16; Dec. 4, 4.14.

Box Elder County--Continued

(B-10-15)26 (\*836, p. 783; 910, p. 53; 940, p. 51; 943, p. 52). Grazing Service, U. S. Dept. of Interior. Water level, in feet below land-surface datum, 1943: Sept. 27, 94.99.

(B-10-18)28dca (\*886, p. 783; 910, p. 53; 940, p. 51; 943, p. 52). Grazing Service, U. S. Dept. of Interior. Water level, in feet below land-surface datum, 1943: Sept. 26, 120.21.

(B-11-3)21bbb 2 (\*817, p. 390; \*840, p. 539; 845, p. 569; 886, p. 733; 910, p. 53; 940, p. 51; 943, p. 52). J. A. House. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 3.80; Dec. 4, 4.03.

(B-11-3)21bbb 3 (\*817, p. 390; 840, p. 539; 845, p. 569; 886, p. 783; \*910, p. 53; 940, p. 51; 943, p. 52). J. A. House. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 3.49; Dec. 4, 3.82.

(B-11-4)11aaa 1 (\*817, p. 391; \*840, p. 540; 845, p. 569; 886, p. 783; \*910, p. 53; 940, p. 51; 943, p. 52). State claim 3337. Fred Deininger. Measuring point is 3.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 6.04; Dec. 4, 5.55.

(B-11-18)22aa (\*817, p. 391; 845, p. 570; 886, p. 784; 910, p. 54; 940, p. 51; 943, p. 52). A. L. Paskett. Water level, in feet below land-surface datum, 1943: Sept. 26, 14.96.

(B-11-18)23bb (\*817, p. 391; 886, p. 784; 910, p. 54; 940, p. 51; 943, p. 53). Central Pacific Railroad. Water level, in feet below land-surface datum, 1943: Sept. 26, 15.05.

(B-12-3)11db 2 (\*836, p. 784; 910, p. 54; 940, p. 51; 943, p. 53). R. D. McFarlane. Measuring point is 3.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 5.06; Dec. 4, 7.24.

(B-12-4)11cb (\*817, p. 392; \*840, p. 540; 845, p. 570; 886, p. 784; \*910, p. 54; 940, p. 51; 943, p. 53). State claim 14152. Adolph Harris. Measuring point is 1.3 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 26, 114.33.

(B-12-11)22 (\*817, p. 392; 845, p. 570; 886, p. 784; \*910, p. 54; 940, p. 51; 943, p. 53). Grazing Service, U. S. Dept. of Interior. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 27, 9.08.

(B-12-14)2aa (\*817, p. 392; 840, p. 540; 845, p. 570; 936, p. 784; \*910, p. 54; 940, p. 51; 943, p. 53). Albert Hirschie. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 27, 9.43.

(B-13-5)17bb (\*817, p. 393; \*840, p. 541; 845, p. 570; 886, p. 785; \*910, p. 54; 940, p. 51; 943, p. 53). State claim 3776. R. A. Miller. Measuring point is 1.4 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 26, 61.50.

(B-13-5)23cb (\*817, p. 393; 840, p. 541; 845, p. 570; 936, p. 785; 910, p. 54; 940, p. 51; 943, p. 53). Joseph Aebischur. Measuring point is 1.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 26, 59.30.

(B-13-6)1cac 1 (\*910, p. 54; 940, p. 51; 943, p. 53). Deacon Bros. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 25, 153.30.

(B-13-13)28dd (\*817, p. 393; 845, p. 571; \*886, p. 785; 910, p. 54; 940, p. 52; 943, p. 53). L. G. Carter. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 27, 11.25.

(B-13-13)32aa (\*817, p. 393; 845, p. 571; 886, p. 785; 910, p. 54; 940, p. 52; 943, p. 53). John Vance. Water level, in feet below land-surface datum, 1943: Sept. 27, 26.09.

Box Elder County--Continued

(B-13-14)25cb (\*817, p. 393; 845, p. 571; 886, p. 785; 910, p. 54; 940, p. 52; 943, p. 53). J. H. Kunzler. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 27, 12.49.

(B-13-14)26bd (\*817, p. 393; 845, p. 571; 886, p. 785; 910, p. 54; 940, p. 52; 943, p. 53). W. A. Newman. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 27, 18.41.

(B-14-8)11ab (\*817, p. 393; 840, p. 541; 845, p. 571; 886, p. 785; 910, p. 54; 940, p. 52; 943, p. 53). B. S. Cutler. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 26, 45.50.

(B-14-9)10ad (\*817, p. 393; 840, p. 541; 845, p. 571; 886, p. 785; 910, p. 54; 940, p. 52; 943, p. 53). Abe Rose. Measuring point is 1.1 foot above land-surface datum. No measurements made in 1943.

(B-14-15)3ddd 1 (\*817, p. 393; 845, p. 571; 886, p. 735; 910, p. 54; 940, p. 52; 943, p. 53). M. A. Smith. Measuring point is 0.2 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 25, 48.32.

(B-14-15)11cc (\*817, p. 393; 845, p. 571; 886, p. 785; 910, p. 55; 940, p. 52; 943, p. 53). Mrs. C. B. Tracy. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 26, 22.94.

(B-15-14)36 (\*817, p. 393; 845, p. 571; 886, p. 735; 910, p. 55; \*940, p. 52; 943, p. 53). H. Alberts. Measuring point is 2.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 26, 4.13.

Cache County - Cache Valley

(A-9-1)10add 1 (\*817, p. 358; \*940, p. 523; 845, p. 571; 886, p. 785; 910, p. 55; 940, p. 52; 943, p. 54). State claim 8135. Drought Relief Administration. Measuring point is 3.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 5, 29.75; Dec. 3, 28.38.

(A-10-1)4ab (\*817, p. 358; 840, p. 523; 845, p. 571; 886, p. 785; 910, p. 55; 940, p. 52; 943, p. 54). O. H. Anderson. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 5, 10.19; Dec. 3, 9.42.

(A-11-1)3bda 1 (\*817, p. 358; \*840, p. 523; 845, p. 571; 886, p. 786; \*910, p. 55; 940, p. 52; 943, p. 54). State claims 23 and 8136. Drought Relief Administration. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 5, 36.64; Dec. 3, 31.81.

(A-11-1)8dda 3 (\*817, p. 359; \*840, p. 524; 845, p. 572; 886, p. 786; \*910, p. 55; 940, p. 52; 943, p. 54). State claim 1199. Amalgamated Sugar Co. Measuring point is 2.6 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 5, 11.7; Dec. 3, 14.2.

(A-11-1)8ddb 2 (\*817, p. 359; \*840, p. 524; 845, p. 572; 886, p. 786; \*910, p. 55; 940, p. 52; 943, p. 54). State claim 1210. Amalgamated Sugar Co. Measurements discontinued.

(A-11-1)18ddd 1 (\*817, p. 359; \*840, p. 524; 845, p. 572; 886, p. 786; \*910, p. 55; 940, p. 52; 943, p. 54). State claim 5950. Lovenus Olsen. Measuring point is 2.4 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 5, 4.85; Dec. 3, 8.2.

(A-11-1)30bdd 2 (\*817, p. 359; \*840, p. 524; 845, p. 573; 886, p. 787; 910, p. 56; \*940, p. 52; 943, p. 54). State claim 18191. L. S. Hill. Measuring point is 2.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 4, 4.38; Dec. 3, 1.25.

Cache County - Cache Valley--Continued

(A-12-1)3bbb 1 (\*817, p. 359; \*840, p. 525; 845, p. 573; 886, p. 787; \*910, p. 56; 940, p. 53; 948, p. 54). State claims 19 and 3129. Smith-field Irrigation Co. No measurements made in 1943.

(A-12-1)3bbb 2 (\*817, p. 360; 840, p. 525; 845, p. 573; 886, p. 787; 910, p. 56; 940, p. 53; 948, p. 54). Nora Johnson. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 3, 6.95.

(A-12-1)16bcd 1 (\*817, p. 360; \*840, p. 525; 345, p. 573; 886, p. 787; \*910, p. 56; 940, p. 53). State claim 11568. Logan City and Cache County. Measurements discontinued.

(A-12-1)16cca 1 (\*817, p. 360; \*840, p. 525; 845, p. 573; 886, p. 787; \*910, p. 56; 940, p. 53; 943, p. 54). State claim 10445. Benson Irrigation Co. Measurements discontinued after Dec. 29, 1942.

(A-12-1)29bdd (\*910, p. 56; 940, p. 53; 948, p. 55). Arnold Nielson. Measuring point is 0.4 foot above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.4	.....	15.6	.....	15.4	14.9	16.6	17.3	13.0	13.2	17.7	.....
2	17.3	.....	15.7	.....	15.6	14.9	16.6	17.4	13.1	13.2	17.7	.....
3	17.0	.....	16.2	14.8	15.4	15.0	16.5	.....	17.9	18.1	17.7	.....
4	17.1	.....	15.9	14.9	14.8	15.1	16.4	17.6	17.9	18.2	17.8	.....
5	17.2	.....	15.6	15.3	14.7	15.8	.....	17.6	18.1	18.1	17.7	.....
6	17.1	.....	14.7	14.6	15.3	15.9	.....	17.7	13.1	13.2	17.6	17.1
7	16.8	.....	14.6	15.3	15.4	16.0	16.3	17.7	18.1	18.1	17.7	18.2
8	16.9	.....	14.8	14.6	15.3	16.2	16.6	17.3	18.2	13.2	17.7	13.2
9	16.9	.....	14.8	14.4	15.5	16.4	16.9	17.9	13.1	13.2	17.7	18.2
10	16.7	.....	14.7	.....	15.4	16.4	16.3	17.9	13.2	13.3	.....	13.2
11	16.7	.....	14.3	14.4	15.2	16.4	16.9	17.9	13.2	13.3	.....	13.6
12	16.8	16.0	15.3	15.1	15.4	16.4	16.8	13.0	17.9	13.2	.....	13.7
13	16.7	16.0	15.1	15.1	15.6	16.0	16.7	17.9	13.2	13.2	.....	13.8
14	16.9	16.4	15.3	15.2	15.4	16.0	16.7	17.9	13.3	13.2	.....	13.9
15	17.4	16.7	14.7	15.3	15.1	15.6	16.9	17.8	13.2	13.0	.....	18.7
16	17.1	16.8	14.6	15.2	15.0	16.4	17.2	17.3	13.0	13.1	17.7	13.2
17	16.9	16.2	14.7	15.3	15.5	16.6	17.1	17.3	17.9	13.1	17.7	13.2
18	17.3	16.6	14.6	15.2	15.7	16.6	17.2	17.8	17.9	17.9	17.7	13.4
19	17.3	16.0	14.5	15.4	15.5	16.6	17.2	17.3	17.9	17.9	17.7	13.7
20	17.0	16.1	14.6	15.4	15.5	16.4	.....	17.9	17.9	.....	17.7	13.2
21	17.1	16.0	14.7	14.8	15.5	16.4	.....	17.9	17.3	.....	17.0	17.9
22	17.4	16.9	14.6	15.4	15.4	16.5	.....	17.9	17.9	.....	17.1	17.9
23	17.1	.....	15.2	15.6	15.4	16.4	.....	13.0	17.9	.....	17.2	17.9
24	16.9	16.4	15.1	15.1	15.4	16.6	17.0	13.1	17.9	.....	17.2	18.2
25	17.1	15.9	.....	15.3	15.3	16.6	16.9	17.9	17.9	.....	17.1	.....
26	17.2	16.2	.....	.....	15.4	16.6	17.0	13.0	13.0	.....	17.2	.....
27	17.0	16.3	15.3	15.3	15.4	16.3	17.1	13.2	13.2	.....	.....	.....
28	16.9	16.2	15.2	14.9	15.4	16.4	17.2	13.2	13.2	.....	.....	.....
29	17.2	.....	15.2	14.3	15.5	16.7	17.3	13.4	13.3	.....	.....	.....
30	17.1	.....	14.5	15.5	15.5	16.7	17.4	13.1	13.3	.....	.....	.....
31	.....	.....	15.2	.....	14.9	.....	17.2	13.1	.....	.....	.....	.....

(A-12-1)31dab 1 (\*817, p. 360; \*340, p. 525; 845, p. 573; 886, p. 787; \*910, p. 57; 940, p. 53; 948, p. 55). State claim 2537. R. S. Painter. Measuring point is 2.3 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 6, 34.5; Dec. 4, 35.8.

(A-13-1)16ccb 1 (\*840, p. 525; 845, p. 573; 886, p. 788; \*910, p. 57; 940, p. 54; 948, p. 55). State claim 14018. A. A. Miles. Measurements discontinued.

Cache County - Cache Valley--Continued

(A-13-1)29bdb 1 (\*817, p. 361; \*840, p. 526; 845, p. 574; 836, p. 788; \*910, p. 57; 940, p. 54; 948, p. 55). State claim 1682. J. C. Cannell. Water levels, with reference to land-surface datum, 1943: Mar. 5, -3.12; Dec. 3, a/+3.35.

(A-14-1)22bad 1 (\*845, p. 574; 836, p. 783; \*910, p. 57; 940, p. 54; 948, p. 56). State claim 17652. C. B. Stoddard. Measuring point is 2.0 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Dec. 3, 7.4.

(A-14-1)34adb 1 (\*817, p. 362; \*840, p. 527; 845, p. 574; 836, p. 788; \*910, p. 58; 940, p. 54; 948, p. 56). State claim 1373. Crockett Well Co. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 13.04; Dec. 3, 15.60.

(A-14-1)34cac 1 (\*817, p. 362; \*840, p. 527; 845, p. 574; \*836, p. 788; \*910, p. 58; 940, p. 54; 948, p. 56). State claim 10333. Victor Johnson. Measurements discontinued.

(A-14-1)34dca 1 (\*840, p. 527; \*345, p. 574; 836, p. 788; \*910, p. 53; 940, p. 54; 948, p. 56). State application 12652. Richmond Irrigation Co. Water levels, in feet below land-surface datum, 1943: Mar. 5, 1.31; Dec. 3, 3.62.

(B-11-1)3bcd 1 (\*817, p. 389; 840, p. 539; 845, p. 574; \*886, p. 789; \*910, p. 58; 940, p. 54; 948, p. 56). State claim 15787. Utah Power & Light Co. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Mar. 5, 6.4.

(B-11-1)13bbc 1 (\*317, p. 390; \*840, p. 539; 845, p. 575; 836, p. 789; 910, p. 58; 940, p. 54; 948, p. 56). State claim 19315. Alma Olsen. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 5, 37.2; Dec. 3, 39.9.

(B-11-1)35caa 1 (\*817, p. 390; \*840, p. 539; 845, p. 575; \*886, p. 789; 910, p. 58; 940, p. 54; 948, p. 57). State claim 1475. J. A. Lieshman. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 5, 16.1; Dec. 3, 17.6.

(B-11-1)35dad 1 (\*817, p. 390; \*840, p. 539; 845, p. 575; 836, p. 789; \*910, p. 58; 940, p. 54; 948, p. 57). State claim 5932. Andrew Hutchinson. Measurements discontinued.

(B-12-1)8cdb 2 (\*817, p. 391; \*840, p. 540; 845, p. 575; \*886, p. 789; 910, p. 58; 940, p. 54; 948, p. 57). State claim 16951. Edward Edwards. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 6, 7.3; Dec. 4, 8.6.

(B-13-1)30acc 1 (\*817, p. 392; \*840, p. 541; \*845, p. 575; 836, p. 789; \*910, p. 59; 940, p. 54; 948, p. 57). State claim 2757. E. R. Ballard. Measuring point is 3.0 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 6, 19.6; Dec. 4, 19.5.

Davis County

(A-2-1)17ccb 1 (\*840, p. 513; 845, p. 575; 836, p. 791; \*910, p. 59; 940, p. 54; 948, p. 57). State claim 11313. Will Holbrook. Water levels, in feet below land-surface datum, 1943: Jan. 1, 24.92; Mar. 3, 28.56; Dec. 2, 29.18.

a Well flowing prior to measurement.

## Davis County--Continued

(A-2-1)18abd (\*845, p. 576; 886, p. 791; 910, p. 59; 940, p. 55; 948, p. 57). T. Q. Williams. Measuring point is 2.4 feet above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	30.2	26.8	22.4	.....	18.5	18.7	.....	22.4
2	.....	.....	29.5	27.4	20.8	19.6	18.0	18.7	.....	22.4
3	.....	28.3	30.0	27.7	.....	19.4	.....	18.6	22.3	22.4
4	.....	28.4	27.2	28.2	.....	17.4	.....	18.4	22.3	22.4
5	.....	28.4	27.2	28.2	.....	17.9	.....	18.0	20.0	22.4
6	.....	28.5	26.7	28.4	.....	20.3	.....	18.4	20.0	22.5
7	.....	28.6	26.9	28.4	.....	21.2	.....	18.4	19.9	.....
8	.....	28.8	27.4	23.5	.....	19.0	.....	18.4	19.8	.....
9	.....	28.9	27.7	28.6	.....	20.1	.....	18.7	19.8	.....
10	.....	28.7	28.1	28.1	.....	.....	.....	19.2	19.9	.....
11	.....	28.7	27.7	28.3	.....	.....	.....	19.3	19.9	.....
12	.....	29.0	27.5	.....	22.9	.....	.....	18.6	.....	.....
13	.....	29.2	28.0	.....	21.4	.....	.....	18.9	.....	.....
14	.....	29.3	23.0	27.9	20.0	.....	.....	19.3	.....	.....
15	.....	29.4	.....	28.0	22.4	.....	.....	19.4	.....	.....
16	.....	29.4	.....	28.4	23.4	20.0	.....	19.5	.....	.....
17	.....	29.4	23.2	28.6	23.8	20.7	.....	19.5	.....	.....
18	.....	29.4	27.5	28.4	20.4	19.5	.....	19.5	.....	.....
19	.....	29.4	28.3	23.4	22.3	21.1	.....	19.5	.....	.....
20	.....	29.5	26.5	25.2	22.2	21.4	.....	19.5	.....	.....
21	28.2	29.7	26.7	24.7	20.3	20.4	.....	19.4	.....	.....
22	28.0	.....	26.4	24.2	19.7	19.4	.....	19.4	.....	.....
23	28.2	.....	26.4	23.8	20.7	19.4	.....	19.5	23.1	.....
24	28.3	.....	25.3	24.1	.....	17.4	.....	.....	22.9	.....
25	28.3	.....	24.0	25.6	.....	16.4	.....	.....	.....	.....
26	28.2	29.8	25.4	25.9	.....	15.1	.....	.....	.....	.....
27	29.3	30.3	24.5	24.9	.....	15.9	.....	.....	.....	.....
28	28.3	30.4	25.7	24.4	.....	17.4	.....	.....	.....	.....
29	29.0	30.4	23.6	22.5	.....	16.8	.....	.....	22.6	.....
30	23.2	30.4	25.1	21.3	.....	17.0	.....	.....	22.4	.....
31	28.3	.....	26.4	.....	.....	17.4	.....	.....	.....	.....

(A-2-1)18baa 1 (\*817, p. 351; \*840, p. 518; 845, p. 576; \*886, p. 792; \*910, p. 60; 940, p. 55; 948, p. 58). State claim 5391. F. W. Cottrell. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 41.8; Mar. 3, 40.7; Dec. 2, 35.7.

(A-2-1)18dba 3 (\*845, p. 576; 886, p. 792; \*910, p. 60; 940, p. 55; 948, p. 58). State claim 10464. A. E. M. Bangerter. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 15.8; Mar. 3, 15.6; Dec. 2, 10.5.

(A-2-1)19aad 1 (\*840, p. 513; 845, p. 576; 886, p. 792; \*910, p. 60; 940, p. 55; 948, p. 58). State claim 2059. Moses Holbrook. Water levels, in feet below land-surface datum, 1943: Jan. 1, 65.56; Mar. 3, 65.10; Dec. 2, 65.20.

(A-2-1)19abc 1 (\*840, p. 519; 845, p. 577; 886, p. 792; \*910, p. 61; 940, p. 55; 948, p. 58). State claim 1447. Bountiful City Corporation. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 4, 63.65.

(B-2-1)25bad 2 (\*817, p. 365; \*840, p. 528; 845, p. 577; 886, p. 793; \*910, p. 61; 940, p. 55; 948, p. 58). State claim 12452. Myrtle Hatch. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 9.2; Mar. 3, 9.2; Dec. 2, 5.2.

(B-2-1)26aad 1 (\*817, p. 368; \*840, p. 528; 845, p. 577; 886, p. 793; \*910, p. 61; 940, p. 55; 948, p. 58). State claim 3656. Clyde Hatch. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 51.5; Dec. 2, 46.2.

Davis County--Continued

(B-2-1)27ddd 4 (\*817, p. 373; \*840, p. 529; 845, p. 577; 836, p. 793; \*910, p. 61; 940, p. 55; 948, p. 58). State claim 12034. Albert Thalman. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 3, 30.9; Dec. 2, 26.5.

(B-2-1)34ada 3 (\*817, p. 374; 840, p. 529; 845, p. 577; 886, p. 793; \*910, p. 61; 940, p. 55; 948, p. 58). State claim 9308. M. H. Dearden. Measuring point is 3.7 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 20.9; Mar. 3, 20.7; Dec. 2, 20.0.

(B-2-1)36bad 2 (\*817, p. 378; \*840, p. 530; 845, p. 578; 886, p. 794; \*910, p. 62; 940, p. 56; 948, p. 58). State claim 4550. M. P. Parkin. Measuring point is 0.28 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 1, 12.17; Mar. 3, 12.68.

(B-2-1)36bbd 1 (\*817, p. 379; \*840, p. 530; 845, p. 578; 886, p. 794; \*910, p. 62; 940, p. 56; 948, p. 58). State claim 951. Anna I. Lemon. Measuring point is 1.3 feet above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.7	11.5	11.5	10.8	12.2	9.7	9.8	9.0	8.1	7.4	6.5	9.9
2	12.5	11.9	12.7	11.2	11.8	9.5	9.8	8.8	8.3	7.3	.....	9.8
3	11.8	11.8	11.8	11.3	12.1	9.7	9.8	9.0	8.2	7.3	9.9	9.8
4	11.7	11.8	10.7	11.0	11.7	9.8	9.8	9.1	8.3	7.3	10.0	9.5
5	12.3	12.7	10.6	11.2	11.5	9.8	9.8	9.1	8.3	7.3	10.0	10.0
6	12.2	12.8	11.1	11.3	11.3	10.1	10.0	9.1	8.1	7.2	9.9	9.9
7	12.2	12.1	10.3	10.8	11.0	10.1	9.8	9.2	8.4	7.0	9.8	9.8
8	11.9	12.0	10.5	11.2	11.2	10.1	9.9	8.8	8.3	6.9	9.8	9.8
9	11.9	11.5	10.3	11.2	11.3	10.3	10.0	8.8	8.4	6.9	9.9	9.8
10	11.8	12.1	10.3	11.1	11.4	10.3	9.9	8.8	8.5	6.9	9.9	9.6
11	11.8	12.0	10.3	10.8	10.9	10.3	10.0	8.7	8.5	6.7	9.9	9.4
12	11.8	12.2	10.5	11.1	11.1	10.2	9.8	8.5	8.4	6.5	10.0	9.4
13	11.7	11.8	10.8	11.3	11.2	9.9	9.7	8.6	8.4	6.7	9.9	9.5
14	11.8	11.9	10.8	11.6	11.1	9.6	9.7	8.6	8.4	6.6	9.9	9.3
15	12.6	11.9	10.0	11.8	11.1	9.5	9.6	8.4	8.3	6.8	10.0	9.3
16	12.1	11.4	10.9	11.8	10.7	9.8	9.8	8.5	8.2	7.0	9.9	9.1
17	12.1	12.3	10.3	11.8	11.0	10.3	9.7	8.3	8.3	7.3	9.9	9.3
18	11.3	11.3	10.0	11.9	10.9	10.4	9.7	8.4	8.3	7.2	9.9	9.3
19	11.8	11.3	10.1	12.1	11.1	10.4	9.6	8.3	8.1	6.7	10.1	9.5
20	12.8	11.3	10.1	11.8	10.8	10.3	9.4	8.8	8.1	6.6	10.2	9.6
21	12.5	11.4	10.0	12.1	10.7	10.3	9.7	8.9	8.1	6.9	10.2	9.5
22	12.4	11.8	10.5	11.8	10.7	10.3	9.5	8.7	8.0	6.6	10.3	9.5
23	12.6	11.6	10.3	12.3	10.6	10.1	9.4	8.6	7.8	6.7	10.1	9.5
24	11.9	11.3	10.3	12.0	10.6	10.1	9.4	8.5	8.0	6.8	10.0	9.4
25	11.3	11.1	10.5	12.1	10.7	10.2	9.5	8.3	7.9	6.9	9.9	9.6
26	12.1	11.3	10.6	11.6	10.5	10.1	.....	8.2	7.8	7.0	9.8	9.5
27	11.9	11.7	10.7	11.9	10.4	9.9	9.5	8.3	7.8	7.2	9.8	.....
28	11.8	11.6	10.9	11.9	10.4	10.0	9.3	8.3	7.7	6.9	9.8	.....
29	11.4	.....	10.9	11.5	10.3	9.9	9.2	8.3	7.4	6.8	9.8	.....
30	11.9	.....	10.2	11.9	10.3	9.8	9.1	8.1	7.4	6.7	9.9	.....
31	11.3	.....	10.4	.....	9.8	.....	9.1	8.0	.....	6.5	.....	.....

(B-2-1)36ccb 1 (\*817, p. 380; \*840, p. 530; 845, p. 579; \*886, p. 795; 910, p. 62; 940, p. 56; 948, p. 59). State claim 17108. Farmers State Bank. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 8.1; Mar. 3, a/7.5; Dec. 2, 3.3.

(B-3-1)15aab 1 (\*817, p. 381; \*840, p. 531; 845, p. 579; \*886, p. 795; \*910, p. 63; 940, p. 56; 943, p. 59). State claim 8156. Drought Relief Administration. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 1, 12.61; Mar. 3, 12.49; Dec. 2, 12.12.

(B-3-1)24aaa 4 (\*817, p. 381; \*840, p. 531; 845, p. 579; 886, p. 795; \*910, p. 63; 940, p. 56; 948, p. 59). State claim 10019. Lagoon Resort. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 3, 14.0; Dec. 2, 11.2.

a Well flowing prior to measurement.

Davis County--Continued.

(B-3-1)24aad 1 (\*817, p. 381; \*840, p. 531; 845, p. 579; 886, p. 795; \*910, p. 63; 940, p. 56; 943, p. 59). State claim 10012. Lagoon Resort. Measuring point is 3.0 feet below land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 5.85; Mar. 3, 5.7; Dec. 2, 4.2.

(B-4-1)19cd (\*817, p. 382; \*840, p. 531; 845, p. 579; 886, p. 795; 910, p. 63; 940, p. 57; 948, p. 59). Charles Layton. Measuring point is 1.6 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Jan. 1, 2.0; Mar. 3, 1.45; Dec. 2, 1.45.

(B-4-1)30ba (\*817, p. 382; 840, p. 532; 845, p. 579; 886, p. 795; 910, p. 63; 940, p. 57; 948, p. 59). W. W. Evans. Measuring point is 3.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 1, 0.33; Mar. 3, 0.35; Dec. 2, 0.80.

(B-4-1)34cbc 3 (\*840, p. 532; 845, p. 579; 886, p. 795; \*910, p. 63; 940, p. 57; 943, p. 59). State claim 14733. Kaysville Canning Corporation. Measuring point is 2.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 1, 1.13; Mar. 3, 1.29; Dec. 2, 2.54.

(B-4-2)1dcc 1 (\*817, p. 383; \*840, p. 532; 845, p. 530; \*886, p. 796; \*910, p. 64; 940, p. 57; 948, p. 59). State claim 8139. Drought Relief Administration. Measuring point is 0.5 foot above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	175.40	174.53	174.72	.....	174.33	.....
2	.....	.....	175.40	174.52	.....	.....	174.39	174.28
3	.....	.....	.....	174.54	.....	.....	174.38	174.33
4	.....	.....	.....	174.53	.....	174.66	174.34	174.28
5	.....	.....	.....	174.57	.....	174.66	174.28	174.17
6	.....	.....	.....	174.60	174.65	174.61	174.35	174.20
7	.....	.....	.....	.....	174.63	174.64	174.45	174.21
8	.....	.....	.....	.....	174.70	174.61	174.47	174.16
9	.....	.....	.....	.....	174.72	174.59	174.44	174.20
10	.....	a175.45	.....	.....	174.71	174.55	174.40	.....
11	.....	.....	.....	.....	174.69	174.42	.....	.....
12	.....	.....	.....	.....	174.70	.....	.....	.....
13	.....	.....	.....	174.60	174.70	.....	.....	.....
14	.....	.....	.....	.....	.....	.....	.....	.....
15	.....	.....	.....	.....	174.47	.....	.....	.....
16	.....	.....	.....	.....	174.45	.....	.....	.....
17	.....	.....	.....	.....	174.37	.....	.....	.....
18	a175.23	.....	.....	.....	174.38	.....	.....	.....
19	.....	.....	.....	.....	174.35	.....	.....	.....
20	.....	.....	.....	.....	174.33	174.25	.....	.....
21	.....	.....	.....	174.56	174.35	174.26	.....	174.32
22	.....	.....	.....	174.58	174.35	174.32	.....	174.32
23	.....	.....	.....	174.62	.....	174.33	174.20	174.34
24	.....	.....	.....	174.63	174.55	174.37	174.25	174.37
25	.....	175.40	.....	174.65	174.52	174.37	174.30	174.28
26	.....	175.40	.....	174.68	174.43	174.36	174.32	174.27
27	.....	175.45	.....	174.70	174.46	174.31	174.34	174.35
28	.....	175.45	.....	174.70	174.43	174.33	174.33	174.39
29	.....	175.43	.....	174.75	174.55	174.31	174.31	.....
30	.....	175.43	.....	174.75	174.53	174.21	174.21	.....
31	.....	.....	174.55	174.70	174.59	.....	.....	.....

(B-4-2)9caa 1 (\*840, p. 53; 845, p. 530; 836, p. 796; \*910, p. 64; 940, p. 57; 943, p. 59). State claim 11235. A. D. Miller. Measuring point is 1.0 foot above land-surface datum. Water level, in feet above land-surface datum, 1943: Mar. 3, 23.7.

a Tape measurement.



Davis County--Continued

(B-4-2)10daa 1 (\*817, p. 383; \*840, p. 532; 845, p. 580; 886, p. 796; \*910, p. 64; 940, p. 57; 948, p. 59). State claim 8143. Drought Relief Administration. Measuring point is 0.7 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Apr. 16, 34.68.

(B-4-2)20bbb 1 (\*840, p. 532; 845, p. 580; 886, p. 796; \*910, p. 64; 940, p. 57; 948, p. 59). State claim 12532. George Sandoz. Measuring point is 1.5 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Dec. 2, 33.1.

(B-5-3)36ada 1 (\*817, p. 384; \*840, p. 534; \*845, p. 580; \*886, p. 796; \*910, p. 64; 940, p. 57; 948, p. 59). State claim 3074. Mary Stoddard. Measuring point is 0.9 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 3, 30.2; Dec. 2, 27.4.

Duchesne County - Uinta Basin

U(B-1-1)31ddb (\*817, p. 477; \*840, p. 613; 845, p. 580; 886, p. 796; 910, p. 65; 940, p. 57; 948, p. 60). Morris Woodward. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 20, 5.78.

U(B-4-3)2bad 1 (\*886, p. 797; \*910, p. 65; 940, p. 57; 948, p. 60). State application 12553. Duchesne City. Measuring point is 1.0 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 21, 3.70; Oct. 19, 3.50.

U(C-1-2)4acd 1 (\*817, p. 478; \*840, p. 614; 845, p. 580; 886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). State claim 8162. Drought Relief Administration. Measuring point is 1.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 20, 14.09.

U(C-1-2)15bbc 1 (\*817, p. 478; \*840, p. 614; 845, p. 580; 886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). State claim 2152. R. M. Clarke. Measuring point is 2.6 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 20, 10.9.

U(C-1-2)27aaa (\*817, p. 478; \*840, p. 614; \*845, p. 581; 886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). State claim 8169. Drought Relief Administration. Measuring point is 2.7 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 20, 16.4.

U(C-1-3)28dcd 1 (\*886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). D. H. Allred. Measuring point is 1.3 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 5.89.

U(C-1-3)31cca 5 (\*886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). R. A. Lister. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 1.41.

U(C-1-4)14aad 1 (\*886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). State application 12748. Forest Service, U. S. Dept. of Agriculture. Water level, in feet below land-surface datum, 1943: Oct. 19, 1.98.

U(C-1-4)28dcc 1 (\*886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). State claim 8170. Drought Relief Administration. Measuring point is 6.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 5.95.

U(C-1-5)13ada 2 (\*817, p. 478; 840, p. 614; 845, p. 581; 886, p. 797; 910, p. 65; 940, p. 57; 948, p. 60). State claim 6006. Brigham Stephenson. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 5.90.

U(C-1-5)13ada 3 (\*817, p. 478; \*840, p. 614; 845, p. 581; \*886, p. 797; \*910, p. 65; 940, p. 58; 948, p. 60). State claim 8165. Drought Relief Administration. Measuring point is 7.2 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 7.12.

U(C-2-1)15dda 1 (\*886, p. 797; \*910, p. 65; 948, p. 60). State application 12977. R. Q. Warnock. Listed as U(C-2-1)15ddc 1 in Water-Supply Paper 910. Measuring point is 0.5 foot above land-surface datum. Water level, in feet above land-surface datum, 1943: Oct. 21, 73.3.

Duchesne County--Continued

U(C-2-1)22bb (\*840, p. 614; \*845, p. 581; 886, p. 797; \*910, p. 65; 940, p. 58; 948, p. 60). State application 12440. E. H. Peterson. Measuring point is 0.6 foot above land-surface datum. Water level, in feet above land-surface datum, 1943: Oct. 20, 31.3.

U(C-2-1)22bbb 1 (\*817, p. 478; \*840, p. 614; 845, p. 581; 886, p. 797; 910, p. 65; 940, p. 58; 948, p. 60). State claim 958. Stephen Wogac. Measuring point is 1.0 foot above land-surface datum. Water level, in feet above land-surface datum, 1943: Oct. 20, 29.5.

U(C-2-2)13ccc (\*886, p. 798; 910, p. 65; 940, p. 58; 948, p. 60). State claim 1861. J. O. Griffin. Measuring point is 2.0 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Oct. 20, 3.55.

U(C-2-2)23bac 1 (\*817, p. 478; \*840, p. 614; 845, p. 581; 886, p. 798; 910, p. 65; 940, p. 58; 948, p. 60). State claim 1658. City of Roosevelt. Water level, in feet above land-surface datum, 1943: Oct. 20, 10.7.

U(C-2-3)10dad (\*886, p. 798; 910, p. 65; 940, p. 58; 948, p. 61). George Vangundy. Measuring point is 1.2 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 13.8.

U(C-2-3)28da (\*817, p. 478; 840, p. 614; 845, p. 581; 886, p. 798; 910, p. 65; 940, p. 58; 948, p. 61). Drought Relief Administration. Measuring point is 5.6 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 2.57.

U(C-2-3)33ccd 1 (\*886, p. 798; 910, p. 66; 940, p. 58; 948, p. 61). E. B. Thompson. Measuring point is 1.5 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 21, 6.0.

U(C-2-5)2bbc 1 (\*817, p. 478; \*886, p. 798; \*910, p. 66; 940, p. 58; 948, p. 61). State claim 8161. Drought Relief Administration. Measuring point is 2.8 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 19, 5.05.

U(C-2-5)2bc (\*817, p. 478; 840, p. 614; 845, p. 581; 886, p. 798; 910, p. 66; 940, p. 58; 948, p. 61). Talmage School. Measurements discontinued.

U(C-3-3)8cdd 1 (\*817, p. 478; 840, p. 614; 845, p. 581; 886, p. 798; 910, p. 66; 940, p. 58; 948, p. 61). Henry Richins. Measuring point is 1.7 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Oct. 21, 13.7.

U(C-3-4)7ca 1 (\*817, p. 479; \*886, p. 798; 910, p. 66; 948, p. 61). Knight Investment Co. Measuring point is 2.4 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Aug. 21, 94.18.

U(C-3-4)7ca 2 (\*845, p. 581; 886, p. 798; 910, p. 66; 940, p. 58; 948, p. 61). Knight Investment Co. Measuring point is 2.4 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Aug. 21, 118.22.

U(C-3-4)21aa (\*817, p. 479; 840, p. 614; 845, p. 581; 886, p. 798; 910, p. 66; 940, p. 58; 948, p. 61). Knight Investment Co. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 21, 95.15; Oct. 19, 94.26.

U(C-3-4)22ba (\*817, p. 479; 840, p. 614; 845, p. 581; 886, p. 798; 910, p. 66; 940, p. 58; 948, p. 61). Knight Investment Co. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 21, 152.55; Oct. 19, 152.44.

Duchesne County--Continued

U(C-4-2)5bb (\*817, p. 479; 840, p. 614; 845, p. 581; 886, p. 798; 910, p. 66; 940, p. 58; 948, p. 61). Drought Relief Administration. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 21	2.28	Nov. 9	2.39	Nov. 25	2.41	Dec. 11	2.52
22	2.28	10	2.39	26	2.41	12	2.54
23	2.30	11	2.36	27	2.41	13	2.55
24	2.32	12	2.36	28	2.41	14	2.56
25	2.33	13	2.36	29	2.41	20	2.64
26	2.36	14	2.36	30	2.41	21	2.64
27	2.35	15	2.36	Dec. 1	2.41	22	2.65
28	2.36	16	2.37	2	2.46	23	2.66
30	2.38	17	2.37	3	2.46	24	2.66
31	2.38	18	2.38	4	2.47	25	2.67
Nov. 1	2.38	19	2.38	5	2.48	26	2.67
2	2.38	20	2.38	6	2.48	27	2.86
3	2.36	21	2.39	7	2.52	28	2.87
4	2.36	22	2.41	8	2.52	29	2.87
5	2.36	23	2.41	9	2.52	30	2.87
6	2.36	24	2.41	10	2.52	31	2.88
8	2.39						

U(C-4-2)5bb 2. Lila Gentry. Unused well, diameter 2½ inches, depth 7½ feet. Measuring point, top of casing, 0.6 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 21, 5.05; Nov. 8, 3.88.

U(C-4-3)3cb (\*817, p. 479; \*840, p. 614; 845, p. 581; 886, p. 798; \*910, p. 66; 940, p. 58; 948, p. 61). State claim 13129. Roy Taylor. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 21, 7.52.

U(C-4-3)4bdc 1 (\*886, p. 799; 910, p. 66; 940, p. 58; 948, p. 61). State application 12568. Bureau of Reclamation, U. S. Dept. of Interior. Measuring point is 4.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 21, 7.27; Oct. 21, 7.30.

Garfield County

(C-31-2)10cba 1 (\*840, p. 565; 845, p. 581; 886, p. 799; 910, p. 66; \*940, p. 58; 948, p. 61). Gus Lambson. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 18.97; Dec. 15, 19.52.

(C-32-2)2dad 1 (\*840, p. 565; 845, p. 581; 886, p. 799; 910, p. 66; \*940, p. 58; 948, p. 61). T. W. Roberts. Measuring point is 3.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 11.54; Dec. 15, 11.58.

(C-33-5)21bdb 1 (\*817, p. 424; 840, p. 566; 845, p. 581; 886, p. 799; 910, p. 66; \*940, p. 58; 948, p. 62). Eva Tebbs. Measuring point is 2.4 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 11, 13.23; Dec. 14, 12.21.

(C-33-5)28bcd 1 (\*840, p. 566; 845, p. 582; 886, p. 799; \*910, p. 66; 940, p. 59; 948, p. 62). State application 11739. Annie Wilcock. Water level, in feet below land-surface datum, 1943: Dec. 14, 45.57.

(C-34-5)8adb 2 (\*817, p. 426; \*840, p. 569; 845, p. 582; 836, p. 799; \*910, p. 66; 940, p. 59; 948, p. 62). Deward Woodard. Measuring point is 4.7 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 14, 16.8; Mar. 11, 18.12; Dec. 15, 16.7.

(C-34-5)28dca 1 (\*817, p. 426; 840, p. 569; 845, p. 582; \*886, p. 799; 910, p. 66; \*940, p. 59; 948, p. 62). Reed Hayward. Water levels, in feet below land-surface datum, 1943: Mar. 11, 14.77; Dec. 14, 12.64.

Garfield County--Continued

(C-35-4)34dca 1 (\*845, p. 582; 886, p. 799; \*910, p. 67; 940, p. 59; 948, p. 62). State claim 5140. Charles and Will Proctor. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 5.70; Dec. 14, 7.59.

(C-36-3)7aac 1 (\*845, p. 582; \*886, p. 799; 910, p. 67; \*940, p. 59; 948, p. 62). Lillie Stead. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 5.74; Dec. 14, 5.37.

(C-36-3)18bdd 1 (\*845, p. 582; 886, p. 799; 910, p. 67; 940, p. 59; 948, p. 62). R. G. Syrett. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 103.14; Dec. 14, 59.14.

(C-36-5)29da (\*817, p. 435; 840, p. 535; \*845, p. 532; 886, p. 800; 910, p. 67; 940, p. 59; 948, p. 62). J. A. Yardley. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 30.98; Dec. 14, 27.07.

Grand County

(D-22-19)27dbb (\*948, p. 62). Frank Paxton. Water level, in feet below land-surface datum, 1943: Nov. 26, 43.08.

(D-24-20)22bac 1 (\*948, p. 62). Grazing Service, U. S. Dept. of Interior. Measuring point is 2.5 feet below land-surface datum. Erroneously reported in Water-Supply Paper 948 as 2.5 feet above land-surface. Water levels, in feet below land-surface datum, 1943: Nov. 26, 11.73; Dec. 1, 10.97; Dec. 15, 11.01.

(D-26-22)17dbb (\*948, p. 62). Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Nov. 24, 48.65.

Iron County - Cedar City Valley

(C-33-11)30ddd 1 (\*845, p. 590; \*886, p. 800; \*910, p. 67; 940, p. 59; 948, p. 63). State claim 6005. G. P. Stapley. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 35.14; Dec. 11, 35.47.

(C-34-10)6ccc 1 (\*845, p. 594; \*886, p. 801; \*910, p. 67; 940, p. 59; 948, p. 63). State claim 11213. Public land. Water levels, in feet below land-surface datum, 1943: Mar. 23, 9.32; Dec. 10, 10.25.

(C-34-10)31cbc 1 (\*845, p. 594; \*886, p. 801; 910, p. 67; 940, p. 59; 948, p. 63). M. S. Jones. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 10, 0.19.

(C-34-11)9cdc 1 (\*845, p. 595; \*886, p. 802; 910, p. 68; 940, p. 59; 948, p. 63). D. C. Evans. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 11, 22.43.

(C-34-11)29bad 1 (\*840, p. 570; \*845, p. 595; \*886, p. 803; 910, p. 69; 940, p. 59; 948, p. 63). E. E. Williams. Measuring point is 1.7 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 11, 23.99.

(C-34-11)36cbc 2 (\*840, p. 571; 845, p. 596; \*886, p. 804; \*910, p. 69; 940, p. 59; 948, p. 63). State claim 10320. George Grimshaw. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 17.79; Dec. 10, 18.90.

(C-35-10)18cbb 1 (\*840, p. 574; 845, p. 598; \*886, p. 804; \*910, p. 69; 940, p. 59; 948, p. 63). Richard Williams. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 41.95; Dec. 10, 47.03.

Iron County - Cedar City Valley--Continued

(C-35-11)lcde 1 (\*840, p. 574; 845, p. 598; \*386, p. 805; \*910, p. 70; 940, p. 59; 948, p. 63). State claim 17278. Ray Grimshaw. Measuring point is 1.0 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 2.85; Dec. 10, 4.01.

(C-35-11)4dda 1 (\*840, p. 575; \*845, p. 599; \*886, p. 805; \*910, p. 70; 940, p. 59; 948, p. 63). State claim 5121. Federal Land Bank. Measuring point is 0.6 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 11, 2.69.

(C-35-11)8cdd 1 (\*840, p. 575; \*845, p. 599; 886, p. 806; \*910, p. 71; 940, p. 59; 948, p. 63). State claim 13703. Charles Corry. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 8.26; Dec. 11, 11.96.

(C-35-11)14dab 1 (\*840, p. 575; 845, p. 602; \*886, p. 809; \*910, p. 73; 940, p. 59; 948, p. 63). State claim 14000. David Murie. Water levels, in feet, with reference to land-surface datum, 1943: Mar. 22, +0.50; Dec. 10, -1.56.

(C-35-11)15aac 1 (\*840, p. 575; 845, p. 602; \*886, p. 809; \*910, p. 74; 940, p. 59; 948, p. 63). State claim 1220. H. D. Haight. Measuring point is 0.7 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 11, 8.67.

(C-35-11)21dbd 1 (\*886, p. 810; 910, p. 75; 940, p. 60; 948, p. 63). State claim 1222. D. C. Urle.

Water level, at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.69	21.46	21.15	20.74	21.15	21.45	22.22	23.60	24.98	25.40	25.50	25.20
2	21.71	21.40	21.21	20.70	21.20	21.50	22.27	23.64	25.02	25.38	25.49	25.23
3	21.77	21.43	21.15	20.69	21.20	21.49	22.32	23.70	25.03	25.38	25.50	25.23
4	21.73	21.38	21.09	20.68	21.15	21.52	22.37	23.74	25.11	25.39	25.46	25.16
5	21.67	21.44	21.13	20.64	21.20	21.58	22.42	23.78	25.15	25.36	25.42	25.12
6	21.72	21.44	21.15	20.60	21.24	21.59	22.49	23.76	25.19	25.37	25.45	25.14
7	21.71	21.35	21.13	20.66	21.26	21.61	22.51	23.82	25.21	25.38	25.47	25.14
8	21.68	21.31	21.08	20.60	21.33	21.62	22.54	23.87	25.24	25.37	25.44	25.11
9	21.65	21.36	21.08	20.59	21.35	21.64	22.60	23.90	25.28	25.36	25.40	25.11
10	21.65	.....	21.04	20.61	21.34	21.60	22.65	23.96	25.31	25.43	25.44	25.16
11	21.65	.....	21.01	20.63	21.29	21.59	22.71	24.01	25.32	25.45	25.44	25.13
12	21.66	.....	21.04	20.65	21.30	21.62	22.79	24.06	25.32	25.52	25.42	25.12
13	21.67	21.38	20.98	20.61	21.28	21.69	22.88	24.12	25.32	25.53	25.35	25.10
14	21.60	21.34	20.93	20.56	21.25	21.74	22.90	24.16	25.32	25.54	25.37	25.10
15	21.52	21.31	21.00	20.54	21.27	21.77	22.93	.....	25.34	25.59	25.37	25.09
16	21.52	21.28	20.99	20.57	21.31	21.78	23.00	.....	25.36	25.59	25.35	25.10
17	21.52	21.29	20.87	20.59	21.29	21.78	23.07	.....	25.38	25.59	25.31	25.09
18	21.67	21.31	20.95	20.55	21.29	21.82	23.11	.....	25.39	25.58	25.31	25.02
19	21.63	21.30	20.93	20.48	21.28	21.84	23.12	.....	25.43	25.57	25.30	24.99
20	21.52	21.26	20.96	20.52	21.29	21.89	23.16	.....	25.44	25.57	25.28	24.98
21	21.49	21.20	.....	20.52	21.34	21.93	23.23	24.46	25.47	25.54	25.25	24.95
22	21.51	21.18	20.80	20.56	21.38	21.96	23.26	24.48	25.49	25.53	25.27	24.96
23	21.46	21.21	20.89	20.57	21.32	21.92	23.27	24.51	25.53	25.52	25.28	24.96
24	21.55	21.20	20.88	20.62	21.32	21.97	23.31	24.59	25.55	25.52	25.28	24.94
25	21.53	21.27	20.82	20.65	21.34	22.00	23.35	24.65	25.52	25.50	25.27	24.90
26	21.50	21.25	20.78	20.71	21.35	22.03	23.41	24.71	25.51	25.49	25.26	.....
27	21.47	.....	20.79	20.76	21.41	22.05	23.44	24.75	25.48	.....	25.25	.....
28	21.48	21.22	20.76	20.91	21.43	22.06	23.48	24.79	25.48	.....	25.25	.....
29	21.44	.....	20.72	21.04	21.44	22.11	23.51	24.82	25.47	.....	25.23	24.89
30	21.45	.....	20.77	21.10	21.41	22.13	23.51	24.88	25.44	25.46	25.20	24.89
31	21.53	.....	20.79	.....	21.45	.....	23.54	24.94	.....	25.47	.....	24.88

a Beginning Apr. 27 Gardner states "adjacent well started."

Iron County - Cedar City Valley--Continued

(C-35-11)21dce 1 (\*817, p. 429; \*840, p. 576; 845, p. 603; \*886, p. 811; \*910, p. 76; 940, p. 60; 948, p. 64). State claim 11599. Wilford Fife. Measuring point is 0.6 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 11, 24.10.

(C-35-11)27acc 1 (\*817, p. 429; \*840, p. 577; \*845, p. 604; \*886, p. 811; \*910, p. 77; 940, p. 60; 948, p. 64). State claim 382. Fernleigh Gardner. Measuring point is 0.1 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	33.47	Apr. 24	32.86	Aug. 24	a 47.94	Nov. 27	41.07
Feb. 27	33.17	May 26	36.78	Sept. 28	a 49.17	Dec. 11	40.38
Mar. 22	32.91	June 28	a 43.80	Oct. 30	43.03	29	39.77
29	32.92	July 27	a 46.14				

(C-35-11)29abd 2 (\*840, p. 577; \*845, p. 605; \*886, p. 813; \*910, p. 77; 940, p. 60; 948, p. 64). No measurements made in 1943.

(C-35-11)31acd 1 (\*817, p. 431; \*840, p. 578; 845, p. 606; \*886, p. 814; \*910, p. 78; 940, p. 60; 948, p. 64). State claim 13498. Heber Jensen. Measuring point is 1.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 17.90; Dec. 11, 22.65.

(C-35-11)32cdd 1 (\*840, p. 578; 845, p. 606; \*886, p. 814; \*910, p. 79; 940, p. 60; 948, p. 64). State claim 11595. C. R. Matheson. Measuring point is 1.2 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 23, 37.46. Measurements discontinued.

(C-35-11)33aac 1 (\*777, p. 244; \*817, p. 532; \*840, p. 578; 845, p. 607; \*886, p. 814; 910, p. 79; 940, p. 60; 948, p. 64). State claim 5126. Cottonwood Pump & Irrigation Co. Water levels, in feet below land-surface datum, 1943: Mar. 22, 55.70; Dec. 11, 63.13.

(C-35-12)34dcd 1 (\*817, p. 433; \*840, p. 579; \*845, p. 608; \*886, p. 815; \*910, p. 80; 940, p. 60; 948, p. 64). State claim 4873. R. J. and W. M. Shay. Measuring point is 0.62 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 16.08; Dec. 11, 16.71.

(C-36-11)8aab 1 (\*817, p. 435; \*840, p. 586; 845, p. 612; \*886, p. 816; \*910, p. 81; 940, p. 60; 948, p. 65). State claim 13494. Leonard Hargrave. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 45.67; Dec. 11, 51.28.

(C-36-11)18aba 2 (\*817, p. 436; 840, p. 586; 845, p. 613; 886, p. 817; \*910, p. 81; 940, p. 61; 948, p. 65). State claim 17383. Jacob Smith. Water level, in feet below land-surface datum, 1943: Dec. 11, 20.69.

(C-36-12)1aaa 2 (\*817, p. 436; \*840, p. 587; 845, p. 614; \*886, p. 818; \*910, p. 82; 940, p. 61; 948, p. 65). State claim 13995. M. J. McFarland. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land surface datum, 1943: Mar. 23, 4.98; Dec. 11, 9.64.

(C-36-12)12dba 1 (\*817, p. 437; 840, p. 587; 845, p. 615; \*886, p. 819; \*910, p. 83; 940, p. 61; 948, p. 65). State claim 15411. Branch Agricultural College. Measuring point is 2.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 10.35; Dec. 11, 13.50.

(C-36-12)14bbd 1 (\*817, p. 437; 840, p. 587; 845, p. 615; \*886, p. 819; 910, p. 84; 940, p. 61; 948, p. 65). G. H. Pratt. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 6.60; Dec. 11, 7.20.

(C-36-12)20dde 1 (\*910, p. 84; 940, p. 61; 948, p. 65). State claim 13516. E. L., H. D., and L. M. Jones. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 2.18; Dec. 11, 2.31.

a Pumping.

Iron County - Cedar City Valley--Continued

(C-36-12)26cbb 1 (\*845, p. 616; \*886, p. 820; \*910, p. 84; 940, p. 61; 948, p. 65). State claim 13747. Cox and Thorley. Measuring point is 0.8 foot above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 11, 5.1.

(C-36-12)28ccc 1 (\*845, p. 616; \*886, p. 820; 910, p. 85; 940, p. 61; 948, p. 65). A. P. Spillsbury. Measuring point is 0.7 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 22, 6.4; Dec. 11, 6.15.

(C-37-12)9baa 1 (\*845, p. 617; \*886, p. 821; \*910, p. 86; 940, p. 61; 948, p. 65). State claim 16350. Platt Watson. Measuring point is 1.5 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 22, 4.1; Dec. 11, 3.88.

(C-37-12)11dbc 1 (\*845, p. 617; \*886, p. 821; 910, p. 86; 940, p. 61; 948, p. 65). Oliver Berkholder. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 7.49; Dec. 11, 9.55.

(C-37-12)23acb 1 (\*817, p. 438; \*840, p. 588; \*345, p. 817; \*886, p. 822; \*910, p. 87; 940, p. 61; 948, p. 65). State claim 13010. Federal Land Bank. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 48.95; Dec. 11, 51.39.

(C-37-12)34abb 1 (\*817, p. 438; \*840, p. 588; \*845, p. 618; \*886, p. 822; \*910, p. 87; 940, p. 61; 948, p. 65). State claims 1646 and 8184. Kanarra Field & Reservoir Co. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 36.86; Dec. 11, 39.78.

(C-38-12)3bcb 1 (\*345, p. 618; \*886, p. 822; \*910, p. 87; 940, p. 61; 948, p. 65). State claim 12845. Ford and Williams. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 22, 66.59; Dec. 11, 65.84.

Iron County - Escalante Valley 7/

(C-31-12)9abb 1 (\*886, p. 823; 910, p. 87; \*940, p. 61; 948, p. 65). R. R. McGinty and others. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 76.43; Dec. 8, 76.43.

(C-31-12)9cbc 1 (\*886, p. 823; 910, p. 87; \*940, p. 61; 948, p. 65). Alta Bonner. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 60.54; Dec. 8, 60.41.

(C-31-12)17cad 1 (\*910, p. 87; \*940, p. 61; 948, p. 66). Alta Bonner. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 44.00; Dec. 8, 43.87.

(C-31-12)19ccd 1 (\*886, p. 823; 910, p. 87; \*940, p. 61; 948, p. 66). State claim 20091. Public land. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 48.74; Dec. 8, 48.54.

(C-31-13)1a 1 (\*845, p. 582; 886, p. 823; \*910, p. 87; \*940, p. 61; 948, p. 66). State claim 6486. Public land. Water levels, in feet below land-surface datum, 1943: Mar. 13, 27.70; Dec. 8, 28.05.

(C-31-13)1a 2 (\*817, p. 424; 840, p. 565; \*845, p. 533; 886, p. 823; 910, p. 87; 940, p. 61; 948, p. 66). Public land. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 27.52; Dec. 8, 27.61.

(C-31-13)4bcc 2 (\*940, p. 61; 948, p. 66). State claim 14007. J. O. Steele. Water levels, in feet below land-surface datum, 1943: Mar. 13, 27.95; Dec. 8, 29.05.

7/ For other wells in Escalante Valley see pages 40-52, 79-80, 133.

Iron County - Escalante Valley--Continued

(C-31-13)4cdd 1 (\*845, p. 583; 886, p. 823; 910, p. 87; 940, p. 61; 948, p. 66). Pearl Boeck. Water level, in feet below land-surface datum, 1943: Mar. 13, 24.75.

(C-31-13)6adc 1 (\*910, p. 87; 940, p. 61; 948, p. 66). State claim 17348. Myrtle Colvin. Measurements discontinued after July 30, 1942.

(C-31-13)7dda 1 (\*910, p. 87; \*940, p. 62; 948, p. 66). Chas. B. Mannell. Measurements discontinued after Apr. 18, 1942.

(C-31-13)8dbc 1 (\*845, p. 583; 886, p. 823; \*910, p. 87; \*940, p. 62; 948, p. 66). State claim 11588. Public land. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 36.16; Dec. 8, 36.53.

(C-31-13)27bcd 1 (\*910, p. 88; \*940, p. 62; 948, p. 66). State claim 11567. Bell Couch. Measuring point is 0.3 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 39.39; Dec. 8, 39.71.

(C-31-13)33ccc 1 (\*845, p. 583; 886, p. 823; 910, p. 88; 940, p. 62; 948, p. 66). Lemont Lowe. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 33.71; Dec. 8, 33.70.

(C-31-14)9bcd 1 (\*910, p. 88; \*940, p. 62; 948, p. 66). State claim 13999. Public land. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 8, 42.68.

(C-31-14)28caa 1 (\*910, p. 88; 940, p. 62; 948, p. 66). State claim 6008. J. A. Paramore. Measuring point is 2.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 13, 136.35; Dec. 8, 137.84. Measurements discontinued.

(C-32-12)6cbb 1 (\*910, p. 88; \*940, p. 62; 948, p. 66). G. A. Lowe, Jr. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 60.36; Dec. 8, a/ 60.88.

(C-32-12)34dda 1 (\*886, p. 823; 910, p. 88; 940, p. 62; 948, p. 66). State claim 6004. W. L. Adams. Water level, in feet below land-surface datum, 1943: Mar. 15, 11.10.

(C-32-13)6baa 1 (\*940, p. 62; 948, p. 67). Wm. Hinz. Measuring point is 2.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 15, 13.92.

(C-32-13)9bdd 1 (\*845, p. 584; \*886, p. 823; \*910, p. 88; 940, p. 62; 948, p. 67). State claim 5229. Alma Frahske. Measurements discontinued after Dec. 11, 1942.

(C-32-14)10dcc 1 (\*886, p. 824; 910, p. 88; 940, p. 62; 948, p. 67). Geological Survey, U. S. Dept. of Interior. Measurements discontinued after July 31, 1942.

(C-32-14)12ccd 1 (\*886, p. 824; 910, p. 88; \*940, p. 62; 948, p. 67). Fred C. Page1. Water levels, in feet below land-surface datum, 1943: Mar. 15, 22.90; Dec. 8, 23.35.

(C-32-14)28bbb 1 (\*340, p. 566; \*845, p. 584; \*886, p. 824; 910, p. 88; 940, p. 62; 948, p. 67). State claim 17227. Joseph Dyson. Measuring point is 0.3 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 2.94; Dec. 8, 3.37.

(C-32-14)30bab 1 (\*910, p. 88; 940, p. 62; 948, p. 67). J. H. Johnston. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, b/32.63; Dec. 8, 34.94.

---

a Windmill pumping during measurement.

b Windmill stopped 10 minutes prior to measurement.



Iron County - Escalante Valley--Continued

(C-32-14)32add 1 (\*886, p. 824; 910, p. 88; 940, p. 62; 948, p. 67). Geological Survey, U. S. Dept. of Interior. Measuring point is 1.4 feet above land-surface datum. Measurements discontinued after Aug. 1, 1942.

(C-32-14)32add 2 (\*948, p. 67). J. H. Johnston. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 10.55; Dec. 12, 12.52.

(C-32-16)26abb 1 (\*940, p. 62; 948, p. 67). Byant Hedrick. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 68.43.

(C-32-16)27baa 1 (\*940, p. 62; 948, p. 67). State claim 17689. Donald Mackelprang. Water level, in feet below land-surface datum, 1943: Mar. 16, 28.92.

(C-32-16)28b (\*940, p. 62; 948, p. 67). Byant Hedrick. Water level, in feet below land-surface datum, 1943: Mar. 16, 13.62.

(C-33-12)17abd 1 (\*940, p. 63; 948, p. 67). State claim 13489. Iron County. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 15, 108.57.

(C-33-12)18bda 1 (\*940, p. 63; 948, p. 67). State claim 13715. Public land. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 15, 81.70.

(C-33-12)29adc 1 (\*940, p. 63; 948, p. 67). State claim 17643. R. B. Nelson. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 120.45; Dec. 12, 120.75.

(C-33-13)3d (\*940, p. 63; 948, p. 67). Rebecca Bulloch. Measuring point is 1.8 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 12, 64.52.

(C-33-14)8ccc 1 (\*886, p. 824; 910, p. 88; 940, p. 63; 948, p. 67). Geological Survey, U. S. Dept. of Interior. Measuring point is 0.7 foot above land-surface datum. Measurements discontinued after Dec. 11, 1942.

(C-33-14)15dbd 1 (\*886, p. 824; 910, p. 88; 940, p. 63; 948, p. 68). Grazing Service, U. S. Dept. of Interior. Measuring point is 0.7 foot above land-surface datum. Measurements discontinued after Dec. 11, 1942.

(C-33-14)19adb 1 (\*886, p. 824; 910, p. 89; 940, p. 63; 948, p. 68). Geological Survey, U. S. Dept. of Interior. Measuring point is 0.5 foot above land-surface datum. Measurements discontinued after Apr. 20, 1942.

(C-33-14)36ddc 1 (\*817, p. 427; \*840, p. 567; 845, p. 590; 886, p. 824; 910, p. 89; \*940, p. 63; 948, p. 68). Henry Jones. Measuring point is 1.8 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 15, 68.14.

(C-33-15)3daa 1 (\*940, p. 63; 948, p. 68). William Adams. Measurements discontinued after Aug. 4, 1942.

(C-33-15)12aaa 1 (\*886, p. 824; 910, p. 89; \*940, p. 63; 948, p. 68). State of Utah. Measuring point is 3.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 16.55; Dec. 12, 16.55.

(C-33-15)13cbb 1 (\*886, p. 824; 910, p. 89; 940, p. 63; 948, p. 63). Iron County. Measuring point is 2.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 12.96; Dec. 12, 13.45.

(C-33-15)19bcc 1 (\*840, p. 567; 845, p. 590; 886, p. 825; 910, p. 89; 940, p. 63; 948, p. 68). Robins and Maguire. Measuring point is 4.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 74.73; Dec. 12, 72.85.

(C-33-15)25bbb 1 (\*886, p. 825; 910, p. 89; 940, p. 63; 948, p. 68). Public land. Measuring point is 4.8 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 7.34; Dec. 12, 7.68.

Iron County - Escalante Valley--Continued

(C-33-15)27cda 1 (\*886, p. 825; 910, p. 89; 940, p. 63; 948, p. 68). Public land. Measuring point is 0.2 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 12, 17.34.

(C-33-15)31cbb 1 (\*817, p. 425; \*840, p. 568; 845, p. 590; 886, p. 825; 910, p. 89; 940, p. 63; 948, p. 68). Jesse Carlson. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 26.37; Dec. 12, 26.80.

(C-33-15)33cdb 1 (\*840, p. 568; 845, p. 590; \*886, p. 825; \*910, p. 89; 940, p. 63; 948, p. 68). State claim 13492. Arlie Fourman. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 9.74; Dec. 12, 9.91.

(C-33-15)34ddd 1 (\*886, p. 825; 910, p. 89; 940, p. 63; 948, p. 68). Geological Survey, U. S. Dept. of Interior. Measurements discontinued after Dec. 11, 1942.

(C-33-15)36ccc 1 (\*886, p. 825; 910, p. 89; 940, p. 63; 943, p. 68). Geological Survey, U. S. Dept. of Interior. Measurements discontinued after Dec. 11, 1942.

(C-33-16)10ccc 1 (\*948, p. 68). A. B. Boghessian. Measurements discontinued after Aug. 4, 1942.

(C-33-16)11cdc 1 (\*817, p. 568; \*940, p. 63; 948, p. 68). Will Wood. Measurements discontinued.

(C-33-16)19ddd 1 (\*817, p. 426; \*840, p. 568; 845, p. 590; 886, p. 825; \*910, p. 89; 940, p. 63; 948, p. 68). Clarence Lynd. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 66.46; Dec. 12, 66.50.

(C-33-16)25bba 1 (\*840, p. 568; \*886, p. 825; 910, p. 89; 940, p. 64; 948, p. 69). Frank Emerine. Pump stopped 10 minutes prior to measurement. Water level, in feet below land-surface datum, 1943: Mar. 16, 54.09.

(C-33-16)29cdb 1 (\*840, p. 568; 845, p. 590; 886, p. 825; 910, p. 89; 940, p. 64; 948, p. 69). Donji Ikeda. Measurements discontinued after Apr. 22, 1942.

(C-33-17)13dcc 1 (\*840, p. 569; \*940, p. 64; 948, p. 69). Lucio A. Burascono. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 164.00.

(C-33-17)25add 1 (\*840, p. 569; 886, p. 826; 910, p. 89; 940, p. 64; 948, p. 69). State claim 15293. Nunzio Furarino. Measuring point is 4.7 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 59.05.

(C-33-17)29dcb 1 (\*817, p. 426; 840, p. 569; 845, p. 591; 886, p. 826; 910, p. 89; 940, p. 64; 948, p. 69). Frank Webster. Measuring point is 0.7 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 12, 107.53.

(C-33-17)31baa 1 (\*840, p. 569; 940, p. 64; 948, p. 69). Agatha Webster. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 12, 107.62.

(C-34-14)31ccc 1 (\*886, p. 836; 910, p. 89; 940, p. 64; 948, p. 69). Geological Survey, U. S. Dept. of Interior. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 14.27.

(C-34-15)1ada 1 (\*817, p. 427; \*840, p. 571; 845, p. 596; \*886, p. 826; \*910, p. 89; \*940, p. 64; 948, p. 69). State claims 5230 and 10672. Bank of Southern Utah. Measuring point is 0.4 foot above land-surface datum. Water level, in feet above land-surface datum, 1943: Dec. 12, 2.21.

(C-34-15)1ada 2 (\*886, p. 826; 910, p. 90; \*940, p. 64; 948, p. 69). Bank of Southern Utah. Measurements discontinued after Dec. 11, 1942.

Iron County - Escalante Valley--Continued

(C-34-15)16ccc 1 (\*886, p. 826; 910, p. 90; \*940, p. 64; 948, p. 69). P. S. McQuarrie. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 4.69.

(C-34-15)16ccc 2 (\*886, p. 826; 910, p. 90; 940, p. 64; 948, p. 69). Geological Survey, U. S. Dept. of Interior. Measuring point is 0.7 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 7.46.

(C-34-15)17bbb 1 (\*886, p. 826; 910, p. 90; 940, p. 64; 948, p. 69). Public land. Measuring point is 2.1 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 7.95.

(C-34-15)27daa 2 (\*886, p. 827; 910, p. 90; 940, p. 64; 948, p. 69). Geological Survey, U. S. Dept. of Interior. Measuring point is 1.3 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 9.68.

(C-34-15)31bbb 1 (\*886, p. 827; 910, p. 90; 940, p. 64; 948, p. 69). Geological Survey, U. S. Dept. of Interior. Measurements discontinued after May 26, 1942.

(C-34-16)7aab 2 (\*840, p. 57; \*886, p. 827; \*910, p. 90; 940, p. 64; 948, p. 69). State claim 17296. J. M. Robinson. Measuring point is 5.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 12.44; Dec. 13, 12.81.

(C-34-16)9bcc 1 (\*845, p. 596; 886, p. 827; 910, p. 90; 940, p. 64; 948, p. 69). Fred Pinafrock. Measurements discontinued after Dec. 13, 1942.

(C-34-16)9cbc 1 (\*840, p. 571; 845, p. 596; 886, p. 827; 910, p. 90; 940, p. 64; 948, p. 69). Augustus Lott. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 8.75; Dec. 13, 9.12.

(C-34-16)10bab 2 (\*840, p. 571; \*886, p. 827; 910, p. 90; \*940, p. 64; 948, p. 70). C. M. Jillson. Measurements discontinued after Aug. 4, 1942.

(C-34-16)15ccc 2 (\*886, p. 827; 910, p. 90; \*940, p. 64; 948, p. 70). Iron County. Measuring point is 3.2 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 6.69; Dec. 13, 7.34.

(C-34-16)17acd 1 (\*940, p. 64; 948, p. 70). State claim 13507. J. F. Grincil. Measurements discontinued.

(C-34-16)17dcc 2 (\*840, p. 571; 845, p. 597; 886, p. 827; 910, p. 90; 940, p. 65; 948, p. 70). Measuring point is 5.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 6.62; Dec. 13, 6.98.

(C-34-16)18aac 1 (\*940, p. 571; \*886, p. 827; 910, p. 90; 940, p. 65; 948, p. 70). C. E. Aye. Measuring point is 4.0 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 13, 10.25.

(C-34-16)21dcc 2 (\*840, p. 572; 886, p. 827; 910, p. 90; 940, p. 65; 948, p. 70). Public land. Measuring point is 2.7 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 9.24.

(C-34-16)26ccc 2 (\*886, p. 827; 910, p. 90; 940, p. 65; 948, p. 70). Public land. Measuring point is 1.7 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 10.32.

(C-34-16)27bcc 2 (\*840, p. 572; \*940, p. 65; 948, p. 70). Public land. Measuring point is 8.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 9.70.

(C-34-16)28acc 2 (\*840, p. 572; \*940, p. 65; 948, p. 70). State claim 4827. George and Alma Owen. Measurements discontinued.

Iron County - Escalante Valley--Continued.

(C-34-16)28acc 3 (\*840, p. 572; 845, p. 597; 886, p. 828; \*940, p. 65; 948, p. 70). State claim 4826. George and Alma Owen. Measurements discontinued after Dec. 14, 1942.

(C-34-16)28bcc 2 (\*817, p. 428; \*840, p. 572; 845, p. 597; 886, p. 828; 910, p. 90; 940, p. 65; 948, p. 70). Fred Fisher. Measuring point is 8.0 feet below land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.42	Apr. 25	10.19	Aug. 26	10.80	Dec. 4	10.75
Feb. 26	10.35	May 25	10.21	Sept. 24	10.91	13	10.75
Mar. 16	10.42	June 25	10.46	Nov. 1	10.85	26	10.69
24	10.30	July 26	10.68				

(C-34-16)28ccc 2 (\*840, p. 572; 886, p. 828; 910, p. 90; 940, p. 65; 948, p. 70). State of Utah. Measurements discontinued after Dec. 14, 1942.

(C-34-16)28dcc 2 (\*840, p. 572; \*940, p. 65; 948, p. 70). State claim 10426. A. B. Sudbury and others. Measurements discontinued after Dec. 14, 1942.

(C-34-16)30adb 1 (\*840, p. 573; 886, p. 828; 910, p. 90; \*940, p. 65; 948, p. 70). D. F. Shelley. Measuring point is 4.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 8.50.

(C-34-16)30ddc 2 (\*840, p. 573; 886, p. 828; 910, p. 90; 940, p. 65; 948, p. 71). State claim 11721. Iron County. Measuring point is 8.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 10.20; Dec. 13, 10.62.

(C-34-16)31bcc 3 (\*840, p. 573; 845, p. 597; 886, p. 828; 910, p. 91; 940, p. 65; 948, p. 71). S. B. Endicott. Measuring point is 12.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 14.90; Dec. 13, 15.22.

(C-34-16)33cdc 2 (\*886, p. 828; 910, p. 91; 940, p. 65; 948, p. 71). State of Utah. Measuring point is 5.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 12.76; Dec. 13, 12.39.

(C-34-16)33cdd 1 (\*840, p. 573; 886, p. 828; 910, p. 91; 940, p. 65; 948, p. 71). State of Utah. Measurements discontinued after Dec. 14, 1942.

(C-34-16)34bcc 2 (\*840, p. 573; \*940, p. 66; 948, p. 71). K. L. McGarry. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 10.56.

(C-34-17)1dab 1 (\*840, p. 573; 845, p. 597; 886, p. 828; 910, p. 91; 940, p. 66; 948, p. 71). Freda Spooner. Water levels, in feet below land-surface datum, 1943: Mar. 16, 21.86; Dec. 13, 22.18.

(C-34-17)5ccc 2 (\*840, p. 573; 940, p. 66; 948, p. 71). Harry Thorley. Measurements discontinued after Dec. 13, 1942.

(C-34-17)9ddd 1 (\*840, p. 574; 845, p. 598; 886, p. 828; 910, p. 91; 940, p. 66; 948, p. 71). William Haigh. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 30.68; Dec. 13, 30.75.

(C-34-17)10bbc 1 (\*886, p. 828; 910, p. 91; \*940, p. 66; 948, p. 71). W. B. Prout. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 13, 32.77.

(C-34-17)10dad 1 (\*840, p. 574; \*940, p. 66; 948, p. 71). C. F. and E. A. Woehr. Measurements discontinued after Aug. 4, 1942.

Iron County - Escalante Valley--Continued

(C-34-17)18add 1 (\*840, p. 574; \*886, p. 828; 910, p. 91; 940, p. 66; 948, p. 71). M. C. Martinsen and others. Measurements discontinued after Aug. 4, 1942.

(C-34-17)24bcc 2 (\*940, p. 574; 886, p. 828; 910, p. 91; 940, p. 66; 948, p. 71). William Maston. Measurements discontinued after Dec. 13, 1942.

(C-34-17)24cbb 1 (\*840, p. 574; 845, p. 598; 886, p. 829; \*910, p. 91; 940, p. 66; 948, p. 71). State claim 6835. Marvin Hughes. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 14.15; Dec. 13, 15.42.

(C-34-17)27aba 1 (\*840, p. 574; \*886, p. 829; 910, p. 91; 940, p. 66; 948, p. 71). Lena Murphy. Measurements discontinued.

(C-34-17)28abb 1 (\*840, p. 574; \*886, p. 829; 910, p. 91; 940, p. 66; 948, p. 71). Measurements discontinued.

(C-34-18)16add 1 (\*840, p. 574; \*940, p. 66; 948, p. 71). H. A. Thorley. Measurements discontinued after Aug. 3, 1942.

(C-34-18)23bbc 1 (\*940, p. 66; 948, p. 71). H. A. Thorley. Measuring point is 0.5 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 116.79.

(C-34-18)24dba 1 (\*940, p. 66; 948, p. 71). H. A. Thorley. Measurements discontinued.

(C-35-12)18ddd 2 (\*817, p. 433; 840, p. 579; \*345, p. 607; \*886, p. 829; \*910, p. 91; 940, p. 66; 948, p. 72). State claim 11258. Columbia Steel Co. Measuring point is 9.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 11.73.

(C-35-13)4aaa 1 (\*940, p. 66; 948, p. 72). Iron County. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 184.40.

(C-35-15)3acc 1 (\*817, p. 434; \*840, p. 579; 345, p. 608; 886, p. 829; \*910, p. 91; 940, p. 66; 948, p. 72). State claim 3791. C. G. Clarke. Measurements discontinued after Dec. 12, 1942.

(C-35-15)3dcc 1 (\*817, p. 434; \*840, p. 579; 845, p. 608; 886, p. 829; \*910, p. 91; 940, p. 66; 948, p. 72). State claim 3790. C. G. Clarke. Water levels, in feet below land-surface datum, 1943: Mar. 17, 14.42; Dec. 13, 15.27.

(C-35-15)3dcc 2 (\*840, p. 579; 845, p. 608; 886, p. 829; \*910, p. 91; \*940, p. 67; 948, p. 72). State claim 3788. C. G. Clarke. Water levels, in feet below land-surface datum, 1943: Mar. 17, 13.91; Dec. 13, 14.72.

(C-35-15)4dcc 2 (\*840, p. 579; \*886, p. 829; 910, p. 91; 940, p. 67; 948, p. 72). Iron County. Measuring point is 4.3 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 13.22; Dec. 13, 13.88.

(C-35-15)6cdd 1 (\*817, p. 434; \*840, p. 579; 845, p. 608; 886, p. 829; 910, p. 91; 940, p. 67; 948, p. 72). Frank Bridel. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 12.92; Dec. 13, 13.73.

(C-35-15)10bac 1 (\*840, p. 580; 845, p. 609; 886, p. 829; \*940, p. 67; 948, p. 72). State claim 12133. Walter Martini. Measurements discontinued after Dec. 12, 1942.

(C-35-15)10bdc 2 (\*817, p. 434; 840, p. 580; 845, p. 609; 886, p. 829; \*910, p. 91; 940, p. 67; 948, p. 72). State application 12134. Walter Martini. Measuring point is 0.4 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 15.80; Dec. 13, 16.92.

Iron County - Escalante Valley--Continued

(C-35-15)11bbb 1 (\*840, p. 580; \*886, p. 830; 910, p. 91; 940, p. 67; 948, p. 72). Marvel Del Vecchio. Measuring point is 1.3 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 16.01.

(C-35-15)20bcd 1 (\*840, p. 580; \*886, p. 830; 910, p. 91; 940, p. 67; 948, p. 72). Public land. Water levels, in feet below land-surface datum, 1943: Mar. 17, 23.08; Dec. 13, 23.30.

(C-35-15)23ccc 1 (\*940, p. 67; 948, p. 72). State claim 11602. K. S. Gardner. Measurements discontinued after Dec. 12, 1942.

(C-35-15)30acc 2 (\*817, p. 434; 840, p. 580; 845, p. 609; 886, p. 830; 910, p. 92; 940, p. 67; 948, p. 72). Hugh Ash. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 27.83; Dec. 13, 27.87.

(C-35-16)3bcd 1 (\*840, p. 580; 845, p. 609; 886, p. 830; \*910, p. 92; \*940, p. 67; 948, p. 72). State claim 3792. C. G. Clarke. Measuring point is 2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 15.41; Dec. 13, 15.95.

(C-35-16)5add 1 (\*940, p. 67; 948, p. 73). Lawrence Hurt. Measuring point is 11.5 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 16, 13.32.

(C-35-16)6bbc 1 (\*840, p. 580; 845, p. 609; 886, p. 830; 910, p. 92; 940, p. 67; 948, p. 73). Fortunatus Thompson. Measurements discontinued after Dec. 14, 1942.

(C-35-16)7bbb 1 (\*840, p. 581; 845, p. 610; 886, p. 830; \*910, p. 92; 940, p. 67; 948, p. 73). State claim 13661. H. L. Austin. Water level, in feet below land-surface datum, 1943: Mar. 17, 19.49.

(C-35-16)7ccb 2 (\*840, p. 581; 845, p. 610; 886, p. 830; 910, p. 92; \*940, p. 67; 948, p. 73). State claim 11563. Arnold Barlocker. Measurements discontinued after Aug. 4, 1942.

(C-35-16)9cdc 1 (\*817, p. 434; \*840, p. 581; \*845, p. 610; 886, p. 830; 910, p. 92; 940, p. 67; 948, p. 73). W. and U. Hasegawa. Measurements discontinued.

(C-35-16)10bda 1 (\*840, p. 532; 886, p. 830; \*910, p. 92; \*940, p. 67; 948, p. 73). State claim 13760. C. G. Clarke. Measuring point is 14.5 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 18.26.

(C-35-16)15abc 1 (\*840, p. 582; 845, p. 610; 886, p. 830; 910, p. 92; 940, p. 67; 948, p. 73). J. E. Harris. Water level, in feet below land-surface datum, 1943: Mar. 17, 18.52.

(C-35-16)15bba 1 (\*840, p. 582; \*940, p. 67; 948, p. 73). F. Motowaki. Measurements discontinued after Dec. 14, 1942.

(C-35-16)17acc 1 (\*940, p. 67; 948, p. 73). A. C. Christensen. Measurements discontinued after Dec. 14, 1942.

(C-35-16)17add 1 (\*940, p. 68; 948, p. 73). Caine Christensen. Measurements discontinued after Dec. 14, 1942.

(C-35-16)17bad 1 (\*840, p. 582; 845, p. 610; 886, p. 830; \*910, p. 92; 940, p. 63; 948, p. 73). State claim 2230. Alice Kase. Measurements discontinued Dec. 14, 1942.

(C-35-16)17bba 1 (\*940, p. 68; 948, p. 73). Public land. Measuring point is 0.2 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 14.20.

(C-35-16)17cda 2 (\*840, p. 583; \*845, p. 611; 886, p. 830; \*910, p. 92; 940, p. 68; 948, p. 73). State claim 16463. Ira Caldwell. Measurements discontinued after Dec. 14, 1942.

Iron County - Escalante Valley--Continued

(C-35-16)17ddc 1 (\*940, p. 68; 948, p. 73). James Dell. Measurements discontinued.

(C-35-16)17ddd 1 (\*840, p. 583; \*940, p. 68; 948, p. 73). State claim 17282. James Dell. Measurements discontinued after Dec. 14, 1942.

(C-35-16)18cdc 4 (\*840, p. 583; 886, p. 830; \*910, p. 92; \*940, p. 68; 948, p. 73). J. C. Bosshardt. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 21.00.

(C-35-16)20cdd 2 (\*840, p. 583; \*940, p. 68; 948, p. 73). Eva Hard. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 20.06.

(C-35-16)22add 1 (\*840, p. 583; 845, p. 611; 886, p. 831; \*910, p. 92; 940, p. 68; 948, p. 73). State claim 10337. C. and S. Inatomi. Measuring point is 20.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 21.79.

(C-35-16)22bba 1 (\*840, p. 533; \*886, p. 831; 910, p. 92; \*940, p. 68; 948, p. 74). Public land. Measurements discontinued after Dec. 14, 1942.

(C-35-17)1bcc 1 (\*840, p. 584; \*836, p. 831; 910, p. 92; \*940, p. 68; 948, p. 74). Robert Pershall. Measuring point is 17.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 25.15.

(C-35-17)1bdd 1 (\*940, p. 68; 948, p. 74). Robert Pershall. Measurements discontinued after Dec. 14, 1942.

(C-35-17)3bbb 1 (\*817, p. 434; \*840, p. 584; 845, p. 611; 886, p. 831; \*910, p. 92; \*940, p. 68; 948, p. 74). State claim 8432. L. E. and H. M. Sevy. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 45.72; Dec. 13, 45.84.

(C-35-17)8cbb 1 (\*840, p. 534; 845, p. 611; \*940, p. 68; 948, p. 74). W. W. Adams. Measuring point is 2.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 84.95.

(C-35-17)13acc 1 (\*940, p. 68; 948, p. 74). Parley Moyle. Measuring point is 0.2 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 24.05.

(C-35-17)13bdc 1 (\*840, p. 584; 845, p. 611; 886, p. 831; \*910, p. 92; 940, p. 68; 948, p. 74). State claim 14228. A. D. Moyle. Measurements discontinued.

(C-35-17)13cbc 1 (\*840, p. 585; \*836, p. 831; 910, p. 92; \*940, p. 68; 948, p. 74). Henry Moyle. Measurements discontinued after Dec. 12, 1942.

(C-35-17)21add 1 (\*840, p. 535; \*836, p. 831; 910, p. 92; \*940, p. 68; 948, p. 74). E. A. Pickering. Measurements discontinued after Dec. 13, 1942.

(C-35-17)25cdd 1 (\*817, p. 434; \*840, p. 585; 845, p. 612; 886, p. 831; 910, p. 93; 940, p. 69; 948, p. 74). Henry Brenn. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 35.34; Dec. 13, 35.61.

(C-36-15)8bba 1 (\*940, p. 69; 948, p. 74). R. F. Jones. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 85.94; Dec. 13, 85.61.

(C-36-15)20bac 1 (\*940, p. 69; 948, p. 74). A. C. Christensen. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 118.05; Dec. 13, 117.94.

(C-36-16)4b 3 (\*940, p. 69; 948, p. 74). L. E. and H. M. Sevy. Measurements discontinued.

(C-36-16)4cdc 1 (\*940, p. 69; 948, p. 74). L. E. and H. M. Sevy. Measurements discontinued after Dec. 12, 1942.

Iron County - Escalante Valley--Continued

(C-36-16)5a 2 (\*940, p. 69; 948, p. 74). Public land. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 46.52.

(C-36-16)5a 4 (\*840, p. 588; \*845, p. 616; \*886, p. 831; 910, p. 93; \*940, p. 69; 948, p. 75). State claim 8431. Bryant Beacham. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 43.85.

(C-36-16)8ddd 1 (\*940, p. 69; 948, p. 75). J. A. Eldredge. Water level, in feet below land-surface datum, 1943: Mar. 17, 55.66.

(C-36-16)16dda 1 (\*840, p. 588; 845, p. 616; 886, p. 832; 910, p. 93; 940, p. 69; 948, p. 75). C. J. Erickson. Measuring point is 1.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 57.23.

(C-36-16)16dda 2 (\*940, p. 69; 948, p. 75). C. J. Erickson. Measurements discontinued after Dec. 12, 1942.

(C-36-16)19caa 1 (\*940, p. 69; 948, p. 75). J. A. Eldredge. No measurements made in 1943.

(C-36-16)22baa 1 (\*940, p. 69; 948, p. 75). T. W. Jones. Measurements discontinued after Dec. 12, 1942.

(C-36-16)31bdd 1 (\*940, p. 69; 948, p. 75). W. H. Leigh. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 100.64.

(C-36-16)32ddd 1 (\*940, p. 69; 948, p. 75). Public land. Measurements discontinued after Dec. 12, 1942.

(C-36-17)1ccc 1 (\*817, p. 437; \*886, p. 832; 910, p. 93; \*940, p. 70; 948, p. 75). Measurements discontinued after May 25, 1942.

(C-36-17)1ldcc 1 (\*940, p. 70; 948, p. 75). Public land. Water level, in feet below land-surface datum, 1943: Mar. 17, 128.73.

Iron County - Parowan Valley

(C-32-8)lada 1 (\*886, p. 832; 910, p. 93; \*940, p. 70; 948, p. 75). Iron County. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 48.42; Dec. 9, 48.49.

(C-32-8)35bcb 1 (\*817, p. 424; \*840, p. 565; 845, p. 584; \*886, p. 832; \*910, p. 94; 940, p. 70; 948, p. 75). State claim 5683. H. N. Edwards. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 14, 9.55; Dec. 9, a/7.4.

(C-33-8)15bba 1 (\*948, p. 75). State claim 18229. R. W. Talbot. Measuring point is 0.4 foot below land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 9, 1.58.

(C-33-8)15bbd 1 (\*910, p. 95; 940, p. 70; 948, p. 75). State claim 18610. Walter Talbot. Measuring point is 0.5 foot below land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 9, 5.3.

(C-33-8)28bbb 1 (\*910, p. 96; 940, p. 70; 948, p. 75). State claim 15133. State of Utah. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 10.92; Dec. 9, 11.93.

(C-33-9)ldad 2 (\*845, p. 586; \*836, p. 834; \*910, p. 98; 940, p. 70; 948, p. 75). State claim 4743. Henry Mitchell Estate. Measuring point is 0.7 foot above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 10, 8.8.

a Well flowing prior to measurement.



Iron County - Parowan Valley--Continued

(C-33-9)14ccc 1 (\*845, p. 586; \*886, p. 835; \*910, p. 99; 940, p. 70; 948, p. 76). State claim 6489. W. M. Eyre Estate. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 14, 21.10; Dec. 10, 16.45.

(C-33-9)24aba 1 (\*345, p. 586; \*836, p. 835; \*910, p. 99; 940, p. 70; 943, p. 76). State claim 10202. A. J. Decker. Measuring point is 1.6 feet above land-surface datum.

Water level, in feet above land-surface datum, 1943

(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	21.1	Feb. 17	24.3	Mar. 1	24.4	Mar. 13	24.2
3	21.1	18	24.0	2	24.0	14	24.2
4	21.1	19	23.8	3	24.0	15	23.5
5	21.1	20	23.8	4	25.1	16	23.3
6	21.0	21	23.9	5	24.5	17	23.6
10	21.0	22	23.9	6	24.7	18	23.8
11	21.1	23	23.8	7	24.3	19	23.6
12	21.4	24	24.0	8	24.1	20	23.4
13	21.6	25	24.3	9	24.1	21	23.4
16	22.0	26	24.1	10	24.1	22	23.6
24	22.1	27	23.9	11	24.9	23 a	25.1
Feb. 1	23.8	28	24.0	12	24.7	Dec. 10 b	10.1

(C-33-9)28abd 1 (\*845, p. 587; \*836, p. 836; \*910, p. 101; 940, p. 71; 948, p. 76). State claim 17259. John Dolorinske. Measuring point is 0.1 foot below land-surface datum. Water level, in feet above land-surface datum, 1943: Dec. 10, 2.68.

(C-33-9)32ccd 2 (\*845, p. 587; \*886, p. 836; 910, p. 101; 940, p. 71; 948, p. 76). State claim 17335. Alfred Wilcox. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 14, 10.75; Dec. 10, c/2.96.

(C-33-9)34cbd 2 (\*817, p. 425; \*840, p. 566; \*845, p. 588; \*836, p. 836; \*910, p. 103; 940, p. 71; 948, p. 76). State claim 5694. Mary Marsden. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 17.65; Dec. 10, 26.87.

(C-33-9)34dcd 1 (\*817, p. 425; \*840, p. 566; \*845, p. 588; 886, p. 837; \*910, p. 103; 940, p. 71; 948, p. 76). State claim 6750 and State application 1426. Federal Land Bank. Water level, in feet below land-surface datum, 1943: Dec. 10, 3.85.

(C-33-9)34ddd 1 (\*910, p. 103; 940, p. 71; 948, p. 76). State claim 13496. J. B. Dalton. Water levels, in feet below land-surface datum, 1943: Mar. 14, 16.98; Dec. 10, 21.59.

(C-33-9)35ddd 1 (\*840, p. 567; 845, p. 589; \*886, p. 837; \*910, p. 104; 940, p. 71; 948, p. 77). State claim 13812. State of Utah. Water levels, in feet below land-surface datum, 1943: Mar. 14, 31.29; Dec. 10, 35.45.

(C-33-9)36dcd 1 (\*777, p. 243; \*817, p. 425; \*840, p. 567; 845, p. 539; \*886, p. 838; 910, p. 104; 940, p. 71; 948, p. 77). State claim 494. H. L. Adams. Water levels, in feet below land-surface datum, 1943: Mar. 14, 29.72; Dec. 10, 39.09.

(C-34-8)5bca 1 (\*817, p. 426; 840, p. 569; 845, p. 591; 886, p. 838; \*910, p. 104; 940, p. 71; 948, p. 77). Drought Relief Administration. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 15.56; Dec. 10, 18.90.

(C-34-9)3cba 2 (\*840, p. 569; \*845, p. 591; 886, p. 833; \*910, p. 105; 940, p. 71; 948, p. 77). Federal Land Bank. Measurements discontinued after Mar. 14, 1942.

a Recorder removed.

b Well flowing prior to gage measurement.

c Well flowing prior to measurement.

Iron County - Parowan Valley--Continued

(C-34-9)3cba 3 (\*948, p. 77). Federal Land Bank. Measuring point is 1.0 foot above land-surface datum. Measurements discontinued after Mar. 14, 1943. Water level, in feet below land-surface datum, 1943: Mar. 14, 0.13.

(C-34-9)5dad 1 (\*910, p. 106; 940, p. 71; 948, p. 77). State claim 5089. J. C. Robinson. Measurements discontinued.

(C-34-9)6bcd 1 (\*845, p. 593; \*836, p. 840; \*910, p. 106; 940, p. 71; 948, p. 77). State claim 13506. R. D. Hyatt. Measuring point is 1.3 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 4.38; Dec. 10, 5.96.

(C-34-9)8bdd 1 (\*910, p. 107; 940, p. 71; 948, p. 77). State claim 4868. P. H. Gurr. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 20.43; Dec. 10, 23.59.

(C-34-9)10bdd 1 (\*840, p. 570; 345, p. 593; \*886, p. 841; \*910, p. 108; \*940, p. 71; 948, p. 77). State claim 3301. Federal Land Bank. Water levels, in feet below land-surface datum, 1943: Mar. 14, 43.10; Dec. 10, 52.24.

(C-34-9)16cdd 1 (\*345, p. 594; \*836, p. 841; \*910, p. 108; 940, p. 72; 948, p. 77). State claim 5313. Federal Land Bank. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 14, 18.39; Dec. 10, 24.15.

(C-34-9)11ddc 1 (\*845, p. 594; 836, p. 841; \*910, p. 109; \*940, p. 72; 948, p. 77). State claim 18010. Rulon Lyman. Measurements discontinued.

(C-34-10)24abc 1 (\*886, p. 841; 910, p. 109; 940, p. 72; 948, p. 77). State application 12115. R. J. Green. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 10, 52.63.

Juab County - Juab Valley

(C-12-1)36dca 1 (\*317, p. 405; \*840, p. 549; 845, p. 618; 886, p. 843; \*910, p. 109; 940, p. 72; 948, p. 78). State claim 2227. Orson Cazier. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 13.73; Dec. 17, 16.42.

(C-15-1)4ddd 1 (\*345, p. 619; 886, p. 843; 910, p. 110; \*940, p. 72; 948, p. 78). C. H. Johnson. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 26, 3.76; Dec. 18, 3.77.

(C-15-1)4ddd 2 (\*845, p. 619; 886, p. 842; 910, p. 110; \*940, p. 72; 948, p. 78). C. H. Johnson. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 26, 2.59; Dec. 18, 2.31.

(C-15-1)11bab 1 (\*845, p. 619; 886, p. 842; \*910, p. 110; 940, p. 72; 948, p. 78). State claim 3120. Mrs. Nicholine Powell. Water levels, in feet above land-surface datum, 1943: Mar. 26, 3.73; Dec. 18, 1.74.

(C-15-1)12aba 1 (\*817, p. 406; \*840, p. 549; 845, p. 619; 886, p. 842; \*910, p. 110; 940, p. 72; 948, p. 78). State claim 10223. R. C. Mangleson. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 51.43; Dec. 18, 52.21.

(D-11-1)9bbb 4 (\*817, p. 463; \*840, p. 606; \*845, p. 619; 886, p. 842; \*910, p. 110; 940, p. 72; 948, p. 78). State claim 3099. J. L. and H. J. Fowkes. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 24, 14.5; Dec. 18, 10.5.

(D-11-1)31abc (\*817, p. 464; 840, p. 606; 845, p. 619; 886, p. 842; 940, p. 72; 948, p. 78). Loren Keyte. Measuring point is 4.4 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 3.29; Dec. 18, 1.76.

Juab County - Juab Valley--Continued

(D-12-1)19cdc 1 (\*817, p. 464; \*840, p. 606; 845, p. 619; 886, p. 842; \*910, p. 110; 940, p. 72; 948, p. 78). State claim 4397. P. P. Christenson. Measuring point is 0.2 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 21.2; Dec. 18, 16.21.

(D-13-1)6cbc 1 (\*817, p. 464; \*840, p. 606; 845, p. 619; 886, p. 842; \*910, p. 110; 940, p. 72; 948, p. 78). State claim 8188. Nephi Irrigation Co. Measuring point is 0.5 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 18.86; Dec. 17, 23.93.

(D-14-1)6baa 1 (\*817, p. 464; 840, p. 607; 845, p. 619; 886, p. 842; 910, p. 110; \*940, p. 72; 948, p. 78). State claim 2730. C. H. Garrett. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 26, 191.16; Dec. 18, 190.92.

8/

Juab County - Snake Valley

(C-11-15)30c (\*886, p. 843; \*910, p. 109; 940, p. 73; 948, p. 78). Grazing Service, U. S. Dept. of Interior. No measurements made in 1943.

(C-11-16)6ccc (\*845, p. 618; 886, p. 843; 910, p. 109; 940, p. 73; 948, p. 78). J. H. Guilmette. Measuring point is 4.0 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 11, 19.23.

(C-11-17)1bdc 1 (\*845, p. 618; 886, p. 843; \*910, p. 109; 940, p. 73; 948, p. 78). State claim 8190. Drought Relief Administration. Measuring point is 2.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 11, 2.66.

(C-13-18)13d (\*845, p. 618; 886, p. 843; 910, p. 109; 940, p. 73; 948, p. 78). David Howells. Measuring point is 1.3 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 11, 5.2.

(C-13-18)14dcc 1 (\*845, p. 618; 886, p. 843; 910, p. 110; \*940, p. 73; 948, p. 79). Will Parker. Measuring point is 1.2 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 11, 19.78.

(C-13-18)23aab 2 (\*886, p. 843; 910, p. 110; 940, p. 73; 948, p. 79). Charles Nielson. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 11, 8.00.

(C-14-18)3 (\*845, p. 619; \*886, p. 843; \*910, p. 110; 940, p. 73; 948, p. 79). State application 12809. Public land. No measurements made in 1943.

9/

Millard County - Escalante Valley

(C-24-10)22aca 1 (\*940, p. 73; 948, p. 79). Grazing Service, U. S. Dept. of Interior. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 11, 15.38.

(C-24-10)22acb 1 (\*940, p. 73; 948, p. 79). Grazing Service, U. S. Dept. of Interior. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 11, 11.63.

(C-25-9)19dcc 1 (\*940, p. 73; 948, p. 79). Donner and others. Measurements discontinued after Apr. 13, 1942.

(C-25-9)20abd 1 (\*940, p. 73; 948, p. 79). Walter James and E. C. Lewis. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 11, 82.77.

(C-25-9)29cca 1 (\*940, p. 73; 948, p. 79). Ferdinand Erickson. Measuring point is 0.4 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 11, 61.17.

8/ For other wells in Snake Valley see pages 97-98.

9/ For other wells in Escalante Valley see pages 40-52, 67-76.

Millard County - Escalante Valley--Continued

(C-25-10)9dba 1 (\*940, p. 73; 948, p. 79). E. C. Hiltbrand. Water level, in feet below land-surface datum, 1943: Mar. 11, 56.39.

(C-25-10)26caa 1 (\*940, p. 73; 948, p. 79). State of Utah. Measuring point is 0.4 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 11, 17.76.

(C-25-10)31lbc 1 (\*940, p. 73; 948, p. 79). Frank Paxton. Measurements discontinued after Dec. 8, 1942.

Millard County - Pavant Valley

(C-18-5)28acc 1 (\*817, p. 409; 840, p. 551; 845, p. 622; 886, p. 845; 910, p. 112; 940, p. 74; 948, p. 79). State claim 16404. Lawrence Clark. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 5	34.26	July 21	34.58	Dec. 2	33.99
Mar. 3	34.91	Sept. 21	33.37		

(C-19-4)31bcc 1 (\*817, p. 410; \*840, p. 552; 845, p. 622; 886, p. 845; \*910, p. 112; \*940, p. 74; 948, p. 79). State claim 4263. Union Pacific Railroad. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 5	12.71	Apr. 9	12.84	Sept. 21	13.32
Mar. 3	12.92	July 21	13.05	Dec. 2	12.17

(C-19-5)4aba 1 (\*910, p. 112; 940, p. 74; 948, p. 79). State claim 16402. Lawrence Clark. Measurements discontinued.

(C-19-5)4dda 1 (\*817, p. 410; \*840, p. 552; 845, p. 622; 886, p. 845; \*910, p. 112; 940, p. 74; 948, p. 79). State claim 16405. Lawrence Clark. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 5	31.01	July 21	30.48	Dec. 2	30.20
Mar. 3	30.91	Sept. 21	30.41		

(C-20-5)13dad 1 (\*840, p. 552; 845, p. 622; 886, p. 846; 910, p. 112; 940, p. 74; 948, p. 80). C. H. Day. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 5	45.54	Apr. 9	45.73	Sept. 21	43.38
Mar. 3	45.57	July 21	43.22	Dec. 2	44.06

(C-20-5)22bcc 1 (\*817, p. 411; \*840, p. 552; 845, p. 622; \*886, p. 846; \*910, p. 112; \*940, p. 74; 948, p. 80). State claim 7671. Arnold Lesin. Water levels, in feet above land-surface datum, 1943: Feb. 5, 3.9; Mar. 16, 8.5; July 21, 8.0; Dec. 2, 8.5.

(C-20-5)32aaa 1. State claim 6620. Otis Walch. Irrigation and stock well, diameter 7 inches, depth 490 feet. Measuring point, top of casing, 1.0 foot above land-surface datum and 4,641.34 feet above mean sea level.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	a 14.5	Apr. 1	17.2	Apr. 9	17.5	Apr. 17	18.1
25	15.3	2	17.4	10	17.5	18	18.9
26	16.2	3	17.5	11	17.4	19	17.9
27	16.5	4	17.5	12	17.6	20	17.9
28	16.3	5	17.6	13	17.7	21	18.0
29	16.2	6	17.8	14	17.9	22	18.1
30	16.3	7	17.9	15	18.0	23	18.2
31	16.8	8	17.7	16	18.0	24	18.2

a Gage measurement; well flowing prior to measurement.

## Millard County - Pavant Valley--Continued

(C-20-5)32aaa 1. State claim 6620--Continued.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 25	18.2	May 14	18.2	Oct. 8	17.8	Oct. 27	17.9
26	18.1	15	18.2	9	17.8	28	17.9
27	18.0	16	18.2	10	18.2	29	18.2
28	18.4	17	18.1	11	18.0	30	18.2
29	18.1	June 20	a 17.2	12	17.8	31	18.8
30	18.3	July 20	a 17.2	13	17.8	Nov. 1	18.9
May 1	18.1	Aug. 16	a 16.3	14	17.9	2	18.9
2	18.3	Sept. 21	a 15.7	15	18.0	3	18.8
3	18.1	27	a 15.9	16	17.9	4	18.8
4	18.4	28	17.1	17	18.3	5	19.0
5	18.6	29	17.4	18	18.2	6	19.0
6	18.4	30	17.6	19	17.8	9	19.0
7	18.4	Oct. 1	17.8	20	17.9	10	18.8
8	18.4	2	17.9	21	17.8	11	18.9
9	18.3	3	17.9	22	17.7	12	18.8
10	18.4	4	17.7	23	17.6	13	18.8
11	18.3	5	17.8	24	17.7	14	18.8
12	18.6	6	17.8	25	17.6	15	18.8
13	18.2	7	17.8	26	17.9		

(C-21-4)7bbd 1. State claim 17867. Arthur Brunson. Stock well, diameter 6 inches, depth 73 feet. Measuring point, iron pump base, 1.0 foot above land-surface datum and 4,910.85 feet above mean sea level.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1942	53.07	June 3, 1943	54.79	Sept. 23, 1943	61.54
Mar. 19, 1943	53.61	July 19	57.20	Oct. 23	61.46
29	54.60	Aug. 13	58.26	Dec. 3	62.64
Apr. 8	54.15				

(C-21-4)7cba. Frank Partridge. Stock well, diameter 36 inches, depth 69 feet. Measuring point, top of brick curb. level with land-surface datum and 4,934.07 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 19	53.92	June 3	56.76	Aug. 13	60.96
29	54.51	July 19	59.13	Sept. 23	63.67
Apr. 9	55.05			Oct. 28	65.62
				Dec. 3	68.24

(C-21-4)9bbd 1 (\*886, p. 846; 910, p. 113; 940, p. 74; 948, p. 80). John Carling. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 5	87.24	Mar. 29	87.85	Aug. 11	83.87
Mar. 3	87.58	Apr. 9	87.94	Sept. 23	89.18
17	87.74	July 19	83.50	Nov. 18	89.54
				Dec. 4	89.64

(C-21-5)3bbb 1 (\*817, p. 412; 840, p. 553; 845, p. 623; \*886, p. 846; 910, p. 113; 940, p. 74; 948, p. 80). Dal Huntsman. Measuring point is 0.6 foot above land-surface datum. Measurements discontinued after July 20.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 5	22.71	Mar. 16	21.66	Apr. 9	21.60
Mar. 1	22.81	29	21.65	June 30	21.26
				July 20	21.07

a Gage measurements; well flowing prior to measurement.

## Millard County - Pavant Valley--Continued

(C-21-5)4ccd 1. State claim 16536. A. R. Beaurgard. Unused well, diameter 8 inches, depth 350 feet. Measuring point, top of casing, 1.0 foot above land-surface datum and 4,632.49 feet above mean sea level.

Water level, in feet below land-surface datum, 1941-43

Date	Water level	Date	Water level	Date	Water level
Apr. 9, 1941	a 26.57	Mar. 16, 1943	24.13	Aug. 11, 1943	24.55
May 20	a 27.40	29	24.05	Sept. 21	24.46
Dec. 29, 1942	24.13	Apr. 9	24.15	Oct. 28	24.31
Feb. 5, 1943	24.12	June 3	24.69	Dec. 3	24.15
Mar. 1	24.01	July 21	24.60		

(C-21-5)5cbc 1. State claim 7679. A. and E. Rogers. Irrigation, stock, and domestic well, diameter 7 inches, depth 412 feet. Measuring point, top of casing, 2.0 feet above land-surface datum and 4,644.47 feet above mean sea level.

Water level, in feet above land-surface datum, 1940-41, 1943

Jan. 6, 1940	a 11.3	May 16, 1941	a 12.0	July 20, 1943	b 13.7
Feb. 16	a 13.9	Mar. 1, 1943	b 13.1	Aug. 20	b 13.0
Mar. 5	a 14.1	16	16.3	Sept. 21	b 12.4
Jan. 20, 1941	a 16.4	Apr. 15	b 14.6	Oct. 28	14.25
Apr. 9	a 16.7	June 7	15.5	Dec. 3	15.3

(C-21-5)6dba 1. State claim 11967. D. V. Dimmick. Irrigation, stock, and domestic well, diameter 6 inches, depth 400 feet. Measuring point, top of casing, level with land-surface datum and 4,636.21 feet above mean sea level.

Water level, in feet above land-surface datum, 1937-38, 1940-41, 1943

Oct. 21, 1937	a 13.38	Apr. 9, 1941	a 16.6	May 31, 1943	16.7
July 7, 1938	a 13.0	May 16	a 16.1	July 20	16.4
Jan. 6, 1940	a 14.1	Mar. 1, 1943	18.2	Aug. 20	16.5
Feb. 16	a 15.3	16	18.3	Sept. 21	15.6
Mar. 18	a 16.2	27	18.2	Oct. 28	16.5
Jan. 20, 1941	a 15.9	Apr. 15	18.1	Dec. 3	17.6

(C-21-5)8cab 1. State claim 16622. Irrigation, stock, and domestic well, diameter 8 inches, depth 256 feet. Measuring point, top of casing, 1.5 feet above land-surface datum and 4,670.35 feet above mean sea level.

Water level, in feet below land-surface datum, 1942-43

Dec. 29, 1942	6.30	Apr. 26, 1943	8.80	Sept. 21, 1943	4.86
Feb. 4, 1943	5.58	June 3	9.76	Oct. 28	2.98
Mar. 1	5.85	July 20	10.06	Dec. 3	1.30
16	6.48	Aug. 11	4.67		

(C-21-5)8dbb 1. Edward Nelson. Unused well, diameter 6 inches. Measuring point, top of casing, 1.0 foot above land-surface datum and 4,680.61 feet above mean sea level.

Water level, in feet below land-surface datum, 1942-43

Dec. 29, 1942	14.12	Mar. 29, 1943	13.95	Aug. 11, 1943	15.5
Feb. 4, 1943	14.15	Apr. 9	15.5	Sept. 21	(c)
Mar. 1	14.03	June 3	(c)	Oct. 28	16.60
16	14.06	July 15	16.6	Dec. 3	15.25

(C-21-5)8ccc 1. Wells Johnson. Stock and domestic well, diameter 3 inches, depth 272 feet. Drilled in July 1943. Measuring point, top of casing, 5.5 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: July 15, 4.0; July 20, 3.86; Oct. 29, 6.3; Dec. 3, 7.32.

a Measurement by Utah State Engineer.

b Well flowing prior to measurement.

c Water level below obstruction at 17 feet.

Millard County - Pavant Valley--Continued

(C-21-5)9cdc 1. State claim 6221. John Carling. Stock well, diameter 7 inches, depth 300 feet. Measuring point, top of casing, level with land-surface datum and 4,715.33 feet above mean sea level. Well flowing prior to measurements.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 1	2.5	Apr. 9	10.50	Aug. 11	11.78	Oct. 28	9.06
16	1.1	May 31	11.95	Sept. 23	11.84	Dec. 3	5.26
29	4.9	July 20	11.86				

(C-21-5)12bad 1. State claim 18478. T.C. Hatton. Stock and domestic well, diameter 6 inches, depth 120 feet. Measuring point, bottom of hole in pump base, 1.0 foot above land-surface datum and 4,887.85 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	76.47	Apr. 9	77.46	Aug. 13	82.46	Oct. 28	84.77
Mar. 17	76.75	June 3	79.81	Sept. 23	83.76	Dec. 3	86.24
29	77.15	July 19	81.56				

(C-21-5)15dbb 1. Martin Hansen. Stock and domestic well, diameter 8 inches, depth 400 feet. Measuring point, bottom of hole in pump base, level with land-surface datum and 4,785.07 feet above mean sea level.

Water level, in feet below land-surface datum, 1937, 1943

Date	Water level	Date	Water level	Date	Water level
Oct. 28, 1937	a 47.36	June 3, 1943	45.11	Sept. 23, 1943	48.77
Mar. 19, 1943	40.28	July 21	46.93	Oct. 28	48.40
29	40.41	Aug. 11	47.52	Dec. 3	47.27
Apr. 9	42.14				

(C-21-5)16ada 1. State claim 17224. Frank Holbrook. Domestic and stock well. Diameter 6 inches, depth 109 feet. Measuring point, top of casing level with land-surface datum and 4,763.23 feet above mean sea level.

Water level, in feet below land-surface datum, 1939-40, 1943

Date	Water level	Date	Water level	Date	Water level
Dec. 20, 1939	a 38.8	July 21, 1943	36.09	Oct. 28	36.15
Feb. 6, 1940	a 38.2	Aug. 17	36.66	Dec. 3	36.57
29	a 37.7	Sept. 23	37.20		

(C-21-5)16bcc 2. State claim 15150. State Land Board. Irrigation well, diameter 6 inches, depth 254 feet. Measuring point, top of concrete box, 3.0 feet above land-surface datum and 4,709.34 feet above mean sea level.

Water level, in feet with reference to land-surface datum, 1938-41, 1943

Date	Water level	Date	Water level	Date	Water level
Aug. 8, 1938	ab +5.2	Feb. 15, 1941	a +17.9	Apr. 15, 1943	b +0.9
Sept. 12	ab +5.1	May 12	ab +6.6	June 7	b +.45
Dec. 20, 1939	a +19.7	June 13	ab +6.2	July 20	b -.35
Feb. 7, 1940	a +15.6	Feb. 4, 1943	+21.6	Aug. 16	b -.55
29	a +16.0	Mar. 3	+20.0	Sept. 28	b -.45
Dec. 24	a +17.1	17	+19.2	Dec. 3	+14.2
Jan. 20, 1941	a +20.0				

(C-21-5)17bdd 1. State claims 11209, 8813, 4716. D. A. Brinkerhoff. Irrigation, stock, and domestic well, diameter 6½ inches, depth 393 feet. Measuring point, top of casing, 1.0 foot above land-surface datum and 4,680.37 feet above mean sea level.

Water level, in feet above land-surface datum, 1938-41, 1943

Date	Water level	Date	Water level	Date	Water level
Aug. 8, 1938	ab 19	Dec. 19, 1939	a 33.8	Mar. 5, 1940	a 37.7
Sept. 10	ab 19	Feb. 8, 1940	a 37	May 15, 1941	ab 19.2

a Measurement by Utah State Engineer.

b Well flowing prior to measurement.

## Millard County - Pavant Valley--Continued

(C-21-5)17bdd 1. D. A. Brinkerhoff--Continued.

Water level, in feet above land-surface datum, 1938-41, 1943

Date	Water level	Date	Water level	Date	Water level
June 11, 1941	ac 19.8	Mar. 17, 1943	33.2	Aug. 22, 1943	c 19.2
Dec. 30	40.3	27	39.8	Sept. 28	c 19.2
Feb. 4, 1943	40.9	Apr. 15	c 20.9	Oct. 29	32.0
Mar. 3	39.1	July 20	c 19.2	Dec. 3	35.6

(C-21-5)18dad 2. State claim 7673. Walter Brinkerhoff. Irrigation, stock, and domestic well, diameter  $6\frac{1}{2}$  inches, depth 400 feet. Measuring point, top of casing, 1.5 feet above land-surface datum.

Water level, in feet with reference to land-surface datum, 1939-40, 1942-43

Dec. 21, 1939	a +10.1	Feb. 4, 1943	-3.38	May 24, 1943	b +0.3
Feb. 10, 1940	a +12.6	Mar. 3	-3.82	Aug. 17	c +7.2
Mar. 5	a +10.7	17	-3.24	Sept. 28	c +7.3
Dec. 30, 1942	-3.62				

(C-21-5)19ada 1. State claim 13525. A. Huntsman. Irrigation, stock, and domestic well, diameter 6 inches, depth 337 feet. Measuring point, chisel mark on casing, level with land-surface datum and 4,667.92 feet above mean sea level.

Water level, in feet above land-surface datum, 1939-41, 1943

Dec. 12, 1939	a 24.6	Apr. 7, 1941	ac 18.7	Apr. 28, 1943	c 11.3
Jan. 26, 1940	a 28.9	May 3	ac 10.7	June 7	c 10.4
Mar. 1	a 30.4	June 9	ac 10.2	July 20	c 9.9
Jan. 8, 1941	a 27.3	Mar. 2, 1943	c 29.2	Aug. 17	c 9.9
21	a 24.6	17	30.2	Sept. 28	c 9.9
Feb. 18	a 29.8	27	30.5	Nov. 11	25.6
Mar. 10	a 30.7	Apr. 15	c 11.1	Dec. 3	27.5
22	a 30.6				

(C-21-5)20cbd 1. State claim 1378. F. W. Christensen. Irrigation, stock, and domestic well, diameter 6 inches, depth 350 feet. Measuring point, chisel mark on casing, level with land-surface datum and 4,675.46 feet above mean sea level.

Water level, in feet above land-surface datum, 1937-41, 1943

Nov. 23, 1937	a 34.87	Feb. 4, 1941	a 38.5	Apr. 15, 1943	c 20.2
July 14, 1938	ac 16.0	26	a 38.8	May 6	c 20.8
Sept. 9,	ac 16.5	Mar. 24	a 37.8	July 22	c 18.3
Dec. 15, 1939	a 36.7	Feb. 4, 1943	39.2	Aug. 22	c 17.8
Feb. 3, 1940	a 38.1	Mar. 2	39.1	Sept. 29	c 17.5
Mar. 2	a 37.3	17	38.0	Oct. 30	33.7
Jan. 9, 1941	a 37.7	27	38.1	Dec. 3	36.2

(C-21-5)20dda 1. State claim 3808. Oren Allen. Irrigation, stock and domestic well, diameter 8 inches, depth 323 feet. Measuring point, chisel mark on casing, level with land-surface datum and 4,705.93 feet above mean sea level.

Water level, in feet above land-surface datum, 1938-41, 1943

July 9, 1938	ac 12.1	Feb. 3, 1941	a 26.0	Apr. 15, 1943	c 17.4
Sept. 19	ac 12.0	7	a 25.2	May 5	c 17.3
Dec. 14, 1939	a 21.1	24	a 26.6	July 23	c 14.3
Feb. 6, 1940	a 24.3	28	a 26.8	Aug. 22	c 13.8
Mar. 4	a 24.8	Mar. 24	a 25.8	Sept. 28	c 14.1
Apr. 4	a 18.7	2, 1943	27.8	Nov. 10	22.3
Jan. 8, 1941	a 24.0	17	27.6	12	22.8
22	a 25.8	27	27.4	Dec. 3	24.0

a Measurement by Utah State Engineer.

b Well repaired.

c Well flowing prior to measurement.



Millard County - Pavant Valley--Continued

(C-21-5)21aba 1 (\*777, p. 241; \*817, p. 412; 840, p. 554; 845, p. 623; 886, p. 847; 910, p. 113; 940, p. 74; 943, p. 80). State of Utah. Measuring point is 1.5 feet above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.13	5.56	5.23	7.43	15.11	16.38	17.27	13.04	18.60	18.44	13.91	.....
2	6.07	5.42	5.34	.....	15.22	.....	17.29	17.89	18.60	18.39	14.06	.....
3	6.19	5.46	5.29	.....	15.25	.....	17.36	17.53	18.69	18.39	14.02	12.27
4	5.96	5.32	5.17	12.16	15.26	.....	17.38	17.51	18.66	18.46	13.97	12.18
5	5.80	5.42	5.19	12.34	15.36	16.54	17.45	17.54	18.79	18.47	13.91	12.15
6	5.85	5.36	5.26	12.54	15.45	16.42	17.35	17.85	18.74	.....	.....	12.18
7	5.83	5.26	5.27	12.75	15.43	16.43	.....	17.38	18.72	.....	13.96	12.17
8	5.30	5.27	5.24	12.93	15.50	16.46	.....	17.62	18.74	.....	13.99	12.12
9	5.75	5.46	5.20	13.11	15.50	16.47	.....	17.59	18.75	18.40	13.76	12.10
10	5.69	5.53	5.21	13.38	15.56	16.60	.....	18.12	18.77	18.49	13.70	12.16
11	5.67	5.49	5.90	13.34	15.65	16.57	.....	18.60	18.78	18.49	13.32	.....
12	5.63	5.53	6.02	13.37	15.63	16.64	.....	19.92	.....	13.25	13.07	.....
13	5.67	5.51	6.03	13.50	15.72	.....	17.66	18.32	.....	13.10	13.29	11.99
14	5.57	5.45	5.99	13.63	15.78	.....	17.63	18.25	.....	18.07	13.15	11.99
15	5.44	5.41	6.06	13.85	15.83	.....	17.62	18.48	18.80	17.85	13.27	11.95
16	5.43	5.39	6.13	14.03	15.90	.....	17.68	18.44	18.78	16.78	13.14	11.52
17	5.41	5.47	6.07	14.17	15.94	.....	17.72	18.45	18.78	16.10	13.13	11.39
18	5.54	5.56	6.14	14.22	16.01	.....	17.74	18.20	13.78	15.83	12.93	11.24
19	5.55	5.57	6.14	14.15	16.05	.....	17.69	18.38	18.73	15.61	13.08	11.18
20	5.37	5.67	6.24	14.28	16.58	.....	17.74	18.35	18.73	15.50	13.06	11.18
21	5.47	.....	6.22	14.48	.....	.....	17.85	19.37	18.73	15.38	13.00	.....
22	5.54	.....	6.34	14.63	.....	.....	18.57	18.41	18.36	15.38	12.30	.....
23	5.49	.....	6.19	14.66	.....	.....	17.92	18.42	18.32	15.00	12.13	.....
24	5.60	5.32	6.18	14.71	.....	.....	17.92	18.44	13.32	14.80	12.06	11.10
25	5.63	5.41	6.15	14.73	16.73	.....	17.93	18.48	18.31	14.70	11.65	11.03
26	5.60	5.40	6.11	14.88	16.19	17.69	17.96	.....	18.33	14.64	.....	11.03
27	5.55	5.24	5.90	14.88	16.36	17.23	17.97	.....	18.35	14.57	.....	10.95
28	5.56	5.31	6.73	14.95	16.29	17.54	18.00	18.59	18.43	14.53	.....	10.98
29	5.55	.....	6.85	15.06	16.29	17.78	18.01	18.63	18.45	14.45	.....	10.99
30	5.50	.....	7.01	15.07	16.30	17.29	18.03	18.60	18.45	14.43	.....	10.89
31	5.63	.....	7.11	.....	16.35	.....	18.05	18.63	.....	14.36	.....	10.87

(C-21-5)22bbb 1. State claim 17508. Francis Melville. Unused well, diameter 6 inches, depth 65 feet. Measuring point, top of casing, 1.0 foot above land-surface datum and 4,766.98 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	37.34	June 3	37.19	Oct. 29	38.53	Nov. 13	38.78
29	36.67	Aug. 11	37.12	Nov. 11	38.85	Dec. 3	39.03
Apr. 9	36.69	Sept. 23	37.96				

(C-21-5)22dbc 1. Edward Davies, Jr. Unused well, diameter 6 inches, depth 230 feet. Measuring point, top of casing, level with land-surface datum and 4,785.14 feet above mean sea level.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Dec. 24, 1942	46.42	Apr. 9, 1943	47.84	Sept. 23, 1943	54.15
Feb. 4, 1943	45.18	June 3	51.18	Oct. 30	53.45
Mar. 3,	45.02	July 21	52.57	Dec. 3	51.36
29	45.29	Aug. 11	53.11		

(C-21-5)27aaa 1. O. L. Robinson. Unused well, diameter 8 inches, depth 147 feet. Measuring point, top of casing, 2.0 feet below land-surface datum and 4,823.64 feet above mean sea level.

Millard County - Pavant Valley--Continued

(C-21-5)27aaa 1. O. L. Robinson--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
May 27	90.66	Aug. 11	93.37	Oct. 30	92.77
July 21	92.83	Sept. 23	94.37	Dec. 3	90.86

(C-21-5)27ccc 1. State claim 13529. A. E. Robinson. Unused well, diameter 8 inches, depth 200 feet. Measuring point, top of casing, 3.0 feet above land-surface datum and 4,752.69 feet above mean sea level.

Water level, in feet below land-surface datum, 1937, 1942-43

Oct. 25, 1937	a 19.04	Apr. 9, 1943	15.64	Sept. 23, 1943	22.14
Dec. 24, 1942	12.58	May 21	20.0	Oct. 30	19.13
Feb. 4, 1943	11.79	June 3	19.23	Nov. 11	18.33
Mar. 3	11.41	July 13	20.73	13	18.22
17	11.49	21	20.83	Dec. 3	17.09
29	11.63	Aug. 11	21.32		

(C-21-5)29aba 1. State claim 14346. Flowell Farms, Inc. Irrigation well, diameter 6 inches, depth 330 feet. Measuring point, top of casing, 5.0 feet above land-surface datum and 4,696.81 feet above mean sea level.

Water level, in feet above land-surface datum, 1938, 1940-43

July 9, 1938	ab 15.7	Feb. 24, 1941	a 34.0	Mar. 17, 1943	34.9
Sept. 8	ab 15.8	28	a 34.5	27	35.1
Oct. 6	a 21.8	Mar. 22	a 33.6	July 23	b 17.8
May 9, 1940	ab 16.5	Apr. 2	a 22.8	Oct. 30	28.2
Jan. 16, 1941	a 33.6	Dec. 29, 1942	34.8	Nov. 10	30.6
Feb. 4	a 33.7	Feb. 4, 1943	35.6	12	31.2
7	a 32.5	27	35.6	Dec. 3	31.9

(C-21-5)29dca 1. State claim 14347. Flowell Farms, Inc. Irrigation well, diameter 6 inches, depth 380 feet. Measuring point, top of bead on ell, 3.0 feet above land-surface datum and 4,702.28 feet above mean sea level.

Water level, in feet above land-surface datum, 1937-43

Nov. 23, 1937	a 29.5	Feb. 3, 1941	a 32.4	Apr. 15, 1943	b 29.0
July 6, 1938	ab 22.7	7	a 31.4	July 23	b 24.5
Sept. 8	ab 22.8	24	a 32.9	Aug. 17	b 24.6
Dec. 6, 1939	a 29.1	28	a 33.2	Sept. 28	b 23.6
Jan. 30, 1940	a 30.1	Mar. 17	a 32.8	Nov. 12	29.7
Feb. 27	a 30.8	Apr. 3	a 27.4	13	29.6
Mar. 28	a 29.9	Dec. 29, 1942	35.2	14	29.7
May 10	ab 22.8	Feb. 4, 1943	36.2	Dec. 3	31.15
Jan. 16, 1941	a 32.2	27	36.2		

(C-21-5)30dbd 1. State claim 3333. J. C. Christensen. Irrigation well, diameter 6 inches, depth 313 feet. Measuring point, top of casing, level with land-surface datum and 4,667.15 feet above mean sea level. Measurements discontinued after Nov. 16.

Water level, in feet above land-surface datum, 1938-41, 1943

July 12, 1938	ab 13.2	Jan. 9, 1941	a 45.1	Mar. 17, 1943	43.7
Sept. 7	ab 13.0	21	a 47.6	27	46.3
Dec. 12, 1939	a 41.8	Feb. 6	a 48.8	Aug. 22	b 13.3
Jan. 3, 1940	a 47.1	Mar. 8	a 46.0	Nov. 11	34.4
Mar. 2	a 49.4	2, 1943	b 30.9	16	41.7
May 8	ab 15.4				

(C-21-5)31cda 1. State claim 6235. Samuel Utley. Irrigation well, diameter 6 inches, depth 330 feet. Measuring point, chisel mark on casing, level with land-surface datum and 4,674.46 feet above mean sea level.

- a Measurement by Utah State Engineer.  
b Well flowing prior to measurement.

Millard County - Pavant Valley--Continued

(C-21-5)31cda 1. Samuel Utley--Continued.

Water level, in feet above land-surface datum, 1937, 1939-41, 1943

Date	Water level	Date	Water level	Date	Water level
Nov. 22, 1937	a 33.35	Jan. 23, 1941	a 38.4	Mar. 27, 1943	35.5
Dec. 4, 1939	a 33.0	Feb. 5	a 38.6	Apr. 15	b 14.0
Jan. 29, 1940	a 37.1	Mar. 8	a 39.0	July 23	b 12.6
Feb. 27	a 38.4	Apr. 1	a 35.0	Aug. 22	b 12.4
Mar. 28	a 37.7	Feb. 26, 1943	32.5	Sept. 29	b 14.1
Jan. 7, 1941	a 38.0	Mar. 17	36.2		

(C-21-5)32bcd 1. State claim 3300. Flowell Farms, Inc. Irrigation well, diameter 8 inches, depth 254 feet. Measuring point, chisel mark on casing, level with land-surface datum and 4,685.08 feet above mean sea level.

Water level, in feet above land-surface datum, 1937-41, 1943

Nov. 22, 1937	a 27.88	May 7, 1940	ab 16.0	Feb. 27, 1943	b 27.2
July 12, 1938	ab 9.8	Jan. 7, 1941	a 34.7	Mar. 17	31.6
Sept. 13	ab 9.8	25	a 35.5	27	32.2
Dec. 4, 1939	a 29.8	Feb. 5	a 35.8	Aug. 22	b 12.2
Jan. 29, 1940	a 32.2	Mar. 7	a 36.0	Nov. 11	32.6
Feb. 27	a 34.3	26	a 36.3	Dec. 4	34.9
Mar. 28	a 33.8				

(C-21-5)33dcc 1 (\*817, p. 412; 840, p. 555; 845, p. 624; \*836, p. 848; \*910, p. 113; \*940, p. 75; 943, p. 81). State claims 71, 6337, and 7831. Andrew Dahlquist. Measuring point is 9.0 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

May 31	5.1	Aug. 17	7.14	Oct. 30	4.5
July 23	6.62	Sept. 29	7.86	Dec. 3	2.5

(C-21-5)34baa 1. State claim 17391. Frank Sweeting. Unused well, diameter 8 inches, depth 123 feet. Measuring point, top of casing, 1.0 foot above land-surface datum and 4,773.87 feet above mean sea level.

Water level at noon, in feet below land-surface datum, 1942-43

Dec. 3, 1942	a 36.40	Oct. 18, 1943	43.24	Nov. 25, 1943	40.41
24	35.42	19	43.00	Dec. 3	39.85
Feb. 4, 1943	c 34.54	20	42.97	4	39.78
Mar. 3	c 34.12	21	42.82	5	39.75
17	c 34.12	23	42.31	6	39.76
29	c 34.24	30	41.85	7	39.72
Apr. 9	c 37.49	31	41.82	8	39.64
May 21	c 40.68	Nov. 1	41.76	9	39.62
June 3	c 41.18	2	41.69	10	39.66
July 21	c 42.87	3	41.57	13	39.45
Aug. 11	c 43.37	7	41.50	14	39.45
Sept. 23	c 44.24	8	41.39	15	39.40
28	44.31	9	41.25	16	39.38
29	44.28	10	41.16	17	39.28
30	44.28	11	41.11	18	39.18
Oct. 1	44.29	12	40.95	19	39.13
2	44.30	13	40.99	20	39.10
3	44.36	14	40.90	21	39.00
4	44.35	15	40.87	22	39.04
9	44.40	16	40.78	23	39.00
10	44.47	17	40.69	24	38.95
11	44.51	18	40.81	25	38.85
12	44.53	19	40.75	26	38.87
13	44.48	20	40.70	27	38.88
14	44.47	21	40.61	28	38.79
15	44.25	22	40.54	30	38.77
16	43.77	23	40.52	31	38.73
17	43.54	24	40.48		

a Measurement by Utah State Engineer.

b Well flowing prior to measurement.

c Tape measurement.

## Millard County - Pavant Valley--Continued

(C-21-5)34bdd 1 (\*817, p. 413; 840, p. 555; \*845, p. 624; 886, p. 848; 910, p. 114; 940, p. 75; 948, p. 81). Frank Sweeting.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
1	38.40	37.93	37.42	38.08	.....	.....	44.98	.....	.....	.....	.....
2	38.39	37.82	37.50	38.19	.....	.....	44.99	.....	.....	.....	.....
3	38.49	37.88	37.39	39.65	42.52	.....	.....	.....	46.72	.....	a43.06
4	38.40	37.77	37.29	.....	42.57	.....	.....	45.97	46.72	.....	.....
5	38.31	37.86	37.43	.....	42.74	.....	.....	46.05	46.73	.....	.....
6	38.35	37.85	37.53	.....	42.80	.....	.....	46.07	46.73	.....	.....
7	38.34	37.81	37.55	.....	42.81	.....	.....	46.07	46.73	.....	.....
8	38.30	37.63	37.49	.....	42.93	.....	.....	46.11	46.76	.....	.....
9	38.24	.....	37.47	.....	43.00	.....	.....	46.18	46.74	.....	.....
10	38.21	38.00	37.48	.....	43.02	.....	.....	46.21	46.74	.....	.....
11	38.16	37.93	.....	41.00	43.14	.....	.....	46.21	.....	.....	.....
12	38.20	37.92	37.45	.....	43.15	.....	.....	.....	.....	.....	.....
13	38.16	37.92	37.43	.....	43.18	.....	45.50	46.32	.....	.....	.....
14	38.15	37.85	37.36	.....	43.23	.....	45.56	46.33	.....	.....	.....
15	38.03	37.81	37.48	.....	43.27	.....	45.45	46.36	.....	.....	.....
16	38.07	37.81	37.52	.....	43.37	.....	45.53	46.39	.....	.....	.....
17	38.02	37.81	37.37	.....	43.40	.....	45.42	46.38	.....	.....	.....
18	37.98	37.71	37.49	41.53	43.47	44.45	45.43	46.40	.....	.....	.....
19	.....	37.75	37.45	.....	43.53	44.56	45.44	46.36	.....	.....	.....
20	37.96	37.76	37.48	.....	43.51	44.60	45.52	46.35	.....	.....	.....
21	37.99	37.73	37.48	.....	43.53	44.66	45.68	46.35	.....	.....	.....
22	37.96	37.61	37.43	.....	43.60	44.68	45.71	46.43	.....	.....	.....
23	37.91	37.56	37.51	.....	43.61	44.71	45.74	46.45	.....	.....	.....
24	38.03	37.56	37.51	.....	.....	44.71	45.76	46.48	.....	.....	.....
25	37.96	37.60	37.48	42.10	43.30	44.80	45.78	46.53	.....	.....	.....
26	37.95	37.70	37.45	.....	43.33	44.37	45.79	.....	.....	.....	.....
27	37.95	37.52	37.50	.....	43.90	44.91	45.81	.....	.....	.....	.....
28	37.96	37.53	37.46	.....	43.91	44.94	46.02	.....	.....	.....	.....
29	37.95	.....	37.47	.....	43.94	44.95	45.92	.....	.....	.....	.....
30	37.91	.....	37.62	.....	43.91	44.98	.....	.....	.....	a44.85	.....
31	38.05	.....	37.69	.....	43.95	.....	.....	.....	.....	.....	.....

(C-21-5)34ccc 1. State claims 4723 and 19707. W. H. Ray. Stock well, diameter 8 inches, depth 250 feet. Measuring point, top of concrete block, 1.0 foot above land-surface datum and 4,757.09 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	18.73	June 3	25.63	Aug. 11	27.28	Oct. 30	25.24
Apr. 9	22.28	July 21	26.82	Sept. 21	28.07	Dec. 3	23.31

(C-21-5)35bab. W. H. Ray. Unused well, diameter 4 inches, depth 120 feet. Measuring point, top of casing, level with land-surface datum and 4,836.32 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 27	96.15	May 27	102.21	Oct. 30	106.3
Apr. 9	97.97	July 13	104.02	Dec. 3	102.51

(C-21-5)35cda 1. State claim 13121. C. A. Davies. Stock and domestic well, diameter 4 inches, depth 120 feet. Measuring point, bottom of hole in iron pump base, 1.0 foot above land-surface datum and 4,836.47 feet above mean sea level.

a Tape measurement.

Millard County - Pavant Valley--Continued

(C-21-5)35cda 1. C. A. Davies--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	95.29	June 4	100.23	Aug. 11	102.53	Oct. 30	102.58
27	95.18	July 13	101.70	Sept. 23	103.56	Dec. 3	100.61
Apr. 9	96.60						

(C-21-6)25dab 1. Ras Rasmussen. Unused well, diameter 36 inches, depth 20 feet. Measuring point, top of wood platform, level with land-surface datum and 4,657.29 feet above mean sea level.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	al4.28	.....	.....	.....	.....	.....	13.88	14.44	14.80	14.97	.....	14.68
2	.....	.....	.....	.....	.....	.....	13.91	14.45	14.80	14.97	.....	14.68
3	.....	.....	.....	.....	.....	.....	13.95	14.46	14.81	14.97	.....	14.69
4	.....	al4.11	.....	.....	.....	.....	13.97	14.48	14.82	14.97	.....	14.69
5	.....	.....	.....	.....	.....	.....	13.99	14.49	14.82	14.97	.....	14.69
6	.....	.....	.....	.....	.....	.....	14.02	14.50	14.83	14.97	.....	14.69
7	.....	.....	.....	.....	.....	.....	14.04	14.51	14.83	14.98	14.78	14.69
8	.....	.....	.....	.....	.....	.....	14.06	14.52	14.84	14.98	14.77	14.68
9	.....	.....	.....	.....	.....	.....	14.08	14.54	.....	.....	14.76	14.68
10	.....	.....	.....	.....	.....	.....	14.11	14.55	14.88	14.96	14.74	.....
11	.....	.....	.....	.....	.....	.....	14.12	14.55	14.89	14.95	14.72	.....
12	.....	.....	.....	.....	.....	.....	14.14	14.57	14.89	14.93	14.69	.....
13	.....	.....	.....	.....	.....	.....	14.19	.....	14.89	14.93	14.67	.....
14	.....	.....	.....	.....	.....	.....	14.19	.....	14.90	14.93	14.65	.....
15	.....	.....	.....	al3.17	.....	.....	14.20	.....	14.91	14.92	14.65	.....
16	.....	.....	.....	.....	.....	.....	14.22	.....	14.92	14.90	14.65	.....
17	.....	.....	al3.67	.....	.....	.....	14.24	14.65	14.92	14.89	14.63	.....
18	.....	.....	.....	.....	.....	.....	14.26	14.65	14.93	14.88	14.62	.....
19	.....	.....	.....	.....	.....	.....	14.28	14.65	14.94	14.88	14.63	.....
20	.....	.....	.....	.....	.....	.....	14.28	14.65	14.94	14.88	14.62	.....
21	.....	.....	.....	.....	.....	.....	14.29	14.66	14.95	14.87	14.61	.....
22	.....	.....	.....	.....	.....	13.65	14.29	.....	.....	14.87	14.60	.....
23	.....	.....	.....	.....	.....	13.67	14.30	.....	.....	14.87	14.60	.....
24	.....	.....	.....	.....	.....	13.69	14.31	.....	14.96	14.85	14.60	.....
25	.....	.....	.....	.....	.....	13.73	14.33	14.72	14.96	14.86	14.58	.....
26	.....	al3.96	.....	.....	.....	13.76	14.34	14.73	14.96	14.86	.....	.....
27	.....	.....	al3.48	.....	.....	13.79	14.35	14.74	14.96	14.84	.....	.....
28	.....	.....	.....	.....	.....	13.80	14.38	14.75	14.96	14.84	.....	.....
29	.....	.....	.....	.....	.....	13.82	14.39	14.76	14.96	14.84	.....	.....
30	.....	.....	.....	.....	.....	13.86	14.41	14.77	14.97	14.82	.....	.....
31	.....	.....	.....	.....	.....	.....	14.42	14.78	.....	.....	.....	.....

(C-22-5)2bca. R. R. and M. S. Hoyt. Unused well, diameter 8 inches, depth 134 feet. Measuring point, top of casing, level with land-surface datum and 4,339.59 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 29	100.21	June 4	104.51	Aug. 12	106.72	Oct. 30	106.94
Apr. 9	101.54	July 13	105.79	Sept. 23	107.68	Dec. 3	105.52

(C-22-5)4daa 1. State claim 12961. J. B. Davies. Stock well, diameter 8 inches, depth 218 feet. Measuring point, top of casing, level with land-surface datum and 4,755.83 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 19	18.28	June 3	24.87	Aug. 12	26.82	Oct. 30	24.60
29	18.37	July 21	26.26	Sept. 23	29.31	Dec. 3	22.60
Apr. 9	21.89						

a Tape measurement.

Millard County - Pavant Valley--Continued

(C-22-5)5aca 1. State claims 11975 and 18128. J. B. Tope. Irrigation and stock well, diameter 6 inches, depth 248 feet. Measuring point, hole in casing, level with land-surface datum and 4,707.36 feet above mean sea level.

Water level, in feet above land-surface datum, 1937, 1939-41, 1943

Date	Water level	Date	Water level	Date	Water level
Oct. 27, 1937	a 12.34	Apr. 4, 1941	a 13.3	Mar. 27, 1943	21.9
Dec. 27, 1939	a 15.3	30	a 11.0	Apr. 15	15.3
Feb. 13, 1940	a 16.8	June 3	ab 8.0	July 23	b 8.1
Mar. 6	a 15.8	Feb. 4, 1943	20.25	Aug. 18	b 7.9
Jan. 15, 1941	a 15.8	27	18.90	Sept. 29	b 9.0
Feb. 1	a 18.4	Mar. 17	21.9	Nov. 11	b 13.5
28	a 18.9				

(C-22-5)5bba 1. State claims 15853 and 6324. R. A. Utley. Irrigation and stock well, diameter 6 inches, depth 300 feet. Measuring point, top of bead on ell, level with land-surface datum and 4,693.19 feet above mean sea level.

Water level, in feet above land-surface datum, 1938-41, 1943

Aug. 9, 1938	ab 11.2	Mar. 26, 1941	a 34.0	Mar. 27, 1943	33.4
Dec. 21, 1939	a 31.3	Apr. 4	ab 14.5	Apr. 15	b 13.0
Feb. 13, 1940	a 33.1	29	ab 12.8	July 23	b 12.8
Mar. 6	a 32.6	May 29	ab 12.2	Aug. 18	b 12.8
Jan. 15, 1941	a 33.6	Feb. 4, 1943	33.1	Sept. 29	b 12.6
Feb. 1	a 34.1	27	32.4	Nov. 11	30.2
Mar. 1	a 34.7	Mar. 17	33.7	Dec. 4	31.5

(C-22-5)6acd 1. State claim 6232. Samuel Utley. Stock well, diameter 8 inches, depth 319 feet. Measuring point, chisel mark on casing, 3.0 feet above land-surface datum and 4,691.67 feet above mean sea level.

Water level, in feet above land-surface datum, 1939-41, 1943

Dec. 21, 1939	a 26.1	Mar. 1, 1941	a 31.6	Mar. 27, 1943	35.4
Feb. 13, 1940	a 29.6	26	a 31.0	Apr. 15	21.2
Mar. 6	a 26.6	Feb. 27, 1943	b 25.3	Aug. 22	b 12.9
Jan. 15, 1941	a 30.2	Mar. 17	36.1	Nov. 11	23.2
31	a 30.6				

(C-22-5)7bdd 1. State claim 11971. L. Stott. Stock well, diameter 8 inches, depth 390 feet. Measuring point, top of casing, 3.0 feet above land-surface datum and 4,696.66 feet above mean sea level.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	49.9	45.9	45.5	45.4	44.8	45.2	43.8	47.5	.....
2	.....	50.0	45.9	45.0	45.2	44.7	45.2	43.8	47.6	.....
3	.....	50.0	46.1	44.9	45.1	44.6	45.0	43.8	47.6	.....
4	.....	50.0	45.7	45.1	45.1	44.5	44.8	43.8	47.8	.....
5	.....	50.1	45.5	45.3	45.1	44.5	44.7	43.8	48.0	.....
6	.....	50.0	45.2	45.0	45.3	44.5	44.5	43.7	47.9	.....
7	49.6	49.7	45.3	45.3	45.1	44.5	44.4	43.6	48.0	.....
8	49.7	49.5	45.0	45.5	44.9	44.5	44.3	43.6	.....	.....
9	49.9	49.5	45.4	45.4	44.9	44.5	44.1	43.8	.....	47.2
10	49.5	49.1	45.6	45.2	44.9	44.5	44.1	44.0	.....	.....
11	49.6	49.1	45.7	45.4	45.0	44.4	44.1	44.0	.....	.....
12	50.1	49.3	45.8	45.4	45.1	44.4	44.2	44.1	.....	.....
13	50.0	49.7	46.1	45.0	44.9	44.6	44.2	.....	.....	.....
14	49.9	49.6	45.8	45.1	44.9	44.6	44.2	.....	.....	.....
15	50.5	49.5	45.7	45.3	44.8	44.6	44.2	.....	46.1	.....
16	50.2	49.5	45.5	45.1	44.7	44.6	44.1	.....	46.1	.....
17	49.9	49.2	.....	45.2	44.7	44.6	44.0	.....	46.4	.....
18	50.5	48.7	.....	45.4	44.7	44.5	44.0	.....	46.1	.....

a Measurement by Utah State Engineer.

b Well flowing prior to measurement.

## Millard County - Pavant Valley--Continued

(C-22-5)7bdd 1. L. Stott--Continued.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
19	.....	48.4	.....	45.4	44.8	44.4	44.0	.....	46.2	.....
20	.....	48.2	.....	45.5	44.8	44.5	44.0	.....	46.2	.....
21	.....	47.7	.....	45.6	44.6	44.5	44.1	.....	46.4	.....
22	.....	47.3	45.7	45.6	44.5	44.7	44.1	.....	46.4	.....
23	.....	47.2	46.0	45.5	44.6	44.8	44.1	.....	46.3	.....
24	.....	47.0	46.1	45.4	44.6	44.9	44.0	.....	46.2	.....
25	50.2	46.8	46.3	45.4	44.7	44.9	44.0	.....	46.1	.....
26	50.1	46.5	46.0	45.5	44.7	44.9	43.9	.....	46.2	.....
27	49.9	46.6	45.7	45.4	44.8	44.9	43.9	.....	46.2	.....
28	49.9	46.4	45.7	45.4	44.8	45.0	43.9	.....	46.2	.....
29	50.1	46.0	45.7	45.5	44.6	45.2	43.8	.....	.....	.....
30	50.2	45.9	45.6	45.4	44.6	45.1	43.7	46.4	.....	.....
31	49.9	.....	45.6	.....	44.7	45.1	.....	46.5	.....	.....

(C-22-5)7caa 2. Geological Survey, U. S. Dept. of Interior. Test well, diameter 2 inches, depth 13 feet. Measuring point, top of casing, level with land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 25, 7.90; Sept. 24, 8.10; Oct. 30, 7.75; Dec. 4, 7.05.

(C-22-5)8cda 1. State claim 10474. R. E. Stott. Irrigation and stock well, diameter 8 inches, depth 270 feet. Measuring point, top of casing, level with land-surface datum and 4,721.63 feet above mean sea level.

Water level, in feet above land-surface datum, 1937, 1940, 1943

Date	Water level	Date	Water level	Date	Water level
Nov. 11, 1937	ab 9.45	Mar. 6, 1943	b 13.0	Sept. 29, 1943	b 6.4
Jan. 2, 1940	a 11.7	19	b 13.0	Nov. 16	b 8.5
Feb. 14	a 11.3	Apr. 17	b 9.8	17	12.6
Mar. 8	a 10.0	July 20	b 7.0	18	13.2
Feb. 2, 1943	b 13.0	Aug. 18	b 6.8	Dec. 4	15.3

(C-22-5)9dbc 1. State claim 2232. R. Sweeting. Stock well, diameter 11 inches, depth 196 feet. Measuring point, top of casing, level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	4.40	Mar. 27	3.89	June 3	5.77	Aug. 12	7.35
20	3.95	Apr. 9	4.29	July 20	6.91	Dec. 4	7.79
Mar. 19	3.79						

(C-22-5)17acc 1 (\*817, p. 413; \*840, p. 555; 845, p. 625; 886, p. 848; \*910, p. 114; 940, p. 75; 948, p. 81). State claim 3296. William Blake. Measuring point is 2.5 feet above land-surface datum.

Water level, in feet above land-surface datum, 1943

Feb. 2	30.7	Mar. 27	31.6	July 20	b 20.5	Oct. 30	24.2
Mar. 6	31.0	Apr. 17	26.0	Aug. 18	b 20.6	Nov. 17	27.7
19	31.5	June 9	22.4	Sept. 29	b 20.4	18	27.9

(C-22-5)20aad 1. State claim 11970. G. H. Beckstrand. Irrigation and stock well, diameter 8 inches, depth 280 feet. Measuring point, top of casing, 2.4 feet above land-surface datum.

Water level, in feet, with reference to land-surface datum, 1937, 1940-41, 1943

Date	Water level	Date	Water level	Date	Water level
Nov. 15, 1937	a -2.6	Feb. 14, 1940	a +0.9	Apr. 17, 1940	a -0.7
Jan. 3, 1940	a +1.3	Mar. 7	a +.48	Jan. 30, 1941	ab +3.25

a Measurement by Utah State Engineer.

b Well flowing prior to measurement.

## Millard County - Pavant Valley--Continued

(C-22-5)20aad 1. G. H. Beckstrand--Continued.

Water level, in feet, with reference to land-surface datum, 1937, 1940-41, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 5, 1941	ab +3.30	Mar. 27, 1943	b +5.2	Aug. 12, 1943	-2.13
25	ab +3.22	Apr. 17	+6.69	Sept. 23	-2.15
May 23	a -2.74	June 3	-1.61	Nov. 16	+1.70
Feb. 2, 1943	b +4.3	July 23	-1.95	Dec. 4	+2.12
Mar. 6	b +4.5				

(C-22-5)20ccd 1. State claim 5011. P. L. Greenhalgh. Irrigation and stock well, diameter 7 inches, depth 282 feet. Measuring point, top of casing, 3.0 feet above land-surface datum and 4,755.26 feet above mean sea level.

Water level, in feet above land-surface datum, 1937-41, 1943

Date	Water level	Date	Water level	Date	Water level
Nov. 15, 1937	ab 8.6	Jan. 30, 1941	a 12.3	June 9, 1943	b 11.0
Aug. 10, 1938	ab 9.2	Mar. 5	a 12.7	July 23	11.2
Dec. 30, 1939	a 9.9	25	a 13.1	Aug. 20	10.9
Feb. 15, 1940	a 10.5	Feb. 2, 1943	15.4	Sept. 28	10.6
Mar. 7	a 10.5	Mar. 6	15.8	Nov. 16	11.5
Jan. 14, 1941	a 12.2	27	16.1	Dec. 4	12.6

(C-22-5)28bcc 1. State claim 7675. H. N. Bushnell. Stock well, diameter 8 inches, depth 70 feet. Measuring point, top of casing, level with land-surface datum and 4,778.13 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	18.05	Apr. 17	17.94	Aug. 12	19.26	Nov. 16	20.21
Mar. 6	18.00	June 3	18.04	Sept. 23	19.31	Dec. 4	20.12
29	17.93	July 21	20.27				

(C-22-5)28dbd 1. State claim 16860. Charles Swallow. Stock well, diameter 8 inches, depth 112 feet. Measuring point, hole in iron pump base, 1.0 foot above land-surface datum and 4,813.47 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	38.58	Mar. 29	38.56	July 21	40.05	Nov. 17	40.90
27	38.62	Apr. 17	38.77	Aug. 12	40.24	Dec. 4	40.32
Mar. 21	38.65	June 3	39.47	Sept. 23	40.64		

(C-22-5)29cda 1. State claim 11976. O. E. Beckstrand. Stock well, diameter 8 inches, depth 85 feet. Measuring point, top of casing, level with land-surface datum and 4,775.96 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-41, 1943

Date	Water level	Date	Water level	Date	Water level
Aug. 2, 1940	a 13.17	Mar. 6, 1943	8.47	Aug. 12, 1943	10.51
Sept. 4	a 13.71	29	8.17	Sept. 23	11.11
Apr. 19, 1941	a 11.46	Apr. 17	8.30	Nov. 16	10.74
May 28	a 10.42	June 3	9.00	Dec. 4	10.54
Feb. 3, 1943	9.90	July 21	10.08		

a Measurement by Utah State Engineer.

b Well flowing prior to measurement.



Millard County - Pavant Valley--Continued

(C-22-5)32dac 1 (\*845, p. 625; 886, p. 848; 910, p. 114; 940, p. 75; 948, p. 81). Frank Paxton.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	29.02	28.98	28.81	28.74	.....	.....
2	29.01	28.90	28.86	28.71	.....	.....
3	29.08	28.94	28.83	28.67	29.10	29.78
4	29.06	28.91	28.77	28.68	29.11	29.83
5	29.00	28.96	28.79	28.66	29.19	29.86
6	29.05	28.96	28.84	28.64	29.22	29.86
7	29.06	28.90	28.85	28.67	29.19	29.93
8	29.05	28.85	28.82	28.66	29.25	29.91
9	29.04	28.90	28.81	28.64	29.26	29.90
10	29.02	29.02	28.81	28.67	.....	29.92
11	29.01	.....	28.79	28.72	.....	.....
12	29.05	29.01	28.82	28.77	.....	29.92
13	29.02	29.00	28.77	28.75	29.21	29.94
14	29.03	28.95	28.76	28.70	29.27	29.94
15	28.96	28.92	28.82	28.68	29.27	30.02
16	29.02	28.89	28.84	29.15	29.34	30.03
17	29.01	28.89	28.74	28.77	29.35	30.00
18	28.96	28.91	28.78	28.79	29.41	29.99
19	.....	28.91	28.79	28.74	29.41	(a)
20	.....	28.86	28.84	28.80	.....	.....
21	.....	28.83	28.74	28.82	29.43	.....
22	.....	28.80	28.79	.....	29.45	.....
23	.....	28.81	28.80	28.90	29.80	.....
24	.....	28.82	28.78	28.90	29.50	.....
25	.....	28.89	28.73	29.01	29.48	.....
26	.....	28.90	28.74	29.43	29.70	.....
27	28.93	28.81	28.73	29.07	29.59	.....
28	28.94	28.85	.....	29.15	29.61	.....
29	28.85	.....	28.69	29.53	.....	.....
30	28.92	.....	28.74	29.52	.....	.....
31	29.01	.....	28.75	.....	.....	.....

(C-22-5)33cdd 1. State application 13367. L. A. Kimball. Irrigation well, diameter 12½ inches, depth 152 feet. Measuring point, hole in pump base, level with land-surface datum and 4,834.69 feet above mean sea level.

Water level, in feet below land-surface datum, 1941, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 6, 1941	b 62.55	Feb. 27, 1943	57.37	Apr. 17, 1943	57.40
June 3	b 63.87	Mar. 21	56.75	Nov. 17	59.90
Feb. 3, 1943	57.55	29	57.21	Dec. 4	59.90

(C-23-5)6daa 1. State claim 8201. Hatton Well Co. Irrigation well, diameter 12 inches, depth 212 feet. Measuring point, end of discharge pipe, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	46.22	Mar. 29	46.24	Aug. 20	49.10	Nov. 17	50.29
Mar. 6	46.26	July 21	43.65	Sept. 23	49.73	Dec. 4	50.34

(C-23-6)1cad 1. State application 12,538. Waldo George. Unused well, diameter 6 inches, depth 146 feet. Measuring point, top of well cover, level with land-surface datum.

a Well destroyed; measurements discontinued.

b Measurement by Utah State Engineer.

Millard County - Pavant Valley--Continued

(C-23-6)1cad 1. Waldo George--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	48.59	Apr. 17	48.48	Aug. 20	48.82	Nov. 17	49.02
Mar. 6	48.52	July 21	48.73	Sept. 23	48.90	Dec. 4	49.08
29	48.44						

(C-23-6)8bdb 1. State claim 16582. Stock well, diameter 6 inches. Measuring point, top of casing, level with land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 3, 29.16; Mar. 23, 31.75; July 21, 29.24; Nov. 17, 29.42.

(C-23-6)19abb 1. Stock well, diameter 6 inches. Measuring point, hole in top of pump, 3.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 3, 52.62; July 21, 52.72; Nov. 7, 52.69.

(C-23-6)29baa. State claim 6581. Unused well, diameter 8 inches. Measuring point, top of casing, 2.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 3, 68.63; Mar. 23, 63.48; July 21, 63.28; Nov. 17, 68.13.

(C-24-7)25 (\*910, p. 115; 940, p. 75; 948, p. 82). Frank Paxton. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 3, 169.47; July 21, 169.42; Nov. 17, 169.38; Dec. 4, 169.49.

Millard County - Sevier Desert

(C-15-4)20dcc 1 (\*817, p. 406; 840, p. 549; 845, p. 620; 886, p. 844; 910, p. 111; \*940, p. 75; 948, p. 82). Spencer Nielson. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 15, 123.15; Nov. 2, 122.64; Dec. 1, 122.49.

(C-15-5)1aaa 1 (\*817, p. 406; 840, p. 549; 845, p. 620; 886, p. 844; 910, p. 111; 940, p. 75; 948, p. 82). I. P. Hinckley. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 22, 99.96; Mar. 15, 99.42; Nov. 2, 98.93; Dec. 1, 99.05.

(C-15-7)17da (\*840, p. 559; 845, p. 620; 886, p. 844; 910, p. 111; 940, p. 76; 948, p. 82). I. H. Losee. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Feb. 22, 2.44; Mar. 15, 2.41; Oct. 6, 2.60; Dec. 1, 2.30.

(C-15-8)23bba 1 (\*845, p. 620; \*886, p. 844; \*910, p. 111; 940, p. 76; 948, p. 82). State claim 12279. C. D. Ashby. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Feb. 22,  $\frac{a}{3}$ .82; Mar. 15, 4.50; Dec. 1,  $\frac{a}{3}$ .53.

(C-15-9)27b (\*948, p. 82). No measurements made in 1943.

(C-16-7)1dc (\*817, p. 407; \*840, p. 550; 845, p. 620; 886, p. 844; \*910, p. 111; 940, p. 76; 948, p. 82). State claim 6643. H. W. Steiner. Measurements discontinued after July 21, 1942.

(C-16-7)4abb 1 (\*817, p. 407; 840, p. 550; 845, p. 620; 886, p. 844; 910, p. 111; 940, p. 76; 948, p. 82). L. N. Hinckley. Measuring point is 3.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Feb. 22, 6.20; Mar. 15, 6.15; Oct. 6,  $\frac{b}{6}$ .30; Dec. 1, 6.50.

(C-16-7)7ccb 1 (\*845, p. 621; 886, p. 844; 910, p. 111; 940, p. 76; 948, p. 82). Millard County. Measuring point is 2.0 feet above land-surface datum.

a Well flowing prior to measurement.

b Measurement by War Relocation Authority.

Millard County - Sevier--Continued

(C-16-7)7ccb 1. Millard County--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	2.28	May 28 a	2.25	Aug. 3 a	2.04	Oct. 6 a	2.12
Mar. 15	2.36	June 18 a	2.08	24 a	1.98	27 a	1.89
Apr. 13 a	2.35	July 10 a	2.10	Sept. 15 a	1.90	Dec. 1	.30
May 5 a	2.29						

(C-16-7)21acd 1 (\*845, p. 621; 886, p. 844; 910, p. 111; 940, p. 76; 948, p. 82). Martin Tanner. Measuring point is 3.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 22, 12.47; Mar. 15, 12.54; Dec. 1, 12.31.

(C-16-7)34cda 1 (\*845, p. 621; 886, p. 844; \*910, p. 111; 940, p. 76; 948, p. 82). State claim 13205. Utah-Idaho Sugar Co. Measurements discontinued after Mar. 12, 1942.

(C-16-8)9ddec (\*948, p. 82). War Relocation Authority.

Water level, in feet below land-surface datum, 1943

Feb. 22	0.48	May 28 a	1.41	Aug. 24 a	2.70	Oct. 27 a	3.76
Mar. 15	.88	June 18 a	1.52	Sept. 15 a	3.00	Nov. 1	3.86
Apr. 13 a	1.38	July 9 a	1.80	Oct. 6 a	2.64	Dec. 2	3.82
May 5 a	1.47	Aug. 3 a	2.21				

(C-16-8)15ddec 2. War Relocation Authority. Unused well, diameter 1 $\frac{1}{4}$  inches. Measuring point, top of tile curb, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Mar. 15	0.69	May 28 a	0.17	Aug. 3 a	0.56	Oct. 6 a	0.94
Apr. 13 a	.46	June 18 a	.29	24 a	.64	27 a	1.11
May 5 a	.38	July 9 a	.45	Sept. 15 a	.75	Dec. 2	1.15

(C-16-8)15ddec 3 (\*948, p. 83). War Relocation Authority. Measuring point is 0.5 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Apr. 13 a	0.21	June 18 a	0.32	Aug. 24 a	0.99	Oct. 27 a	1.43
May 5 a	.26	July 9 a	.14	Sept. 15 a	1.23	Dec. 2	1.41
28 a	.25	Aug. 3 a	.65	Oct. 6 a	1.28		

(C-16-8)15ddd 3 (\*817, p. 407; \*840, p. 550; 845, p. 621; 886, p. 844; \*910, p. 111; 940, p. 76; 948, p. 83). State claim 12335. Frank Foot. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	1.50	May 5 a	2.22	July 9 a	2.40	Sept. 15 a	2.94
Mar. 15	1.69	28 a	1.96	Aug. 3 a	2.44	Oct. 6 a	3.07
Apr. 13 a	1.85	June 18 a	2.06	24 a	2.73	Dec. 2	3.40

(C-16-8)17add (\*948, p. 83). War Relocation Authority. Measuring point is 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	1.67	May 28 a	2.57	Aug. 24	5.92	Oct. 27 a	7.67
Mar. 15	2.39	June 18 a	2.70	Sept. 15 a	5.99	Nov. 1	5.25
Apr. 13 a	3.09	July 9 a	3.93	Oct. 6 a	8.34	Dec. 2	5.04
May 5 a	2.50	Aug. 3 a	4.90				

(C-16-8)17cbb (\*948, p. 83). War Relocation Authority. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	0.35	May 5 a	0.83	Aug. 3 a	1.62	Oct. 27 a	3.08
Mar. 15	.70	28 a	.81	24 a	2.03	Nov. 1	3.08
Apr. 10	.87	June 18 a	.90	Sept. 15 a	2.28	Dec. 2	2.76
13	.89	July 9 a	1.20	Oct. 6 a	2.78		

a Measurement by War Relocation Authority.

Millard County - Sevier Desert--Continued

(C-16-8)19dba (\*948, p. 83). War Relocation Authority. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	1.71	May 28 a	2.20	Aug. 24 a	3.84	Oct. 27 a	4.80
Mar. 15	2.02	June 18 a	2.35	Sept. 15 a	4.19	Nov. 1	4.78
Apr. 13 a	2.09	July 10 a	2.76	Oct. 6 a	4.65	Dec. 2	4.31
May 5 a	2.13	Aug. 3 a	3.22				

(C-16-8)19ddd (\*948, p. 83). War Relocation Authority. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	2.73	May 28 a	3.37	Aug. 24 a	5.27	Oct. 27 a	6.12
Mar. 15	3.00	June 18 a	3.50	Sept. 15 a	5.74	Nov. 1	5.99
Apr. 13 a	3.16	July 10 a	3.92	Oct. 6 a	6.16	Dec. 2	5.42
May 5 a	3.18	Aug. 3 a	4.50				

(C-16-8)20cdd (\*948, p. 83). War Relocation Authority. Measuring point is 4.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	3.48	May 28	4.26	Aug. 3	5.91	Oct. 6 a	7.80
Mar. 15	3.36	June 18	4.49	24 a	7.18	27 a	7.46
Apr. 13 a	3.91	July 10	4.99	Sept. 15 a	7.61	Dec. 2	6.44
May 5 a	3.91						

(C-16-8)21ddd (\*948, p. 84). War Relocation Authority. Measuring point is 1.8 feet above land-surface datum.

Water level, in feet, with reference to land-surface datum, 1943

Feb. 22	+1.78	May 28 a	+1.25	Aug. 3 a	+0.66	Oct. 6	-0.14
Mar. 15	+1.57	June 18 a	+1.13	24 a	+0.29	27	-0.33
Apr. 13 a	+1.40	July 10 a	+0.95	Sept. 15 a	+0.01	Dec. 2	-0.29
May 5 a	+1.29						

(C-16-8)27acd (\*948, p. 84). War Relocation Authority. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	6.36	May 28 a	6.59	Aug. 3 a	6.88	Oct. 6 a	7.23
Mar. 15	6.44	June 18 a	6.65	24 a	7.18	27 a	7.33
Apr. 13 a	6.42	July 10 a	6.75	Sept. 15 a	7.14	Dec. 2	7.46
May 5 a	6.56						

(C-16-8)27ddd 1 (\*948, p. 84). War Relocation Authority. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	7.10	May 28 a	7.12	Aug. 3 a	7.22	Oct. 6 a	7.41
Mar. 15	7.12	June 18 a	7.19	24 a	7.34	27 a	7.35
Apr. 13 a	7.13	July 10 a	7.18	Sept. 15 a	8.03	Dec. 2	7.37
May 5 a	7.06						

(C-16-8)32baa (\*948, p. 84). War Relocation Authority. Measuring point is 2.9 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 22	7.97	May 28 a	7.64	Aug. 3 a	8.42	Oct. 6 a	9.61
Mar. 15	7.82	June 18 a	7.65	24 a	8.88	27 a	9.59
Apr. 21 a	7.41	July 10 a	7.97	Sept. 15 a	9.33	Dec. 2	9.30
May 5 a	7.46						

a Measurement by War Relocation Authority.

Millard County - Sevier Desert--Continued

(C-16-8)33baa (\*948, p. 84). War Relocation Authority. Measuring point is 7.0 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	7.86	May 28	a 8.45	Aug. 3	a 8.98	Oct. 6	a 9.70
Mar. 15	8.16	June 18	a 8.54	24	a 9.29	27	a 9.89
Apr. 13	a 8.29	July 10	a 8.70	Sept. 15	a 9.56	Dec. 2	9.79
May 5	a 8.38						

(C-17-6)7dbb 2 (\*817, p. 408; 840, p. 550; 845, p. 621; 886, p. 845; 910, p. 111; \*940, p. 76; 948, p. 84). Edward M. Dalton. Measuring point is 2.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 6	0.57	Feb. 22	0.25	Mar. 25	0.50	Oct. 6	a 0.50
29	.55	Mar. 16	.54	May 24	.42	Dec. 1	.22

(C-17-6)33dcc 1 (\*817, p. 408; \*840, p. 550; \*845, p. 621; 886, p. 845; \*910, p. 111; 940, p. 76; 948, p. 84). State claim 10288. Duluth Land Co. Measuring point is 2.1 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 16, b/8.0; Dec. 2, 7.9.

(C-17-7)20cbb 1 (\*817, p. 408; \*840, p. 550; 845, p. 621; 886, p. 845; \*910, p. 111; 940, p. 76; 948, p. 84). State claim 12287. W. J. Webb. Measuring point is 0.6 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 16, 6.2; Dec. 2, 6.1.

(C-17-7)25daa 1 (\*817, p. 408; 840, p. 551; 845, p. 621; 886, p. 845; 910, p. 111; 940, p. 76; 948, p. 84). Investors Finance Co. Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 16, 5.6; Dec. 2, 5.50.

(C-17-7)30aaa 1 (\*817, p. 408; 840, p. 551; 845, p. 621; 886, p. 845; 910, p. 111; 940, p. 76; 948, p. 84). J. G. Parry. Measuring point is 0.6 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 16, 2.80; Oct. 6, a/2.40; Dec. 2, 2.81.

(C-18-5)6bba 1 (\*817, p. 409; \*840, p. 551; 845, p. 621; 886, p. 845; \*910, p. 111; 940, p. 76; 948, p. 84). State claim 4261. Union Pacific Railroad. Measuring point is 0.5 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 16, 17.5; Dec. 2, 20.2.

(C-18-7)5aaa 2 (\*817, p. 409; 840, p. 551; 845, p. 622; 886, p. 845; 910, p. 112; 940, p. 76; 948, p. 85). S. A. Webb. Measuring point is 1.4 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 16, 6.85; Dec. 2, 6.75.

Millard County - Snake Valley <sup>10/</sup>

(C-18-19)20dad 1 (\*840, p. 551; 845, p. 622; 886, p. 845; 910, p. 112; 940, p. 76; 948, p. 85). Mrs. Ward Robinson. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 12, 28.0.

(C-18-19)20ddd 1 (\*840, p. 551; 845, p. 622; 886, p. 845; \*910, p. 112; 940, p. 76; 948, p. 85). State claim 7420. Louise Robinson. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 12, 28.60.

(C-20-19)6bcc (\*840, p. 552; 845, p. 622; 886, p. 846; 910, p. 112; 940, p. 76; 948, p. 85). G. A. Bellander. Measuring point is 0.3 foot below land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 12, 6.0.

(C-20-19)7aab (\*840, p. 553; 886, p. 846; 910, p. 112; 940, p. 76; 948, p. 85). G. S. Quayte. Measuring point is 1.3 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 12, 6.9.

a Measurement by War Relocation Authority.

b Well flowing prior to measurement.

10/ For other wells in Snake Valley see page 79.

Millard County - Snake Valley--Continued

(C-20-19)7bbd (\*840, p. 553; 845, p. 622; 886, p. 846; 910, p. 112; 940, p. 77; 948, p. 85). Marcus Sorenson. Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 12, 4.3.

(C-22-19)6b (\*948, p. 85). Cecil Rowley. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 12, 61.88.

(C-22-19)9cc (\*840, p. 557; 845, p. 625; 886, p. 848; 910, p. 115; 940, p. 77; 948, p. 85). Fred Loper. Measuring point is 3.1 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 12, 3.93.

(C-23-19)9cdb 1 (\*840, p. 557; 845, p. 625; 886, p. 848; 910, p. 115; 940, p. 77; 948, p. 85). Thomas Dearden. Measuring point is 1.1 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 12, 15.00.

Morgan County

(A-3-2)14dc (\*817, p. 352; 840, p. 519; 845, p. 625; 886, p. 849; 910, p. 115; 940, p. 77; 948, p. 85). Earl Walker. Water level, in feet below land-surface datum, 1943: Dec. 10, 53.33.

(A-3-2)24cba 1 (\*817, p. 352; 840, p. 519; 845, p. 625; 886, p. 849; \*910, p. 115; 948, p. 85). State claim 12405. Hyrum Adams. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 16.25; Sept. 18, 14.14; Dec. 10, 16.65.

(A-4-2)8ccd 1 (\*910, p. 115; 940, p. 77; 948, p. 85). State claim 12133. L. H. Kobabe. Water levels, in feet below land-surface datum, 1943: Mar. 31, 17.43; Sept. 18, 20.20; Dec. 10, 20.21.

(A-4-2)15ccc (\*817, p. 352; \*840, p. 519; 845, p. 625; 886, p. 849; \*910, p. 116; 940, p. 77; 948, p. 85). State claim 6594. Jake Pentz. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 21.15; Sept. 18, 20.85; Dec. 10, 21.23.

(A-4-2)17dbd 1 (\*817, p. 352; 840, p. 519; 845, p. 625; 886, p. 849; \*910, p. 116; 940, p. 77; 948, p. 85). Heber Anderson Estate. Measuring point is 6.3 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 20.65; Sept. 18, 22.02; Dec. 10, 20.82.

(A-4-2)26cc (\*817, p. 352; \*840, p. 519; 845, p. 625; 886, p. 849; 910, p. 116; 940, p. 77; 948, p. 86). State application 11666. J. C. Little. Measuring point is 0.4 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 13.89; Sept. 18, 7.90; Dec. 10, 12.33.

(A-4-2)27ddd 1 (\*817, p. 352; \*840, p. 519; 845, p. 625; \*886, p. 849; \*910, p. 116; 940, p. 77; 948, p. 86). State claim 14744. J. C. Little. Measuring point is 4.4 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 12.56; Sept. 18, 6.06; Dec. 10, 10.05.

(A-4-2)28baa 1 (\*817, p. 352; 840, p. 519; 845, p. 626; 886, p. 849; \*910, p. 116; 940, p. 77; 948, p. 86). State claim 9247. Morgan County School District. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 24.77; Sept. 18, 24.61; Dec. 10, 25.10.

(A-4-2)35cdd 1 (\*817, p. 352; \*840, p. 520; 845, p. 626; 886, p. 849; \*910, p. 116; 940, p. 77; 948, p. 86). State claim 11785. Albert Wiggins. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 24.74; Sept. 18, 13.33; Dec. 10, 21.38.

(A-4-3)31bcc (\*840, p. 520; 845, p. 626; \*886, p. 849; 910, p. 116; 940, p. 77; 948, p. 86). Morgan County. Water levels, in feet below land-surface datum, 1943: Mar. 31, 24.18; Sept. 18, 20.58; Dec. 10, 23.58.

Morgan County--Continued

(A-4-3)31cab 1 (\*840, p. 520; 845, p. 626; 886, p. 850; \*910, p. 116; 940, p. 77; 948, p. 86). State claim 12410. Como Springs Resort Co. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Sept. 18, 3.03; Dec. 10, 2.45.

(A-4-4)30aac 2 (\*910, p. 116; 940, p. 77; 948, p. 86). State claim 5670. J. A. Millyard. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Sept. 18, 10.66; Dec. 10, 11.15.

(A-5-1)27db (\*817, p. 352; 840, p. 520; 845, p. 626; 886, p. 850; 910, p. 116; 940, p. 77; 948, p. 86). E. R. France. Water levels, in feet below land-surface datum, 1943: Mar. 31, 0.21; Sept. 18, 0.86; Dec. 10, 1.67.

Piute County

(C-27-1)15cbb 1 (\*845, p. 626; \*886, p. 850; \*910, p. 117; 940, p. 78; 948, p. 86). State claim 12745. Talmadge Bagley. Measurements discontinued after Dec. 18, 1942.

(C-27-1)27abc 2 (\*840, p. 559; 845, p. 626; 886, p. 850; \*910, p. 117; 940, p. 78; 948, p. 86). State claim 2905. H. B. Crandall. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 16, 3.32.

(C-30-2)32a (\*845, p. 626; 886, p. 850; 910, p. 117; 940, p. 78; 948, p. 86). Water levels, in feet below land-surface datum, 1943: Mar. 10, 15.72; Dec. 15, 14.26.

(C-30-3)15bba 1 (\*817, p. 422; 840, p. 565; 845, p. 626; 886, p. 850; 910, p. 117; \*940, p. 78; 948, p. 86). O. P. Jessen. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 10, 22.03; Dec. 15, 19.42.

(C-30-4)14dca 1 (\*817, p. 423; \*840, p. 565; 845, p. 627; 886, p. 850; 910, p. 117; \*940, p. 78; 948, p. 86). Earl Whitaker. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 11, 7.7; Dec. 15, 7.0.

(C-30-4)25bcc 1 (\*845, p. 627; 886, p. 850; \*910, p. 117; 940, p. 78; 948, p. 87). State claim 8210. Drought Relief Administration. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 11, 19.57; Dec. 15, 18.10.

Rich County

(A-9-7)16ba (\*817, p. 358; 840, p. 523; 845, p. 627; 886, p. 851; \*910, p. 117; 940, p. 78; 948, p. 87). State claim 8218. Drought Relief Administration. Measuring point is 1.2 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 34.53.

(A-9-8)17ac (\*845, p. 627; 886, p. 851; \*910, p. 117; 940, p. 78; 948, p. 87). State claim 6837. S. Francis & Sons Co. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 4.64.

(A-10-7)20aaa 1 (\*840, p. 523; 845, p. 627; 886, p. 851; \*910, p. 117; 940, p. 78; 948, p. 87). State claim 1886. Joseph Hatch. Water level, in feet below land-surface datum, 1943: Oct. 25, 10.87.

(A-11-7)9cd 1 (\*817, p. 359; 840, p. 524; 845, p. 627; 886, p. 851; 910, p. 117; 940, p. 78; 948, p. 87). F. H. Jackson. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 13.33.

(A-11-7)9cd 2 (\*817, p. 359; 840, p. 524; 845, p. 627; 886, p. 851; 910, p. 117; 940, p. 78; 948, p. 87). F. H. Jackson. Measuring point is 4.6 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 12.98.

Rich County--Continued

(A-11-7)21bc (\*840, p. 524; 845, p. 627; 886, p. 851; 910, p. 117; 940, p. 78; 948, p. 87). Loren Jackson. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 8.66.

(A-12-7)26bb 1 (\*817, p. 360; 840, p. 525; 845, p. 627; 886, p. 851; 910, p. 118; 940, p. 78; 948, p. 87). William Hoffman. Water level, in feet below land-surface datum, 1943: Oct. 25, 8.11.

(A-12-7)26bb 2 (\*817, p. 360; 840, p. 525; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 78; 948, p. 87). William Hoffman. Measuring point is 0.7 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 8.24.

(A-13-5)10bbb 1 (\*840, p. 526; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 87). Thomas Hodges. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 13.33.

(A-13-5)10bbb 2 (\*840, p. 526; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 87). Thomas Hodges. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 15.51.

(A-13-5)21ad (\*817, p. 361; 840, p. 526; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 87). Drought Relief Administration. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 5.59.

(A-13-5)22bd (\*817, p. 361; 840, p. 526; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 87). Willis Bros. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 19.70.

(A-13-5)22da (\*817, p. 361; 840, p. 526; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 87). Max Green. Water level, in feet below land-surface datum, 1943: Oct. 25, 20.07.

(A-13-5)25db (\*817, p. 361; 840, p. 526; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 83). Willis Bros. Measuring point is 1.0 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 7.78.

(A-13-6)30bb (\*817, p. 361; 840, p. 526; 845, p. 627; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 88). Rich County. Measuring point is 1.8 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Oct. 25, 4.94.

(A-14-5)16cdc 1 (\*817, p. 362; 840, p. 527; 845, p. 628; 886, p. 852; 910, p. 118; 940, p. 79; 948, p. 88). Mrs. David Cook. Measuring point is 1.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 15.65.

(A-14-5)21bd (\*817, p. 362; 840, p. 527; 845, p. 628; 886, p. 853; 910, p. 119; 940, p. 79; 948, p. 88). Thomas Hodges. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 10.38.

(A-14-5)21bda (\*817, p. 362; 840, p. 527; 845, p. 628; 886, p. 853; \*910, p. 118; 940, p. 79; 948, p. 83). J. W. Gibbons. Measuring point is 0.6 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 14.01.

(A-14-5)21bdb (\*817, p. 362; 845, p. 628; 886, p. 852; 910, p. 119; 940, p. 79; 948, p. 89). Alex Johnson. Measuring point is 5.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 17.75.

(A-14-5)21cd (\*817, p. 362; 840, p. 527; 845, p. 628; 886, p. 853; 910, p. 119; 940, p. 80; 948, p. 83). O. W. Pope. Measuring point is 2.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 25, 4.11.



Rich County--Continued

(A-15-5)32cd (\*840, p. 527; 845, p. 628; 886, p. 853; 910, p. 119; 940, p. 80; 948, p. 88). L. E. Scofield. Water level, in feet below land-surface datum, 1943: Oct. 25, 17.30.

Salt Lake County

(B-1-1)6cca 1 (\*817, p. 362; \*840, p. 527; 845, p. 628; 886, p. 853; \*910, p. 119; 940, p. 80; 948, p. 88). State claim 747. Rudy Gun Club. Measuring point is 2.5 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 23, 18.80; Dec. 7, 19.10.

(B-1-1)26ddc 2 (\*840, p. 527; 845, p. 628; 886, p. 853; 910, p. 119; 940, p. 80; 948, p. 88). L. T. Farnsworth. Measuring point is 1.3 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 23, 7.1; Dec. 7, 4.8.

(B-1-1)33cda 1 (\*817, p. 363; \*840, p. 528; 845, p. 628; 886, p. 853; \*910, p. 119; 940, p. 80; 948, p. 88). State claim 8867. Salt Lake City Corporation. Measuring point is 0.5 foot below land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	13.40	May 14	13.30	July 29	12.95	Oct. 20	13.10
Feb. 3	13.40	27	13.30	Aug. 13	12.85	Nov. 13	13.20
Mar. 3	13.25	June 11	13.40	Sept. 10	13.45	Dec. 1	13.10
15	13.60	July 3	13.05	Oct. 8	13.00	22	12.80
Apr. 14	13.45						

(B-1-1)36abc 1 (\*840, p. 528; 845, p. 628; 886, p. 853; 910, p. 119; 940, p. 80; 948, p. 88). Utah Oil Co. Measurements by Salt Lake City Corporation. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet, with reference to land-surface datum, 1943

Jan. 7	-2.00	July 3	-1.65	Aug. 21	-6.57	Oct. 16	-12.84
Feb. 3	-1.20	29	-2.60	30	-7.78	22	-12.59
Mar. 3	-.32	Aug. 2	-2.96	Sept. 7	-8.92	Nov. 13	-12.20
Apr. 14	+1.55	6	-3.74	14	-10.07	Dec. 1	-12.09
May 12	+1.30	10	-4.55	25	-11.26	11	-11.90
June 11	-.72	16	-5.66	Oct. 4	-11.80	22	-11.82

(B-1-2)36baa 1 (\*940, p. 80; 948, p. 89). State claim 18176. E. J. Jeremy. Measuring point is 3.5 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 23, 14.55; Dec. 7, 14.5.

(C-1-1)2cda 1 (\*840, p. 541; 845, p. 629; 886, p. 854; 910, p. 120; 940, p. 81; 948, p. 89). J. D. Brown. Measuring point is 1.0 foot above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Jan. 7	3.50	Apr. 14	5.00	July 3	2.60	Oct. 8	3.20
Feb. 3	4.40	May 12	3.67	29	3.20	Dec. 1	3.10
Mar. 3	4.90	June 11	3.00				

(C-1-1)18bba 1 (\*940, p. 81; 948, p. 89). State claim 15668. J. C. Phelps. Measurements discontinued.

(C-1-1)22bda 1 (\*817, p. 394; \*840, p. 542; 845, p. 629; \*886, p. 854; \*910, p. 120; 940, p. 81; 948, p. 89). State claim 2199. William Gedge. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 23, 12.8; Dec. 7, 11.9.

(C-1-1)33abb 1 (\*817, p. 395; \*840, p. 544; 845, p. 629; 886, p. 854; \*910, p. 120; 940, p. 81; 948, p. 89). State claim 7547. W. D. Hill. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 23, 18.0; Dec. 7, 21.0.

Salt Lake County--Continued

(C-1-2)5bbb 1 (\*817, p. 395; \*840, p. 542; 845, p. 629; 886, p. 854; 910, p. 120; 940, p. 81; 948, p. 89). State claim 13403. Morton Salt Co. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 23, 18.2; Dec. 7, 15.1.

(C-1-2)19bdd 1 (\*817, p. 395; \*840, p. 542; \*845, p. 629; 886, p. 854; \*910, p. 120; 940, p. 81; 948, p. 89). State application 11821. Utah Copper Co. Measurements discontinued after Mar. 10, 1942.

(C-1-2)19dad 1 (\*817, p. 395; \*840, p. 542; 845, p. 629; 886, p. 855; 910, p. 120; 940, p. 81; 948, p. 89). State claim 5828. Utah Copper Co. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 23, 12.7; Dec. 7, 16.2.

(C-1-2)22bcd 3 (\*948, p. 89). Harriet Brown. Measuring point is 7.4 feet above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.
1	....	5.82	5.58	6.10	5.73	5.80	6.19
2	....	5.82	5.71	6.26	5.52	5.78	6.20
3	....	....	5.82	6.05	5.50	5.79	6.20
4	....	....	5.84	6.17	5.62	5.79	6.19
5	....	5.88	5.87	6.02	5.56	5.78	6.18
6	....	5.82	5.86	6.23	5.65	5.78	6.16
7	....	5.92	5.85	6.28	5.67	5.77	6.11
8	....	5.91	5.87	6.25	5.65	5.76	6.07
9	....	5.90	5.87	6.32	5.63	5.74	6.01
10	....	5.96	5.87	6.26	5.67	5.73	5.91
11	....	5.93	5.92	6.17	5.60	5.77	5.87
12	....	5.92	5.92	5.93	5.60	5.75	5.86
13	....	5.85	5.92	6.10	5.61	5.73	5.85
14	....	5.73	5.92	6.32	5.59	5.72	5.84
15	....	5.93	5.88	6.32	5.60	5.71	5.83
16	....	5.93	5.86	6.02	5.58	5.77	5.81
17	....	5.87	5.93	6.00	5.56	5.72	5.80
18	....	....	5.88	5.98	5.53	5.85	5.80
19	....	....	5.83	6.20	5.35	5.89	5.78
20	....	....	5.88	6.15	5.49	5.95	....
21	5.73	....	6.10	5.93	5.50	5.97	....
22	5.79	....	6.22	5.92	5.52	6.02	....
23	5.78	....	6.02	....	5.51	6.07	....
24	5.77	....	6.25	....	5.54	6.07	....
25	5.79	5.70	5.95	....	5.65	6.10	....
26	5.76	....	5.96	....	5.69	6.00	....
27	5.76	....	6.15	....	5.75	6.00	....
28	....	....	5.97	....	5.82	6.17	....
29	5.76	....	6.25	....	5.87	6.06	....
30	5.80	....	6.00	....	5.86	6.06	....
31	....	5.61	....	5.70	5.83	....	....

(C-1-2)22cbb 1 (\*817, p. 396; 840, p. 543; 845, p. 630; 886, p. 855; \*910, p. 120; \*940, p. 81; 948, p. 90). F. E. Fowler. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 7, 15.0.

(C-2-1)1bbab 2 (\*817, p. 396; \*840, p. 543; 845, p. 630; 886, p. 855; \*910, p. 120; 940, p. 81; 948, p. 90). State claim 4058. C. S. Walters. Measuring point is 2.0 feet above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	20.40	Apr. 29	18.75	July 21	14.90	Oct. 25	18.85
Feb. 3	20.00	May 19	18.30	Aug. 18	15.80	Nov. 13	19.30
26	20.25	June 11	18.20	Sept. 17	16.10	29	19.60
Mar. 15	20.55	July 3	14.40	Oct. 6	14.50	Dec. 23	19.50
Apr. 18	19.65						

Salt Lake County--Continued

(C-2-1)10bad 1 (\*845, p. 630; 886, p. 855; 910, p. 121; 940, p. 82; 948, p. 90). E. B. Lindsay. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 12.40; Dec. 7, 4.89.

(C-2-1)22bd (\*777, p. 245; \*817, p. 397; \*840, p. 543; 845, p. 630; 886, p. 855; 910, p. 121; 940, p. 82; 948, p. 90). W. A. Diamond. Measuring point is 1.0 foot above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	72.02	May 6	75.60	July 26	70.55	Oct. 18	67.75
Feb. 12	73.50	June 22	70.90	Aug. 9	70.70	Dec. 1	69.80
Mar. 8	74.35	July 22	70.80	Sept. 18	68.40		

(C-2-1)24adc 1 (\*817, p. 397; \*840, p. 543; 845, p. 630; \*886, p. 855; 910, p. 121; 940, p. 82; 948, p. 91). State claim 16012. J. D. Blain. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 7, 21.36.

(C-2-1)24ccc 2 (\*817, p. 398; 840, p. 543; \*845, p. 630; 886, p. 856; \*910, p. 121; 940, p. 82; 948, p. 91). J. R. Smith. Measuring point is 3.75 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 1.66; Dec. 7, 1.51.

(C-3-1)14bdc 1 (\*817, p. 401; \*840, p. 547; 845, p. 631; 886, p. 856; \*910, p. 121; 940, p. 82; 948, p. 91). State claim 9501. B. H. Beckstead. Measurements discontinued after Dec. 24, 1942.

(C-3-1)25aa (\*817, p. 402; 840, p. 547; 845, p. 631; 886, p. 856; 910, p. 121; 940, p. 82; 948, p. 91). Sproul Bros. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 23, 30.3.

(C-3-1)26cad 1 (\*817, p. 402; \*840, p. 547; 845, p. 631; 886, p. 856; 910, p. 121; 940, p. 82; 948, p. 91). Frank Bagley. Measuring point is 3.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 23, 21.3; Dec. 7, 22.7.

(C-3-1)27cdd 1 (\*817, p. 402; 840, p. 547; 845, p. 631; 886, p. 856; 910, p. 121; 940, p. 82; 948, p. 91). J. R. Dansie and others. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 26.90; Dec. 7, 20.63.

(D-1-1)5aad 1 (\*817, p. 439; 840, p. 589; 845, p. 631; 886, p. 856; \*910, p. 121; 940, p. 82; 948, p. 91). Salt Lake City Corporation. Adjacent well pumping from July 27 to Aug. 18, inclusive.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	97.09	97.49	.....	97.79	.....	97.98	98.12	101.88	99.90	99.31	99.45	99.36
2	97.16	97.36	97.65	.....	.....	98.06	98.14	101.31	99.81	99.27	99.44	99.49
3	97.28	97.46	97.57	.....	.....	98.07	98.19	100.90	99.81	99.25	99.38	99.53
4	97.25	97.38	97.44	.....	97.93	98.02	98.21	101.66	99.73	99.25	99.35	99.42
5	97.19	97.50	97.51	.....	98.00	98.13	98.21	103.13	99.67	99.16	99.31	99.38
6	.....	97.53	97.59	.....	98.00	98.13	98.21	103.92	99.65	99.17	99.40	99.45
7	.....	97.39	97.62	97.65	97.99	98.13	98.30	104.59	99.60	99.20	99.47	99.40
8	.....	97.31	97.56	97.62	.....	98.11	98.73	103.56	99.58	99.20	99.45	99.43
9	.....	97.41	97.62	97.60	.....	98.09	98.60	103.24	99.54	99.20	99.41	99.50
10	.....	97.63	97.55	.....	.....	98.08	98.55	104.47	99.51	99.20	99.38	99.61
11	.....	97.63	97.55	.....	98.02	98.02	98.47	104.24	99.50	99.20	99.36	99.56
12	97.30	97.68	97.62	.....	.....	98.03	98.47	104.54	99.46	99.37	99.31	99.50
13	97.32	97.66	97.53	97.87	.....	98.09	98.52	103.99	99.40	99.35	99.18	99.51
14	97.22	97.59	97.46	.....	.....	98.19	98.45	104.00	99.35	99.34	99.29	99.56
15	96.99	97.55	.....	.....	97.99	98.21	98.40	103.46	99.33	99.34	99.30	99.56
16	97.10	97.50	.....	.....	98.02	98.20	98.42	102.92	99.33	99.29	99.30	99.63

Salt Lake County--Continued

(D-1-1)Saad 1. Salt Lake City Corporation--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
17	97.09	97.52	97.56	.....	98.05	98.15	98.44	102.45	99.32	99.23	99.28	99.66
18	97.31	97.56	97.61	.....	98.05	98.08	98.46	102.14	99.31	99.18	99.30	99.58
19	97.27	97.59	97.67	.....	98.03	98.06	98.42	101.83	99.34	99.19	99.30	99.52
20	97.13	97.57	97.77	97.90	98.03	98.09	98.36	101.53	99.34	99.30	99.30	99.53
21	97.13	97.45	97.73	.....	98.02	98.06	98.40	101.32	99.32	99.30	99.28	99.52
22	97.18	97.38	97.65	.....	98.07	98.10	98.47	101.11	99.32	99.36	99.29	99.52
23	97.13	97.41	97.75	.....	98.03	98.09	98.48	100.95	99.32	99.40	99.36	99.54
24	97.33	97.47	97.78	.....	98.05	98.06	98.48	100.75	99.31	99.42	99.40	99.54
25	97.39	97.63	97.75	.....	97.99	98.10	98.48	100.67	99.27	99.41	99.40	99.45
26	97.37	97.65	.....	.....	97.96	98.13	98.90	100.57	99.25	99.39	99.41	99.54
27	97.34	.....	.....	97.95	97.99	98.17	99.47	100.46	99.25	99.39	99.43	99.61
28	97.38	.....	.....	.....	98.01	98.06	101.04	100.33	99.30	99.34	99.41	99.63
29	97.39	.....	97.74	.....	98.00	98.06	102.15	100.07	99.32	99.33	99.43	99.57
30	97.39	.....	97.80	.....	97.96	98.13	103.05	100.04	99.32	99.36	99.34	99.59
31	97.54	.....	.....	.....	97.99	.....	102.80	100.00	.....	99.39	.....	99.63

(D-1-1)6ccd 1 (\*817, p. 440; 840, p. 590; 845, p. 632; 886, p. 857; 910, p. 122; 940, p. 83; 948, p. 92). Royal Laundry Co. Measuring point is 4.5 feet above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	5.40	Apr. 19	2.60	July 22	4.50	Sept. 20	8.20
23	5.10	May 14	3.00	Aug. 13	5.00	Dec. 1	9.60
Mar. 3	4.25	June 17	3.36	Sept. 2	6.48	23	10.60

(D-1-1)7abd 6 (\*840, p. 590; 845, p. 632; 886, p. 858; 910, p. 122; 940, p. 83; 948, p. 92). Salt Lake City Corporation. Measuring point is 1.6 feet above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Jan. 7	7.95	Apr. 19	7.95	July 29	5.85	Oct. 2	6.30
30	8.35	May 14	6.30	Aug. 13	6.60	Dec. 1	7.95
Mar. 3	8.15	June 11	5.70	Sept. 2	6.20		

(D-1-1)9aca 1 (\*886, pp. 858-862; 910, p. 122; 940, p. 83; 948, p. 93). State claim 4836. Salt Lake City Corporation. Measuring point is 1.8 feet above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	136.44	135.97	136.27	136.20	135.68	136.85
2	136.64	135.78	136.38	136.20	135.80	137.02
3	136.54	135.97	136.23	135.76	135.75	136.98
4	136.44	135.72	136.11	135.83	135.80	136.98
5	136.30	135.98	136.30	135.59	135.75	137.13
6	136.43	135.90	136.31	135.52	135.75	137.09
7	136.49	135.67	136.32	135.58	135.75	137.13
8	136.49	135.60	136.22	135.48	135.93	137.10
9	136.53	135.80	136.35	135.45	135.92	137.06
10	136.25	136.02	136.21	135.50	135.87	137.08
11	136.20	135.90	136.22	135.62	136.05	136.98
12	136.27	135.97	136.27	135.60	136.23	137.05
13	136.32	135.87	136.14	135.55	136.18	137.13
14	136.22	135.76	136.07	135.43	136.22	137.20
15	135.90	135.74	136.28	135.35	136.22	137.25
16	136.03	135.71	136.21	135.47	136.40	137.07
17	135.75	135.70	136.06	135.53	136.50	137.03
18	135.70	135.73	136.19	135.48	136.58	137.03

## Salt Lake County--Continued

(D-1-1)9aca 1. Salt Lake City Corporation--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
19	135.68	135.71	136.21	135.35	136.58	137.21
20	135.50	135.62	136.36	135.40	136.55	137.21
21	135.58	136.31	136.26	135.40	136.60	137.23
22	135.70	136.27	136.15	135.54	136.68	137.25
23	135.63	136.28	136.31	135.47	136.75	137.25
24	135.90	136.23	136.31	135.48	136.82	137.31
25	135.85	136.52	136.29	135.35	136.74	137.31
26	135.84	136.45	136.19	135.60	136.76	137.37
27	135.80	136.28	136.27	135.54	136.81	137.32
28	135.86	136.24	136.18	135.52	136.85	137.28
29	135.82	.....	136.13	135.68	136.84	137.30
30	135.85	.....	136.27	135.65	136.82	.....
31	136.12	.....	136.25	.....	136.87	.....

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	137.30	137.70	138.30	139.06	.....	.....
2	137.32	137.74	138.30	139.06	139.86	.....
3	137.36	137.75	138.43	.....	139.84	.....
4	137.40	137.77	138.38	.....	139.88	.....
5	137.36	137.81	138.44	.....	139.44	.....
6	137.38	137.83	138.47	.....	140.00	.....
7	137.35	137.83	138.47	.....	140.00	140.72
8	137.41	137.88	138.51	.....	140.01	140.79
9	137.39	137.86	138.52	.....	140.00	140.80
10	137.40	137.90	138.56	.....	140.04	140.91
11	137.35	137.90	138.59	139.27	140.10	140.83
12	137.46	137.95	138.60	.....	140.10	140.81
13	137.53	137.99	138.59	.....	140.13	140.90
14	137.43	137.97	138.63	.....	140.20	140.92
15	137.46	138.00	138.65	.....	140.24	140.92
16	137.51	138.03	138.69	.....	140.21	141.00
17	137.54	138.10	138.68	.....	140.18	141.02
18	137.56	138.07	138.74	.....	140.28	140.90
19	137.51	138.08	138.78	.....	140.25	140.97
20	137.54	138.09	138.77	139.55	140.31	141.02
21	137.58	138.13	138.79	139.54	140.26	141.04
22	137.63	138.15	138.80	139.54	140.29	141.14
23	137.63	138.17	138.84	139.54	140.44	141.15
24	137.64	138.20	138.84	139.55	140.47	141.14
25	137.65	138.25	138.84	.....	140.48	141.11
26	137.66	138.23	138.90	139.60	140.50	141.21
27	137.63	.....	138.90	139.64	140.53	141.24
28	137.62	.....	138.99	139.71	140.55	141.24
29	137.67	.....	139.04	139.73	140.50	141.23
30	137.68	.....	139.06	139.82	140.52	141.26
31	137.70	138.35	.....	139.82	.....	141.30

(D-1-1)19bba 1 (\*840, p. 591; 845, p. 633; 886, p. 863; \*910, p. 123; 940, p. 34; 948, p. 93). State claim 13468. Salt Lake County Hospital. Measuring point is 1.0 foot above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	14.80	May 10	8.10	July 29	7.40	Oct. 25	13.20
23	14.10	24	9.40	Aug. 18	9.30	Nov. 13	14.00
Feb. 26	14.50	June 14	12.00	Sept. 17	8.40	29	13.50
Mar. 15	14.30	July 7	7.20	29	9.10	Dec. 23	11.50
Apr. 16	13.90						

## Salt Lake County--Continued

(D-1-1)20cdc 4 (\*840, p. 591; 845, p. 633; 886, p. 863; 910, p. 123; 940, p. 84; 948, p. 93). Louis Lund. Measuring point is 0.5 foot above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.90	May 29	2.60	Sept. 2	2.30	Nov. 12	4.20
23	4.80	June 14	3.80	18	2.32	Dec. 3	4.10
27	4.85	July 1	2.20	29	1.95	20	4.00
Mar. 19	4.95	22	2.00	Oct. 29	3.85	23	4.00
May 6	3.80	Aug. 26	2.30				

(D-1-1)21acc 1 (\*817, p. 440; \*840, p. 591; 845, p. 633; 886, p. 863; \*910, p. 123; 940, p. 84; 948, p. 94). State claim 33. Utah State Prison. Measurements by Salt Lake City Corporation.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	72.27	May 12	71.67	July 27	70.04	Oct. 20	73.27
Feb. 4	73.37	30	71.37	Aug. 12	71.47	Nov. 15	75.91
Mar. 19	72.79	June 17	69.27	Sept. 2	72.82	Dec. 8	74.62
Apr. 15	72.17	July 1	69.82	29	75.02	22	74.72

(D-1-1)30bbc 9 (\*840, p. 592; 845, p. 633; 886, p. 863; 910, p. 123; 940, p. 84; 948, p. 94). L. W. Amodt. Measuring point is 1.8 feet above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	14.90	May 10	13.90	July 29	4.55	Oct. 23	12.70
Feb. 3	14.35	30	6.55	Aug. 16	7.20	Nov. 13	13.25
26	14.70	June 17	11.80	Sept. 17	6.50	29	13.30
Mar. 15	15.15	July 7	4.80	Oct. 15	11.40	Dec. 23	14.00
Apr. 16	15.60						

(D-1-1)31caa 2 (\*840, p. 592; 845, p. 634; 886, p. 863; \*910, p. 124; 940, p. 84; 948, p. 94). State claim 4120. William Sorenson. Measuring point is 3.0 feet above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	16.80	Apr. 29	14.50	July 29	9.30	Oct. 6	12.00
Feb. 3	15.40	May 6	15.10	Aug. 20	11.90	Dec. 3	15.75
26	16.40	June 10	10.50	Sept. 17	10.35		

(D-2-1)4dbd 4 (\*777, p. 246; \*817, p. 442; \*840, p. 592; 845, p. 634; 886, p. 864; 910, p. 124; 940, p. 85; 948, p. 94). Eugene Templeman. Measuring point is 0.2 foot above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	3.25	Apr. 8	1.05	July 13	2.55	Oct. 6	1.50
12	3.00	13	1.27	17	3.00	18	1.90
19	2.85	20	.85	20	2.89	25	1.87
26	2.70	28	.82	27	2.95	29	1.78
Feb. 1	2.45	May 6	.95	Aug. 3	2.96	Nov. 8	1.62
10	2.30	10	1.25	9	3.00	10	1.60
16	2.10	19	1.30	19	3.08	15	1.40
25	1.55	25	1.39	24	2.95	26	1.16
Mar. 1	1.55	June 2	1.51	30	2.80	29	.89
8	1.30	10	2.05	Sept. 3	2.75	Dec. 2	.85
16	1.30	18	2.08	11	2.35	8	.80
23	1.10	28	2.20	21	1.75	24	.66
30	1.17	July 2	2.20	27	1.45	28	.65

(D-2-1)5aaa 1 (\*840, p. 593; 845, p. 634; 886, p. 864; \*910, p. 124; 940, p. 85; 948, p. 94). State claim 6685. M. L. Davis. Measuring point is 0.8 foot above land-surface datum. Measurements by Salt Lake City Corporation.

Salt Lake County--Continued

(D-2-1)5aaa 1. M. L. Davis--Continued.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	3.35	May 14	2.55	Aug. 20	0.90	Oct. 6	0.80
Feb. 3	3.20	June 11	2.47	Sept. 17	.26	Nov. 29	1.87
26	3.20	28	.75	20	.47	Dec. 24	2.05
Apr. 16	3.10	Aug. 4	.37				

(D-2-1)7bcd 1 (\*777, p. 247; \*817, p. 442; \*840, p. 593; 845, p. 635; 836, p. 864; \*910, p. 124; 940, p. 85; 948, p. 95). State claim 1530.  
American Smelting & Refining Co. Measuring point is 0.6 foot above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.5	....	20.5	20.6	19.2	17.8	17.9	17.4	18.3	19.1	22.3	22.1
2	21.6	21.0	20.6	20.7	18.8	18.1	17.6	17.6	18.2	19.3	22.3	22.1
3	21.6	20.6	20.6	20.6	18.9	18.2	17.4	18.1	18.0	19.2	22.4	22.0
4	21.6	20.5	20.6	20.2	18.6	18.7	17.3	18.1	18.2	19.6	22.6	22.0
5	21.6	20.5	20.6	19.6	18.6	19.0	17.4	18.1	18.1	19.2	22.6	22.0
6	21.3	20.6	20.6	19.7	19.0	19.1	17.6	17.9	18.2	19.5	22.4	22.0
7	....	20.6	20.5	20.0	19.4	19.0	16.9	18.0	18.6	19.7	22.6	21.9
8	....	20.6	20.3	20.0	19.4	19.3	17.1	18.7	18.3	19.7	22.6	21.9
9	21.3	21.0	20.5	20.0	19.4	18.8	17.1	19.0	18.6	19.6	22.3	21.8
10	21.2	20.4	20.4	20.1	19.4	18.7	16.9	19.0	18.6	19.6	22.3	21.6
11	21.0	20.3	20.4	20.1	19.4	18.6	16.7	18.5	18.6	19.5	22.2	21.6
12	21.1	20.3	20.6	20.2	19.8	18.3	17.1	18.5	18.6	20.0	22.3	21.6
13	21.3	20.4	20.6	20.5	19.6	17.2	17.0	....	18.5	20.3	22.1	21.7
14	21.2	20.4	20.6	20.6	19.3	17.3	17.1	18.5	18.6	20.4	22.3	21.7
15	....	20.4	20.9	20.2	19.3	17.6	17.3	....	18.3	20.8	22.3	21.8
16	....	20.5	20.6	20.4	19.0	17.6	18.2	19.0	18.6	20.7	22.1	21.9
17	....	20.5	20.5	20.4	19.0	17.7	18.7	19.0	18.6	21.1	22.1	21.9
18	....	20.3	20.5	20.0	19.1	17.6	18.4	18.9	18.5	20.9	22.1	21.9
19	....	20.5	20.6	20.0	....	17.3	18.4	19.0	18.4	20.7	22.2	21.9
20	21.0	20.6	20.6	20.1	18.3	17.2	17.9	19.0	18.4	21.0	22.1	21.9
21	20.9	20.4	20.6	19.4	18.2	16.9	17.7	18.8	18.4	21.4	21.9	21.8
22	20.9	20.4	20.6	19.3	....	16.8	18.0	18.2	18.6	21.6	22.0	21.8
23	20.9	20.6	20.6	19.4	18.8	15.9	18.3	18.2	18.9	21.8	22.1	21.8
24	20.7	20.6	20.6	19.5	18.8	19.0	17.9	18.2	18.9	21.8	....	21.8
25	21.1	20.4	20.5	19.5	18.9	18.5	17.7	17.8	18.9	21.9	22.1	21.8
26	20.9	20.4	20.6	19.5	....	18.2	18.2	18.2	18.9	21.4	....	21.8
27	....	20.5	20.7	19.5	....	18.1	17.6	18.1	19.1	22.1	22.1	21.9
28	....	20.4	20.7	19.5	16.6	18.1	17.3	17.6	18.8	22.1	22.1	21.8
29	....	....	20.7	19.6	17.0	18.0	17.5	17.5	18.8	22.0	22.1	....
30	....	....	20.6	19.2	17.3	17.9	17.4	17.5	19.1	22.0	22.1	....
31	....	....	20.6	....	....	....	17.6	18.2	....	21.9	....	....

(D-2-1)8ada 3 (\*777, p. 248; \*817, p. 442; \*840, p. 594; \*845, p. 635; 836, p. 865; 910, p. 125; 940, p. 86; 948, p. 95). State claim 9757.  
Chester Cahoon.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.3	9.7	9.9	10.6	10.5	10.0	7.6	4.3	4.4	8.5	8.9	7.5
2	10.3	9.8	10.0	10.5	10.4	9.5	3.6	8.2	4.4	8.3	8.8	7.5
3	10.2	9.8	9.9	10.4	10.3	9.5	7.8	8.8	4.4	8.3	8.8	7.6
4	10.0	9.7	9.9	10.5	9.9	9.6	9.0	8.4	4.5	8.2	9.0	8.3
5	10.1	9.7	9.7	10.0	10.4	9.7	8.8	5.3	4.7	8.2	8.8	8.4
6	10.1	9.9	9.9	10.6	10.3	9.8	8.3	4.3	4.5	8.2	8.7	8.4
7	10.0	10.0	9.8	10.1	10.1	9.9	3.7	8.8	4.5	8.1	8.7	8.1
8	10.0	9.7	9.9	10.0	10.0	10.0	3.7	9.7	4.4	8.2	8.7	8.1
9	10.0	9.8	10.2	10.0	10.7	10.2	3.6	8.9	4.5	8.2	8.5	8.1
10	10.0	9.6	9.9	9.7	10.6	10.2	3.7	4.2	4.4	8.1	8.6	8.0

Salt Lake County--Continued

(D-2-1)8ada 3. Chester Cahoon--Continued.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	10.0	9.5	10.0	9.8	10.6	9.9	8.3	4.0	4.4	9.0	8.7	8.1
12	10.0	9.7	10.4	10.4	10.6	10.1	8.7	4.2	5.0	8.2	8.7	8.2
13	10.0	9.8	10.0	10.6	10.8	9.7	3.5	4.2	4.3	9.4	8.6	9.0
14	10.0	9.7	10.0	10.7	10.6	9.7	3.8	4.2	4.4	9.9	8.6	7.6
15	10.3	9.7	9.6	10.7	10.0	9.8	8.0	8.3	4.3	10.0	8.5	8.2
16	9.7	9.8	10.0	10.7	9.9	10.1	10.0	9.0	4.2	10.0	8.5	8.2
17	9.7	9.7	9.9	10.5	10.1	10.4	9.2	9.0	4.3	10.0	8.4	8.2
18	9.6	9.5	9.9	10.4	10.6	10.3	9.4	4.7	4.5	9.4	8.5	8.2
19	8.9	9.6	9.7	10.5	10.6	10.4	9.0	4.5	9.0	9.0	9.0	8.2
20	9.6	9.8	9.9	9.9	10.8	10.1	4.3	4.3	8.8	9.0	8.6	8.2
21	9.8	10.0	9.9	10.4	10.2	9.6	8.7	4.7	8.7	9.2	8.4	8.1
22	10.0	9.8	9.9	10.5	10.0	9.5	9.5	4.6	8.6	9.2	8.4	8.2
23	10.0	9.9	10.5	10.5	9.9	9.0	8.9	4.7	8.5	9.3	8.4	8.1
24	9.8	9.8	10.5	9.7	10.2	8.8	4.4	4.6	3.4	9.5	8.4	8.2
25	9.7	10.0	10.6	9.8	9.8	8.7	4.4	4.6	8.5	9.6	8.4	8.2
26	9.8	10.0	10.3	10.4	10.0	8.1	4.3	4.4	3.7	9.3	8.4	8.2
27	9.8	....	10.5	10.6	10.0	8.2	4.3	4.5	8.6	9.3	8.4	8.1
28	9.7	....	10.6	10.0	9.2	8.3	4.5	4.4	8.6	9.2	8.3	7.9
29	9.7	....	10.3	10.4	9.8	8.2	4.2	4.6	8.5	9.0	8.2	8.1
30	9.8	....	9.9	10.6	9.4	8.0	4.1	4.4	8.8	8.8	8.1	8.1
31	9.7	....	10.4	....	9.2	....	4.3	4.4	...	8.8	...	8.1

(D-2-1)8bbb 1 (\*817, p. 443; \*840, p. 595; 845, p. 636; 886, p. 666; \*910, p. 126; 940, p. 86; 948, p. 96). State claim 218. A. B. and T. E. Hogge. Measuring point is 1.4 feet above land-surface datum. Measurements by Salt Lake City Corporation.

Water level, in feet, with reference to land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	+1.2	May 20	+0.65	Aug. 12	-3.09	Nov. 12	+1.2
Feb. 26	+1.3	June 9	+1.3	Sept. 13	-2.72	Dec. 26	+1.4
Mar. 20	+1.4	28	-2.55	Oct. 6	-1.02	Dec. 24	+6.2
Apr. 3	+1.33	July 22	-1.43	23	+1.3		

(D-2-1)15acc 1 (\*840, p. 595; 845, p. 637; 886, p. 866; 910, p. 127; 940, p. 87; 948, p. 96). M. A. Keyser. Measuring point is 0.5 foot above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	66.50	68.52	69.68	68.69	67.64	64.68	62.23	60.18	61.63	63.37	64.87	66.33
2	66.60	68.35	69.71	68.61	67.62	64.45	62.17	60.15	61.63	63.38	65.10	67.58
3	66.90	68.49	69.95	68.50	67.44	64.45	62.15	60.15	61.85	63.43	65.10	67.64
4	66.91	68.51	69.79	68.50	67.34	64.33	62.05	60.15	61.85	63.56	65.10	67.64
5	66.90	68.63	69.80	68.35	67.20	64.33	61.93	60.20	61.88	63.56	65.27	67.64
6	67.00	68.71	69.97	68.33	67.20	64.32	61.85	60.27	61.99	63.53	65.51	67.64
7	67.03	68.70	69.97	68.32	67.11	64.25	61.78	60.27	62.00	63.62	65.53	67.68
8	67.04	68.61	69.97	68.32	67.03	64.11	61.78	60.27	62.08	63.62	65.61	67.70
9	67.04	68.73	70.02	68.32	67.04	63.94	....	60.26	62.12	63.62	65.62	67.82
10	67.04	69.22	70.05	68.32	66.77	63.85	....	60.23	62.25	63.62	65.69	68.11
11	67.11	69.22	69.96	68.32	66.58	63.62	....	60.23	62.31	63.62	65.74	68.11
12	67.27	69.22	69.96	68.38	66.58	63.55	....	60.33	62.34	63.74	65.81	68.11
13	67.36	69.22	69.87	68.34	66.52	63.55	61.27	60.39	62.37	63.82	66.03	68.11
14	67.36	69.22	69.76	68.32	66.25	63.55	61.21	60.39	62.47	63.82	66.15	68.35
15	67.20	69.21	69.68	68.21	66.19	63.55	61.07	60.46	62.51	63.82	66.35	68.37
16	67.20	69.18	69.72	68.15	66.19	63.44	60.97	60.49	62.60	63.78	66.35	68.47
17	67.32	69.19	69.59	68.20	66.19	63.24	60.90	60.49	62.60	63.74	66.35	68.53
18	67.80	69.29	69.50	68.20	65.91	63.01	60.87	60.53	62.68	63.71	66.36	68.53
19	67.83	69.31	69.50	68.14	....	62.95	60.70	60.59	62.75	63.88	66.37	68.53
20	67.61	69.31	69.50	68.02	....	62.85	60.65	60.59	62.82	63.93	66.54	68.56



Salt Lake County--Continued

(D-2-1)15acc 1. M. A. Keyser--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	67.53	69.31	69.40	.....	.....	62.85	60.60	60.71	62.90	63.94	66.54	68.70
22	67.70	69.30	69.17	.....	.....	62.84	60.59	60.80	62.90	64.04	66.64	68.73
23	67.75	69.35	69.13	.....	.....	62.81	60.55	60.87	62.91	64.04	66.95	68.82
24	68.06	69.47	69.13	.....	.....	62.76	60.49	60.94	62.99	64.11	65.93	68.84
25	68.17	69.74	69.00	.....	65.05	62.76	60.47	61.15	62.99	64.17	65.96	68.84
26	68.15	69.75	68.81	.....	65.05	62.76	60.42	61.24	63.02	64.18	66.01	68.92
27	68.15	69.67	68.78	67.82	65.05	62.64	60.38	61.31	63.03	64.31	66.05	69.09
28	68.15	69.68	68.59	67.74	65.02	62.59	60.18	61.33	63.15	64.37	66.05	69.15
29	68.18	.....	68.55	67.74	65.00	62.30	60.18	61.33	63.33	64.40	66.13	69.15
30	68.18	.....	68.50	67.74	64.83	62.30	60.18	61.54	63.35	64.49	66.23	69.15
31	68.52	.....	68.70	.....	64.75	.....	60.18	61.64	.....	64.70	.....	69.22

(D-3-1)5cdc 1 (\*817, p. 444; 840, p. 596; 845, p. 637; 886, p. 866; 910, p. 127; 940, p. 87; 948, p. 96). Sam Jones. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 23, 9.65; Dec. 7, 8.86.

San Juan County

(D-32-23)36dcc (\*948, p. 97). Frank Redd. Measuring point is 0.4 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Nov. 24, 41.65.

(D-33-23)25aaa (\*948, p. 97). Lloyd Hansen. Measurements discontinued after Nov. 5, 1942.

(D-36-22)27ddb 1 (\*948, p. 97). M. F. Lyman. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	18.90	Apr. 10	19.60	July 10	16.3	Oct. 10	19.60
26	19.20	26	19.72	27	16.6	28	20.54
Feb. 12	19.70	May 12	16.55	Aug. 10	17.1	Nov. 11	20.60
26	19.58	26	15.20	26	18.0	26	21.40
Mar. 12	19.57	June 10	15.95	Sept. 10	19.00	Dec. 11	21.85
27	19.80	25	16.28	28	19.50	27	21.70

(D-36-22)27ddb 2 (\*948, p. 97). M. F. Lyman. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	50.85	Apr. 10	51.40	July 10	52.05	Oct. 10	51.55
26	50.70	24	51.05	27	51.50	28	51.53
Feb. 12	51.36	May 12	50.88	Aug. 10	51.45	Nov. 11	52.00
26	51.05	26	51.21	26	51.6	26	51.90
Mar. 12	50.90	June 10	51.38	Sept. 10	51.79	Dec. 11	52.15
27	51.70	25	51.50	28	52.00	27	51.95

(D-40-22)29bcc (\*948, p. 97). F. A. Nielson. Water level, in feet below land-surface datum, 1943: Nov. 24, 7.03.

Sanpete County

(C-18-1)13cc 2 (\*817, p. 408; 840, p. 551; 845, p. 637; 886, p. 866; 910, p. 127; 940, p. 87; 948, p. 97). Arch Mellor. Measuring point is 0.3 foot above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 17, 8.2.

(C-19-1)23bcc 1 (\*817, p. 410; \*840, p. 552; \*845, p. 637; 886, p. 866; \*910, p. 127; 940, p. 87; 948, p. 97). State claim 1457. C. H. Beal. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 31.50; Dec. 16, 31.18.

Sanpete County--Continued

(C-19-1)25cd 2 (\*817, p. 410; 840, p. 552; 845, p. 637; 886, p. 866; 910, p. 127; 940, p. 87; 948, p. 97). W. J. Wintch and R. P. Dyreng. Measuring point is 2.5 feet below land-surface datum. Well flowing prior to measurements. Water levels, in feet below land-surface datum, 1943: Mar. 25, 0.42; Dec. 16, 0.15.

(D-14-2)13aa (\*817, p. 465; \*840, p. 607; 845, p. 637; 886, p. 866; 910, p. 127; 940, p. 87; 948, p. 97). Ernest Hansen. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 20.5; Dec. 17, 17.6.

(D-14-3)33bcc 1 (\*817, p. 465; \*840, p. 607; 845, p. 637; 886, p. 867; \*910, p. 127; 940, p. 87; 948, p. 97). State claim 3708. Joseph Cloward. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 4.8; Dec. 17, 5.9.

(D-15-3)8cda 3 (\*840, p. 607; 845, p. 637; 886, p. 867; \*910, p. 127; 940, p. 87; 948, p. 97). State claim 13671. William Prestwick. Measuring point is 0.6 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 2.43; Dec. 17, 2.72.

(D-15-3)26ccc (\*886, p. 867; 910, p. 127; 940, p. 87; 948, p. 97). J. C. Christensen. Measurements discontinued after Aug. 11, 1942.

(D-15-3)28aba 1 (\*840, p. 607; 845, p. 638; 886, p. 867; \*910, p. 127; 940, p. 87; 948, p. 97). State claim 2100. Isaac Reynolds. Measuring point is 0.25 foot below land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 2.40; Dec. 17, 2.16.

(D-15-4)4dda 1 (\*817, p. 466; \*840, p. 607; 845, p. 638; \*886, p. 867; 910, p. 127; 940, p. 88; 948, p. 98). State claim 3606. Twin Creek Irrigation Co. Water levels, in feet below land-surface datum, 1943: Mar. 24, 11.92; Dec. 17, 13.87.

(D-15-4)6ada 1 (\*840, p. 608; 845, p. 638; 886, p. 867; \*910, p. 128; 940, p. 88; 948, p. 98). State claims 3741 and 8279. W. H. Brinton. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.50; Dec. 17, 5.27.

(D-15-4)29bac 1 (\*817, p. 466; \*840, p. 608; 845, p. 638; 886, p. 867; \*910, p. 128; 940, p. 88; 948, p. 98). State claim 8276. Drought Relief Administration. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 4.38; Dec. 17, 4.40.

(D-16-3)4aaa 1 (\*817, p. 466; \*840, p. 608; 845, p. 638; 886, p. 868; \*910, p. 128; 940, p. 88; 948, p. 98). State claim 2252. J. F. Bagnall. Measuring point is 0.2 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 6.8; Dec. 17, 6.2.

(D-16-3)14dca 1 (\*845, p. 638; 886, p. 868; \*910, p. 128; 940, p. 88; 948, p. 98). State claim 65. Chris Larsen. Water levels, in feet below land-surface datum, 1943: Mar. 24, 12.21; Dec. 17, 12.23.

(D-16-3)15aca 1 (\*845, p. 638; 886, p. 868; \*910, p. 128; 940, p. 88; 948, p. 98). State claim 8492. Federal Land Bank. Measuring point is 0.2 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 24, 30.76.

(D-16-3)15adc 1 (\*845, p. 638; \*886, p. 868; \*910, p. 128; 940, p. 88; 948, p. 98). State claim 12588. E. L. Davidson. Measuring point is 1.75 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 48.79; Dec. 17, 49.10.

## Sanpete County--Continued

(D-16-3)32ddc 2 (\*817, p. 471; \*840, p. 608; \*845, p. 639; 886, p. 868; \*910, p. 128; 940, p. 88; 948, p. 98). State claim 11676. George Beal. Measuring point is 0.8 foot above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.5	16.3	15.8	15.3	14.8	14.2	13.3	15.5	15.8	14.5	13.7	13.6
2	17.3	16.6	15.6	15.5	14.9	14.2	13.3	15.5	15.7	14.5	13.8	13.6
3	17.1	16.6	15.7	15.6	14.7	14.2	13.4	15.7	15.1	14.0	13.9	13.6
4	17.1	16.6	15.9	15.6	14.7	14.3	13.8	15.8	15.2	14.0	13.9	13.5
5	17.3	16.4	15.7	15.2	14.6	14.5	13.2	15.8	15.2	14.1	13.9	13.5
6	17.3	16.5	15.6	15.4	14.6	14.7	13.5	15.8	14.8	14.1	14.0	13.4
7	17.1	16.5	15.6	15.1	14.5	15.5	14.2	15.8	15.2	13.8	14.1	13.3
8	16.8	16.4	15.8	15.2	14.5	15.6	14.0	15.6	15.2	14.0	14.1	13.2
9	16.8	16.3	15.8	14.8	15.3	15.7	13.1	15.4	14.1	14.1	14.2	13.6
10	16.8	16.1	15.6	14.8	15.2	15.9	12.7	15.8	14.2	13.9	14.0	13.5
11	16.9	16.3	15.8	14.8	15.2	16.0	12.7	15.7	14.6	13.8	14.1	13.5
12	16.9	16.0	15.7	14.7	15.3	15.7	12.8	15.5	14.7	13.8	13.9	13.5
13	17.0	16.1	15.6	14.7	15.4	15.6	11.7	15.7	14.9	13.9	14.0	13.2
14	16.9	16.0	15.7	14.6	15.5	16.0	11.1	15.8	14.9	13.9	14.1	13.1
15	17.1	16.4	15.7	14.8	15.1	15.8	11.3	15.6	15.1	....	14.1	13.0
16	17.0	16.0	15.5	14.9	15.0	16.3	12.1	15.6	15.2	14.3	14.0	13.1
17	16.9	16.0	15.8	14.8	15.3	16.3	13.1	15.5	15.2	14.1	14.0	13.1
18	16.6	16.0	15.7	14.8	15.1	16.4	13.8	15.6	15.1	13.8	14.2	13.0
19	16.7	15.9	15.5	14.9	15.0	16.4	14.5	15.6	15.0	13.7	13.8	12.8
20	16.9	15.9	15.5	14.8	15.2	16.5	14.8	15.6	15.0	13.7	13.8	12.8
21	16.9	15.8	15.6	14.9	15.2	16.5	14.9	15.7	15.2	13.7	13.8	12.8
22	16.8	15.8	15.3	14.9	15.2	16.7	14.4	15.6	15.1	13.6	13.6	12.8
23	17.0	15.9	15.3	14.7	15.4	16.6	14.4	15.8	15.0	13.6	13.6	12.8
24	17.1	....	15.5	14.9	15.2	16.8	13.8	15.5	14.8	....	....	13.0
25	17.2	....	15.5	14.9	15.3	16.3	13.7	15.7	14.5	13.7	13.6	12.8
26	16.7	....	15.5	14.7	15.4	15.4	14.1	15.9	14.4	13.4	13.5	12.8
27	16.6	15.9	15.5	14.8	15.5	14.8	14.8	15.4	14.5	....	13.7	13.0
28	16.7	15.8	15.2	14.8	15.6	13.8	15.2	15.5	14.3	....	13.7	12.9
29	16.8	....	15.4	14.8	15.2	13.6	15.4	15.6	14.5	....	13.6	12.9
30	16.6	....	15.4	14.7	14.8	13.9	15.3	15.6	14.5	....	13.7	12.7
31	16.4	....	15.2	....	14.2	....	15.5	15.6	....	13.5	....	12.7

(D-16-3)33ccb 1 (\*817, p. 470; \*840, p. 609; 845, p. 639; \*886, p. 869; \*910, p. 129; 940, p. 88; 948, p. 99). State claim 7333. Chris Olsen.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	3.0	Apr. 9	3.0	July 2	1.3	Oct. 2	3.2
16	3.0	18	3.1	11	2.0	8	3.4
23	2.5	25	3.1	19	2.1	16	4.1
30	2.4	May 2	3.4	27	2.4	24	4.3
Feb. 6	2.4	9	1.4	Aug. 5	3.1	Nov. 31	4.6
15	2.6	16	1.0	15	2.1	7	4.2
22	2.7	23	.9	22	3.1	16	3.9
Mar. 2	2.8	30	1.0	30	3.1	24	4.1
11	3.0	June 7	1.0	Sept. 7	3.1	Dec. 1	4.2
16	3.1	16	1.1	16	3.32	17	3.81
27	1.72	24	1.0	23	3.4	26	4.1
Apr. 2	3.6						

(D-17-2)1bca 2 (\*845, p. 640; 886, p. 869; \*910, p. 129; 940, p. 89; 948, p. 99). State claim 11528. G. A. Anderson. Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 24, 6.4; Dec. 17, 5.85.

(D-17-2)36cbd 1 (\*817, p. 470; 840, p. 609; \*845, p. 640; 886, p. 869; 910, p. 129; 940, p. 89; 948, p. 99). G. B. Cox. Water levels, in feet below land-surface datum, 1943: Mar. 25, 0.17; Dec. 17, 1.12.

Sanpete County--Continued

(D-17-3)4bcc 1 (\*817, p. 471; \*840, p. 609; \*845, p. 640; 886, p. 869; \*910, p. 129; 940, p. 89; 948, p. 99). State application 11763. R. A. Olsen and others. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 24, flowing; Dec. 17, 2.76.

(D-17-3)6dba 1 (\*817, p. 474; \*840, p. 611; 845, p. 641; \*886, p. 870; \*910, p. 130; 940, p. 89; 948, p. 99). State claim 11431. Niels Christensen. Well flowing prior to measurements. Water level, in feet above land-surface datum, 1943: Mar. 24, 5.7; Dec. 17, 5.05.

(D-17-3)8cdd 1 (\*817, p. 475; \*840, p. 611; 845, p. 641; 886, p. 870; \*910, p. 130; 940, p. 89; 948, p. 99). State claim 10498. Stanley Nielsen. Measuring point is 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 24, flowing; Dec. 17, 0.63.

(D-17-3)9cbd 1 (\*817, p. 475; \*840, p. 611; 845, p. 641; \*886, p. 870; \*910, p. 130; 940, p. 89; 948, p. 99). State claims 4446 and 8260. S. E. Christensen. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 24, 28.34; Dec. 17, 34.41.

(D-17-3)17adb 1 (\*845, p. 641; 886, p. 871; \*910, p. 130; 940, p. 89; 948, p. 99). State claim 8261. Drought Relief Administration. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 39.31; Dec. 17, 44.46.

(D-17-3)30dbd 1 (\*845, p. 641; 886, p. 871; \*910, p. 130; 940, p. 89; 948, p. 99). State claim 2696. Earnest Monk. Measuring point is 1.5 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 25, 12.3; Dec. 17, 11.25.

(D-18-2)1da (\*817, p. 475; 840, p. 612; 845, p. 642; 886, p. 871; 910, p. 130; 940, p. 89; 948, p. 99). L. H. Hougard. Measuring point is 1.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 75.01; Dec. 17, 75.36.

(D-18-2)12bab 1 (\*817, p. 476; \*840, p. 612; \*845, p. 642; \*886, p. 871; \*910, p. 131; 940, p. 90; 948, p. 99). State claim 13390. City of Manti. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 76.32; Dec. 17, 77.05.

(D-19-2)17aad 1 (\*817, p. 476; \*840, p. 612; \*845, p. 642; 886, p. 871; \*910, p. 131; 940, p. 90; 948, p. 99). State claim 13462. W. G. Frischknecht. Water levels, in feet below land-surface datum, 1943: Mar. 25, 5.63; Dec. 17, 5.82.

(D-19-2)32aac 1 (\*817, p. 476; \*840, p. 612; 845, p. 642; 886, p. 872; \*910, p. 131; 940, p. 90; 948, p. 100). State claim 11881. Mayfield Irrigation Co. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 36.14; Dec. 17, 37.30.

(D-20-1)5bd (\*886, p. 872; 910, p. 131; 940, p. 90; 948, p. 100). Federal Land Bank. Measuring point is 2.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 21.90; Dec. 16, 22.37.

(D-20-1)20aaa 1 (\*817, p. 477; \*840, p. 613; \*845, p. 642; \*886, p. 872; \*910, p. 131; 940, p. 90; 948, p. 100). State claim 6356. Federal Land Bank. Water levels, in feet below land-surface datum, 1943: Mar. 25, 32.98; Dec. 16, 33.52.

Sevier County

(C-21-1)13bda 1 (\*817, p. 411; \*840, p. 553; 845, p. 643; \*886, p. 872; \*910, p. 131; 940, p. 90; 948, p. 100). State claim 5817. Federal Land Bank. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 25, 2.1; Dec. 15, 2.3.

(C-21-1)27aad 1 (\*817, p. 411; \*840, p. 553; 845, p. 643; 886, p. 872; \*910, p. 131; 940, p. 90; 948, p. 100). State claim 8407. E. A. Thorsen. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 3.35; Dec. 15, a/4.40.

(C-22-1)8bbd 1 (\*817, p. 413; 840, p. 555; 845, p. 643; 886, p. 872; 910, p. 131; \*940, p. 90; 948, p. 100). Max Curtis. Measurements made in this well during 1942 are given in Water-Supply Paper 948 in feet below new measuring point, which is 4.2 feet below old measuring point and 3.9 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 25, 30.51; Dec. 15, 29.97.

(C-23-2)1aac 1 (\*817, p. 413; \*840, p. 556; \*845, p. 643; \*886, p. 872; \*910, p. 131; 940, p. 90; 948, p. 100). State claim 16479. U. S. Gypsum Co. Measuring point is 0.8 foot below land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 25, 3.3; Dec. 15, 3.0.

(C-23-2)10bcd 1 (\*940, p. 90; 948, p. 100). State claim 2011. F. W. Cowley. Measurements discontinued after Mar. 18, 1942.

(C-23-2)15bdd 3 (\*817, p. 413; \*840, p. 556; 845, p. 643; \*886, p. 872; \*910, p. 132; 940, p. 90; 948, p. 100). State claim 1989. Sevier School District. Measuring point is 0.2 foot below land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 25, 7.83; Dec. 15, 7.8.

(C-23-2)15ccc (\*840, p. 556; 845, p. 643; 886, p. 873; 910, p. 132; 940, p. 91; 948, p. 100). Martha Avery.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
1	...	7.4	6.4	...	2.3	1.9	...	4.0	...	...
2	...	7.3	6.4	3.0	2.4	1.9	...	3.1	...	...
3	...	7.6	6.8	2.9	2.5	1.9	...	2.9	...	...
4	...	7.6	6.7	2.8	2.5	1.9	...	2.9	...	...
5	...	...	6.1	2.7	2.5	1.8	...	3.2	...	...
6	...	7.8	6.0	2.7	2.5	1.8	...	3.3	...	...
7	...	7.9	5.9	2.6	2.6	1.8	...	3.4	...	...
8	...	8.0	5.8	2.5	2.9	1.8	...	3.5	4.9	...
9	...	7.9	5.8	2.8	2.9	...	...	3.4	4.9	...
10	...	7.7	5.7	2.9	3.0	...	...	3.3	5.0	...
11	...	7.7	5.6	3.0	3.0	...	...	3.3	...	...
12	...	7.5	5.6	3.0	2.9	1.7	...	3.2	...	...
13	...	7.5	...	3.0	2.9	1.7	...	4.1	...	...
14	...	7.6	...	3.0	3.0	1.7	...	4.4	...	...
15	...	7.3	...	3.0	3.3	1.8	...	4.6	...	...
16	...	7.1	...	3.0	3.3	1.8	...	4.6	...	...
17	...	7.3	...	2.8	3.2	1.7	...	4.6	...	...
18	...	7.2	...	2.6	3.2	1.6	2.9	4.6	5.3	...
19	...	7.0	...	2.6	3.2	1.6	3.5	4.6	5.3	...
20	...	6.8	...	2.6	3.1	1.6	...	...	5.3	...
21	...	6.7	...	2.5	3.0	1.7	...	...	5.1	...
22	...	6.6	...	2.4	2.7	1.8	...	...	5.0	...
23	...	6.4	...	2.3	2.5	1.8	...	...	5.0	5.1
24	...	6.2	...	2.4	2.7	2.0	...	...	4.9	...
25	7.6	...	...	2.1	2.6	2.2	...	...	...	...
26	7.5	6.2	...	2.0	2.3	2.3	...	5.0	...	...
27	7.5	6.1	...	2.1	2.1	...	3.8	...	...	...
28	7.4	6.0	...	2.1	...	...	3.9	...	...	...
29	...	6.1	...	2.1	...	...	4.0	...	...	5.8
30	...	6.3	...	2.1	...	...	4.0	...	...	5.9
31	...	6.3	...	2.2	...	...	...	...	...	5.8

a Pumping 4 gallons a minute.

Sevier County--Continued

(C-23-2)15dcb 4 (\*817, p. 414; \*840, p. 557; 845, p. 644; 886, p. 873; \*910, p. 132; 940, p. 91; 948, p. 101). State claim 1969. F. M. Jackson. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 25, 9.5; Dec. 15, 7.9.

(C-23-2)19dab 1 (\*817, p. 414; \*840, p. 557; \*845, p. 644; 886, p. 873; \*910, p. 132; 940, p. 91; 948, p. 101). State claim 8447. William Hallows. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 25, 19.2; Dec. 16, 21.2.

(C-23-2)26cdb 1 (\*817, p. 414; \*840, p. 557; 845, p. 644; 886, p. 873; \*910, p. 132; 940, p. 91; 948, p. 101). State claim 323. N. C. Johnson. Measuring point is 0.7 foot below land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 25, 5.4; Dec. 15, 5.2.

(C-23-2)31dcb 2 (\*817, p. 414; \*840, p. 557; \*845, p. 644; 886, p. 874; \*910, p. 133; 940, p. 91; 948, p. 101). State claim 3302. Pacific National Life Insurance Co. Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 11, 8.8; Dec. 15, 8.2.

(C-25-3)3bbd 1 (\*817, p. 415; \*840, p. 558; 845, p. 644; 886, p. 874; 910, p. 133; 940, p. 91; 948, p. 101). Luther Winget. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 11, 9.64; Dec. 15, 11.71.

(C-25-4)2ddb (\*886, p. 874; 910, p. 133; 940, p. 91; 948, p. 101). R. W. Pinney. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 11, 49.29; Dec. 15, 48.00.

(C-26-1)23ddb 1 (\*817, p. 415; \*840, p. 558; 845, p. 645; 886, p. 874; \*910, p. 133; 940, p. 91; 948, p. 101). State claim 12620. A. E. DeLange. Measuring point is 1.5 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 16, 12.5.

(C-26-1)25acc 1 (\*817, p. 416; \*840, p. 558; 845, p. 645; 886, p. 875; \*910, p. 133; 940, p. 91; 948, p. 101). State claim 3159. A. R. Brown. Measuring point is 1.2 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 16, 14.8.

(C-26-1)35acd 1 (\*817, p. 416; \*840, p. 558; 845, p. 645; 886, p. 874; \*910, p. 133; 940, p. 91; 948, p. 101). State claim 12713. Otto Erickson. Measuring point is 1.6 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 16, 5.31.

(D-25-1)31cba 1 (\*817, p. 477; 840, p. 613; 845, p. 645; 886, p. 874; 910, p. 133; \*940, p. 91; 948, p. 101). Charles Burr. Measuring point is 0.3 foot above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 16, 1.73.

Summit County

(A-3-4)4 (\*845, p. 645; \*886, p. 875; 910, p. 133; 940, p. 92; 948, p. 102). Thomas Overd. Water levels, in feet below land-surface datum, 1943: Mar. 31, 4.40; Sept. 18, 3.17; Dec. 10, 3.35.

(D-1-4)18cc (\*845, p. 645; \*886, p. 875; \*910, p. 133; 940, p. 92; 948, p. 102). Brooks and Gerber. Measurements discontinued after July 24, 1942.

(D-1-4)31bdb 1 (\*817, p. 442; \*840, p. 592; 845, p. 645; \*886, p. 875; 910, p. 134; 940, p. 92; 948, p. 102). Theodore Johnson. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 6.16; Sept. 17, 12.28; Dec. 10, 11.94.

(D-1-4)31dc (\*940, p. 92; 948, p. 102). Measuring point is 6.0 feet below land-surface datum. Water level, in feet below land-surface datum, 1943: Sept. 17, 9.72.

Summit County--Continued

(D-1-5)3ccb 1 (\*845, p. 645; 886, p. 875; \*910, p. 134; 940, p. 92; 948, p. 102). State claim 12256. Martin Larsen. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 22.71; Sept. 17, 21.22; Dec. 10, 22.90.

(D-1-5)4cd (\*845, p. 645; \*886, p. 875; 910, p. 134; 940, p. 92; 948, p. 102). Joe Bean. Water levels, in feet below land-surface datum, 1943: Mar. 31, 6.79; Sept. 17, 13.00; Dec. 10, 7.95.

(D-1-6)19dad 1 (\*845, p. 646; \*886, p. 875; 910, p. 134; 940, p. 92; 948, p. 102). State claim 3699. A. W. Frazier. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 12.46; Sept. 17, 5.13; Dec. 10, 12.59.

(D-1-6)29daa (\*845, p. 646; 886, p. 875; \*910, p. 134; 940, p. 92; 948, p. 102). State claim 12227. C. C. Mitchell. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 13.22; Sept. 17, 16.31.

(D-2-6)5dbb (\*845, p. 646; 886, p. 876; 910, p. 134; 940, p. 92; 948, p. 102). Burton Peterson. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 6.17; Sept. 17, 5.42; Dec. 10, 6.78.

(D-2-6)8aaa (\*845, p. 646; 886, p. 876; 910, p. 135; 940, p. 93; 948, p. 102). State claim 12248. Ed Rockhill. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 10.97; Sept. 17, 8.60; Dec. 10, 10.45.

(D-2-6)17dac (\*845, p. 646; \*886, p. 876; 910, p. 135; 940, p. 93; 948, p. 102). Jack Wilsonhulme. Water levels, in feet below land-surface datum, 1943: Mar. 31, 8.41; Sept. 17, 6.40; Dec. 10, 11.62.

(D-2-6)20ccc (\*845, p. 647; 886, p. 876; 910, p. 135; 940, p. 93; 948, p. 102). State claim 12231. A. H. Padfield. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Dec. 16, 1942	a 5.8	May 18, 1943	a 3.94	Sept. 17, 1943	5.79
Jan. 13, 1943	a 5.8	June 17	a 4.12	Oct. 15	a 3.26
Feb. 20	a 3.82	July 15	a 4.14	Nov. 17	a 4.30
Mar. 31	2.31	Aug. 13	a 5.0	Dec. 10	5.05
Apr. 18	a 4.25	Sept. 14	a 5.55		

(D-2-6)28ccc 1 (\*845, p. 647; 886, p. 876; 910, p. 135; 940, p. 93; 948, p. 102). Lillian McNeil. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1942-43

Dec. 16, 1942	a 27.27	May 18, 1943	a 16.9	Sept. 17, 1943	22.70
Jan. 13, 1943	a 28.8	June 17	a 7.8	Oct. 15	a 20.1
Feb. 20	a 24.22	July 20	a 16.46	Nov. 17	a 25.54
Mar. 31	21.54	Aug. 13	a 19.6	Dec. 10	27.00
Apr. 18	a 25.34	Sept. 12	a 22.05		

(D-2-6)28ddc (\*845, p. 647; 886, p. 876; 910, p. 136; \*940, p. 93; 948, p. 103). A. D. Prescott. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1942-43

Dec. 16, 1942	a 11.84	June 18, 1943	a 0.0	Sept. 17, 1943	2.10
Jan. 13, 1943	a 19.7	July 20	a .0	Oct. 15	a 2.4
Mar. 31	11.65	Aug. 13	a .0	Nov. 17	a 7.5
Apr. 18	a 10.92	Sept. 14	1.70	Dec. 10	9.98
May 18	a 8.34				

(D-2-6)33dad (\*845, p. 647; \*886, p. 876; 910, p. 136; 940, p. 93; 948, p. 103). Amos Prescott. Measurements discontinued after Sept. 14, 1942.

a Measurement by Provo River Water Commissioner.

Tooele County - Rush Valley

(C-5-5)2bc (\*817, p. 403; \*840, p. 547; \*845, p. 681; \*886, p. 881; \*910, p. 140; \*940, p. 93; \*948, p. 103). Alma Young. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 23.77; Dec. 28, 24.07.

(C-5-5)30bcb 1 (\*845, p. 651; \*886, p. 881; \*910, p. 140; \*940, p. 93; \*948, p. 103). State claim 8286. Willard Sager. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 11.78; Dec. 28, 12.15.

(C-5-5)31ldb (\*940, p. 93; \*948, p. 103). Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 20.43; Dec. 28, 20.65.

(C-5-5)32adb (\*940, p. 93; \*948, p. 103). Water levels, in feet below land-surface datum, 1943: Mar. 31, 30.73; Dec. 28, 31.42.

(C-5-6)25aaa 1 (\*817, p. 404; \*840, p. 548; \*845, p. 651; \*886, p. 881; \*910, p. 140; \*940, p. 93; \*948, p. 103). State claim 8288. Willard Sager. Measurements discontinued after Oct. 20, 1942.

(C-6-5)26cb (\*940, p. 93; \*948, p. 103). L. A. Stookey. Measurements discontinued after Oct. 20, 1942.

(C-7-5)4da (\*940, p. 94; \*948, p. 103). No measurements made in 1943.

(C-8-5)20dc (\*940, p. 94; \*948, p. 103). Measuring point is 3.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 8.13; Dec. 28, 8.95.

(C-8-5)30ccc (\*940, p. 94; \*948, p. 103). State claim 1573. H. I. Yates. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 6.53; Dec. 28, 9.52.

(C-8-5)31aad (\*940, p. 94; \*948, p. 103). D. J. Fredrickson. Water levels, in feet below land-surface datum, 1943: Mar. 31, 19.31; Dec. 28, 19.97.

(C-8-6)23cd (\*940, p. 94; \*948, p. 103). Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 31, 1.93; Dec. 28, 1.98.

(C-8-6)26aaa 1 (\*817, p. 405; \*840, p. 548; \*845, p. 651; \*886, p. 881; \*910, p. 141; \*940, p. 94; \*948, p. 103). State claim 1415. J. E. Olson. Measuring point is 4.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 31, 39.0; Dec. 28, 30.85.

(C-9-5)6bca 1 (\*817, p. 405; \*840, p. 549; \*845, p. 651; \*886, p. 882; \*910, p. 141; \*940, p. 94; \*948, p. 103). State claim 8285. Drought Relief Administration. Water levels, in feet below land-surface datum, 1943: Mar. 31, 17.37; Dec. 28, 18.77.

Tooele County - Salt Lake Desert

(C-7-10)25cc (\*886, p. 882; \*910, p. 140; \*940, p. 94; \*948, p. 104). Grazing Service, U. S. Dept. of Interior. No measurements made in 1943.

(C-7-10)25c (\*948, p. 104). Dugway Proving Ground. No measurements made in 1943.

Tooele County - Tooele Valley

(C-1-4)36bcb 1 (\*817, p. 396; \*840, p. 543; \*845, p. 647; \*886, p. 877; \*910, p. 138; \*940, p. 95; \*948, p. 104). State claim 13593. A. J. Williams. Water levels, in feet above land-surface datum, 1943: Mar. 29, 11.55; Dec. 24, 5.15.

(C-2-4)1bcc 1 (\*940, p. 95; \*948, p. 104). Jesse Long. Measuring point is 1.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 29, 32.60.

---

a Well flowing prior to measurement.



Tooele County - Tooele Valley--Continued

(C-2-4)2aba 2 (\*840, p. 544; 845, p. 647; 886, p. 877; 910, p. 136; 940, p. 95; 948, p. 104). State claim 6997. B. D. Davis. Measuring point is 1.5 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 29, 6.4; Dec. 24, 6.0.

(C-2-4)3dcc 1 (\*940, p. 96; 948, p. 104). Nick Soter. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 3.35; Dec. 24, 4.18.

(C-2-4)16aad 2 (\*940, p. 96; 948, p. 104). State claim 14209. Utah Wool Pulling Co. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 5.83; Dec. 24, 6.20.

(C-2-4)17dad 1 (\*817, p. 399; 840, p. 544; 845, p. 647; 886, p. 877; \*910, p. 136; 940, p. 96; 948, p. 104). E. J. Jeremy. Measuring point is 1.5 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 29, 23.3; Dec. 24, 22.9.

(C-2-4)27ccb 1 (\*940, p. 97; 948, p. 105). State claim 902. V. J. Crocheron. No measurements made in 1943.

(C-2-4)31dad 1 (\*940, p. 102; 948, p. 105). State claim 6924. E. R. Nelson. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 29, 6.9; Dec. 24, 8.2.

(C-2-4)31dad 2 (\*940, p. 103; 948, p. 105). State application 14298. Utah Water Storage Commission. No measurements made in 1943.

(C-2-4)31dbc 6 (\*940, p. 104; 948, p. 105). State claim 19253. Smith & Dillard. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 6.03; Dec. 24, 5.32.

(C-2-4)31dbc 7 (\*940, p. 104; 948, p. 105). State claim 7035. Smith & Dillard. Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 24, 1.7.

(C-2-4)31dca 1 (\*948, p. 106). State claim 15160. State of Utah. Measuring point is 5.0 feet above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.89	3.20	3.98	3.57	3.53	3.13	3.08	2.98	2.90	2.79	2.77	....
2	2.85	3.27	3.92	3.54	3.34	3.11	3.06	2.95	2.93	2.81	2.77	....
3	2.82	3.26	3.96	3.54	3.23	3.17	3.04	2.94	2.86	2.80	2.79	....
4	2.88	3.30	4.00	3.52	3.24	....	3.03	2.95	2.89	2.78	2.82	....
5	2.92	3.26	3.99	3.54	3.16	....	3.03	2.94	2.88	2.80	2.82	4.00
6	2.94	3.28	3.91	3.56	3.13	3.17	3.02	2.93	2.83	2.79	2.77	4.08
7	2.95	3.38	3.82	3.54	3.16	....	2.99	2.94	2.85	2.79	2.75	4.08
8	2.97	3.41	3.87	3.59	3.12	....	3.02	2.93	2.83	2.79	2.77	4.10
9	3.00	3.38	3.83	3.59	3.12	....	3.04	2.99	2.84	2.81	2.80	4.10
10	3.03	3.29	3.89	3.57	3.08	....	3.04	2.98	2.83	2.82	2.82	4.08
11	3.06	3.56	3.72	3.54	3.04	....	3.06	2.98	2.82	2.83	2.82	4.08
12	3.05	....	3.68	3.55	3.05	....	3.00	2.96	2.82	2.76	2.83	4.11
13	3.05	....	3.69	3.57	3.07	3.21	2.94	2.95	2.85	2.79	2.85	4.19
14	3.11	3.64	3.72	3.61	3.05	....	2.99	2.97	2.85	2.78	2.83	4.18
15	3.23	3.73	3.60	3.65	3.08	....	3.00	2.96	2.85	2.79	2.79	4.17
16	3.19	3.76	3.59	3.62	3.04	....	2.98	2.91	2.83	2.82	2.81	4.15
17	3.20	3.77	3.67	3.59	3.02	3.17	2.97	2.91	2.84	2.87	2.83	....
18	3.21	3.76	3.60	3.60	3.02	3.20	2.97	2.93	2.83	2.88	2.82	....
19	3.21	3.77	3.51	3.66	3.01	3.22	3.01	2.94	2.81	2.86	2.83	4.30
20	3.24	3.78	3.48	3.63	3.03	3.18	3.01	2.95	2.79	2.82	2.82	....
21	3.25	3.80	3.49	3.66	3.02	3.20	2.99	2.94	2.80	2.84	2.84	....
22	3.25	3.90	3.53	3.61	3.00	3.15	2.98	2.93	2.79	2.80	2.86	....
23	3.25	3.89	3.48	3.65	3.03	3.17	2.99	2.92	2.79	2.78	2.83	....

## Tooele County - Tooele Valley--Continued

(C-2-4)31dca 1. State of Utah--Continued.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	3.24	3.89	3.49	3.65	3.09	3.18	2.99	2.91	2.80	2.78	2.83	....
25	3.21	3.82	3.51	3.66	3.21	3.14	3.00	2.87	2.81	2.80	2.83	....
26	3.19	3.84	3.56	3.60	3.14	3.13	2.97	2.87	2.80	2.84	2.83	4.30
27	3.22	3.88	3.54	3.63	3.13	3.09	2.98	2.87	2.82	2.85	2.95	....
28	3.22	3.85	3.58	3.67	3.11	3.09	2.98	2.88	2.80	2.85	3.05	....
29	3.23	....	3.65	3.59	....	3.09	2.97	2.92	2.78	2.85	3.07	....
30	3.24	....	3.56	3.62	3.15	3.06	2.96	2.88	2.78	2.83	3.18	....
31	3.18	....	3.55	....	3.11	....	2.96	2.87	....	2.81	....	....

(C-2-4)32add 1 (\*940, p. 105; 948, p. 106). State claim 1037. Atkin &amp; Nix. Measurements discontinued after May 21, 1942.

(C-2-4)32bcc 1 (\*817, p. 399; \*840, p. 544; 845, p. 648; \*886, p. 877; \*910, p. 137; 940, p. 106; 948, p. 106). State claim 578. R. A. Fenton. No measurements made in 1943.

(C-2-4)33aac 2 (\*817, p. 399; \*840, p. 544; 845, p. 648; 886, p. 877; \*910, p. 137; \*940, p. 107; 948, p. 106). State claim 888. I. L. Clegg. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 4.53; Dec. 24, 4.82.

(C-2-4)33abb 2 (\*817, p. 400; \*840, p. 545; 845, p. 648; 886, p. 878; \*910, p. 137; 940, p. 107; 948, p. 106). State claim 806. L. T. Liddell. Measuring point is 2.5 feet above land-surface datum.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	9.02	Apr. 4	10.52	July 4	5.81	Oct. 3	5.90
10	9.19	12	10.65	11	6.06	10	6.00
17	9.36	18	10.52	18	5.83	17	6.37
24	9.34	25	7.71	25	5.94	24	6.57
31	9.40	May 2	7.32	Aug. 1	5.86	31	6.63
Feb. 7	9.69	9	7.21	8	5.92	Nov. 7	6.83
14	9.62	16	7.19	15	5.97	14	6.98
21	9.83	23	6.48	22	5.75	21	7.29
28	9.96	29	6.32	29	5.87	28	7.37
Mar. 9	10.09	June 5	6.78	Sept. 6	5.79	Dec. 5	8.83
14	10.30	12	6.78	12	5.77	12	10.04
21	10.34	19	6.75	19	5.69	19	10.04
28	10.46	27	6.19	26	5.98	26	10.21

(C-2-4)33abb 4' (\*817, p. 400; \*840, p. 545; 845, p. 648; 886, p. 878; 910, p. 137; 940, p. 107; 948, p. 107). State claim 808. L. T. Liddell. Measuring point is 2.1 feet above land-surface datum.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	11.85	Apr. 4	13.12	July 4	7.47	Oct. 3	8.93
10	12.08	12	13.33	11	8.47	10	8.97
17	12.08	18	12.84	18	8.39	17	9.06
24	12.16	25	10.39	25	8.39	24	9.25
31	12.20	May 2	10.1	Aug. 1	8.37	31	9.35
Feb. 7	12.39	9	10.0	8	8.37	Nov. 7	9.47
14	12.45	16	9.79	15	8.31	14	9.60
21	12.54	23	8.38	22	8.17	21	9.73
28	12.64	29	8.76	29	8.27	28	10.02
Mar. 9	12.81	June 5	9.08	Sept. 6	8.06	Dec. 5	12.35
14	12.98	12	9.12	12	8.17	12	12.54
21	12.94	19	9.90	19	8.70	19	12.54
28	13.02	27	7.79	26	8.79	26	12.72

Tooele County - Tooele Valley--Continued

(C-2-4)33add 1 (\*840, p. 545; 845, p. 649; 836, p. 879; \*910, p. 138; 940, p. 108; 948, p. 107). State claim 899. Ida L. Clegg. Measuring point is 1.0 foot below land-surface datum.

Water level, at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	38.12	37.60	38.24	.....	.....	a39.16	.....	.....	.....	38.95
2	.....	.....	38.18	37.54	38.25	.....	.....	.....	.....	.....	.....	38.80
3	a39.15	.....	38.09	37.51	.....	.....	.....	.....	.....	a39.47	.....	.....
4	.....	.....	38.02	37.60	.....	.....	a39.00	.....	.....	.....	.....	.....
5	.....	.....	38.09	37.47	.....	.....	.....	.....	.....	.....	.....	38.33
6	.....	.....	38.09	37.42	a38.45	a38.50	.....	.....	a39.50	.....	39.32	38.28
7	.....	a38.42	38.04	37.44	.....	.....	.....	.....	.....	.....	39.26	38.21
8	.....	.....	37.97	37.34	.....	.....	.....	a39.21	.....	.....	39.28	38.19
9	.....	.....	38.02	.....	a38.31	.....	.....	.....	.....	.....	39.29	38.01
10	a38.96	.....	37.94	.....	.....	.....	.....	.....	.....	a39.38	39.17	38.05
11	.....	.....	37.93	a37.45	.....	.....	a38.92	.....	.....	.....	39.09	38.00
12	.....	.....	37.93	.....	.....	.....	.....	.....	a39.50	.....	39.14	33.10
13	.....	.....	37.87	a37.37	.....	a38.44	.....	.....	.....	.....	39.14	38.09
14	.....	38.42	37.80	.....	.....	.....	.....	.....	.....	.....	39.14	38.09
15	.....	38.39	37.91	.....	.....	.....	.....	a39.28	.....	.....	39.09	38.06
16	.....	38.39	37.88	.....	.....	.....	.....	.....	.....	.....	39.10	38.07
17	a38.99	38.38	37.77	.....	.....	.....	.....	.....	.....	a39.32	39.10	38.04
18	.....	38.39	37.82	a37.39	.....	.....	a39.06	.....	.....	.....	39.11	38.00
19	.....	38.37	37.81	.....	.....	.....	.....	.....	a39.50	.....	39.02	37.96
20	.....	38.33	37.85	.....	a38.45	a38.59	.....	.....	.....	.....	39.06	37.95
21	.....	38.25	37.76	.....	.....	.....	.....	.....	.....	.....	39.05	37.95
22	.....	38.19	37.69	a37.59	.....	.....	.....	a39.37	.....	.....	39.12	37.94
23	.....	38.21	37.74	.....	a38.57	.....	.....	.....	.....	.....	39.05	37.94
24	a38.93	38.20	37.71	.....	.....	.....	.....	.....	.....	a39.50	39.08	37.92
25	.....	38.29	37.68	37.97	.....	.....	a39.12	.....	.....	.....	39.08	37.90
26	.....	38.23	37.61	37.98	.....	.....	.....	.....	a39.43	.....	39.05	37.90
27	.....	38.14	37.62	38.03	.....	a38.77	.....	.....	.....	.....	39.06	37.88
28	.....	38.15	37.58	38.06	.....	.....	.....	.....	.....	.....	39.04	37.85
29	.....	.....	37.55	38.19	.....	.....	.....	a39.34	.....	.....	39.02	37.80
30	.....	.....	37.64	38.23	a38.57	.....	.....	.....	.....	.....	38.98	37.73
31	a38.70	.....	37.63	.....	.....	.....	.....	.....	.....	a39.33	.....	37.71

(C-2-4)33bcb 2 (\*940, p. 109; 948, p. 108). State claim 16796. Franklin Whitehouse. No measurements made in 1943.

(C-2-5)5acc 3 (\*940, p. 109; 948, p. 108). A. Searle. No measurements made in 1943.

(C-2-5)19dcc 1 (\*840, p. 546; \*845, p. 650; 836, p. 879; 910, p. 138; 940, p. 110; 948, p. 108). G. L. Sutton. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 30, 4.5; Dec. 24, 3.5.

(C-2-5)25aab 1 (\*817, p. 400; 840, p. 546; 845, p. 650; \*836, p. 879; \*910, p. 138; 940, p. 111; 948, p. 108). State of Utah. Measuring point is 1.4 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, 9.8; Dec. 24, 10.8.

(C-2-5)27ccd 3 (\*940, p. 112; 948, p. 108). State claim 17008. Edwin Cassity. Water levels, in feet below land-surface datum, 1943: Mar. 30, 0.72; Dec. 24, 1.15.

(C-2-5)29dcc 1 (\*840, p. 546; \*845, p. 650; 836, p. 880; \*910, p. 138; 940, p. 112; 948, p. 108). State application 12227. J. R. Clark. No measurements made in 1943.

(C-2-5)29dcc 5 (\*840, p. 546; 845, p. 650; 836, p. 880; \*910, p. 139; 940, p. 112; 948, p. 108). State claim 4672. J. R. Clark. Water levels, in feet above land-surface datum, 1943: Mar. 30, 13.5; Dec. 24, 11.3.

a Tape measurement.

## Tooele County - Tooele Valley--Continued

(C-2-5)31bld 3 (\*840, p. 546; \*845, p. 650; \*886, p. 880; \*910, p. 139; 940, p. 113; 948, p. 108). State claim 17112. Tony Castagno. Measuring point is 1.2 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 30, 18.3; Dec. 24, 16.3.

(C-2-5)34add 1 (\*940, p. 114; 948, p. 109). State application 13537. B. H. Woodward. Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Dec. 24, 9.9.

(C-2-5)36caa 1 (\*840, p. 546; 845, p. 650; 886, p. 880; \*910, p. 139; 940, p. 115; 948, p. 109). State claim 13692. J. A. and S. W. Smith. Water levels, in feet below land-surface datum, 1943: Mar. 29, 31.84; Dec. 24, 32.05.

(C-2-6)23cbb 1 (\*940, p. 116; 948, p. 109). State claim 16776. C. H. Worthington. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 2.36; Dec. 24, 2.88.

(C-2-6)36baa 8 (\*817, p. 401; 840, p. 547; 845, p. 651; \*836, p. 880; 910, p. 139; 940, p. 118; 948, p. 109). State claim 16575. J. R. Clark. Measuring point is 2.1 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 30, 6.1; Dec. 24, 5.0.

(C-2-6)36bac 1 (\*940, p. 118; 948, p. 109). State application 12139. J. R. Clark. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 20.22; Dec. 24, 21.55.

(C-2-6)36cdd 1 (\*840, p. 547; 910, p. 140; 940, p. 118; 948, p. 109). E. C. Walk. Measuring point is 1.5 feet above land-surface datum.

Water level, at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	78.41	78.31	78.23	78.01	77.88	78.01	78.32	78.82	79.25	79.62	79.84	79.88
2	78.46	78.30	78.25	77.99	77.89	78.01	78.34	78.85	79.26	79.63	79.84	79.91
3	78.46	78.35	78.20	77.97	77.86	78.01	78.38	78.85	79.30	79.65	79.83	79.92
4	78.45	78.38	78.19	77.97	77.84	77.98	78.40	78.86	79.29	79.66	79.84	79.91
5	78.45	78.39	78.22	77.94	77.87	78.02	78.40	78.89	79.31	79.65	.....	79.93
6	78.47	78.30	78.22	77.93	77.86	78.01	78.46	78.93	79.31	79.68	79.88	79.94
7	78.51	78.33	78.22	77.95	77.85	78.01	78.51	78.94	79.32	.....	79.89	79.93
8	78.51	78.38	78.20	77.93	77.87	78.01	78.51	78.96	79.33	79.69	79.89	79.95
9	78.49	78.45	78.22	77.93	77.87	77.98	78.53	78.98	79.34	79.68	79.88	79.96
10	78.48	78.44	78.19	77.95	77.85	77.96	78.52	79.01	79.37	79.68	79.88	79.99
11	78.48	78.46	78.17	.....	77.88	77.98	78.55	79.05	79.38	79.72	79.89	.....
12	78.50	78.45	78.18	.....	77.87	78.01	78.59	79.06	79.39	79.74	79.89	80.00
13	78.47	78.40	78.15	.....	77.85	78.01	78.60	79.09	79.40	79.73	79.90	80.02
14	78.46	78.40	78.11	77.90	77.83	78.05	78.58	79.10	79.45	79.74	79.91	80.02
15	78.40	78.39	78.18	77.91	77.83	78.07	78.62	79.13	79.47	79.74	79.91	80.02
16	78.42	78.39	78.17	77.94	77.83	78.08	78.64	79.15	79.50	79.75	79.90	80.02
17	78.40	78.42	78.11	77.98	77.82	78.06	78.64	79.17	79.50	79.73	79.90	80.00
18	78.50	78.42	78.14	77.99	77.81	78.07	78.65	79.18	79.52	79.73	79.90	80.00
19	78.43	78.41	78.13	77.93	77.80	78.08	78.64	79.19	79.53	79.79	79.89	79.98
20	78.42	78.34	73.16	77.96	77.77	78.12	78.67	79.20	79.53	79.78	79.90	79.98
21	78.39	78.27	78.11	77.96	77.79	78.14	78.68	79.20	79.53	79.78	79.88	79.96
22	78.40	78.30	78.07	78.01	77.79	78.20	78.68	79.20	79.54	79.80	79.89	79.95
23	78.34	78.30	78.08	77.99	77.79	78.21	78.69	79.20	79.56	79.81	79.87	79.94
24	78.38	78.32	78.04	77.97	.....	78.21	78.71	79.20	79.56	79.80	79.87	79.92
25	78.34	78.32	78.03	77.92	77.90	78.23	78.72	79.24	79.57	79.80	79.87	79.89
26	78.29	78.24	77.99	77.97	77.83	78.23	78.73	79.26	79.59	79.79	79.87	79.89
27	78.29	78.26	78.00	77.94	77.87	78.26	78.73	79.26	79.58	79.78	79.88	79.90
28	78.29	.....	77.98	77.91	77.91	78.23	78.76	79.26	79.60	79.81	79.88	79.90
29	78.26	.....	77.95	77.92	77.93	78.25	78.80	79.23	79.61	79.81	79.87	79.89
30	78.31	.....	78.03	77.90	77.96	78.30	78.80	79.27	79.62	79.84	79.87	79.90
31	78.36	.....	78.02	.....	77.99	.....	78.81	79.27	.....	79.83	.....	79.90

Tooele County - Tooele Valley--Continued

(C-2-6)36dba 1 (\*940, p. 119; 948, p. 110). LeMoyne Rowberry. No measurements made in 1943.

(C-3-5)4bbb 1 (\*940, p. 119; 948, p. 110). Stanley Stromberg. No measurements made in 1943.

(C-3-5)5bbb 1 (\*948, p. 110). State claim 15330. R. W. Brown. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet, with reference to land-surface datum, 1943: Mar. 30, +0.51; Dec. 24, -1.28.

(C-3-5)6acb 1 (\*940, p. 120; 948, p. 110). State claim 13584. L. W. Hale. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 37.75; Dec. 24, 40.23.

(C-3-5)6dda 1 (\*940, p. 121; 948, p. 111). State claim 9952. Federal Land Bank. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 53.12; Dec. 24, 55.50.

Uintah County

U(B-1-1)2ca 2 (\*817, p. 477; 840, p. 613; 845, p. 652; 886, p. 893; 910, p. 141; 940, p. 121; 948, p. 111). Jay Larsen. Water level, in feet below land-surface datum, 1943: Oct. 20, 24.02.

U(D-1-1)14bbc 1 (\*817, p. 479; 840, p. 615; 845, p. 652; 886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). State claim 1868. George Hackford. Measuring point is 0.8 foot below land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 20, 11.50.

U(D-1-1)19cc (\*817, p. 479; 840, p. 615; 845, p. 652; 886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). Bennett School. Water level, in feet below land-surface datum, 1943: Oct. 20, 9.00.

U(D-1-1)23ab (\*817, p. 479; 840, p. 615; 845, p. 652; 886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). Albert Daniels. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 20, 13.31.

(D-3-21)17cda 1 (\*817, p. 445; 840, p. 596; 845, p. 652; 886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). State claim 6641. M. M. Bingham. Measuring point is 2.5 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Oct. 20, 7.0.

(D-3-21)30dc (\*817, p. 445; 840, p. 596; 845, p. 652; 886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). State claim 2629. R. G. Alexander. Measuring point is 1.4 feet above land-surface datum. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: Oct. 20, 3.80.

(D-4-21)2bcd 1 (\*886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). Gibson Ranch Co. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 20, 4.65; Oct. 21, 7.27.

(D-4-21)12acc 1 (\*886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). Lonzo McCarl. Measuring point is 1.0 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 20, 6.10; Oct. 21, 9.84.

(D-4-21)15ddd 1 (\*886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). Bill Hall. Measuring point is 4.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 20, 1.75; Oct. 21, 1.11.

(D-4-21)24dbb 1 (\*886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). State claim 6931. Peter Erickson. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 20, 4.83; Oct. 21, 6.13.

Uintah County--Continued

(D-4-21)28daa (\*817, p. 845; \*840, p. 598; 845, p. 652; 886, p. 894; 910, p. 141; 940, p. 121; 948, p. 111). Drought Relief Administration. Measurements discontinued.

Utah County - Cedar Valley

(C-6-2)29cac 1. Marsh Williams. Unused well, diameter 4 inches. Measuring point, top of sleeve on casing, level with land-surface and 4,876.03 feet above mean sea level. Flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 31, 4.7; Dec. 28, 3.90.

(C-6-2)29dcc 1 (\*817, p. 404; 840, p. 548; \*845, p. 652; \*886, p. 882; 910, p. 141; 940, p. 122; 948, p. 111). Henry Armstrong. Measuring point is 2.2 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Dec. 28, 8.65; measurements discontinued.

(C-6-2)32baa 2 (\*817, p. 405; 840, p. 548; \*845, p. 652; \*886, p. 882; \*910, p. 142; 940, p. 122; 948, p. 111). State claim 17686. W. C. Thomas. Measuring point is 0.3 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 31, 4.33; Dec. 28, 3.89.

Utah County - Goshen Valley

(C-9-1)26deb 1 (\*817, p. 405; \*840, p. 548; \*845, p. 652; 886, p. 882; 910, p. 142; 940, p. 122; 948, p. 112). State claim 17465. R. C. Lewis. Measuring point is 1.45 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Feb. 22, 4.00; Dec. 1, 3.43.

(C-10-1)2aad 1 (\*845, p. 652; 886, p. 882; 910, p. 142; 940, p. 122; 948, p. 112). State claim 5206. Albert Morgan. Measuring point is 2.25 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 22, 12.93; Dec. 1, 12.93.

(D-9-1)29cdd 1 (\*845, p. 665; \*886, p. 893; 910, p. 152; 940, p. 122; 948, p. 112). Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 22, 26.35; Dec. 1, 26.24.

Utah County - Utah Lake Valley

(C-5-1)2daa 1 (\*910, p. 141; 940, p. 122; 948, p. 112). State claims 10922, 10923, and 10924. O. J. Roberts. Measuring point is 1.0 foot above land-surface datum. Measurements made by the Utah State Engineer except those on Mar. 30 and Dec. 28.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	17.32	Mar. 30	17.53	July 5	18.30	Oct. 4	18.44
8	17.32	31	17.49	13	18.96	12	21.07
16	17.41	Apr. 7	17.62	22	18.48	19	20.89
23	17.93	14	17.55	Aug. 4	18.36	26	20.02
30	18.12	29	17.07	10	18.16	Nov. 4	20.23
Feb. 8	18.31	May 8	17.19	16	18.43	10	19.99
15	17.39	13	17.33	24	18.59	17	19.87
24	17.14	31	17.91	Sept. 1	18.54	24	19.56
Mar. 2	17.21	June 8	18.02	7	18.52	30	19.19
8	17.14	14	17.88	14	18.44	Dec. 28	18.46
16	17.00	21	17.77	20	18.43		
24	17.14	29	18.22	28	18.42		

(D-5-1)8aaa 1 (\*910, p. 142; 940, p. 122; 948, p. 112). State claim 11095. Lehi Irrigation Co. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 29.44; Dec. 28, 31.12.

Utah County - Utah Lake Valley--Continued

(D-5-1)9ccc 3 (\*817, p. 446; \*840, p. 596; \*845, p. 652; 886, p. 882; 910, p. 142; 940, p. 122; 948, p. 112). State claim 16332. E. N. Webb. Measuring point is 0.5 foot below land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 30, 7.32; Dec. 28, 5.55.

(D-5-1)9cdc 2 (\*817, p. 446; \*840, p. 598; 845, p. 653; \*886, p. 882; 910, p. 142; \*940, p. 122; 948, p. 112). State claim 10991. Lehi Irrigation Co. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 30, 42.6; Dec. 28, 39.6.

(D-5-1)9dbb 1 (\*817, p. 446; \*840, p. 598; 845, p. 653; 886, p. 882; 910, p. 142; 940, p. 122; 948, p. 112). State claim 11083. City of Lehi. Measuring point is 3.1 feet below land-surface datum. Measurements made by Utah State Engineer except those on Mar. 30 and Dec. 28.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.96	Mar. 30	10.45	June 29	15.79	Sept. 20	16.28
8	10.06	31	10.30	July 5	14.90	28	16.06
16	10.04	Apr. 7	11.12	13	14.54	Oct. 4	15.78
23	10.10	14	11.22	22	15.00	12	16.17
30	10.36	22	11.46	Aug. 4	15.38	19	15.21
Feb. 8	10.40	29	11.96	10	15.26	27	13.84
15	10.35	May 8	12.18	16	16.03	Nov. 10	11.96
24	10.27	13	12.32	24	16.31	17	11.13
Mar. 2	10.32	31	15.68	30	15.42	24	11.02
8	10.27	June 8	16.02	Sept. 7	15.88	30	10.72
17	10.12	14	14.99	14	17.18	Dec. 28	14.17
24	9.98	21	15.17				

(D-5-1)14adb 1 (\*840, p. 598; 845, p. 653; 886, p. 883; 910, p. 142; 940, p. 122; 948, p. 112). State claim 8371. Drought Relief Administration. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.87	55.28	55.44	56.22	56.58	57.15	57.14	57.61	57.89	58.28	58.38	58.56
2	54.80	54.98	55.66	56.24	56.71	57.12	57.22	57.38	57.80	58.23	58.38	58.84
3	55.16	55.08	55.57	56.13	56.60	57.09	.....	.....	57.99	58.22	58.42	58.74
4	.....	55.12	55.38	56.15	56.51	57.00	.....	.....	57.85	58.32	58.34	58.70
5	54.90	55.08	55.35	56.07	56.63	.....	.....	.....	57.92	58.27	58.21	58.55
6	55.07	55.32	55.66	56.04	56.61	.....	.....	.....	57.97	58.37	58.52	58.72
7	55.15	55.12	55.72	56.13	56.48	57.11	57.32	.....	57.82	.....	58.68	58.77
8	55.14	54.89	55.67	56.11	56.54	57.08	57.29	.....	57.86	.....	58.64	58.69
9	55.10	.....	55.75	.....	56.65	57.01	57.21	.....	58.00	.....	.....	58.82
10	54.97	55.64	55.67	56.09	56.59	56.99	57.34	57.39	58.09	.....	58.46	59.07
11	54.97	55.66	55.68	56.13	56.69	56.89	57.25	57.38	58.21	.....	58.45	59.00
12	55.10	55.66	55.78	56.34	56.73	57.09	57.49	57.84	58.15	.....	58.37	58.88
13	55.18	55.55	55.74	56.45	56.68	.....	57.50	58.02	57.98	.....	58.46	58.91
14	54.02	55.46	55.58	56.42	56.60	.....	57.35	58.06	58.04	58.34	58.52	59.05
15	54.61	55.42	55.78	56.30	56.57	.....	57.37	58.01	58.19	.....	58.63	59.05
16	54.62	55.52	55.92	56.25	56.72	.....	57.30	57.84	58.11	.....	58.62	59.18
17	55.11	.....	55.71	56.42	56.80	.....	57.27	57.88	58.11	58.00	58.51	59.25
18	.....	55.48	55.79	56.46	56.88	.....	57.20	57.42	58.20	57.96	58.54	59.10
19	.....	55.52	.....	56.27	56.96	.....	57.10	57.39	58.22	57.87	58.40	.....
20	54.83	55.52	55.86	56.23	56.97	.....	.....	57.38	58.21	58.16	58.40	.....
21	54.75	55.30	56.06	56.25	.....	.....	.....	57.44	58.18	.....	58.43	.....
22	54.77	.....	56.07	.....	57.02	.....	.....	57.59	58.14	.....	58.61	.....
23	54.65	55.20	55.84	56.44	57.01	.....	.....	57.65	58.16	.....	58.71	.....
24	54.97	55.34	55.99	56.33	57.11	.....	.....	57.83	58.16	58.27	58.74	.....
25	55.08	55.65	56.07	56.20	57.01	.....	.....	57.87	58.10	58.24	58.75	.....
26	.....	55.63	56.00	56.40	56.94	.....	.....	58.08	58.14	58.18	.....	.....
27	55.03	55.43	55.92	56.38	57.09	.....	57.37	58.07	58.09	.....	58.76	59.16
28	55.03	55.54	55.92	56.30	.....	.....	57.40	58.00	58.16	58.19	58.76	59.15
29	55.08	.....	55.86	.....	.....	57.14	57.54	57.86	58.30	.....	58.72	58.97
30	54.99	.....	55.87	.....	57.10	57.15	57.51	57.82	58.32	58.24	58.54	58.97
31	55.35	.....	55.97	.....	.....	.....	57.58	57.86	.....	58.25	.....	58.97

## Utah County - Utah Lake Valley--Continued

(D-5-1)15bca 1 (\*817, p. 447; 840, p. 599; 845, p. 653; \*886, p. 883; 910, p. 143; 940, p. 123; 948, p. 113). State claim 5061. Eugene Briggs. Measuring point is 2.0 feet above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 30 and Dec. 28.

## Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	36.6	Mar. 30	35.3	June 21	32.2	Sept. 20	30.6
8	36.8	31	34.9	July 5	32.2	28	31.0
16	36.6	Apr. 7	34.8	13	32.4	Oct. 4	30.9
23	36.7	14	35.0	22	31.8	12	30.1
30	36.4	22	34.7	Aug. 4	31.3	19	31.0
Feb. 8	36.6	29	33.9	10	31.6	27	32.0
15	36.4	May 8	34.1	16	30.4	Nov. 4	32.4
24	35.9	13	33.3	24	29.4	10	33.1
Mar. 2	35.6	31	30.5	30	30.0	17	34.6
8	35.4	June 8	29.9	Sept. 7	30.7	24	34.2
17	35.2	14	30.8	14	29.3	Dec. 28	32.25
24	35.3						

(D-5-1)17adc 5 (\*817, p. 452; 840, p. 599; 845, p. 653; 886, p. 883; 910, p. 143; 940, p. 123; 948, p. 113). State claim 11174. H. C. Comer. Measuring point is 1.2 feet above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 30 and Dec. 28.

## Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	34.5	Mar. 30	35.6	June 29	26.4	Sept. 29	28.4
8	34.7	31	34.8	July 5	27.2	Oct. 5	28.9
16	34.8	Apr. 7	34.8	13	28.5	13	28.9
23	34.8	14	34.1	22	28.4	19	29.4
30	34.6	22	33.6	Aug. 5	28.0	26	30.2
Feb. 8	34.5	29	32.8	10	27.8	Nov. 3	31.3
15	35.2	May 6	33.2	17	28.3	9	31.2
24	35.6	13	32.9	25	27.7	16	31.9
Mar. 2	35.4	31	26.6	Sept. 2	26.9	23	32.9
8	35.6	June 8	26.0	9	26.6	30	33.9
17	35.2	14	29.7	16	26.4	Dec. 28	31.4
24	35.2	21	28.4	21	28.6		

(D-5-1)17add 5 (\*817, p. 451; 840, p. 599; 845, p. 653; 886, p. 883; 910, p. 143; 940, p. 123; 948, p. 113). State claim 3628. M. S. Lott. Measuring point is 1.3 feet above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 30 and Dec. 28.

## Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	24.8	Mar. 30	25.5	June 29	12.1	Sept. 29	13.5
8	24.7	31	24.1	July 5	13.4	Oct. 5	13.8
16	24.9	Apr. 7	23.3	13	14.5	13	13.9
23	25.1	14	23.1	22	14.1	19	16.2
30	25.0	22	22.5	Aug. 5	14.0	26	18.0
Feb. 8	24.9	29	21.4	11	12.1	Nov. 3	19.6
15	25.5	May 6	21.2	17	11.9	9	20.5
24	25.6	13	20.9	25	11.5	16	22.1
Mar. 2	25.4	31	13.0	Sept. 2	12.7	23	23.2
8	25.6	June 8	12.0	9	12.7	30	23.7
17	24.8	14	11.8	16	12.2	Dec. 28	21.5
24	24.5	21	12.9	21	12.8		

(D-5-1)18bcc 1 (\*817, p. 455; 840, p. 599; 845, p. 654; 886, p. 883; 910, p. 143; 940, p. 123; 948, p. 113). State claim 3637. Aaron Evans. Measurements discontinued.

(D-5-1)20aba 1 (\*817, p. 457; 845, p. 654; \*886, p. 883; 910, p. 143; 940, p. 123; 948, p. 113). State claim 6860. Jacob Cox. Measuring point is 1.0 foot above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 30 and Dec. 28.



Utah County - Utah Lake Valley--Continued

(D-5-1)20aba 1. Jacob Cox--Continued.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	52.5	Mar. 16	54.7	May 31	44.4	Aug. 10	46.7
11	52.3	23	54.6	June 7	45.4	17	46.1
18	53.0	30	55.6	12	46.1	Sept. 2	46.6
25	53.4	Apr. 3	54.0	21	47.0	9	46.6
Feb. 1	53.7	9	53.7	30	47.5	Oct. 13	47.1
8	53.9	15	53.8	July 7	47.8	26	49.8
16	54.4	22	53.4	13	47.2	Nov. 10	50.3
22	54.7	30	52.8	23	46.6	17	50.5
Mar. 1	54.6	May 6	52.5	Aug. 5	47.4	Dec. 28	47.9
10	54.6	13	52.1				

(D-5-1)20aba 2 (\*817, p. 456; \*840, p. 600; 845, p. 654; 886, p. 884; 910, p. 143; 940, p. 123; 948, p. 114). State claim 6861. Jacob G. Cox. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 30, 34.1; Dec. 28, 29.4.

(D-5-1)23dab 3 (\*910, p. 144; 940, p. 124; 948, p. 114). State claim 17054. City of American Fork. Measuring point is 2.4 feet above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 28.

Water level, in feet above land-surface datum, 1943

Jan. 5	22.9	Mar. 29	22.0	June 30	20.2	Sept. 21	18.5
11	22.7	Apr. 3	21.4	July 7	19.8	29	19.2
18	22.2	9	21.4	14	20.1	Oct. 5	18.5
25	22.6	15	21.3	21	19.7	13	18.4
Feb. 1	22.6	23	21.3	Aug. 5	19.6	20	19.4
9	22.4	30	21.1	11	19.3	27	19.8
16	22.2	May 6	20.8	17	18.8	Nov. 3	20.2
22	21.8	14	21.0	25	17.5	9	21.1
Mar. 1	21.9	June 1	20.3	Sept. 1	18.7	16	21.6
10	21.7	7	20.2	8	18.1	23	22.1
15	21.5	12	20.4	16	18.8	Dec. 28	19.0
23	21.6	24	20.5				

(D-5-1)25dab 1 (\*840, p. 600; \*845, p. 655; 886, p. 884; 910, p. 144; 940, p. 124; 948, p. 114). State application 11897. George Addy and others. Measuring point is 2.0 feet above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 28.

Water level, in feet above land-surface datum, 1943

Jan. 5	34.2	Mar. 29	33.6	June 24	31.9	Sept. 16	27.9
11	34.2	Apr. 3	33.6	30	30.9	21	31.2
18	34.0	9	33.8	July 7	32.8	29	32.7
25	34.1	15	34.0	14	32.5	Oct. 5	33.2
Feb. 1	34.2	23	33.7	21	33.6	13	33.0
9	34.2	30	33.1	Aug. 5	33.1	27	33.8
16	34.0	May 6	33.0	11	33.2	Nov. 3	33.0
22	34.1	14	32.8	17	32.4	9	33.5
Mar. 1	33.7	June 1	32.0	25	32.2	16	33.3
10	33.9	7	30.8	Sept. 1	27.5	23	33.7
15	33.5	12	31.1	8	26.8	Dec. 28	34.5
23	33.6						

(D-5-2)18dcd 1 (\*910, p. 144; 940, p. 124; 948, p. 115). State claim 1704. M. L. Ellis. Measurements discontinued.

(D-5-2)18dcd 2 (\*910, p. 144; 940, p. 124; 948, p. 115). A. C. Christensen. Measuring point is 0.3 foot above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 28.

a Flowing prior to measurement.

## Utah County - Utah Lake Valley--Continued

(D-5-2)18dcd 2. A. C. Christensen--Continued.

Water level, in feet, with reference to land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	a +3.9	Mar. 29	a +2.13	June 29	a -0.30	Sept. 20	+0.5
8	a +3.9	31	a +3.4	July 5	a +.5	28	+ .3
16	a +3.8	Apr. 7	a +2.8	13	a +1.5	Oct. 12	- .30
23	a +3.9	14	a +2.9	22	a +1.2	19	- .10
30	a +3.7	22	a +2.3	Aug. 4	a +1.1	27	.0
Feb. 8	a +3.8	29	a +.9	10	a +.8	Nov. 4	a +1.0
15	a +3.7	May 8	a +1.1	16	a +1.2	10	a +1.4
24	a +3.4	13	a +1.3	24	a +.9	17	a +1.8
Mar. 2	a +3.5	31	a +1.3	30	a +.9	24	a +2.3
8	a +3.4	June 8	a +.6	Sept. 6	a +.7	30	a +2.6
17	a +3.5	14	a +1.4	14	a +.5	Dec. 28	- .97
24	a +3.7	21	a +1.5				

(D-5-2)29dba 4 (\*817, p. 459; \*840, p. 600; 845, p. 655; 886, p. 884; 910, p. 144; 940, p. 124; 948, p. 115). State claim 13150. Mark Richins. Measuring point is 0.2 foot above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 28.

Water level, in feet above land-surface datum, 1943

Jan. 6	18.0	Mar. 29	18.0	July 6	a 13.8	Sept. 14	a 12.8
14	18.0	Apr. 2	18.2	15	a 13.9	20	a 12.8
21	17.9	11	18.0	22	a 13.6	28	a 12.8
28	18.2	17	17.7	27	a 13.3	Oct. 4	a 14.1
Feb. 4	18.0	26	17.2	29	a 13.4	11	a 13.5
11	18.7	May 3	17.3	31	a 13.2	20	14.8
17	18.6	10	17.1	Aug. 3	a 13.1	28	15.9
25	18.4	June 2	16.9	9	a 12.8	Nov. 2	15.7
Mar. 4	18.2	10	15.2	17	a 13.4	8	16.0
10	18.4	17	14.0	24	a 13.1	15	16.6
17	18.5	23	a 14.1	30	a 12.7	22	17.0
26	18.7	29	a 13.6	Sept. 6	a 12.6	Dec. 28	16.95

(D-6-2)3bdd 1 (\*840, p. 600; \*845, p. 655; 886, p. 884; 910, p. 144; 940, p. 124; 948, p. 115). State claim 1651. Pioneer Pumping Co. Measuring point is 30 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 47.02; Dec. 29, 40.32.

(D-6-2)4adc 1 (\*845, p. 655; \*886, p. 885; 910, p. 144; 940, p. 124; 948, p. 115). W. P. Kirk. Measuring point is 0.5 foot above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 28.

Water level, in feet below land-surface datum, 1943

Jan. 21	31.12	Apr. 13	36.22	July 21	25.81	Oct. 4	21.19
28	32.17	19	38.00	Aug. 6	25.04	11	21.30
Feb. 4	32.97	May 3	37.09	12	24.52	18	21.72
11	33.22	10	36.66	18	24.16	29	25.81
17	33.50	June 2	35.58	24	23.72	Nov. 5	27.52
25	34.08	11	33.71	30	23.24	11	29.77
Mar. 4	34.61	17	33.31	Sept. 6	22.80	18	31.39
19	34.60	26	29.72	14	22.57	25	33.01
29	36.66	July 6	28.12	20	22.13	Dec. 28	28.75
Apr. 6	34.97	14	26.53	28	21.70		

(D-6-2)7dbc 1 (\*840, p. 601; 845, p. 656; 886, p. 885; 910, p. 145; 940, p. 124; 948, p. 116). State claim 3028. Jay Gillies. Measurements discontinued after Oct. 23, 1942.

(D-6-2)10add 1 (\*910, p. 145; 940, p. 124; 948, p. 116). State claim 3123. City of Crem. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 43.97; Dec. 29, 38.78.

a Well flowing prior to measurement.

Utah County - Utah Lake Valley--Continued

(D-6-2)16bc (\*845, p. 656; 886, p. 885; 910, p. 145; 940, p. 124; 948, p. 116). G. F. Wells. Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 29, 10.86; measurements discontinued.

(D-6-2)16bcb 1 (\*948, p. 116). State claim 11852. Alpine School District. Measurements by Utah State Engineer. Measuring point is 2.1 feet above land-surface datum.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.9	Mar. 16	7.6	July 9	7.4	Sept. 23	5.3
6	8.0	19	7.5	15	7.0	27	5.5
9	8.1	29	7.7	19	8.0	Oct. 1	5.9
14	8.2	Apr. 2	7.6	26	7.7	4	5.9
18	8.1	5	7.7	28	7.5	9	5.8
20	8.3	8	7.4	30	6.7	11	6.2
26	8.3	13	7.3	Aug. 2	7.4	15	6.1
29	8.1	19	7.5	7	7.1	19	6.2
Feb. 2	8.2	24	7.4	12	6.4	25	6.7
4	8.1	28	7.6	14	6.5	29	6.7
9	8.1	May 3	7.5	18	6.1	Nov. 1	6.8
13	8.2	8	7.5	23	5.3	6	6.9
17	8.3	10	7.6	26	6.6	9	7.0
18	7.9	14	7.3	30	6.5	11	7.3
25	7.8	June 1	7.4	Sept. 3	5.9	16	7.2
27	7.9	5	7.1	4	5.8	20	7.4
Mar. 4	7.7	10	7.1	9	5.6	23	7.3
6	7.7	16	7.6	13	5.0	25	7.6
11	7.7	22	8.4	17	5.6	29	6.1
15	7.6	28	7.6	20	5.0		

(D-6-2)16cbc 1 (\*845, p. 657; 886, p. 886; 910, p. 145; 940, p. 124; 948, p. 116). Frank Burningham. Measuring point is 1.2 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 29, 3.93; Dec. 29, 1.58.

(D-6-2)17add 1 (\*845, p. 657; 886, p. 887; 910, p. 146; 940, p. 125; 948, p. 116). State claim 4814. Lawrence Kirk. Measurements discontinued.

(D-6-2)18add 2 (\*845, p. 657; 910, p. 146; 940, p. 125; 948, p. 117). State application 11747. J. L. Larson. Measuring point is 1.4 feet above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 29.

Water level, in feet above land-surface datum, 1943

Jan. 2	20.9	Apr. 13	20.2	July 27	15.6	Sept. 27	16.7
9	20.7	19	20.4	29	15.5	Oct. 4	18.8
26	20.6	27	20.1	31	16.2	11	18.9
Feb. 2	20.8	May 4	20.3	Aug. 2	16.3	18	19.2
11	20.7	11	20.2	7	16.1	23	20.5
17	20.9	June 2	20.0	14	16.0	29	20.9
20	20.5	11	19.5	19	16.1	Nov. 2	20.6
27	20.7	18	21.1	23	16.4	8	20.8
Mar. 6	20.9	26	20.3	30	13.7	15	21.0
13	21.0	July 9	18.2	Sept. 6	15.0	23	21.2
20	21.0	15	16.3	13 a	15.1	29	20.1
29	21.0	24	15.9	20 a	16.6	Dec. 29	18.7
Apr. 6	20.4						

(D-6-2)23bab (\*845, p. 658; 886, p. 887; 910, p. 146; 940, p. 125; 948, p. 117). Elias Nielson. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 39.30; Dec. 29, 36.28.

a Well flowing prior to measurement.

Utah County - Utah Lake Valley--Continued

(D-6-2)24dac (\*845, p. 658; 886, p. 887; 910, p. 146; 940, p. 125; 948, p. 117). Isaac Boyce. Measuring point is 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 120.71; Dec. 29, 122.69.

(D-6-2)28bad 1 (\*817, p. 460; \*840, p. 601; 845, p. 659; 886, p. 886; 910, p. 147; 940, p. 125; 948, p. 117). State claim 2087. Henry Williamson. Measuring point is 1.0 foot above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 29.

Water level, in feet above land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	15.2	Mar. 29	15.4	July 1	13.6	Sept. 24	12.3
13	15.3	Apr. 5	15.3	8	13.9	Oct. 1	13.2
20	15.3	12	15.1	20	14.3	8	13.1
28	15.2	21	15.2	29	14.4	14	12.8
Feb. 6	15.4	28	15.2	31	14.2	22	14.4
12	15.4	May 5	15.3	Aug. 3	14.4	30	15.0
16	15.0	12	15.0	13	13.6	Nov. 6	15.1
26	15.3	June 3	13.3	20	12.4	13	15.0
Mar. 5	15.2	9	12.9	27	11.4	19	14.9
12	15.4	16	13.5	Sept. 3	11.5	25	15.4
18	15.2	23	13.3	10	11.8	Dec. 29	13.6
27	15.0	25	13.3	18	10.8		

(D-7-2)4cbd 1 (\*840, p. 601; 845, p. 660; 886, p. 888; 910, p. 148; 940, p. 125; 948, p. 117). State application 11794. Reed Knudsen. Measuring point is 1.0 foot above land-surface datum. Measurements made by Utah State Engineer except those on Mar. 29 and Dec. 29.

Water level, in feet above land-surface datum, 1943

Jan. 4	29.6	Apr. 5	29.5	July 8	21.4	Oct. 1	26.3
13	29.7	12	29.3	20	24.8	8	25.7
20	29.6	21	29.1	24	27.1	14	26.1
28	29.8	28	28.7	Aug. 6	21.3	22	27.7
Feb. 6	29.9	May 5	29.0	13	25.4	30	27.0
12	30.0	12	28.5	20	24.6	Nov. 6	27.5
26	24.6	June 3	23.0	27	23.1	13	27.6
Mar. 5	28.9	9	21.1	Sept. 4	18.5	19	28.2
12	28.6	16	22.2	10	19.5	25	29.0
19	29.8	25	a 19.6	18	23.5	Dec. 29	28.5
29	30.1	July 1	a 16.8	24	25.1		

(D-7-2)12bcb 1 (\*817, p. 460; \*840, p. 601; 845, p. 661; 886, p. 889; 910, p. 149; 940, p. 125; 948, p. 118). State claim 105. Provo City Corporation. Measuring point is 0.2 foot below land-surface datum. Water level at noon, in feet above land-surface datum, 1943: Mar. 29, 27.8.

(D-7-2)35ccd (\*840, p. 604; 845, p. 662; 886, p. 890; \*910, p. 149; 940, p. 125; 948, p. 118). Angus Hales. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurement. Water levels, in feet above land-surface datum, 1943: Mar. 29, 6.7; Dec. 29, 5.87.

(D-7-2)36dcc 2 (\*845, p. 662; 886, p. 890; 910, p. 149; 940, p. 126; 948, p. 118). H. H. Spatford. Measuring point is 1.8 feet above land-surface datum. Well flowing prior to measurement. Water levels, in feet above land-surface datum, 1943: Mar. 29, 17.0; Dec. 29, 14.7.

(D-7-3)32bcc 1 (\*840, p. 604; 845, p. 663; 886, p. 891; 910, p. 150; 940, p. 126; 948, p. 118). State claim 8345. Drought Relief Administration. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, 51.7; Dec. 29, 49.9.

(D-7-3)33baa 6 (\*817, p. 460; \*840, p. 605; \*845, p. 663; \*886, p. 891; 910, p. 150; 940, p. 126; 948, p. 119). State claim 7006. A. W. Finley. Measuring point is 1.0 foot above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 29, 9.7; Dec. 29, 9.0.

a Well flowing prior to measurement.

Utah County - Utah Lake Valley--Continued

(D-8-1)13aaa 1 (\*817, p. 461; \*840, p. 605; \*845, p. 663; 886, p. 891; 910, p. 150; 940, p. 126; 948, p. 119). State claim 14076. R. G. Francis. Measuring point is 1.6 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, a/15.0; Dec. 29, 15.8.

(D-8-1)25ccb 1 (\*845, p. 664; 886, p. 891; \*910, p. 150; 940, p. 126; 948, p. 119). State claim 11790. F. S. Hiatt. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, a/13.0; Dec. 29, 14.7.

(D-8-2)4cba 2 (\*840, p. 605; 845, p. 664; \*886, p. 891; 910, p. 151; 940, p. 126; 948, p. 119). State claim 10844. Mary Barney. Measuring point is 1.6 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, a/29.9; Dec. 29, 29.5.

(D-8-2)7ddd 1 (\*845, p. 664; 886, p. 891; 910, p. 151; 940, p. 126; 948, p. 119). State claim 10762. A. H. Beers. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, a/16.1; Dec. 29, 16.5.

(D-8-2)10bbd 1 (\*910, p. 151; 940, p. 126; 948, p. 119). State claim 114. J. H. Roach. Measurements discontinued after Jan. 9, 1942.

(D-8-2)23dbd 1 (\*817, p. 461; \*840, p. 605; 845, p. 664; 886, p. 892; 910, p. 151; 940, p. 126; 948, p. 119). State claim 13201. Utah-Idaho Sugar Co. Measuring point is 1.8 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 29, 23.6; Dec. 30, 22.4.

(D-8-2)29add 1 (\*910, p. 152; 940, p. 126; 948, p. 119). State application 11860. Reed Reynolds. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, 11.9; Dec. 29, 12.3.

(D-8-3)4cad 1 (\*817, p. 462; \*840, p. 605; 845, p. 664; 886, p. 892; 910, p. 152; 940, p. 126; 948, p. 119). State application 11830. Eddington Canning Co. Measuring point is 2.2 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, 22.8; Dec. 30, 21.9.

(D-8-3)15ccb (\*845, p. 665; \*886, p. 892; 910, p. 152; 940, p. 126; 948, p. 119). E. Whitcomb. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 10.44; Dec. 30, 9.43.

(D-9-1)1cbc 2 (\*910, p. 152; 940, p. 126; 948, p. 119). State claim 8344. Drought Relief Administration. Water levels, in feet below land-surface datum, 1943: Mar. 29, 2.64; Dec. 29, 2.92.

(D-9-1)2dda 2 (\*886, p. 892; \*910, p. 152; 940, p. 126; 948, p. 119). State claim 19397. Clay Ashworth. Measuring point is 2.3 feet above land-surface datum. Measurements discontinued after June 27, 1942.

(D-9-1)25add 1 (\*845, p. 665; 886, p. 893; 910, p. 152; 940, p. 126; 948, p. 119). State claim 8524. Federal Land Bank. Measurements discontinued after Feb. 2, 1942.

(D-9-2)5ddc 2 (\*817, p. 462; \*840, p. 606; 845, p. 666; 886, p. 893; 910, p. 153; 940, p. 127; 948, p. 120). State claim 1139. Payson City Corporation. Measuring point is 1.0 foot above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.0	....	17.0	17.2	17.0	18.4	19.5	19.7	19.3	18.7	18.7	17.7
2	17.0	....	17.8	17.3	16.8	18.3	19.4	19.5	19.4	18.8	....	19.0
3	17.0	....	17.6	17.3	16.8	18.2	19.3	19.4	19.2	18.9	....	....
4	17.0	....	17.1	17.2	17.0	18.6	19.3	19.4	19.1	18.9	18.9	18.0
5	17.1	....	17.0	17.4	17.1	18.4	19.2	19.5	19.1	18.7	18.7	17.8
6	17.1	....	17.5	17.2	17.3	18.7	19.2	19.4	19.2	18.6	18.4	17.9

a Well flowing prior to measurement.

Utah County - Utah Lake Valley--Continued

(D-9-2)5ddc 2. Payson City Corporation--Continued.

Water level at noon, in feet above land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	17.5	....	16.9	17.1	17.4	18.4	19.3	19.4	19.2	18.7	17.6	17.8
8	17.9	17.3	17.0	17.0	17.6	18.6	19.2	19.5	19.2	18.7	18.0	17.6
9	17.7	18.8	17.0	16.9	17.6	19.8	19.2	19.5	19.3	18.8	18.5	17.7
10	15.5	18.5	17.2	16.9	17.5	18.9	19.1	19.5	....	18.8	18.4	17.5
11	15.6	18.4	17.1	16.8	17.5	19.0	19.1	19.4	....	18.6	....	17.5
12	15.3	17.3	17.0	16.7	17.6	19.0	19.4	19.3	19.2	18.5	....	17.7
13	15.6	17.0	17.2	16.7	17.7	19.1	19.3	19.3	19.1	18.6	18.4	17.7
14	16.2	17.3	16.9	16.8	17.9	18.8	19.3	19.3	19.3	18.6	18.3	18.0
15	17.0	17.4	18.3	16.9	17.8	18.8	19.4	19.4	19.2	18.7	18.3	17.5
16	17.2	....	16.5	17.0	17.8	18.9	19.2	19.3	19.3	18.7	18.3	17.6
17	....	17.0	17.5	16.8	17.8	19.4	19.2	19.3	19.1	18.6	18.3	17.5
18	15.8	17.0	19.9	16.7	17.9	19.7	19.3	19.7	....	18.5	18.3	17.5
19	....	16.9	16.5	17.0	17.8	....	19.3	20.0	19.3	....	18.3	17.4
20	....	18.4	17.4	16.8	18.1	....	19.4	19.9	19.0	....	18.2	17.3
21	....	17.0	17.3	16.9	18.2	19.4	19.1	....	19.0	19.9	18.2	17.4
22	....	17.1	17.2	16.7	18.2	19.5	19.1	20.2	18.9	19.6	18.8	17.2
23	....	17.1	17.2	16.9	18.2	19.5	19.2	19.8	18.9	19.7	18.1	17.2
24	....	17.0	17.1	16.9	18.3	19.5	19.2	19.8	18.8	19.5	18.0	17.2
25	16.8	16.9	17.3	16.9	18.3	19.5	19.6	19.4	18.8	19.6	18.1	17.3
26	17.0	16.8	17.3	16.7	18.4	19.6	19.4	19.3	....	19.6	18.0	17.5
27	16.6	17.0	17.2	16.7	18.4	....	19.4	19.3	18.7	19.4	18.1	17.2
28	16.5	17.0	17.0	16.8	18.5	19.3	19.5	19.3	18.7	19.3	18.1	17.3
29	17.5	....	17.2	16.8	18.5	19.4	19.6 <sup>a</sup>	....	18.6	19.4	18.2	....
30	....	....	17.0	16.8	18.5	19.4	19.5	19.3	18.8	19.3	17.9	....
31	....	....	17.1	....	18.5	....	....	19.2	....	19.1	....	....

(D-9-2)1laaa 1 (\*817, p. 463; \*840, p. 606; 845, p. 666; 886, p. 893; 910, p. 153; 940, p. 127; 948, p. 120). State claim 3364. Salt Lake & Utah Railroad Corporation. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 29, 40.0; Dec. 29, 38.2.

(D-9-2)18bcd 1 (\*940, p. 127; 948, p. 120). State claim 8357. Drought Relief Administration. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 29, 4.76; Dec. 29, 5.94.

Wasatch County

(D-2-5)20cc (\*817, p. 444; \*840, p. 596; 845, p. 666; 886, p. 894; 910, p. 154; 940, p. 127; 948, p. 120). Lee Bros. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Dec. 16, 1942	a 26.66	Apr. 18, 1943	a 26.58	Sept. 14, 1943	a 28.66
Jan. 13, 1943	a 26.70	May 18	a 27.30	Oct. 17	a 28.50
Feb. 15	a 27.84	June 17	a 26.56	Nov. 17	a 26.50
Mar. 15	a 25.58	July 15	a 28.76	Dec. 10	a 26.29
31	25.23	Aug. 13	a 27.70		

(D-2-5)3laad 1 (\*886, p. 894; 910, p. 154; 940, p. 128; 948, p. 121). State claim 13770. W. H. Davis. Measurements discontinued after Oct. 21, 1942.

(D-2-5)3lada (\*817, p. 444; \*840, p. 596; 845, p. 666; 886, p. 895; 910, p. 154; 940, p. 128; 948, p. 121). State claim 11234. Harry Morris. Measuring point is 0.5 foot above land-surface datum.

<sup>a</sup> Measurement by Provo River Water Commissioner.

## Wasatch County--Continued

(D-2-5)3lada. Harry Morris--Continued.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Dec. 16, 1942	a 7.76	Apr. 18, 1943	a 8.40	Sept. 14, 1943	a 6.96
Jan. 13, 1943	a 9.90	May 18	a 5.66	17	7.28
Feb. 15	a 5.74	June 17	a 3.00	Oct. 15	a 5.74
Mar. 15	a 4.66	July 15	s 5.08	Nov. 17	a 9.50
31	5.02	Aug. 13	(ab)	Dec. 10	8.87

(D-3-4)35bbc 1 (\*845, p. 666; 886, p. 895; 910, p. 154; 940, p. 128; 948, p. 121). State claims 8379 and 11260. Drought Relief Administration. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 2.30; Sept. 17, 2.84; Dec. 10, 4.25.

(D-3-5)29cac (\*817, p. 445; 840, p. 596; 845, p. 667; \*886, p. 895; 910, p. 154; 940, p. 128; 948, p. 121). Miles Clyde. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 31, 9.57; Sept. 17, 3.84; Dec. 10, 6.34.

(D-4-4)12aaa (\*910, p. 154; 940, p. 128; 948, p. 121). Hartley Carlisle. Measuring point is 3.75 feet above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	50.50	51.34	52.02	48.11	28.50	15.99	14.40	20.73	27.76	30.95	38.75
2	.....	50.63	51.59	51.95	47.54	24.95	16.05	14.66	20.90	27.73	31.22	38.98
3	.....	50.75	51.77	51.80	47.32	24.48	.....	14.52	21.20	27.67	31.50	.....
4	47.82	50.87	51.89	51.72	46.86	23.47	.....	14.38	21.13	27.72	31.80	.....
5	47.94	50.99	52.04	51.51	45.82	23.69	.....	13.98	21.45	27.78	32.02	.....
6	48.07	51.12	52.20	51.19	45.93	22.83	.....	14.45	21.85	27.88	32.28	.....
7	48.20	51.24	52.35	51.00	45.65	23.50	.....	14.88	.....	28.07	32.63	.....
8	48.27	51.35	52.48	50.72	45.25	23.81	17.15	14.50	.....	28.22	33.00	.....
9	48.38	51.48	52.29	50.50	44.55	23.93	.....	14.85	22.55	28.35	33.40	.....
10	48.50	51.60	51.10	50.39	43.95	23.35	16.47	15.19	.....	28.46	33.76	.....
11	48.63	51.72	50.50	50.42	42.38	22.43	16.23	14.79	.....	28.41	34.16	.....
12	48.77	51.83	50.13	50.47	42.07	21.41	16.27	15.70	.....	28.56	34.45	.....
13	48.87	51.95	49.80	50.47	41.70	21.15	16.42	15.82	.....	28.77	.....	.....
14	48.97	52.05	49.75	50.43	40.40	20.62	16.75	16.03	.....	28.90	.....	.....
15	49.08	52.15	49.83	50.08	38.85	20.05	16.50	16.30	.....	29.03	.....	.....
16	49.18	52.25	49.04	49.93	38.15	19.74	16.30	16.10	23.87	29.11	.....	41.81
17	49.29	52.35	50.25	49.73	.....	19.95	16.13	15.90	24.27	29.05	.....	41.98
18	49.41	52.35	50.35	49.71	.....	19.37	16.41	16.41	24.61	28.95	35.90	42.12
19	49.53	.....	50.58	49.79	.....	18.70	16.61	16.75	24.75	28.97	36.13	42.27
20	49.63	52.61	50.82	49.80	34.25	17.95	16.54	16.87	24.85	29.05	36.35	42.43
21	49.73	52.67	51.02	49.73	34.29	17.24	15.30	16.90	25.15	28.97	36.60	42.59
22	49.72	52.74	51.18	49.75	34.01	16.66	14.25	17.20	25.08	28.81	36.80	42.77
23	49.61	52.26	51.35	49.86	33.26	16.45	14.84	17.35	25.40	28.79	36.99	42.97
24	49.53	51.56	51.50	49.98	32.22	15.90	15.10	17.49	25.80	28.97	37.25	43.15
25	49.58	51.26	51.72	50.05	31.94	16.27	13.58	17.62	26.11	29.18	37.52	43.28
26	49.67	51.13	51.85	49.96	31.96	16.44	13.43	18.10	26.34	29.41	37.77	43.43
27	49.82	51.08	51.96	49.80	31.71	16.31	13.88	18.82	26.59	.....	37.96	43.61
28	49.92	51.18	51.99	49.67	31.25	15.90	13.70	19.39	.....	30.04	38.17	43.78
29	50.07	.....	51.95	49.33	30.41	15.79	13.60	19.81	.....	30.23	38.35	43.93
30	50.22	.....	51.94	48.81	30.13	15.98	13.42	20.00	27.70	30.45	38.53	44.10
31	50.35	.....	51.96	.....	30.10	.....	13.97	20.30	.....	30.69	.....	44.23

a Measurement by Provo River Water Commissioner.

b Dry.

Wasatch County--Continued

(D-4-4)14abb (\*840, p. 596; 845, p. 667; 886, p. 895; 910, p. 155; 940, p. 129; 948, p. 122). Charlotte Brown.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.06	18.47	18.13	18.17	15.47	7.29	4.26	5.63	9.95	13.82	15.45	16.68
2	18.07	18.53	18.27	18.03	14.93	6.90	....	5.62	10.42	13.99	15.49	16.73
3	18.10	18.54	18.37	17.98	14.92	6.21	....	6.19	10.60	14.15	15.53	16.78
4	18.13	18.53	18.48	17.68	14.55	5.60	....	6.65	10.97	14.30	15.55	16.84
5	18.15	18.57	18.57	17.47	13.52	5.67	....	7.13	10.79	14.50	15.53	16.90
6	18.20	18.61	18.67	17.40	13.74	5.83	....	7.52	10.87	14.54	15.55	16.94
7	18.26	18.64	18.74	17.32	13.75	5.98	....	7.50	10.55	14.70	15.58	16.98
8	18.28	18.69	18.76	17.28	13.81	6.40	5.20	6.95	9.25	14.75	15.61	17.02
9	18.32	18.70	18.05	17.23	13.75	6.68	4.92	6.37	9.91	14.68	15.64	17.04
10	18.35	18.73	17.50	17.29	13.30	6.21	4.30	7.06	10.41	14.78	15.67	17.05
11	18.38	18.82	17.20	17.32	12.30	5.57	4.75	7.57	11.40	14.83	15.68	17.05
12	18.40	18.85	17.05	17.32	11.22	3.94	5.28	7.71	11.98	14.33	15.67	17.07
13	18.40	18.88	16.97	17.32	11.60	3.54	5.44	8.13	12.05	14.25	15.66	17.08
14	18.42	18.93	17.02	17.32	11.72	3.70	6.00	8.58	12.26	14.28	15.68	17.10
15	18.43	18.93	17.07	17.34	11.70	3.35	6.30	9.00	12.47	14.00	15.72	17.12
16	18.45	18.92	17.20	17.37	11.93	3.80	6.77	8.70	12.53	13.37	15.75	17.24
17	18.47	19.03	17.30	17.41	12.03	4.05	6.82	8.17	10.90	13.74	15.80	17.26
18	18.50	19.07	18.43	17.42	11.90	4.02	6.87	7.62	10.36	13.41	15.85	17.26
19	18.53	19.07	17.54	17.37	11.63	3.98	5.75	6.25	11.99	12.75	15.90	17.37
20	18.57	19.09	17.67	17.28	10.78	3.67	5.17	7.02	12.69	13.04	15.97	17.36
21	18.58	19.10	17.77	17.21	7.10	3.50	4.92	7.44	13.01	13.43	16.03	17.37
22	18.23	18.84	17.84	17.30	7.52	2.25	5.14	8.10	13.20	14.15	16.07	17.44
23	18.08	18.54	17.96	17.27	8.24	2.68	4.55	8.75	13.50	14.52	16.10	17.49
24	17.93	18.32	18.00	17.15	8.03	3.24	5.04	8.97	13.76	14.75	16.15	17.52
25	17.93	18.12	18.03	17.03	8.55	3.15	5.75	9.50	13.57	14.91	16.23	17.57
26	17.97	18.00	18.09	17.00	8.66	3.75	5.92	9.97	13.47	15.03	16.32	17.59
27	18.06	17.99	18.12	16.94	8.85	....	6.48	9.84	13.42	15.14	16.38	17.65
28	18.17	18.02	18.15	16.46	9.24	....	6.58	9.27	13.03	15.24	16.47	17.69
29	18.24	.....	18.18	16.51	9.40	....	5.90	8.79	13.23	15.29	16.54	17.71
30	18.34	.....	18.20	15.50	8.63	....	5.43	8.95	13.60	15.36	16.61	17.76
31	18.42	.....	18.22	.....	7.86	....	5.46	9.48	.....	15.42	.....	17.76

(D-4-4)14ccc 1 (\*817, p. 445; \*840, p. 598; \*845, p. 667; 886, p. 895; 910, p. 155; 940, p. 129; 948, p. 122). State claim 8380. Town of Charleston. Measuring point is 9 feet above land-surface datum.

Water level at noon, in feet, with reference to land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-4.37	-5.24	-5.35	-4.80	-3.16	+1.50	+4.40	+2.39	+0.67	-1.15	-0.98	-2.46
2	-4.43	-5.22	-5.43	-4.78	-3.08	+1.70	.....	+2.35	+0.68	-1.17	-1.00	-2.56
3	-4.55	-5.29	-5.41	-4.76	-2.91	+1.90	.....	+2.28	+0.60	-1.18	-1.01	-2.62
4	-4.57	-5.26	-5.36	-4.76	-2.74	+2.08	.....	+2.26	+0.58	-1.19	-1.01	-2.60
5	-4.57	-5.35	-5.41	-4.70	-2.67	+2.19	.....	+2.27	+0.52	-1.16	-1.01	-2.64
6	-6.47	-5.37	-5.50	-4.68	-2.50	+2.29	.....	+2.20	+0.46	-1.18	-1.12	-2.73
7	-4.77	-5.33	-5.51	-4.68	-2.27	+2.38	.....	+2.15	+0.44	-1.19	-1.19	-2.77
8	-4.80	-5.32	-5.50	-4.64	-2.07	+2.49	+3.85	+2.09	+0.35	-1.24	-1.20	-2.80
9	-4.83	-5.41	-5.41	-4.62	-1.78	+2.50	.....	+2.02	+0.31	-1.29	-1.20	-2.88
10	-4.86	-5.55	-5.21	-4.62	-1.40	+2.72	+3.75	+1.93	+0.24	-1.84	-1.22	-2.99
11	-4.88	-5.52	-5.09	-4.63	-1.23	+2.91	+3.60	+1.89	+0.18	-1.32	-1.25	-2.99
12	-4.94	-5.57	-5.07	-4.62	-1.10	+2.98	+3.48	+1.81	+0.14	-1.39	-1.28	-3.01
13	-4.95	-5.56	-4.95	-4.58	-0.87	+3.08	+3.25	+1.70	+0.10	-1.35	-1.31	-3.08
14	-4.91	-5.55	-4.84	-4.54	-0.70	+3.19	+3.17	+1.65	+0.04	-1.29	-1.40	-3.15
15	-4.87	-5.57	-4.81	-4.47	-0.58	+3.75	+3.10	+1.59	-0.05	-1.30	-1.48	-3.18
16	-4.95	-5.58	-4.80	-4.47	-0.42	+3.85	+2.99	+1.53	-0.13	-1.26	-1.53	-3.24
17	-4.98	-5.61	-4.75	-4.44	-0.30	+3.98	+2.90	+1.50	-0.19	-1.20	-1.57	-3.30
18	-5.14	-5.63	-4.75	-4.31	-0.20	+4.00	+2.88	+1.50	-0.26	-1.15	-1.63	-3.31
19	-5.13	-5.65	-4.81	-3.95	0.00	+4.03	+2.88	+1.45	-0.36	-0.98	-1.69	-3.34
20	-5.10	-5.67	-4.86	-3.77	+0.14	+4.19	+2.87	+1.37	-0.45	-0.88	-1.74	-3.37
21	-5.10	-5.63	-4.85	-3.70	+0.21	+4.44	+2.80	+1.30	-0.52	-0.84	-1.80	-3.39
22	-5.03	-5.59	-4.80	-3.65	+0.24	+4.48	+2.83	+1.26	-0.60	-0.88	-1.85	.....



Wasatch County--Continued

(D-4-4)14ccc 1. Town of Charleston--Continued.

Water level at noon, in feet, with reference to land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	-4.91	-5.50	-4.85	-3.56	+0.32	+4.51	+2.82	+1.19	-0.68	-0.90	-1.95	-3.51
24	-4.96	-5.37	-4.85	-3.42	+4.41	+4.53	+2.76	+1.15	-.76	-.92	-2.04	-3.55
25	-5.03	-5.40	-4.80	-3.34	+5.52	+4.50	+2.74	+1.10	-.80	-.92	-2.11	-3.52
26	-5.03	-5.37	-4.76	-3.36	+6.62	.....	+2.71	+1.00	-.86	-.91	-2.18	-3.64
27	-5.04	-5.30	-4.77	-3.34	+6.66	.....	+2.70	+92	-.93	-.90	-2.26	-3.72
28	-5.07	-5.36	-4.75	-3.30	+8.2	.....	+2.70	+85	-1.01	-.88	-2.31	-3.75
29	-5.12	.....	-4.72	-3.34	+91	.....	+2.62	+82	-1.07	-.89	-2.37	-3.75
30	-5.13	.....	-4.77	-3.27	+1.10	.....	+2.54	+75	-1.11	-.89	-2.39	-3.78
31	-5.26	.....	-4.81	.....	+1.27	.....	+2.45	+65	.....	-.92	.....	-3.82

Washington County - Escalante Valley 11/

(C-37-17)11dba 1 (#940, p. 130; 948, p. 123). E. A. Pickering. Measurements discontinued after Dec. 12, 1942.

(C-37-17)11dba 2 (#940, p. 130; 948, p. 123). E. W. Simkins. Measurements discontinued after Dec. 12, 1942.

(C-37-17)11dbd 1 (#940, p. 130; 948, p. 123). E. W. Simkins. Water level, in feet below land-surface datum, 1943: Mar. 17, 25.62.

(C-37-17)12cbc 1 (#940, p. 130; 948, p. 123). Charles Sides. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 29.63; Dec. 13, 30.06.

(C-37-17)12cdc 1 (#940, p. 130; 948, p. 123). Louis Elliker. Measurements discontinued after Dec. 12, 1942.

(C-37-17)12cdd 1 (#817, p. 438; #840, p. 588; 845, p. 668; 886, p. 896; 910, p. 153; #940, p. 130; 948, p. 123). State claim 8584. Drought Relief Administration. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 17, 41.29; Dec. 13, 41.22.

(C-37-17)14adc 1 (#940, p. 130; 948, p. 123). J. C. Bosshardt. Water level, in feet below land-surface datum, 1943: Mar. 17, 39.67.

(C-37-17)15bab 1 (#940, p. 130; 948, p. 123). Everest Hackett. Water level, in feet below land-surface datum, 1943: Mar. 17, 7.04.

(C-37-17)15bba 1 (#940, p. 130; 948, p. 123). Federal Land Bank of Berkeley, Calif. Measurements discontinued.

(C-37-17)16abb 1 (#940, p. 130; 948, p. 123). Mr. Pulsifer. Measurements discontinued after Dec. 12, 1942.

(C-37-17)16cbb 1 (#940, p. 130; 948, p. 123). State application 14146. J. W. Holt. Measuring point is 0.7 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 17, 15.01.

Washington County - Virgin River Valley

(C-42-10)33bb (#817, p. 438; 840, p. 589; 845, p. 668; 886, p. 896; 910, p. 153; 940, p. 131; 948, p. 123). Oscar De Mill. Measuring point is 3.0 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 14, 116.73.

(C-42-11)3ac (#817, p. 438; #840, p. 589; 845, p. 668; 886, p. 896; 910, p. 153; 940, p. 131; 948, p. 123). Drought Relief Administration. Water level, in feet below land-surface datum, 1943: Dec. 14, 18.84.

11/ For other wells in Escalante Valley see pages 40-52, 67-76, 79-80.

Wayne County

(D-27-2)25bd 1 (\*817, p. 477; \*840, p. 613; 845, p. 668; 886, p. 896; 910, p. 156; 940, p. 131; 948, p. 124). State claim 7164. S. E. Tanner. Measuring point is 0.5 foot above land-surface datum. Water level, in feet above land-surface datum, 1943: Dec. 16, 9.7.

(D-28-4)36cdb 1 (\*817, p. 477; 840, p. 613; 845, p. 668; 886, p. 897; 910, p. 156; 940, p. 131; 948, p. 124). V. A. Lee. No measurements made in 1943.

(D-29-4)15cbd 1 (\*817, p. 477; 840, p. 613; 845, p. 668; 886, p. 897; 910, p. 156; 940, p. 131; 948, p. 124). W. P. Coleman. Measuring point is 1.3 feet above land-surface datum. Water level, in feet below land-surface datum, 1943: Dec. 16, 0.33.

Weber County - East Shore area

(B-5-1)3ccd 1. State claim 19806. B. A. Wilson. Unused well, diameter 48 inches, depth 9 feet. Measuring point, top of concrete curb, 2.0 feet above land-surface datum and 4,648 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 27	6.27	May 28	4.96	Sept. 16	a 6.05
Apr. 26	6.46	July 16	5.00		

(B-5-1)4aac. C. J. Hobbs. Unused well, diameter 12 inches, depth 23 feet. Measuring point, top of well cover, 0.4 foot above land-surface datum and 4,517 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 27	14.07	May 28	15.20	Sept. 16	10.83
Apr. 26	15.86	July 16	13.79	Nov. 23	13.92

(B-5-1)4ccb 2. State claim 19020. N. C. London. Irrigation well, diameter 48 inches, depth 11 feet. Measuring point, top of concrete well cover, level with land-surface datum and 4,446.42 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 27	4.72	May 28	5.53	Sept. 16	6.62
Apr. 26	4.83	July 16	5.73	Nov. 23	6.96

(B-5-1)5cda. T. G. Burch. Unused well, diameter 48 inches, depth 39 feet. Measuring point, top of well cover, 1.3 feet above land-surface datum and 4,375 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Apr. 13	29.59	May 28	28.00	Sept. 16	26.53
May 8	28.66	July 16	25.58	Nov. 23	29.40

(B-5-1)8cbd 1. State claim 19627. Earl Porter. Stock and domestic well, diameter 108 inches, depth 25 feet. Measuring point, top of concrete curb, 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Apr. 13	8.30	May 28	7.56	Sept. 16	4.72
May 8	7.91	July 16	5.54	Nov. 23	7.32

(B-5-1)10bcd 2. State claim 17719. R. L. Gabey. Unused well, diameter 30 inches, depth 25 feet. Measuring point, top of tile curb, 1.5 feet above land-surface datum and 4,716 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 27	13.86	May 28	13.98	Sept. 16	8.35
May 6	14.65	July 16	8.90	Nov. 23	12.20

a Measurements discontinued after Sept. 16.

Weber County - East Shore area--Continued

(B-5-1)15bcb 1. State application 13016. H. L. Barnes. Domestic well, diameter 48 inches, depth 44 feet. Measuring point, top of well cover, level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	34.00	July 16	28.36	Nov. 23	a 30.45
May 28	32.89	Sept. 16	30.79		

(B-5-1)15cdc. H. V. Browning. Domestic well, diameter 60 inches, depth 21 feet. Measuring point, top of concrete curb, 2.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Apr. 16	14.25	July 15	14.50	Nov. 23	16.62
May 28	13.02	Sept. 16	15.86		

(B-5-1)17adc. Ogden Land Co. Unused well, diameter 48 inches, depth 25 feet. Measuring point, top of concrete curb, 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Apr. 24	18.66	July 19	16.00	Nov. 23	16.98
May 8	18.23	Sept. 16	16.48		

(B-5-1)22cda 1. State claim 20384. G. B. Webb. Stock well, diameter 60 inches, depth 26 feet. Measuring point, top of concrete curb, 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Apr. 16	22.66	July 16	22.88	Nov. 23	23.15
May 28	22.76	Sept. 16	23.02		

(B-5-1)27aca. J. C. Fleming. Unused well, diameter 2½ inches, depth 90 feet. Measuring point, top of concrete curb, level with land-surface datum and 4,489 feet above mean sea level. Water levels, in feet below land-surface datum, 1943: Apr. 16, 55.15; May 28, 50.68; Sept. 16, 46.70; Nov. 24, 51.83.

(B-5-2)4cdd 1 (\*817, p. 383; \*840, p. 533; 845, p. 671; 886, p. 899; 910, p. 158; 940, p. 131; 948, p. 124). State application 11889. Samuel Peterson. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 37.2; Sept. 15, 33.3; Dec. 11, 35.9.

(B-5-2)14cdc 1 (\*840, p. 533; 845, p. 671; 886, p. 899; 910, p. 158; 940, p. 131; 948, p. 124). State claim 5538. Lorenzo Stoker. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Mar. 4, 2.30; measurements discontinued.

(B-5-3)12add 1 (\*817, p. 384; \*840, p. 534; 845, p. 671; 886, p. 899; 910, p. 159; 940, p. 131; 948, p. 124). State application 11945. F. V. Simpson. Measuring point is 2.0 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Mar. 4, 21.9; measurements discontinued.

(B-5-3)15dda 1 (\*817, p. 384; \*840, p. 534; 845, p. 671; 886, p. 899; 910, p. 159; 940, p. 131; 948, p. 124). State application 11790. T. W. Read. Measuring point is 3.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 47.6; Dec. 2, 45.8.

(B-6-1)6caa 1. State claim 595. Martin Harris. Domestic well, diameter 2 inches, depth 640 feet. Measuring point, top of concrete curb, 1.3 feet above land-surface datum and 4,290.44 feet above mean sea level. Water levels, in feet above land-surface datum, 1943: Apr. 14, 49.5; May 31, 48.7; Dec. 11, 50.1.

a Measurements discontinued after Nov. 23.

Weber County - East Shore area--Continued

(B-6-1)6dba 1 (\*817, p. 384; \*840, p. 534; 845, p. 672; \*886, p. 899; 910, p. 159; 940, p. 131; 948, p. 124). Measurements discontinued.

(B-6-1)8acb 1 (\*845, p. 672; 886, p. 899; 910, p. 159; 940, p. 131; 948, p. 124). L. W. Winkler and Carl Nielson. Water levels, in feet below land-surface datum, 1943: Mar. 6, 3.65; May 14, 4.20; Dec. 8, 3.20.

(B-6-1)8bdd 16 (\*840, p. 534; 845, p. 672; 886, p. 900; 910, p. 159; 940, p. 131; 948, p. 124). State claim 5438. J. T. Bybee. Measuring point is 2.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 6, 11.4; May 27, 8.9; Sept. 16, 11.9; Dec. 8, 11.2.

(B-6-1)9bdd 1. State claim 6353. Federal Land Bank. Unused well, diameter 60 inches, depth 12 feet. Measuring point, top of well cover, 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 25	5.76	May 26	5.33	Sept. 16	6.16
May 1	6.36	July 16	4.60	Nov. 23	6.07

(B-6-1)16cbd 1. State claim 19537. Flinters & Huggins. Irrigation well, diameter 60 inches, 41 feet deep. Measuring point, top of well cover, level with land-surface datum and 4,314.00 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 3	12.34	May 26	10.88	Sept. 16	10.92
Apr. 26	11.51	July 16	11.37	Nov. 24	13.58

(B-6-1)16cdb 1. Emma Spaun. Stock well, diameter 30 inches, depth 21 feet. Measuring point, top of well cover, level with land-surface datum and 4,394 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 24	13.21	May 26	10.83	Sept. 16	12.08
Apr. 26	13.81	July 16	9.78	Nov. 24	13.73

(B-6-1)17abb 3. State claim 14838. A. G. Tobias. Stock and domestic well, diameter 24 inches, depth 24 feet. Measuring point, top of tile curb, 0.5 foot above land-surface datum and 4,283.51 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Mar. 25	22.79	May 26	16.60	Sept. 16	15.79
May 1	21.54	July 19	14.92	Nov. 24	19.48

(B-6-1)21abb 1 (\*817, p. 385; \*840, p. 534; 845, p. 672; \*886, p. 900; 910, p. 159; 940, p. 131; 948, p. 124). State claim 684. Western Irrigation Co. Measuring point is 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 6, 29.48; Dec. 11, 29.41.

(B-6-1)21aca 1. State claim 14889. Berkeley Spillsbury. Irrigation well, diameter 60 inches, depth 18 feet. Measuring point, top of well curb, level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Mar. 24	13.45	July 17	10.98	Nov. 24	14.00
Apr. 26	11.40	Sept. 16	11.58		

(B-6-1)21add 1 (\*845, p. 672; 886, p. 904; 910, p. 159; 940, p. 131; 948, p. 124). State claim 8389. Drought Relief Administration. Measuring point is 4.0 feet below land-surface datum.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	45.10	45.46	.....	45.78	45.48	45.19	45.80	46.23	.....	.....	.....	45.81
2	45.04	45.34	.....	45.76	45.52	45.18	45.84	46.19	.....	.....	.....	45.90
3	45.18	45.39	.....	45.74	45.35	45.15	45.91	46.08	.....	.....	45.87	45.93

Weber County - East Shore area--Continued

(B-6-1)21ladd 1. Drought Relief Administration--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	45.21	45.35	.....	45.75	.....	.....	46.03	46.10	45.32	.....	45.86	45.85
5	45.14	45.39	.....	45.71	.....	.....	46.03	46.07	45.35	.....	45.81	45.84
6	45.19	45.42	45.48	45.68	.....	.....	46.06	46.05	45.37	.....	45.90	45.81
7	45.25	45.33	45.52	45.70	.....	.....	46.15	46.07	45.34	45.92	45.97	45.84
8	45.26	45.24	45.48	45.66	45.30	.....	.....	46.03	45.35	45.91	.....	45.87
9	.....	45.27	45.50	45.62	45.31	45.15	.....	45.97	45.34	45.88	.....	45.93
10	.....	45.47	45.50	45.65	45.27	45.15	.....	45.97	45.36	45.86	45.86	45.96
11	.....	45.50	45.48	45.66	45.35	45.09	.....	45.99	45.35	45.81	.....	46.01
12	.....	45.56	.....	45.70	45.39	45.08	.....	46.03	.....	45.91	.....	45.95
13	.....	45.65	45.52	45.59	45.43	45.13	.....	46.03	.....	45.87	.....	45.91
14	.....	45.60	45.52	45.56	45.49	45.19	45.53	46.01	.....	45.89	.....	45.94
15	45.19	45.56	45.51	45.51	45.45	45.21	45.41	45.99	.....	.....	.....	45.98
16	45.25	45.54	45.55	.....	45.49	45.25	45.33	45.53	45.74	.....	.....	.....
17	45.24	45.55	45.49	.....	45.51	45.23	45.27	45.56	45.72	.....	45.88	.....
18	.....	45.58	.....	.....	45.50	45.20	45.22	45.55	45.73	.....	45.90	.....
19	.....	45.60	.....	45.59	45.50	45.18	45.11	45.51	45.82	.....	45.89	.....
20	.....	45.61	45.63	45.66	45.44	.....	45.02	45.45	45.81	.....	.....	.....
21	.....	.....	45.65	45.64	45.48	.....	44.98	45.47	45.80	.....	.....	45.97
22	45.22	.....	45.58	45.70	45.52	45.24	.....	45.52	45.80	45.84	.....	45.99
23	45.15	.....	45.63	45.66	45.49	45.28	.....	45.55	45.81	45.86	45.93	46.03
24	45.27	.....	45.68	45.62	45.46	45.31	.....	45.54	45.78	45.84	45.97	46.05
25	.....	.....	45.66	45.58	45.45	45.44	.....	45.58	45.74	45.81	45.99	45.97
26	.....	.....	45.60	45.56	45.35	45.64	.....	45.57	45.72	45.79	46.00	45.96
27	.....	45.50	45.62	45.55	45.36	45.73	46.24	45.56	.....	45.76	45.99	46.03
28	.....	45.51	.....	45.48	45.34	45.82	46.26	45.55	.....	45.75	45.97	46.06
29	.....	.....	.....	45.57	45.34	45.85	46.22	45.53	.....	45.76	45.95	.....
30	45.33	.....	45.69	45.52	45.30	45.75	46.26	45.62	.....	.....	45.88	.....
31	45.45	.....	45.77	.....	45.27	.....	46.27	.....	.....	.....	.....	.....

(B-6-1)21lcb 1. State claim 15124. I. L. Richards. Irrigation well, diameter 60 inches, depth 22 feet. Measuring point, top of well curb, 2.0 feet above land-surface datum and 4,307.2 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 25	11.50	May 27	6.32	Sept. 16	8.63
Apr. 26	10.47	July 16	7.85	Nov. 24	11.96

(B-6-1)27ccc 1. State claim 14980. W. E. Sylvester. Unused well, diameter 36 inches, depth 15 feet. Measuring point, top of well cover, level with land-surface datum and 4,282.00 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 26	9.71	May 28	10.12	Sept. 15	10.52
Apr. 26	9.81	July 16	10.30	Nov. 24	10.53

(B-6-1)28cba 1. State claim 17827. A. L. Jensen. Irrigation well, diameter 48 inches, depth 13 feet. Measuring point, top of well cover, level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 14	10.24	July 16	9.58	Nov. 24	9.75
May 29	10.00	Sept. 15	10.70		

(B-6-1)28dba 1. City of Ogden. Test well, diameter 2 inches, depth 236 feet. Measuring point, top of casing, 1.5 feet above land-surface datum.

Weber County - East Shore area--Continued

(B-6-1)28dba 1. City of Ogden--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 9	102.48	Aug. 28	100.41	Oct. 4	100.50	Nov. 23	100.52
28	100.58	Sept. 6	100.63	26	100.38	Dec. 8	100.50
Aug. 4	100.53	16	100.32	Nov. 3	100.45	21	100.53
5	100.52	24	100.38				

(B-6-1)28dba 2. City of Ogden. Test well, diameter 5 inches, depth 20 feet. Measuring point, top of 2-inch casing of well dba 1, 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

July 9	8.65	Sept. 16	9.54	Oct. 4	9.86	Nov. 3	10.02
Aug. 4	9.61	24	9.40	26	10.05	23	10.10
5	9.74						

(B-6-1)29abb 1. State application 13003. Becker Products Co. Unused well, diameter 10 inches, depth 464 feet. Measuring point, top of gate valve, 1.0 foot above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	18.4	17.7	16.9	17.0	17.2	17.1
2	....	....	18.4	17.6	17.1	17.0	17.1	17.2
3	....	....	18.2	17.8	16.5	17.0	17.2	17.1
4	19.3	....	18.3	17.7	17.0	16.9	17.1	18.3
5	19.3	20.2	18.4	....	17.1	17.0	17.2	17.3
6	19.4	20.1	18.1	17.1	17.1	17.0	17.2	17.3
7	19.4	20.0	17.7	16.9	17.1	17.1	17.0	17.2
8	19.4	20.2	17.6	17.0	17.0	17.0	16.9	17.3
9	19.6	20.2	17.7	17.0	17.1	17.0	17.0	17.2
10	19.8	20.2	17.6	17.1	17.2	16.9	17.1	17.1
11	19.6	20.4	17.7	16.9	17.2	17.0	17.4	17.1
12	19.7	20.2	17.5	16.9	17.0	16.5	17.4	17.0
13	20.0	20.4	17.3	17.0	17.2	16.6	17.3	16.6
14	19.9	20.4	17.3	17.1	17.2	16.4	17.2	16.8
15	19.7	20.0	17.5	17.0	17.1	16.8	17.0	16.8
16	19.6	20.2	17.6	17.0	17.1	17.0	....	16.8
17	20.2	20.0	17.7	16.9	17.2	....	....	16.8
18	20.3	20.1	17.7	16.9	16.9	....	....	16.9
19	20.3	19.8	17.8	17.0	16.9	....	....	16.9
20	20.3	19.6	17.8	17.0	17.1	18.5	....	17.0
21	20.1	19.8	17.7	17.0	17.1	18.3	....	17.1
22	20.3	19.7	17.8	17.0	17.0	18.3	....	17.1
23	20.2	19.6	17.8	17.2	17.1	18.2	17.3	17.1
24	20.3	19.7	17.8	17.1	17.4	18.7	17.1	17.0
25	20.4	19.4	17.8	16.9	17.1	18.8	17.1	17.2
26	20.4	19.0	....	16.9	17.0	18.8	17.0	17.1
27	20.5	19.0	17.8	17.0	17.0	....	17.0	17.0
28	20.4	19.0	17.8	17.0	17.0	....	17.7	17.9
29	20.3	18.8	17.9	17.1	17.0	....	17.0	18.0
30	....	18.5	17.7	16.6	17.1	17.5	16.8	....
31	....	....	17.8	16.3	....	16.9	....	....

(B-6-1)29ccc. Ogden Union Railroad & Depot Co. Unused well, diameter 12 inches, depth 755 feet. Measuring point, top of south recorder support, 3.7 feet above land-surface datum.

Water level at noon, in feet above land-surface datum, 1943  
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	20.0	19.0	18.1	18.1	18.0	....	....
2	....	19.8	18.7	17.9	18.2	18.1	....	....
3	....	19.8	18.7	18.0	18.0	18.1	....	....

Weber County - East Shore area--Continued

(B-6-1)29ccc. Ogden Union Railroad &amp; Depot Co.--Continued.

Water level at noon, in feet above land-surface datum, 1943

(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	....	20.1	18.7	18.1	18.1	18.1	....	....
5	....	20.0	18.5	18.0	18.2	18.2	....	....
6	....	....	18.4	18.1	18.1	18.1	....	....
7	....	....	18.2	18.0	18.1	18.0	....	....
8	....	....	18.2	18.0	18.0	18.0	....	....
9	....	....	18.2	18.1	18.1	18.1	....	....
10	....	....	18.1	18.1	18.2	18.2	....	....
11	....	....	18.1	18.1	18.1	18.2	....	a16.7
12	....	....	18.0	17.9	18.1	18.1	....	....
13	a19.0	....	17.7	18.2	18.1	18.0	....	....
14	19.1	....	17.7	18.3	18.2	17.9	....	....
15	19.1	....	17.7	18.2	18.2	18.0	....	....
16	19.0	....	17.8	18.1	18.2	18.1	....	....
17	19.0	....	18.0	18.0	18.2	18.2	....	....
18	19.1	....	18.1	18.0	18.0	18.1	....	....
19	19.0	20.3	17.9	17.9	18.0	18.0	....	....
20	19.1	20.2	17.7	18.2	18.1	18.0	....	....
21	19.2	20.3	17.7	18.2	18.0	....	....	a17.1
22	19.9	20.2	17.7	....	18.1	....	....	....
23	19.9	20.2	18.1	....	18.1	....	a17.4	....
24	20.1	20.1	18.2	....	18.2	....	....	....
25	20.2	20.0	18.2	....	18.2	....	....	....
26	20.2	19.7	18.1	....	18.1	....	....	....
27	20.2	19.6	18.5	....	18.2	....	....	....
28	20.3	19.4	18.5	....	18.1	....	....	....
29	20.3	19.3	18.1	18.3	18.0	....	....	....
30	20.2	19.2	18.1	18.2	17.9	....	....	....
31	19.9	....	18.0	18.2	....	....	....	....

(B-6-1)30ccb 2 (\*840, p. 535; 845, p. 673; 886, p. 900; 910, p. 160; 940, p. 132; 948, p. 125). American Packing & Provision Co. Measuring point is 2.7 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 6.9; Dec. 11, 7.4.

(B-6-1)30cca 1. State claim 1030. California Packing Corporation. Unused well, diameter 10 inches, depth 756 feet. Measuring point, base of recorder support, 1.0 foot above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	23.73	28.52	29.09	28.75	28.32	28.18	....	28.14
2	....	23.75	28.55	29.13	28.72	28.23	28.17	28.19	28.17
3	....	28.66	28.55	29.21	28.69	28.24	28.19	28.16	28.20
4	....	28.59	28.55	29.31	28.65	28.18	28.23	28.16	28.15
5	....	28.64	28.59	29.31	28.63	28.19	28.21	28.16	28.11
6	....	28.64	28.60	29.32	28.61	28.19	28.21	28.22	28.14
7	....	28.64	28.64	29.36	28.61	28.18	28.20	....	28.14
8	....	28.69	....	....	28.56	....	28.20	....	28.11
9	28.68	28.73	28.61	29.42	28.51	28.17	28.19	28.24	28.15
10	28.69	28.68	28.56	29.44	28.48	28.19	28.17	28.22	28.20
11	....	28.75	28.51	29.51	28.44	28.19	28.11	28.22	28.17
12	....	28.83	28.52	29.68	28.42	28.18	28.17	....	28.13
13	28.69	28.89	28.54	29.73	28.47	28.17	28.14	28.20	28.15
14	28.66	28.93	28.58	29.71	28.46	28.13	28.13	28.23	28.17
15	28.65	28.93	28.58	29.62	28.45	28.12	28.13	28.25	28.17
16	28.63	28.98	28.62	29.55	28.43	28.11	28.10	28.24	28.21
17	28.71	28.99	28.59	29.50	28.43	28.08	28.07	28.21	28.24
18	28.71	28.99	28.56	29.43	28.41	28.08	28.05	28.23	28.22
19	28.66	28.97	28.55	29.32	28.38	28.15	27.95	28.21	28.20
20	28.69	....	28.57	29.23	28.33	28.14	28.07	28.18	28.18
21	28.69	28.92	28.59	29.17	28.34	28.13	28.10	28.18	28.17

a Gage measurement.

Weber County - East Shore area--Continued

(B-6-1)30cca 1. California Packing Corporation--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
22	28.74	28.89	28.62	29.05	28.36	28.15	28.10	28.17	28.19
23	28.72	28.82	28.63	28.99	28.36	28.16	28.14	28.22	28.21
24	28.70	28.80	28.66	28.93	28.36	28.16	28.15	28.24	28.23
25	28.67	28.75	28.74	28.88	28.37	28.15	28.15	28.26	28.12
26	28.71	28.68	28.85	28.82	28.37	28.14	28.13	28.27	28.15
27	28.71	28.68	28.94	28.80	28.35	28.13	28.11	28.26	28.22
28	28.71	28.69	29.01	28.80	28.35	28.16	28.11	28.24	28.24
29	28.78	28.70	29.03	28.76	28.33	28.18	28.09	28.22	28.29
30	28.76	28.67	29.12	28.77	28.42	28.18	28.08	28.18	28.23
31	.....	28.62	.....	28.78	28.42	.....	28.14	.....	28.23

(B-6-1)32cbb. State claim 13143. Utah Canning Co. Industrial well, diameter 120 inches, depth 18 feet. Measuring point, top of concrete curb, 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 27	8.15	May 29	8.36	Sept. 15	a 12.62
Apr. 26	8.00	July 15	11.98	Nov. 24	a 11.60

(B-6-1)33baa 1. State claim 19828. Fronk &amp; Burrows. Unused well, diameter 48 inches, depth 16 feet. Measuring point, top of 3/4-inch tee on discharge pipe level with land-surface datum.

Water level, in feet below land-surface datum, 1943

Mar. 26	8.80	May 29	9.31	Sept. 15	9.82
Apr. 26	8.81	July 16	9.64	Nov. 24	9.36

(B-6-2)1acd 3 (\*840, p. 535; 845, p. 673; 886, p. 901; 910, p. 160; 940, p. 132; 948, p. 125). G. B. Taylor. Well flowing prior to measurement. Water level, in feet above land-surface datum, 1943: May 10, 9.6.

(B-6-2)8abd 1 (\*840, p. 535; 845, p. 673; 886, p. 901; 910, p. 160; 940, p. 132; 948, p. 125). State claim 2471. West Weber Latter Day Saints Cemetery. Measuring point is 3.5 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: Dec. 8, 15.5.

(B-6-2)1ldad 1 (\*840, p. 535; 845, p. 673; 886, p. 901; 910, p. 160; 940, p. 132; 948, p. 125). State claim 5613. Jerome Wheeler. Measuring point is 3.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 24.7; Dec. 8, 21.6.

(B-6-2)1dddb 1. W. C. Panter. Domestic well, diameter 2 inches, depth 300 feet. Measuring point, top of sleeve on casing, 1.2 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Aug. 13, 20.1; Dec. 11, 18.9.

(B-6-2)17acc 1 (\*817, p. 385; \*840, p. 535; 845, p. 673; 886, p. 901; \*910, p. 160; 940, p. 132; 948, p. 125). State claim 695. H. C. Gibson. Measuring point is 2.0 feet above land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Mar. 4, 18.7; Dec. 8, 15.7.

(B-6-2)22ded 1 (\*840, p. 535; 845, p. 673; 886, p. 901; \*910, p. 161; 940, p. 132; 948, p. 125). F. M. Petterson. Measuring point is 2.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 1.22; Dec. 11, 0.30.

(B-6-2)25ccc 1 (\*840, p. 535; 845, p. 674; 886, p. 901; 910, p. 161; 940, p. 132; 948, p. 125). State claim 15111. G. E. Stratford. Measuring point is 1.3 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 10.6; May 13, 9.9; Dec. 11, 8.4.

a Pumping.



Weber County - East Shore area--Continued

(B-6-2)26ada 1 (\*817, p. 385; \*840, p. 535; \*845, p. 674; \*886, p. 901; \*910, p. 161; 940, p. 132; 948, p. 125). State claim 1196. Amalgamated Sugar Co. Measuring point is 2.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 14.25; May 13, 15.8.

(B-6-2)34dbb 1 (\*840, p. 536; 845, p. 674; 886, p. 902; 910, p. 161; 940, p. 132; 948, p. 125). State application 11869. Heber Swarner. Measuring point is 1.7 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 26.7; Sept. 15, 24.3; Dec. 11, 23.2.

(B-6-3)26bbb 1 (\*817, p. 386; \*840, p. 536; 845, p. 674; 886, p. 902; 910, p. 161; 940, p. 132; 948, p. 126). State claim 7505. Mrs. F. G. Kelley. Measuring point is 2.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 30.7; Dec. 8, 28.5.

(B-7-1)32ada 1 (\*817, p. 386; \*840, p. 536; 845, p. 674; 886, p. 902; 910, p. 161; 940, p. 132; 948, p. 126). State claim 14931. Joseph Folkman. Measuring point is 3.0 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 6, 14.6; Dec. 11, 14.5.

(B-7-2)21dc (\*817, p. 388; 840, p. 537; 845, p. 674; 886, p. 902; \*910, p. 161; 940, p. 132; 948, p. 126). Annie Maw. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 3.15; Dec. 8, 1.90.

(B-7-2)32dab 1 (\*840, p. 537; 845, p. 675; 886, p. 902; \*910, p. 161; 940, p. 132; 948, p. 126). State claim 15095. Marie Olsen. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 41.7; Dec. 8, 26.7.

(B-7-3)35daa 1 (\*817, p. 388; \*840, p. 537; 845, p. 675; \*886, p. 903; 910, p. 162; 940, p. 132; 948, p. 126). State claim 5489. Herman Van Braak. Measuring point is 1.6 feet above land-surface datum. Water levels, in feet above land-surface datum, 1943: Mar. 4, 9.3; Dec. 8, 9.6.

Weber County - Ogden Valley

(A-6-1)2db (\*817, p. 352; 840, p. 520; 845, p. 669; 886, p. 897; 910, p. 156; 940, p. 133; 948, p. 126). H. B. Stallings. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 22, 13.07.

(A-6-1)11dc (\*817, p. 354; 840, p. 521; 845, p. 669; 886, p. 897; 910, p. 156; 940, p. 133; 948, p. 126). Bureau of Reclamation, U. S. Dept. of Interior. Measuring point is 3.0 feet above land-surface datum.

Water level at noon, in feet below land-surface datum, 1943

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.12	20.02	21.05	.....	14.48	12.55	10.91	.....	13.32	15.82	16.96	18.11
2	19.19	20.05	21.08	.....	14.48	12.39	10.99	.....	13.39	15.90	17.03	18.13
3	19.20	20.08	21.12	.....	14.61	12.35	11.06	.....	13.47	15.97	17.09	18.16
4	19.21	20.12	21.15	.....	14.56	12.36	11.14	.....	13.56	16.05	17.13	18.19
5	19.25	20.17	21.14	.....	14.53	12.37	11.21	11.40	13.63	16.12	.....	18.22
6	19.28	20.22	21.15	16.69	14.52	12.36	11.28	11.42	13.65	16.20	.....	18.25
7	19.32	20.25	21.18	16.65	14.49	12.34	.....	11.48	13.71	16.27	.....	18.29
8	19.35	20.29	21.21	14.01	12.90	12.33	.....	11.39	13.80	16.39	17.22	18.39
9	19.38	20.33	21.08	13.44	12.68	12.31	.....	11.44	13.88	16.44	17.24	.....
10	19.44	20.37	21.08	13.58	12.56	12.30	.....	11.49	13.96	16.52	17.28	.....
11	19.49	20.40	21.09	13.75	12.53	12.32	.....	11.53	14.06	.....	17.31	.....
12	19.54	20.44	.....	13.64	12.62	12.38	.....	11.59	14.16	.....	17.35	.....
13	19.59	20.47	.....	13.66	12.71	12.44	.....	11.65	14.27	.....	17.39	.....
14	19.65	20.52	.....	13.71	12.81	.....	10.12	11.73	14.42	.....	17.43	.....
15	19.73	20.57	.....	13.75	12.91	12.32	10.14	11.82	14.48	.....	17.47	.....
16	19.77	20.61	.....	13.58	12.92	10.55	10.15	11.90	14.57	.....	17.51	.....
17	19.80	20.66	.....	13.60	12.67	10.49	10.20	11.99	14.66	.....	17.55	.....
18	19.83	20.70	.....	13.60	12.61	10.49	10.24	12.07	14.74	.....	17.59	.....

Weber County - Ogden Valley--Continued

(A-6-1)lldc. Bureau of Reclamation, U. S. Dept. of Interior--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
19	19.88	20.75	.....	13.60	12.61	10.49	10.28	12.16	14.83	.....	17.63	.....
20	19.93	20.77	21.03	13.61	12.61	10.49	10.35	12.25	14.92	.....	17.66	.....
21	19.97	20.80	.....	13.73	12.61	10.51	10.43	12.33	15.01	.....	17.70	18.82
22	20.04	20.84	.....	13.86	12.61	10.55	.....	12.40	15.17	16.53	.....	18.84
23	20.01	20.89	.....	14.00	12.56	10.58	.....	12.46	15.27	16.57	17.84	18.87
24	19.61	20.93	.....	14.25	12.62	10.63	.....	12.53	15.36	16.63	17.86	18.90
25	19.62	20.96	.....	14.44	12.71	10.66	.....	12.58	15.44	16.68	17.90	18.94
26	19.67	21.01	.....	14.38	12.81	10.69	.....	12.70	15.51	16.74	17.93	18.98
27	19.71	21.01	19.92	14.45	12.91	10.73	.....	12.83	15.59	16.80	17.96	19.02
28	19.75	21.02	.....	14.49	13.02	10.79	.....	12.94	15.67	16.86	18.00	19.05
29	19.85	.....	.....	14.50	13.12	10.84	.....	13.02	.....	16.93	18.03	.....
30	19.95	.....	.....	14.50	13.21	10.88	.....	13.14	15.78	16.86	18.06	.....
31	19.98	.....	.....	.....	12.71	.....	.....	13.24	.....	16.89	.....	.....

(A-6-1)lldd (\*910, p. 157; 940, p. 133; 948, p. 127). Ogden Yacht Club. Measurements discontinued after Oct. 19, 1942.

(A-6-1)l2aa 1 (\*817, p. 355; 840, p. 521; 845, p. 669; 886, p. 897; 910, p. 157; 940, p. 133; 948, p. 127). City of Ogden. Measuring point is 16.6 feet above land-surface datum.

Water level at noon, in feet, with reference to land-surface datum, 1943  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-2.98	-2.43	-1.34	+2.70	+7.06	+8.40	+7.46	+3.35	-0.32	-3.11	-2.02	.....
2	-2.92	.....	-1.39	+2.98	+7.13	+8.74	+7.36	.....	-1.13	-3.09	-2.05	-2.62
3	-3.02	.....	-1.30	+3.23	+7.11	+8.93	+7.15	.....	-.65	-3.14	-1.64	-2.63
4	-2.99	.....	-1.18	+3.46	+6.99	+9.00	+6.99	.....	-.96	-3.22	-1.33	-2.58
5	-2.91	-2.31	-1.18	.....	+7.10	+9.25	+6.84	+3.05	.....	-3.24	-1.04	-2.61
6	-2.96	-2.36	-1.05	+4.44	+7.43	+9.33	+6.72	.....	-1.94	-3.30	-1.01	-2.65
7	-2.97	-2.35	-.91	+4.63	+7.65	+9.33	.....	.....	-2.09	.....	.....	-2.68
8	-2.97	-2.25	-.80	+5.22	+7.77	+9.33	.....	+3.26	-2.17	.....	.....	-2.72
9	-2.95	-2.30	-.53	+5.63	+7.87	+9.35	.....	+3.28	-2.25	-3.61	-1.92	.....
10	-2.94	-2.45	-.25	+5.58	+8.00	+9.20	.....	+3.40	-2.25	-3.60	-1.92	.....
11	-2.95	-2.31	-.05	+5.51	+7.95	+8.71	.....	+3.35	-2.25	-3.48	-2.03	.....
12	-2.99	-2.30	+.10	+5.52	+7.82	+8.49	.....	+2.91	-2.25	-3.17	-2.09	.....
13	-3.00	-2.26	+.20	+5.53	+7.64	+8.37	.....	+2.45	.....	-2.97	-2.24	.....
14	-2.93	-2.18	+.35	+5.50	+7.65	.....	+6.23	.....	.....	-2.90	-2.37	.....
15	-2.89	-2.13	+.45	+5.62	+7.69	+8.45	+6.15	+1.90	-2.52	.....	-2.44	.....
16	-2.96	-2.10	+.49	+5.81	+8.05	+8.55	+6.06	+1.70	-2.48	.....	-2.47	.....
17	-2.96	-2.09	+.60	+6.10	+8.42	+8.69	+6.15	+1.54	-2.32	.....	-2.34	.....
18	-3.10	-2.10	+.70	+6.49	+8.64	+8.76	+6.22	+1.40	-2.34	.....	-2.33	.....
19	-3.02	-2.08	+.73	+6.84	+8.74	+8.79	.....	+1.25	-2.60	.....	-2.32	.....
20	-2.94	-2.05	+.75	+6.90	+8.56	+8.74	.....	+1.12	-2.77	.....	-2.33	.....
21	-2.94	-1.94	+.76	+6.91	+8.41	+3.38	.....	+1.05	.....	.....	-2.35	.....
22	-2.89	-1.84	+.90	+6.82	+8.06	+8.02	.....	+.50	.....	-2.48	.....	-3.55
23	-2.83	-1.74	+.91	+6.83	+7.99	+7.94	.....	+.37	-3.05	-2.49	.....	-3.60
24	-2.82	-1.65	+.93	+6.62	+7.99	+7.86	.....	+.25	-3.10	-2.45	-2.41	-3.62
25	-2.80	-1.66	+.103	+6.50	+3.07	+3.00	+5.85	+.18	-2.98	-2.43	-2.43	-3.64
26	-2.72	-1.55	+.119	+6.37	+3.10	+3.04	+5.65	+.11	-2.90	-2.53	-2.45	-3.73
27	-2.65	-1.44	+.129	+6.57	+7.88	+7.69	+4.79	+.02	-2.95	-2.63	-2.48	-3.77
28	-2.62	-1.43	+.165	+6.61	+7.77	+7.45	+4.27	-.03	-3.06	-2.14	-2.52	.....
29	-2.60	.....	+.189	+6.81	+7.71	+7.58	+3.88	-.42	.....	-2.11	-2.51	.....
30	-2.42	.....	+.216	+6.98	+7.71	+7.50	+3.66	-.61	.....	-1.89	.....	.....
31	-2.48	.....	+.241	.....	+7.84	.....	+3.45	-.70	.....	-1.93	.....	.....

Weber County - Ogden Valley--Continued

(A-6-1)13ab (\*817, p. 356; 840, p. 522; 845, p. 670; 886, p. 898; 910, p. 158; 940, p. 134; 948, p. 127). Water level, in feet below land-surface datum, 1943: Oct. 22, 13.37.

(A-6-2)6aa (\*817, p. 356; 840, p. 522; 845, p. 670; 886, p. 898; 910, p. 158; 940, p. 134; 948, p. 127). Water level, in feet below land-surface datum, 1943: Oct. 22, 3.12.

(A-6-2)6dd 1 (\*817, p. 356; 840, p. 522; 845, p. 670; \*910, p. 158; 940, p. 134; 948, p. 127). Measuring point is 0.8 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 22, 11.32.

(A-6-2)16bad 1 (\*817, p. 357; \*840, p. 522; 845, p. 670; \*886, p. 898; 910, p. 158; 940, p. 134; 948, p. 127). State claim 14230. Golden Bingham. Measuring point is 0.3 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 22, 25.27.

(A-6-2)18acc (\*817, p. 357; 840, p. 522; 845, p. 671; 886, p. 898; 910, p. 158; 940, p. 134; 948, p. 127). Charles Felt. Water level, in feet below land-surface datum, 1943: Oct. 22, 14.64.

(A-6-2)21cc (\*817, p. 357; 840, p. 523; 845, p. 671; 886, p. 898; 910, p. 158; 940, p. 134; 948, p. 127). C. D. Shupe. Measurements discontinued after Oct. 19, 1942.

(A-7-1)29baa 1 (\*817, p. 357; \*840, p. 523; 845, p. 671; 886, p. 898; 910, p. 158; 940, p. 134; 948, p. 127). State claim 14564. Elmer Gardner. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 22, 14.29.

(A-7-1)35cd (\*817, p. 358; 840, p. 523; 845, p. 671; 886, p. 898; 910, p. 158; 940, p. 134; 948, p. 127). Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Oct. 22, 14.37.

# WASHINGTON

By T. E. Eakin, A. M. Piper, and J. W. Robinson

## SCOPE OF THE WATER-LEVEL PROGRAM IN 1943

The program of periodic measurements of water levels in observation wells in the State of Washington was continued in 1943 by the Geological Survey, United States Department of the Interior, in connection with projects coming under a general investigation of the ground-water resources of the State. In connection with several projects the work was done in cooperation with the Washington State Department of Conservation and Development and the city of Tacoma; in connection with one project the work was done in collaboration with the Soil Conservation Service of the United States Department of Agriculture. As the following table shows, the records obtained include 1,969 determinations of water level in 124 observation wells distributed unevenly over 19 of the 39 counties in the State. Automatic water-stage recorders were operated on seven observation wells, on one throughout the year and on six during part of the year. Non-recording float gages were operated throughout the year on 13 wells and during part of the year on 5 wells, each gage being read by a local observer.

Distribution of observation wells in the State of Washington, 1943

County	Number of observation wells			Number of records of water level in this report		Number of wells with water-stage recorders (R) or float gages (F)		
	Established during 1943	Discontinued in 1943	At year end	1942 and earlier	1943	Throughout 1943	Part of 1943	At year end
Adams	0	0	3	0	15	0	0	0
Benton	0	0	1	13	3	0	0	0
Chelan	0	0	1	293	74	F1	0	F1
Franklin	1	3	6	20	33	0	0	0
Grant	1	20	17	19	382	F3	R2	F3
Grays Harbor	0	0	0	6	0	0	0	0
King	0	0	1	5	3	0	0	0
Kitsap	0	0	1	70	12	0	0	0
Lewis	0	0	2	29	7	0	0	0
Lincoln	0	0	1	9	5	0	0	0
Okanogan	0	0	6	174	94	F2	0	F2
Pierce	0	3	47	5,973	468	R1, F1	F3	R1, F4

Distribution of observation wells in the  
State of Washington, 1943--Continued

County	Number of observation wells			Number of records of water level in this report		Number of wells with water stage recorders (R) or float gages (F)		
	Estab- lished during 1943	Discon- tinued in 1943	At year end	1942 and earlier	1943	Through- out 1943	Part of 1943	At year end
Skagit	0	0	1	1	2	0	0	0
Snohomish	0	0	3	30	9	0	0	0
Spokane	0	3	24	12	703	F6	R4, F2	F6
Thurston	0	0	1	16	4	0	0	0
Walla Walla	0	0	1	18	9	0	0	0
Whatcom	0	1	1	28	2	0	0	0
Whitman	0	12	6	13	140	0	0	0
Yakima	0	0	1	19	4	0	0	0
The State	2	42	124	6,748	1,969	R1, F13	R6, F5	R1, F16

In Washington many observation wells have been maintained in connection with intensive appraisals of the ground-water resources in certain areas, and for some of these wells the water-level records have not been published heretofore. All such records, dating from the time of the first observations until the end of 1943, are included in the present report. Thus, descriptions and water-level records of 111 observation wells are given in this report for the first time; in 36 of these wells, water-level measurements had been discontinued before 1943.

#### PRECIPITATION IN 1943

Because ground water is derived essentially from rain or snow, the volume in storage and the water levels in wells generally fluctuate in response to fluctuations in precipitation. Where there is a marked seasonal range in precipitation, such as prevails throughout Washington and other parts of the Pacific Coast region, ground-water storage generally is greatest and natural ground-water levels are highest during or somewhat after the height of the wet season, but during the ensuing dry season the unconfined ground-water storage is depleted by natural discharge and water levels commonly recede in wells. This depletion goes on until soil-moisture deficiencies have been replenished by the first rains of the next wet season. Thus, for the climatic conditions of Washington the ground-water level commonly is related less closely to precipitation within the calendar year than to precipitation within the "water year," which spans one wet season and the following dry season, that is, which ends in mid-autumn. For this brief treatment of climatic features the water year is

taken as ending September 30, the most practicable date for near-maximum depletion of unconfined ground-water storage as well as for near-minimum runoff.

The first of the two following tables shows the average monthly and seasonal distribution of precipitation in Washington for 50 years of record, in inches and percentage of the whole, and for the water-year 1942-43 in percentage. The second table shows, by provinces, the precipitation, in inches, and the relative wetness, in percentage of the 50-year average, for the water-year 1942-43. As the second table suggests, in part, the rainfall during the year was somewhat less than average over most of the western part of the State but somewhat more than average over most of the semiarid central and eastern parts of the State. However, this excess in the central and eastern parts was due almost entirely to local heavy rains very early in the water year. Generally over the State the rainfall was much less than average in January and February and slightly more than average in March, April, and June, but it was again much less than average during the remainder of the water year. Snowfall was much greater than average in November and December 1942 but was less than average after January 1943. Because the autumn of 1942 was very dry the rainfall of the water-year 1942-43 was insufficient to accomplish average ground-water replenishment.

Monthly precipitation at two representative stations in the State of Washington, in 1942-43, in percentage of the yearly average for the 50-year period ending Sept. 30, 1940

Month	Olympia (for western Washington)			Waterville (for east-central Washington)		
	50-year average		1942-43	50-year average		1942-43
	Inches	Percent	Percent	Inches	Percent	Percent
October	4.32	8.2	9.0	0.73	6.6	2.4
November	8.47	16.1	24.0	1.45	12.9	28.8
December	9.37	17.8	13.9	1.72	15.6	21.4
January	7.98	15.2	5.9	1.45	13.1	8.5
February	6.40	12.2	10.3	1.20	10.9	4.0
March	5.12	9.7	13.4	.79	7.2	6.9
	41.66	79.2	76.5	7.32	66.3	72.0
April	3.39	6.4	8.9	.69	6.2	4.4
May	2.38	4.5	6.2	.85	7.7	11.0
June	1.58	3.0	3.7	.83	7.5	13.4
July	.62	1.2	.9	.40	3.6	1.1
August	.64	1.2	2.8	.38	3.4	2.0
September	2.35	4.5	.5	.58	5.3	0
	10.96	20.8	23.0	3.73	33.7	31.9
The year	52.62	100.0	99.5	11.05	100.0	103.9

Precipitation and relative wetness at 13 representative climatologic stations in the State of Washington for the year ending Sept. 30, 1943

Province	Station and county <sup>a/</sup>	Precipitation, 1942-43	
		Inches	Percentage of 50-year average, <sup>b/</sup>
Northern Coast Ranges	Port Angeles, Clallam	20.53	91
	Aberdeen, Grays Harbor	80.10	96
Puget-Willamette Trough	Olga, San Juan	24.96	85
	Seattle, King	32.60	100
	Olympia, Thurston	52.31	99
	Vancouver, Clark	47.75	130
Northern Rocky Mountains	Lakeside, Chelan	11.19	105
	Colville, Stevens	12.60	74
	Spokane, Spokane	14.90	98
Columbia Plateau	Ellensburg, Kittitas	9.29	104
	Waterville, Douglas	11.48	104
	Kennewick, Benton	8.43	122
	Walla Walla, Walla Walla	18.07	112

#### SUMMARY OF HYDROLOGIC FEATURES AND OF WATER-LEVEL FLUCTUATIONS

##### Ground-water provinces

The State of Washington spans parts of 4 of the 24 distinctive ground-water provinces into which the United States has been divided by Meinzer.<sup>1/</sup> In succession from the west and north, the provinces in Washington are the Northern Coast Ranges, the Puget-Willamette Trough, the Columbia Plateau, and the Northern Rocky Mountains, the general hydrologic features of each of which are described herein. For the purpose of this report these four provinces are, in turn, divided into 11 subprovinces according to size, climate, topography, and the occurrence of ground water, as shown on figure 5 and as defined specifically in the following paragraphs.

**Northern Coast Ranges.**- Mountainous, heavily forested, and thoroughly drained by many perennial streams. Formed largely by fine-grained sedimentary rocks of Tertiary age that are not freely permeable below the zone of weathering and in general cannot sustain large and continuous withdrawals from wells. Tongues of moderately permeable gravel and sand along the principal streams can sustain wells of large capacity in some places. Terrace deposits along the coast are, in general, well drained, but some are water-bearing. The province is subdivided as follows:

a All stations on lowland or regional plateau; long-term records of precipitation not available for mountain stations.

b Average for water years 1891-1940, each ending Sept. 30.

<sup>1/</sup> Meinzer, O. E., Ground water in the United States, a summary: U. S. Geol. Survey Water-Supply Paper 836-D, pp. 161-164, 1939.

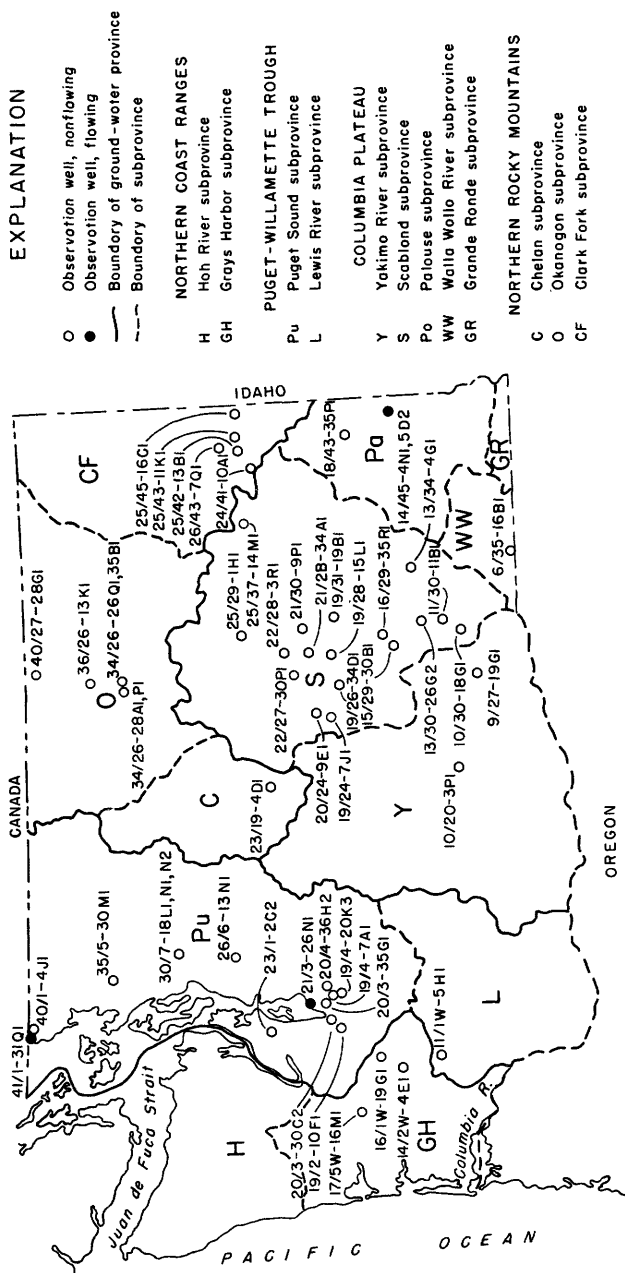


Figure 5.--Map of Washington showing subdivisions of the four ground-water provinces in the State and the location of the observation wells in each.



Hoh River subprovince (H).-- In the northwestern part of the State, south of the Juan de Fuca Strait, comprising the basins of streams that drain (1) to the Pacific Ocean on the west, northward from and including the basin of the Quinault River; (2) to the Juan de Fuca Strait on the north; and (3) generally eastward to the northward reach of Hood Canal.

Grays Harbor subprovince (GH).-- In the extreme southwestern part of the State, comprising the basins of streams that drain (1) westward to the Pacific Ocean, south of the basin of the Quinault River but not including that basin; and (2) southward to the Columbia River, upstream from but not including the basin of the Cowlitz River.

Puget-Willamette Trough.-- Extensive lowland plains, largely of glacial origin, flanked to the east and west by densely timbered mountains. The surface of the plains is underlain by deposits of clay, silt, sand, and gravel, which together are at least 2,300 feet thick at some places. A relatively small part of this material yields water copiously, as at Tacoma, but elsewhere wells put down in it are not, as a rule, highly productive. On the lowest plains along the shore of Puget Sound the deeper wells commonly flow by artesian pressure. In the mountainous parts of the province the rocks are of marine, metamorphic, intrusive, or volcanic origin, and all are relatively impermeable below the surficial detritus. Thus, this terrane acts largely as a catchment area from which a large perennial runoff is discharged to the lowland.

Perennial springs are the most practicable source of water for much of the mountainous area, but most of the larger stream valleys are floored with coarse gravel which, in places where its saturated zone is sufficiently thick, would sustain wells of large capacity. The province is subdivided as follows:

Puget Sound subprovince (Pu).-- In the northwestern part of the State, comprising (1) the San Juan Archipelago and the islands of Puget Sound; (2) the basins of streams that drain the west slope of the Cascade Range from the international boundary southward to and including the

basin of the Nisqually River (reaching to Mount Rainier); and (3) the basins of lowland streams that drain to Puget Sound or generally westward to Hood Canal.

Lewis River subprovince (L).-- In the southwestern part of the State, comprising the basins of streams that drain the west slope of the Cascade Range to the Columbia River, southward from and including the basin of the Cowlitz River.

Columbia Plateau.-- Extensive plains intervening between the many structural ridges and entrenched channels of large streams; flanked on the west by the Cascade Range. Nearly all the plateau is underlain by volcanic rocks, largely the Yakima basalt, in which continental sedimentary rocks are intercalated. In these rocks water-bearing zones differ greatly in thickness, permeability, and extent; consequently the wells have a great range in depth and range in yield from a few gallons to several hundred gallons a minute. In certain structural basins, as in the Cold Creek Valley, deep wells have large artesian flows. Large parts of the plains are veneered by fluvioglacial gravel, which commonly is very permeable but in which the saturated zone in general is thin but in places is thick enough to yield several hundred or even a few thousand gallons of water a minute. The larger enclosed basins commonly are floored by silt, sand, and some gravel, and in places these deposits will yield water freely to wells. The subdivisions of this province are as follows:

Yakima River subprovince (Y).-- In the south-central part of the State, comprising the basins of the Yakima River and adjacent streams, bounded on the west by the crest of the Cascade Range, on the north by the divide between the Yakima and Wenatchee Rivers and between Stemilt and Squillchuck Creeks, and on the east and south by the Columbia River.

Scabland subprovince (S).-- In the east half of the State, substantially coextensive with the so-called Columbia Basin, comprising (1) the basins of minor streams that drain to the left bank of the Columbia River between the Spokane and Snake Rivers and (2) the drainage area

of Snake River below the mouth of the Palouse River. North of the Snake River the eastern boundary of this subprovince is somewhat indefinite in land form; for convenience it is defined to follow the Palouse River upstream to Rock Creek and thence to follow Rock Creek upstream to its divide from Latah Creek, a tributary of the Spokane River, near Spangle.

Palouse subprovince (Pa).- In the southeastern part of the State, comprising the drainage basins of the Snake and Palouse Rivers above their junction, but excluding the right-bank drainages of Palouse River and Rock Creek, its tributary, and excluding also the basin of the Grande Ronde River. As a ground-water area, this subdivision of the Columbia Plateau province extends eastward into Idaho.

Grande Ronde subprovince (GR).- In the extreme southeastern part of the State. Only a small part of this ground-water area, which consists of the basin of the Grande Ronde River, lies in Washington, the larger part being in Oregon.

Walla Walla Basin subprovince (WW).- In the southeastern part of the State, east of Columbia River, consisting of the drainage basin of the Walla Walla River. As a hydrologic unit, this subprovince extends southward into Oregon.

Northern Rocky Mountains. - Ruggedly mountainous almost throughout, and sparsely to heavily timbered. About two-thirds of the province is formed by crystalline intrusive rocks; the remaining third, by sedimentary and metamorphic rocks of marine origin, extrusive volcanics, and some sedimentary rocks of continental origin. Except the extrusive rocks in the western part of the province, which contain some moderately productive zones, most of these rocks hold little water in storage and do not yield it freely to wells. The substantial ground-water bodies of the province occur in tongues of outwash gravel in the principal intermountain valleys; locally, as in the Spokane Valley, this gravel is coarse and clean and

Yields extraordinarily large volumes of water to wells that extend below the water table only a few feet. Deposits of terrace gravel are fairly extensive in certain large valleys, but most of these deposits are drained almost completely and so hold little water in storage. The three subdivisions of the province are as follows:

Chelan subprovince (C).- In the north-central part of the State, substantially coextensive with Chelan County, comprising the right-bank drainage area of the Columbia River from and including the basin of Lake Chelan and its outlet stream to and including the basin of Squilchuck Creek (near Wenatchee).

Okanogan subprovince (O).- In the northeast quarter of the State, comprising the right-bank drainage area of the Columbia River from the international boundary downstream to but excluding the Lake Chelan Basin.

Clark Fork subprovince (CF).- In the extreme northeastern part of the State, comprising the left-bank drainage area of the Columbia River from the international boundary downstream to and including the basin of the Spokane River. This subprovince, as a hydrologic unit, extends eastward into Idaho.

Other data having a bearing on conditions in the four ground-water provinces in Washington make up the first of the two tables that follow. The second table shows, for certain typical areas in three of the provinces, the observed range of water level for the period of record and the net change in water level at the end of 1943.

General features of ground-water provinces in the State of Washington

	Northern Coast Ranges	Puget- Willamette Trough	Columbia Plateau	Northern Rocky Mountains
Approximate land area, in square miles	3,500	15,800	26,700	15,700
Approximate population, in 1940:				
Total	146,000	1,069,000	275,000	245,000
Per square mile	17.2	67.7	10.3	15.6
Altitude of principal urban and agricultural areas, in feet above sea level	0-250	0-600	100-3,900	600-2,800

General features of ground-water provinces in the  
State of Washington--Continued

	Northern Coast Ranges	Puget- Willamette Trough	Columbia Plateau	Northern Rocky Mountains
Yearly climate <u>a/</u>	Superhumid to humid	Superhumid to humid	Moist sub- humid to arid	Moist sub- humid to semiarid
Average yearly rainfall in inches <u>b/</u>	17-129	<u>c/</u> 32-122	<u>d/</u> 6-26	10-60
Yearly mean temperature, in °F. <u>b/</u>	47.3-51.1	37.9-52.6	<u>d/</u> 44.6-55.1	41.8-50.3

a Atlas of climatic types in the United States, 1900-1939; U. S. Dept. Agr. Misc. Pub. 421, pl. 3, pp. 2-4, 1941.

b From publications of U. S. Weather Bureau. Stations largely on lowlands; certain mountainous areas probably receive more rainfall and have lower temperature than indicated.

c Mainland only; rainfall on island stations as little as 19 inches.

d 7 highland stations above and along margin of the plateau not included.

Summary of year-end water levels in certain areas in the State of  
Washington, 1942-43

	Number of obs- ervation wells	Length of water- level records (years)	Observed range of water level (feet for period of record)	Year-end levels, 1943	
				Above (+) or below (-) year- end level (average, in feet)	Above lowest of record (average, in percent of observed range)
Puget-Willamette Trough					
Pierce County, Tacoma area:					
One long-term and nine	1	36	4.41	-0.12	29
short-time records for	9	4-6	1.74-13.89	-.74	21
wells tapping regional					
water body in glacial					
deposits.					
Columbia Plateau province					
Adams, Franklin, and Grant					
Counties; Columbia Basin:					
Wells tapping sand and					
gravel	11	2-5	.54-21.1	-.15	35
Wells tapping basalt	10	4-6	.72-14.4	-.14	64
Whitman County, Palouse					
River area:					
Water-table wells tapping					
semipерched or perched					
water	11	9	5.10-20.86	a +2.40	40
Artesian wells tapping					
the basalt	3	8	7.34-8.66	b -1.00	0
Northern Rocky Mountains					
Spokane County, Spokane					
Valley:					
Wells in outwash gravel--					
four intermediate-term					
records in area of					
influent ground water;	4	13-18	12.96-20.12	+ .90	35
three long-term and	3	27-32	16.0-21.8	-.96	36
eight intermediate-term	8	13-18	10.92-19.8	-.60	21
records in area of effluent					
ground water.					

a Net change during the water year ending Sept. 30, 1943.

b Record low in 1943; two wells only.

Areas of intensive investigation

## Tacoma area, Puget Sound subprovince

The Tacoma area covers about 400 square miles in Ts. 16 to 21 N., Rs. 1 to 5 E., in Pierce County; it is part of the larger area, consisting of plains of glacial origin, that lies between the west flank of the Cascade Mountains and Puget Sound. It extends from Puget Sound southward to include the Ohop Valley and from the Nisqually River eastward to include the valleys of the Puyallup and Stuck Rivers. Its productive bodies of ground water occur in tongues of sand and gravel in the alluvium of the Puyallup and Stuck Valleys, and in the glacial drift on the interstream uplands.

On the upland part of the Tacoma area, which is the part lying between the Nisqually and Puyallup Rivers, the recharge to the ground-water bodies is directly from rain falling on the surface. Only two perennial streams cross this upland surface, and these are largely spring-fed. The greater part of the rainfall not lost by evaporation or absorbed by vegetation percolates to the water table and ultimately feeds the many springs that issue along and near the margins of the upland.

Ground-water fluctuations in wells in the upland reflect closely the variations in seasonal and annual rainfall, although the time lag differs with the well. Almost no lag occurs in shallow dug wells that tap perched water bodies, but as much as 6-months' lag has been observed in some of the deeper wells that tap the regional water table under a local capping of thick glacial till.

Wells on the flood plain of the Puyallup River reflect principally the change in stage of the river, which is affected by the runoff from rainfall and snowmelt on the Cascade Mountains.

Measurements of water level in observation wells in the Tacoma area were begun by the Geological Survey in September 1937 in connection with an investigation conducted in cooperation with the Department of Public Utilities of the City of Tacoma, to determine the availability of ground-water supplies for municipal use. Through 1942, measurements were made about once a month in all observation wells and more frequently in some, but in 1943 both the number of wells and the frequency of measurements were reduced considerably, because the detailed investigation had been completed. Water-level records for all the wells are given in this report,

for most of the wells for the first time, and they include records made by the city of Tacoma prior to 1937.

Ground-water levels in the Tacoma area have shown an over-all decline since measurements were begun in 1937, in spite of the fact that in most wells the levels were higher in the spring of 1943 than at any time since 1939. By the end of 1943 they had receded, however, and were lower than at the end of 1942, owing to lack of rainfall in November and December. The following table summarizes briefly the average water-level fluctuations in wells in the area.

Rise since low of 1942			Decline from high of late 1942 or early 1943			Average net decline
Greatest	Least	Average	Greatest	Least	Average	
16.52	0.29	5.10	16.65	1.10	5.38	0.28

Columbia Basin, Columbia Plateau province

In 1943 the observation-well program in the area covered by the Columbia Basin project in Adams, Franklin, and Grant Counties was continued on a reduced scale in cooperation with the Washington State Department of Conservation and Development. During the year measurements were made in 26 observation wells, in 20 of them at intervals of 2 to 4 months. In addition, one float gage, which was read bimonthly, was equipped to record the highest and the lowest water levels between measurements. Float gages that had previously been installed in three wells were read at about weekly intervals. On two other wells continuous water-stage recorders were maintained until the middle of December and then removed.

The preceding summary table of year-end water levels shows an average net decline of 0.15 foot for this area during 1943. In individual wells the net yearly change ranged from a rise of 2.94 feet to a decline of 2.51 feet, both extremes occurring in wells tapping basalt. There appears to be a tendency for net declines to occur in wells that are near bodies of surface water, either lakes or intermittent streams.

Spokane Valley, Northern Rocky Mountains province

The water-level program begun several years ago in the Spokane Valley in Washington and the contiguous Rathdrum Prairie area in Idaho was continued during 1943 in cooperation with the Washington State Department of Conservation and Development. It was somewhat reduced in scope, however.

A brief description of this program is given in a recently published report.<sup>2/</sup> A general account of the occurrence and movement of the ground-water in the Spokane Valley and the Rathdrum Prairie area is given in the annual water-level report for 1942.<sup>3/</sup>

The summary table of year-end water levels indicates an average net decline in 1943 of 0.70 foot in 11 wells that are west of the longitude at which the water table merges with the Spokane River and that are in the area of effluent ground water that sustains the low flow of the river. Late in the year the river stage was uncommonly low, and therefore, as the water-level measurements indicate, ground-water storage in the effluent area was depleted in 1943 to a greater degree than usual. However, to the east, in the area of potential recharge, which extends far into Idaho, ground-water storage increased during 1943.

Records of wells in the Rathdrum Prairie area may be found in the Idaho section of this volume, under Bonner and Kootenai Counties.

#### Palouse River area, Columbia Plateau province

The observation-well program in the basin of the South Fork of the Palouse River in Whitman County was continued in 1943, but its scope was reduced from the previous year. Measurements were made, by personnel of the U. S. Soil Conservation Service Experiment Station near Pullman, in 12 water-table wells in the area. The Geological Survey measured water levels in three artesian and two water-table wells near Pullman and in one artesian well at Steptoe.

Among 11 water-table wells measured by the Soil Erosion Experiment Station in October 1942 and again in October 1943, the water level rose during 1943 in 8 wells and declined in 3 wells. For all 11 wells the average rise was 2.40 feet. Conditions then prevailing made it necessary for the Experiment Station to discontinue water-level measurements in its water-table wells as of October 1943.

In two of the three artesian wells near Pullman, the water level declined an average of 1.00 foot during 1943, and the record for the third well, which is incomplete, suggests an even greater decline. In the

<sup>2/</sup> Piper, A. M., and La Rocque, G. A., Jr., Water-table fluctuations in the Spokane Valley and contiguous area, Washington-Idaho: U. S. Geol. Survey Water-Supply Paper 839-B, pp. 83-139, 1944.

<sup>3/</sup> Meinzer, O. E., and Wenzel, L. K., Water levels and artesian pressure in observation wells in the United States in 1942, Part 5, Northwestern States: U. S. Geol. Survey Water-Supply Paper 948, pp. 129-132.



artesian well at Steptoe the water level declined 0.64 foot. These declines show a continuation of the downward trend of the confined-water level in the area during the past several years.

#### WELL-NUMBERING SYSTEM

The numbers herein assigned to observation wells in Washington show the locations of those wells according to the rectangular system for subdivision of public land. For example, in the number 20/2-13J1, the part that precedes the hyphen indicates the township and range (T. 20 N., R. 2 E.). The one or two digits following the hyphen indicate the section (sec. 13), and the letter indicates the 40-acre subdivision of the section

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

as shown in the accompanying diagram. Within each 40-acre tract the wells are numbered serially, as indicated by the final digit of the number. Thus, well 13J1 is the first well to be listed in the NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13. All townships in Washington are referred to and lie north of the Willamette base line; the ranges refer to the Willamette meridian, but some lie east of it and some west. As the part of the State east of this meridian is the larger part, the numbers of the wells in that part are written as in the foregoing example. In the numbers of the wells that lie west of this meridian, the letter W is added after the digit indicating the range, and the number therefore takes the following form: 8/2W-28D3.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adams County

## Columbia Basin

15/29-30B1 (\*940, p. 139; 948, p. 135). Herman R. Kuhn. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 15 N., R. 29 E. Taps water in basalt. Water level influenced principally by precipitation. Land-surface datum is about 859 feet above mean sea level.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 12	155.05	June 9	154.74	Oct. 16	154.65
Apr. 8	154.39	Aug. 16	154.64		

16/29-35R1 (\*940, p. 140; 948, p. 135). Kathryn D. Tate. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 16 N., R. 29 E. Taps water in basalt. Water level influenced principally by precipitation. Land-surface datum is about 1,117 feet above mean sea level.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 12	304.27	June 9	302.04	Dec. 16	301.34
Apr. 8	302.67	Oct. 16	301.14		

19/31-19B1 (\*940, p. 140; 948, p. 135). Barbara Dormaier. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 19 N., R. 31 E. Taps water in basalt. Water level influenced principally by precipitation. Land-surface datum is about 1,117 feet above mean sea level.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 12	184.63	June 9	184.28	Dec. 16	184.37
Apr. 7	184.32	Aug. 15	184.24		

Benton County

## Yakima River Basin

9/27-19G1. Frank Decker. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 9 N., R. 27 E., in Kiona, about 100 feet north of U. S. Highway 410 and 300 feet northeast of highway underpass of Northern Pacific Railway. Dug domestic well, 4 feet square, depth 27 feet, with 36-inch open-bottom concrete-tile casing. Equipped with turbine pump. Taps unconfined water in terrace gravel between 23 and 27 feet below land surface. Measuring point, top inside edge of concrete floor at east side of well, 7.00 feet below land-surface datum. Land-surface datum is about 502 feet above mean sea level.

## Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Oct. 2, 1940	14.62	Dec. 2, 1941	14.68	Oct. 20, 1942	14.67
Dec. 26	14.76	Feb. 3, 1942	15.04	Dec. 9	14.57
Mar. 28, 1941	15.10	Apr. 7	15.53	Feb. 10, 1943	14.66
June 2	14.64	June 5	14.41	June 10	13.24
Aug. 11	14.73	Aug. 12	14.69	Dec. 19	14.66
Oct. 3	14.67				

Chelan County

## Wenatchee River Basin

23/19-4D1. City of Cashmere well 1. (U. S. 69). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 23 N., R. 19 E., in Cashmere, about 175 feet south and 900 feet west from intersection of Division and River Streets, in brick pump house at rear of former city hall. Dug public-supply well, diameter 20 feet, depth 35 feet, with open-bottom concrete casing seated on bedrock. Equipped with turbine pump, capacity 650 gallons a minute. Beginning July 17, 1940, pump equipped with automatic switch to operate 2 hours, then rest 3 hours, alternately. Taps water in gravel in terrace deposit of Wenatchee River. Measuring point, inner lip of 2-foot square manhole opening, on north side, 0.06 foot below concrete floor, at land-surface datum. Land-surface datum is about 780 feet above mean sea level. Readings from floatgage by city water superintendent, as follows: Nov. 9, 1938, to July 17, 1940, ordinarily between 8 and 10 a.m. daily; thereafter until Apr. 23, 1942, at irregular intervals; since Aug. 14, 1942, during nonpumping interval each morning. Water level commonly depressed somewhat by residual draw-down at time of reading and may be influenced by withdrawals from city wells 2 (about 400 feet west-southwest), 3 (about 750 feet nearly south), and 4 (about 700 feet south-southeast).

## Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Nov. 9, 1938	ab 19.14	May 10, 1939	12.64	Nov. 10, 1939	13.69
15	13.13	15	13.14	15	13.26
20	13.58	17	12.22	19	13.31
25	12.90	20	10.92	25	13.03
27	12.34	23	10.59	28	12.90
Dec. 1	13.05	25	11.34	Dec. 1	12.84
5	13.09	28	11.94	5	12.62
10	12.83	June 1	11.88	10	13.27
15	12.92	5	12.81	14	a 12.60
20	12.97	10	13.39	14	12.43
25	13.05	10	ab 20.20	20	12.51
28	12.96	15	13.23	25	12.65
31	13.29	20	12.86	28	12.66
Jan. 1, 1939	13.20	25	12.37	Jan. 1, 1940	12.80
5	12.71	28	14.70	5	13.46
10	13.00	July 1	14.16	10	13.23
15	13.30	5	13.49	15	13.24
20	13.13	10	14.27	20	13.31
24	ac 14.39	14	14.47	25	13.38
25	13.27	16	12.95	28	13.90
28	13.25	19	13.05	Feb. 1	13.33
Feb. 1	14.24	24	14.66	5	13.58
5	c 15.03	Aug. 27	11.47	9	13.64
10	13.96	Sept. 1	15.60	14	12.96
15	13.75	4	14.96	15	13.14
20	13.59	7	15.53	18	12.98
25	13.35	10	15.75	Mar. 9	11.76
Mar. 1	13.19	15	15.74	18	13.07
5	13.15	19	16.24	26	11.99
10	13.21	19	ab 26.61	29	11.46
15	13.37	22	16.24	Apr. 2	12.03
20	13.05	25	17.15	5	12.99
25	12.69	28	17.03	10	12.37
28	12.23	Oct. 1	15.97	15	13.07
Apr. 1	12.15	5	15.85	20	12.86
5	12.19	10	14.86	22	13.06
10	12.34	15	14.81	25	11.55
15	12.60	20	14.38	28	11.26
20	13.65	25	14.24	May 1	11.83
25	12.77	28	14.03	5	11.02
May 1	12.83	Nov. 1	13.89	10	11.03
5	11.85	5	13.72	10	ac 21.09

a Measured by Geological Survey.

b Pumping.

c Depressed by residual draw-down.

23/19-4D1. City of Cashmere well 1--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
May 15, 1940	11.03	May 28, 1941	13.80	Apr. 15, 1942	13.97
20	11.62	June 1	13.62	20	14.93
25	11.54	4	14.44	23	14.63
28	11.52	7	ab 27.55	June 3	ab 25.66
June 1	11.01	July 1	15.39	Aug. 14	ab 25.18
3	10.49	8	17.43	17	14.96
5	11.55	14	15.17	22	17.37
8	11.49	24	16.25	25	18.15
10	12.10	Aug. 4	14.72	31	18.56
12	12.82	5	ab 23.83	Sept. 5	19.09
15	12.85	8	16.47	10	17.02
20	12.93	12	18.58	15	17.34
23	12.87	19	20.87	20	16.94
25	13.60	Sept. 8	15.66	23	18.19
July 1	13.55	14	15.71	26	19.84
5	13.66	20	16.86	30	19.25
10	13.87	25	17.80	Oct. 3	18.18
12	14.53	29	16.86	5	19.29
15	14.74	Oct. 2	18.35	10	19.66
Aug. 4	12.8	6	17.94	13	18.70
11	15.19	10	17.93	13	ab 26.36
18	15.15	15	18.07	15	18.81
25	16.0	21	18.48	17	18.34
27	15.55	27	18.63	20	17.98
30	16.89	31	18.82	23	18.11
Sept. 4	16.66	Nov. 6	18.60	26	17.52
8	16.24	12	17.60	31	16.73
29	20.9	18	18.95	Nov. 5	16.84
Oct. 10	a 21.24	25	19.37	10	16.11
14	16.83	Dec. 2	19.76	15	15.89
22	17.16	5	19.42	20	15.71
31	16.41	5	ac 24.62	25	15.37
Nov. 3	15.77	9	18.09	30	14.84
16	15.32	13	17.79	Dec. 3	14.69
23	14.46	17	17.03	8	14.73
Dec. 17	15.03	20	17.48	12	14.68
31	ac 15.54	22	16.61	16	16.02
Jan. 8, 1941	16.17	26	18.08	21	15.44
17	15.60	29	17.66	26	14.61
26	16.53	Jan. 2, 1942	18.74	31	14.86
29	16.08	10	17.25	Jan. 1, 1943	14.88
Feb. 11	16.29	15	16.97	7	15.22
20	16.66	21	15.81	15	15.56
Mar. 2	16.24	26	16.10	17	15.26
10	16.15	Feb. 3	15.49	Feb. 1	13.70
16	17.62	6	15.49	4	13.53
18	15.89	9	14.72	10	13.69
20	15.89	9	ac 25.20	16	14.14
24	ab 18.25	14	15.96	21	14.20
26	16.32	20	15.71	25	14.30
30	15.40	25	15.09	Mar. 1	14.00
Apr. 1	15.49	28	15.46	6	14.18
6	14.79	Mar. 2	15.13	10	14.48
15	14.60	6	15.81	13	14.73
20	15.77	10	16.37	19	15.16
25	15.09	14	15.06	24	15.27
29	15.46	20	15.79	27	15.07
May 1	14.24	25	15.43	31	14.56
5	13.15	31	16.85	Apr. 5	14.40
7	13.55	Apr. 2	15.47	10	13.27
11	15.16	6	15.24	15	13.32
15	14.38	9	15.39	20	12.07
20	15.06	9	ac 23.91	23	12.50
25	15.24	13	14.88	28	13.35

a Measured by Geological Survey.

b Pumping.

c Depressed by residual draw-down.

23/19-4D1. City of Cashmere well 1--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
May 5, 1943	13.20	July 18, 1943	13.40	Oct. 15, 1943	12.91
13	13.07	22	13.00	21	12.66
17	12.96	28	13.45	24	12.72
22	13.19	Aug. 2	13.60	Nov. 1	12.61
26	12.06	8	12.50	5	12.62
June 1	11.84	15	14.29	10	12.51
5	11.93	20	13.92	15	12.56
8	10.86	24	12.31	20	12.59
12	10.64	30	13.01	24	12.91
15	10.63	Sept. 6	13.57	30	12.96
18	10.65	11	13.56	Dec. 5	12.72
22	10.96	15	13.78	10	12.89
26	10.85	20	13.40	15	12.94
July 1	11.87	26	13.83	19	13.05
5	11.89	Oct. 1	13.37	25	13.20
11	11.66	4	13.35	31	13.80
15	12.53	9	13.88		

Franklin County

## Columbia Basin

9/29-25D1 (\*948, p. 135). Owner unknown. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 25, T. 9 N., R. 29 E. Taps water in gravel of terrace deposit of Columbia River. Land-surface datum is about 365 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Feb. 11	37.47	June 9	32.91	Oct. 16	33.29
Apr. 8	37.74	Aug. 16	32.13	Dec. 15	35.02

9/30-19F1 (\*940, p. 140; 948, p. 136). Owner unknown. SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 9 N., R. 30 E. Taps water in stream gravel. Water level affected by changes in stage of Columbia River, 1.5 miles distant. Land-surface datum is about 375 feet above mean sea level. No measurements made in 1943; measurements discontinued.

10/30-18G1 (\*940, p. 140; 948, p. 136). J. L. DeForce. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 10 N., R. 30 E. Taps water in basalt. Water level influenced principally by precipitation. Land-surface datum is about 525 feet above mean sea level. Water levels, in feet below land-surface datum, 1943: Apr. 8, 182.35; June 9, 182.20; Aug. 16, 181.94; Oct. 16, 181.95.

11/30-11B1 (\*940, p. 141; 948, p. 136). Northern Pacific Railway. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 11 N., R. 30 E. Taps water in glacial-outwash gravel. Water level affected by infiltration from runoff in Esquatzel Coulee. Land-surface datum is about 594 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Feb. 11	112.40	June 9	112.22	Oct. 16	111.90
Apr. 8	112.37	Aug. 16	112.04	Dec. 15	111.86

13/30-26G2 (\*940, p. 141; 948, p. 136). M. M. Poe. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 13 N., R. 30 E. Taps water in glacial-outwash gravel. Water level affected by nearby pumping and by infiltration from runoff in Esquatzel Coulee. Land-surface datum is about 667 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Feb. 11	27.29	June 9	27.21	Oct. 16	27.32
Apr. 8	27.31	Aug. 16	27.25	Dec. 15	27.39

13/32-10A1. Owner unknown. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 13 N., R. 32 E., about 2 miles south and 4 miles east of Connell, approximately 600 feet south of secondary State Highway 11B, on crest of hill, between four concrete footings of former windmill tower. Abandoned drilled stock and domestic well, diameter 6 inches, depth 276 feet. Taps water in basalt. Measuring point, top of casing, 2.00 feet below land-surface datum. Land-surface datum is about 1,140 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 11	254.06	June 9	253.93	Oct. 16	253.95
Apr. 8	253.97	Aug. 16	253.93	Dec. 15	253.70

13/34-4G1. City of Kahlotus. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4, T. 13 N., R. 34 E., in Kahlotus, about 250 feet north of Union Pacific Railroad station, about 150 feet north and 50 feet east of T-junction of State Highway 11-B and county road north, in corrugated-steel pump house. Dug public-supply well, 4 feet square, depth 53 feet, with open-bottom concrete casing. Equipped with turbine pump, capacity 100 gallons a minute. Taps water in gravel deposit in Washtucna Coulee. Measuring point, top inside edge of concrete curb, north side, at land-surface datum. Land-surface datum is about 900 feet above mean sea level. Measured about quarterly beginning Oct. 12, 1938. Range between lowest and highest nonpumping levels measured 1938-43, 2.1 feet; draw-down 1.7 feet when pumping 75 to 100 gallons a minute for 20 minutes.

Water level, in feet below land-surface datum, 1938-43

Oct. 12, 1938	46.62	Mar. 28, 1941	a 48.92	Aug. 12, 1942	a 50.52
Nov. 17	46.35	June 3	a 49.44	Oct. 19	ac 50.17
Jan. 14, 1939	46.18	Aug. 9	48.12	Dec. 9	a 49.78
June 6	47.05	Oct. 4	47.77	Feb. 11, 1943	47.30
Sept. 14	48.03	Dec. 2	a 49.47	June 9	a 50.07
Dec. 9	a 49.22	Feb. 3, 1942	a 49.06	Aug. 16	a 49.16
May 6, 1940	b 47.87	Apr. 7	46.93	Oct. 16	a 50.00
Oct. 2	48.32	June 5	a 49.67	Dec. 15	46.84
Dec. 28	47.45				

18/28-34H1 (\*940, p. 141). Eugene Pfeffer. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 13 N., R. 30 E. Taps water in basalt. Land-surface datum is about 1,075 feet above mean sea level. Measurements discontinued.

19/24-2D1 (\*948, p. 136). Mary Stepon. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 19 N., R. 24 E. Taps water in basalt. Land-surface datum is about 1,228 feet above mean sea level. No measurements made in 1943; measurements discontinued.

#### Grant County

##### Columbia Basin

18/30-34M1. Owner unknown. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 18 N., R. 30 E., about 2 miles north of Warden, and 175 feet east of county road, in open field. Remnants of windmill tower rise to 3 feet above land surface. Abandoned drilled well, diameter 6 $\frac{1}{2}$  inches, depth 147 feet. Probably taps water in basalt. Measuring point, top of coupling on casing, 0.40 foot above land-surface datum. Land-surface datum is about 1,175 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Feb. 12	103.32	June 9	102.53	Oct. 16	102.35
Apr. 7	102.80	Aug. 15	102.31	Dec. 16	102.50

a Pumping.

b Pump stopped 5 minutes before measurement.

c Water level recovered 1.58 feet in 14 minutes after pump stopped.

19/24-7J1 (\*940, p. 141; 948, p. 136). E. J. Hutton. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 19 N., R. 24 E. Taps water in basalt. Water level influenced principally by precipitation. Land-surface datum is about 1,255 feet above mean sea level.

Water level, in feet below land-surface datum, 1943  
(From "high-low" float gage; undated entries indicate highest and lowest levels between observations)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	170.47	June 8	169.84	Aug. 16	169.94	Dec. 17	169.77
	168.97		169.87		169.69		170.63
	170.80		169.68		170.31		170.44
Apr. 1	169.87		170.27	Oct. 15	170.09		

19/26-6A1 (\*948, p. 137). D. E. Bell. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 19 N., R. 26 E. Taps water in sand. Land-surface datum is about 1,201 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/26-18Q1 (\*948, p. 137). L. C. Lauzier. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 19 N., R. 26 E. Taps water in sand. Land-surface datum is about 1,187 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/26-20A1 (\*948, p. 137). Ellen C. Law and Ina Law Robertson. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 19 N., R. 26 E. Taps water in sand. Land-surface datum is about 1,22 $\frac{1}{2}$  feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/26-21A1 (\*948, p. 137). Carl H. Olson. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 19 N., R. 26 E. Taps water in sand. Land-surface datum is about 1,22 $\frac{1}{2}$  feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/26-30K1 (\*948, p. 137). Columbia Basin Landowners, Inc. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 19 N., R. 26 E. Land-surface datum is about 1,191 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/26-34D1 (\*940, p. 142; 948, p. 138). F. H. Bordwell. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 19 N., R. 26 E. Taps water in sand in Pleistocene? lake deposit. Land-surface datum is about 1,169 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 13	92.26	June 8	92.22	Oct. 14	92.33
Apr. 1	92.25	Aug. 14	92.31	Dec. 17	92.28

19/27-8A1 (\*948, p. 138). Oscar F. Etzcorn. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 19 N., R. 27 E. Land-surface datum is about 1,090 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/27-8C1 (\*948, p. 138). George E. Spaulding. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 19 N., R. 27 E. Taps water in basalt. Land-surface datum is about 1,139 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 13	67.03	June 9	69.44	Oct. 14	69.07
Apr. 1	66.34	Aug. 14	71.86	Dec. 17	67.09

19/27-16N1 (\*948, p. 138). M. R. Steele. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 19 N., R. 27 E. Taps water in glacial-outwash gravel. Land-surface datum is about 1,094 feet above mean sea level. Automatic water-stage recorder removed Dec. 16, 1943.

Water level at noon, in feet below land-surface datum, 1943  
(Selected levels, from recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	67.77	Jan. 31	67.77	Feb. 25	67.72	Mar. 20	67.63
10	67.78	Feb. 5	67.74	28	67.70	25	67.60
15	67.74	10	67.73	Mar. 5	67.68	31	67.58
20	67.71	15	67.75	10	67.66	Apr. 5	67.54
25	67.77	20	67.73	15	67.64	10	67.52

19/27-16N1. M. R. Steele--Continued.

Water level at noon, in feet below land-surface datum, 1943  
(Selected levels, from recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	67.49	June 20	67.65	Aug. 20	68.01	Oct. 20	67.99
20	67.47	25	67.63	25	68.01	25	68.01
25	67.46	30	67.63	31	67.99	31	68.04
30	67.45	July 5	67.80	Sept. 5	68.02	Nov. 5	68.06
May 5	67.48	10	67.79	10	67.98	10	68.07
10	67.55	15	67.79	15	68.02	15	68.09
15	67.60	20	67.88	20	68.05	20	68.09
20	67.67	25	67.90	25	68.06	25	68.12
25	67.67	31	67.92	30	68.07	30	68.10
31	67.71	Aug. 5	67.95	Oct. 5	68.07	Dec. 5	68.14
June 5	67.72	10	67.96	10	68.06	10	68.16
10	67.78	15	67.97	15	68.05	15	68.17
15	67.69						

19/27-20R1 (\*948, p. 138). National Bank of Commerce. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 19 N., R. 27 E. Taps water in glacial-outwash gravel. Land-surface datum is about 1,059 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/27-26C1 (\*948, p. 139). George Foster. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 19 N., R. 27 E. Taps water in glacial-outwash gravel and in basalt. Land-surface datum is about 1,108 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/28-6C1 (\*948, p. 139). I. J. Corliss. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 19 N., R. 28 E. Taps water in glacial-outwash gravel. Land-surface datum is about 1,073 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/28-7C1 (\*948, p. 139). Owner unknown. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 19 N., R. 28 E. Taps water in glacial-outwash gravel. Land-surface datum is about 1,073 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/28-15L1 (\*940, p. 142; 948, p. 139). Owner unknown. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 19 N., R. 28 E. Taps water in fluvio-glacial deposit. Land-surface datum is about 1,104 feet above mean sea level. Water level affected by changes in stage of Moses Lake.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 12	58.85	June 8	a 60.29	Oct. 14	60.44
Apr. 7	59.95	Aug. 14	60.18	Dec. 16	59.85

19/28-22G1 (\*948, p. 139). Frank W. Lees. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 19 N., R. 28 E. Taps water in glacial-outwash gravel. Water level affected by changes in stage of Moses Lake. Land-surface datum is about 1,070 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

(From float-gage readings by owner)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	24.28	Apr. 7	b 25.40	July 4	25.63	Oct. 10	26.15
10	24.23	11	25.40	11	25.78	14	b 27.05
17	24.22	18	25.40	18	25.80	17	26.35
24	24.14	25	25.38	25	25.95	24	26.21
31	24.07	May 2	25.39	Aug. 8	26.00	31	26.14
Feb. 7	24.07	9	25.39	14	b 26.12	Nov. 7	26.10
12	b 24.38	16	25.40	23	26.25	14	26.03
14	24.60	23	25.42	30	26.29	21	25.95
21	25.41	30	25.40	Sept. 5	26.17	Dec. 5	25.81
28	25.45	June 6	25.51	12	26.15	12	25.76
Mar. 7	25.41	13	25.61	19	26.02	16	b 25.73
14	25.41	20	25.48	26	26.14	24	25.66
21	25.39	27	25.58	Oct. 3	26.15	26	25.73
28	25.38						

a Pumping.

b Measured by Geological Survey.



19/29-2A1 (\*948, p. 140). J. J. Phillips. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 2, T. 19 N., R. 29 E. Taps water in gravel. Land-surface datum is about 1,227 feet above mean sea level. No measurements made in 1943; measurements discontinued.

19/29-36J1 (\*940, p. 142; 948, p. 140). H. A. Klussman. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 19 N., R. 29 E. Taps water in basalt. Land-surface datum is about 1,270 feet above mean sea level. No measurements made in 1943; measurements discontinued.

20/24-9E1 (\*940, p. 142; 948, p. 140). W. E. Huff. Formerly owned by Wenatchee Apple Land Co. NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 20 N., R. 24 E. Taps water in basalt. Water level affected by pumping in 4 irrigation wells located 0.25 mile northeast, 0.30 mile northwest, 0.50 mile west, and 0.30 mile southwest. Land-surface datum is about 1,270 feet above mean sea level. Water levels, in feet below land-surface datum, 1943: Feb. 13, 266.55; Apr. 1, 265.22; June 8, 267.05.

20/24-15D1 (\*948, p. 140). Herbert S. Remple. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 20 N., R. 24 E. Taps water in basalt. Land-surface datum is about 1,272 feet above mean sea level. No measurements made in 1943; measurements discontinued.

20/26-18R1 (\*940, p. 143; 948, p. 140). D. J. Miles. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 20 N., R. 26 E. Probably taps water in basalt. Land-surface datum is about 1,246 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 1	162.33	Aug. 14	162.36	Dec. 17	162.27
June 9	162.19	Oct. 15	162.19		

20/26-20R1 (\*948, p. 140). L. C. Lauzier. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 20 N., R. 26 E. Taps water in gravel. Land-surface datum is about 1,223 feet above mean sea level. No measurements made in 1943; measurements discontinued.

20/23-10D1 (\*948, p. 140). Federal Land Bank. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 20 N., R. 28 E. Taps water in glacial-outwash gravel and in basalt. Land-surface datum is about 1,121 feet above mean sea level. No measurements made in 1943; measurements discontinued.

20/28-15F1 (\*948, p. 141). County of Grant. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 20 N., R. 28 E. Taps water in glacial-outwash gravel and in basalt. Land-surface datum is about 1,106 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Feb. 12	19.86	June 8	7.94	Oct. 14	16.59
Apr. 7	20.53	Aug. 14	13.18	Dec. 16	18.63

20/30-30J1 (\*948, p. 141). Fred Schmauder. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 20 N., R. 30 E. Taps water in basalt. Land-surface datum is about 1,507 feet above mean sea level. No measurements made in 1943; measurements discontinued.

21/26-3H1 (\*940, p. 143; 948, p. 141). Sivert Andersen. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T. 21 N., R. 26 E. Taps water in basalt. Water level affected by pumping in two irrigation wells located 0.25 mile north and 0.50 mile south. Land-surface datum is about 1,231 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Feb. 14	131.33	June 9	a 137.28	Oct. 14	a 140.10
Apr. 1	a 132.81	Aug. 15	a 139.89	Dec. 18	a 133.98

21/27-4K1 (\*948, p. 141). Casey Bonthieus. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 21 N., R. 27 E. Taps water in glacial-outwash gravel and in basalt. Land-surface datum is about 1,223 feet above mean sea level. No measurements made in 1943; measurements discontinued.

a Nearby well pumping.

21/28-34A1 (\*940, p. 143; 948, p. 141). Arabella E. Bunnell. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 21 N., R. 28 E. Taps water in basalt. Water level influenced principally by precipitation. Automatic water-stage recorder removed Dec. 16, 1943. Land-surface datum is about 1,265 feet above mean sea level.

Water level at noon, in feet below land-surface datum, 1943  
(Selected levels, from recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	94.01	Apr. 5	93.98	June 30	93.93	Sept. 25	94.32
10	94.08	10	94.08	July 5	93.97	30	94.49
15	93.88	15	93.97	10	93.93	Oct. 5	94.51
20	93.70	20	93.95	15	93.94	10	94.47
25	94.04	25	94.10	20	93.89	15	94.62
31	94.11	30	94.11	25	93.94	20	94.59
Feb. 5	93.98	May 5	94.09	31	93.85	25	94.74
10	94.03	10	94.06	Aug. 5	93.89	31	94.90
15	94.14	15	94.03	10	93.90	Nov. 5	94.92
20	94.07	20	94.04	15	93.89	10	94.98
25	94.14	25	94.00	20	93.89	15	95.02
28	94.03	31	93.91	25	93.98	20	94.96
Mar. 5	94.04	June 5	94.01	31	94.06	25	95.07
10	94.00	10	93.97	Sept. 5	94.19	30	94.93
15	94.04	15	94.05	10	94.19	Dec. 5	95.09
20	94.06	20	93.98	15	94.27	10	95.16
25	94.02	25	93.97	20	94.30	15	95.18
31	94.01						

21/30-9P1 (\*940, p. 143; 948, p. 142). Owner unknown. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 21 N., R. 30 E. Taps water in basalt. Water level influenced principally by precipitation. Land-surface datum is about 1,648 feet above mean sea level. Water levels, in feet below land-surface datum, 1943: Apr. 7, 201.55; June 9, 201.59; Aug. 15, 201.54; Oct. 15, 201.63; measurements discontinued.

22/27-23R1 (\*948, p. 142). E. W. Short. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 23, T. 22 N., R. 27 E. Taps water in glacial-outwash gravel and in basalt. Land-surface datum is about 1,195 feet above mean sea level. No measurements made in 1943; measurements discontinued.

22/27-29R1 (\*943, p. 142). Hugh Craigie. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29, T. 22 N., R. 27 E. Taps water in basalt. Land-surface datum is about 1,229 feet above mean sea level. No measurements made in 1943; measurements discontinued.

22/27-30P1 (\*948, p. 142). L. W. Beasley. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 22 N., R. 27 E. Taps water in basalt. Land-surface datum is about 1,154 feet above mean sea level.

Water level, in feet below land-surface datum, 1943  
(From float-gage readings by owner)

Jan. 4	47.05	Apr. 1	a 47.64	June 28	50.54	Sept. 20	48.48
11	47.88	5	47.58	July 5	49.36	27	48.32
18	47.68	12	47.64	12	48.99	Oct. 4	46.53
25	47.35	19	47.66	19	48.75	11	46.45
Feb. 1	47.63	26	47.67	26	48.59	14	a 46.90
8	48.09	May 3	48.77	Aug. 2	48.59	18	46.58
13	a 48.43	10	48.28	9	48.59	25	46.63
15	48.95	17	50.13	15	a 48.54	Nov. 1	46.89
22	47.96	24	50.33	16	48.53	8	46.98
Mar. 1	47.75	31	50.34	23	48.54	15	47.07
8	47.63	June 7	50.53	30	48.59	Dec. 13	a 47.46
15	47.63	9	a 50.53	Sept. 6	48.66	20	47.49
22	47.60	14	50.56	13	48.57	27	47.53
29	47.54	21	50.19				

a Measured by Geological Survey.

22/28-3R1 (\*940, p. 144; 948, p. 142). Riley Parsons. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 22 N., R. 28 E. Taps water in boulder gravel in fluvio-glacial tongue in coulee. Water level fluctuates in response to infiltration from floods of upper Crab Creek. Land-surface datum is about 1,254 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 14	103.55	June 9	98.39	Oct. 15	101.64
Apr. 7	101.71	Aug. 15	99.80	Dec. 18	102.71

22/28-6R1 (\*948, p. 143). Chas. A. Kennedy. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 22 N., R. 28 E. Taps water in glacial-outwash gravel. Land-surface datum is about 1,282 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

(From float-gage readings by owner)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	165.25	Apr. 3	167.80	July 15	160.26	Oct. 14	163.7
14	165.56	8	167.51	22	160.36	15 a	163.64
21	165.96	15	166.76	29	160.67	21	163.9
28	166.21	22	165.76	Aug. 5	160.82	28	164.2
Feb. 4	166.55	29	164.66	12	160.95	Nov. 4	164.5
11	166.94	May 6	163.66	15 a	160.99	11	164.8
14 a	167.01	13	162.96	19	161.12	18	165.1
18	167.21	20	162.25	27	162.09	25	165.3
25	167.46	27	161.56	Sept. 2	162.21	Dec. 2	165.6
Mar. 4	167.61	June 3	160.96	9	162.24	9	165.8
11	167.74	9 a	160.66	16	162.37	16	166.1
18	167.84	17	160.36	23	162.87	18 a	166.10
25	167.87	24	160.26	30	163.3	23	166.40
28	167.82	July 1	160.16	Oct. 7	163.5	30	166.60
Apr. 1 a	167.83	8	160.16				

22/30-18M1 (\*940, p. 144; 948, p. 143). Owner unknown. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 22 N., R. 30 E. Taps water in glacial-outwash gravel. Water level fluctuates in response to infiltration from runoff in nearby coulee. Land-surface datum is about 1,346 feet above mean sea level.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 14	17.18	June 9	17.25	Oct. 15	17.26
Apr. 7	17.09	Aug. 15	17.25	Dec. 18	17.29

25/29-1H1. Mr. Moody. Formerly owned by J. E. Frien. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 1, T. 25 N., R. 29 E., in Hartline, on west side of main street, in second block north of bank building, 15 feet southwest from corner of dwelling. Drilled domestic and stock well, diameter 5-5/8 inches, depth 82 feet, with open-bottom steel casing. Equipped with plunger pump and windmill, capacity 10 gallons a minute. Taps water in basalt. Measured about quarterly. Measuring points: (1) Beginning Nov. 18, 1938, top inside edge of steel casing, 5 feet below land-surface datum; (2) beginning June 2, 1943, top of 2- by 4-inch support of pump deck at edge of trap door, marked by copper nail with washer, 0.11 foot below land-surface datum. Range, for period of record, between lowest and highest levels when pump was not operating, 1.0 foot; draw-down unknown. Land-surface datum is about 1,910 feet above mean sea level.

Water level, in feet below land-surface datum, 1938-43

Nov. 18, 1938	50.12	Mar. 25, 1941	49.83	Aug. 14, 1942	50.42
Jan. 23, 1939	50.13	June 6	49.72	Oct. 10	c 50.59
June 9	50.01	Aug. 5	49.89	Dec. 16	49.90
Sept. 18	50.12	Oct. 3	50.42	Feb. 14, 1943	49.90
Dec. 13	50.02	Dec. 4	49.60	June 2	50.08
May 9, 1940	50.55	Feb. 8, 1942	49.67	Aug. 13	49.78
Oct. 10	b 51.49	Apr. 8	49.58	Dec. 19	49.49
Dec. 29	50.01	June 2	49.53		

a Measured by Geological Survey.

b Pumping slowly.

c Water level depressed somewhat by previous pumping.

Grays Harbor CountyChehalis River Valley

17/5W-16M1. Mumby Lumber & Shingle Co. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 17 N., R. 5 W., at Malone, about 125 feet north of county road east, 75 feet north of frame church painted white, in frame shelter. Dug public-supply and industrial well, diameter 2 $\frac{1}{2}$  feet, depth 44 feet, with open-bottom tile casing. Equipped with plunger pump, capacity 30 gallons a minute. Taps water in gravel in alluvial deposit of Mox Creek, a tributary of Chehalis River. Measuring point, base of pump, at north side, 2.00 feet above land-surface datum. Land-surface datum is about 57 feet above mean sea level. Measurements discontinued after Oct. 1, 1943.

Water level, in feet below land-surface datum, 1938-40

Date	Water level	Date	Water level	Date	Water level
June 29, 1938	31.58	Dec. 1, 1938	30.08	May 13, 1940	21.95
Sept. 9	a 33.28	Jan. 3, 1939	a 28.18	Oct. 1	37.74

King CountyGlacial plains of the Puget Trough

26/6-13N1. John Sinn. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 26 N., R. 6 E., half a mile south of Duvall, on east side of county road, at rear of farm dwelling, in roofed pit. Drilled domestic and stock well, diameter 6 inches, depth 236 feet, with open-bottom steel casing. Capacity of pump, 15 gallons a minute. Taps water in sand member of fluvioglacial deposit. Measuring point, top of base-flange of pump at 7/8-inch hole, 2.5 feet below land-surface datum. Land-surface datum is about 130 feet above mean sea level.

Water level, in feet below land-surface datum, 1941-43

June 30, 1941	38.75	June 22, 1942	37.86	Apr. 15, 1943	39.20
Oct. 4	39.62	Oct. 2	40.91	Oct. 21	39.33
Jan. 7, 1942	38.63	Jan. 2, 1943	39.90		

Kitsap CountyGlacial plains of the Puget Trough

23/1-20C2. W. A. Hiersch. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 23 N., R. 1 E., about 1.5 miles south-southwest of Port Orchard, 0.16 mile east of county road 14, on north side of lane east, beneath rear porch of shingle-and-clapboard dwelling painted brown. Dug domestic well, depth 61 feet, with open-bottom casing. Equipped with deep-well pump, capacity 6 $\frac{1}{2}$  gallons a minute. Taps water in sand in fluvioglacial deposits of an extensive rolling upland plain. Measuring point, top of plank deck at discharge pipe of pump, marked by copper nail with washer, at land-surface datum. Land-surface datum is about 280 feet above mean sea level. Measurements made by owner.

Water level, in feet below land-surface datum, 1932-43

July 12, 1932	48.5	Nov. 15, 1936	53.3	Oct. 16, 1940	53.69
Nov. 13	51.2	May 30, 1937	54.5	27	54.17
Aug. 26, 1933	47.9	Oct. 3	54.6	Nov. 3	54.12
Dec. 10	50.6	Feb. 22, 1938	56.4	11	54.28
June 17, 1934	45.6	May 23	48.3	23	54.62
Sept. 26	47.9	July 22	49.3	Dec. 8	55.00
Jan. 6, 1935	50.2	Nov. 27	52.1	15	54.98
Apr. 14	48.9	Aug. 2, 1939	55.4	Jan. 1, 1941	55.61
Aug. 18	51.2	Nov. 11	56.6	9	55.55
Nov. 3	53.8	Jan. 21, 1940	57.6	14	56.12
Jan. 5, 1936	55.8	May 2	b 54.43	19	55.68
Feb. 22	56.2	July 28	53.27	26	56.2
Apr. 29	50.4	Aug. 30	52.88	Feb. 2	55.90
May 16	50.2	Sept. 17	b 53.5	9	55.53
July 19	51.1	Oct. 2	53.57	Apr. 30	b 54.65
Aug. 24	51.6	8	53.63	Oct. 8	53.63

a Pumping.

b Measured by Geological Survey.

## 23/1-2C2. W. A. Hirsch--Continued.

Water level, in feet below land-surface datum, 1932-43

Date	Water level	Date	Water level	Date	Water level
Oct. 16, 1941	53.69	May 27, 1942	55.77	Feb. 14, 1943	58.5
27	54.17	July 3	56.04	28	58.13
Nov. 3	54.12	22	56.18	Mar. 30	56.82
Jan. 11, 1942	57.31	Aug. 7	56.38	May 9	55.68
Feb. 4	57.52	17	56.58	23	55.08
20	57.18	31	56.65	June 6	54.71
Mar. 16	57.07	Sept. 24	56.83	July 4	54.39
Apr. 1	56.68	Nov. 11	57.56	Aug. 25	54.59
9	56.45	Dec. 13	58.17	Sept. 26	55.21
17	56.2	21	57.87	Oct. 31	55.58
May 3	55.93	Jan. 6, 1943	58.3	Dec. 19	56.32
19	56.07				

Lewis County

## Cowlitz River Basin

11/1W-5H1. Mrs. Joseph Sommer. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 11 N., R. 1 W., about 2.2 miles north-northeast of Toledo, on northwest side of U. S. Highway 99, at rear of dwelling painted cream, within tank house. Dug domestic and stock well, diameter 4 feet, depth 46 feet, with open-bottom casing. Equipped with lift pump, capacity 10 gallons a minute. Taps water in compact sand in deeply weathered terrace deposit. Measuring point, top of 4- by 6-inch timber frame of trap door in tank-house floor, at land-surface datum. Land-surface datum is about 345 feet above mean sea level.

Water level, in feet below land-surface datum, 1942-43

Feb. 6, 1942	33.09	Sept. 1, 1942	a 43.85	Jan. 6, 1943	38.26
Mar. 3	a 39.50	Oct. 5	41.45	Feb. 12	34.00
Apr. 8	38.45	Nov. 20	39.23	June 9	38.68
June 27	33.43	Dec. 4	36.11	Oct. 22	44.5
Aug. 3	a 41.17				

## Chehalis River Basin

14/2W-4E1. City of Centralia well 1. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 14 N., R. 2 W., just beyond north boundary of Centralia, about 150 feet north of intersection of Prospect Avenue and Warren Street. Unused drilled public-supply well, diameter 26 inches at top and 16 inches at bottom, depth 63 feet, steel casing which is perforated from 33 to 53 feet below land surface. No pump. Taps water in gravel in alluvial deposit of Skookumchuck River, a tributary of the Chehalis River. Measuring point, lower lip of orifice of gravel pipe, on northwest side of well, 2.00 feet above land-surface datum plus 0.30-foot correction for inclination of tape. Land-surface datum is about 190 feet above mean sea level.

Water level, in feet below land-surface datum, 1933-43

Oct. 24, 1938	11.58	Oct. 11, 1940	10.70	Mar. 3, 1942	10.10
Dec. 3	9.19	Feb. 4, 1941	9.31	Apr. 8	10.95
Jan. 3, 1939	8.52	Mar. 5	9.45	May 7	11.05
Apr. 4	9.53	June 30	11.20	Oct. 5	12.43
July 10	10.41	Sept. 30	11.55	Jan. 6, 1943	7.92
Oct. 14	10.80	Oct. 7	11.73	Feb. 12	6.61
Dec. 22	8.05	Jan. 10, 1942	8.66	June 9	11.33
May 13, 1940	8.75	Feb. 6	7.60		

a Water level probably depressed somewhat by previous pumping.

Lincoln CountyColumbia Plateau

25/37-14M1. Charles Straub, Sr. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 25 N., R. 37 E., about 1.4 miles east-northeast from east boundary of Davenport, about 500 feet south of U. S. Highway 10, in open field, beneath steel windmill tower. Dug domestic well, 27 feet deep and 4 feet square, with brick curb through surficial gravel. Equipped with lift pump and windmill. Taps water in basalt. Measuring point, top of southwest corner of brick curb, beneath loose board of deck, 1.00 foot above land-surface datum. Land-surface datum is about 2,400 feet above mean sea level.

Water level, in feet below land-surface datum, 1941-43

Date	Water level	Date	Water level	Date	Water level
Aug. 6, 1941	20.09	June 16, 1942	21.16	June 7, 1943	19.15
Oct. 7	20.45	July 31	21.53	Aug. 13	18.85
Dec. 7	20.87	Oct. 10	21.99	Oct. 12	18.85
Feb. 6, 1942	20.68	Dec. 16	22.32	Dec. 19	19.35
Mar. 15	20.75	Feb. 14, 1943	22.77		

Okanogan CountyOkanogan River Valley

34/26-26Q1. City of Omak well 1. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 34 N., R. 26 E., in Omak, along south side of First Avenue North, aligned with First Street East, about 30 feet west of Okanogan River, beneath pump house painted yellow. Dug public-supply well, diameter 12 feet, depth 30 feet, with open-bottom concrete casing. Equipped with vertical centrifugal pump, capacity 800 gallons a minute. Taps water in gravel in alluvial deposit of Okanogan River. Measuring points: (1) Top inside edge of concrete collar of curb, 0.29 foot above concrete floor of pump house and 3.00 feet below land-surface datum; (2) beginning Dec. 4, 1941, top of board deck at 5/8-inch bored hole, 0.39 foot above concrete floor and 2.90 feet below land-surface datum. Land-surface datum is about 910 feet above mean sea level. Measured at intervals of 3 to 5 months during period January 1939 to December 1941. Float gage installed Dec. 4, 1941.

Water level, in feet below land-surface datum, 1939-43  
(From float-gage readings by city water superintendent  
beginning Dec. 4, 1941)

Jan. 24, 1939	15.22	Feb. 9, 1942	13.84	July 14, 1942	13.22
June 9	a 23.83	9	bc 15.24	20	13.10
Sept. 19	a 25.41	16	13.98	27	13.73
Dec. 13	14.37	27	14.18	Aug. 1	13.63
May 9, 1940	a 25.43	Mar. 9	14.32	4	13.86
Oct. 9	a 15.48	12	14.35	10	14.17
Dec. 30	a 22.27	16	14.46	14	14.38
Mar. 24, 1941	14.53	21	14.54	14	ab 25.45
June 7	13.79	26	14.61	28	14.66
Aug. 5	a 26.07	31	14.74	Sept. 12	14.61
Oct. 6	13.82	Apr. 3	14.62	22	14.64
Dec. 4	13.80	6	14.82	Oct. 12	b 14.62
8	13.49	8	ab 26.76	20	14.58
12	13.63	10	14.85	27	14.57
17	13.72	13	14.16	Nov. 3	14.56
22	13.72	17	13.57	10	14.54
29	13.92	24	12.71	17	14.52
Jan. 3, 1942	14.19	28	12.81	24	14.46
9	12.35	May 27	d 8.21	30	14.48
10	12.52	June 3	ab 20.92	Dec. 8	14.49
15	12.61	6	13.01	17	b 14.35
19	12.84	10	9.44	24	14.40
26	12.88	17	a 22.33	31	14.37
Feb. 1	13.04	21	11.32	Jan. 5, 1943	14.45
4	13.53	July 10	a 21.95	12	14.54

a Pumping.

b Measured by Geological Survey.

c Water level depressed by previous pumping.

d Okanogan River in flood.

## 34/26-26Q1. City of Omak well 1--Continued.

Water level, in feet below land-surface datum, 1939-43  
(From float-gage readings by city water superintendent  
beginning Dec. 4, 1941)

Date	Water level	Date	Water level	Date	Water level
Jan. 19, 1943	14.66	June 4, 1943	11.12	Sept. 28, 1943	15.14
Feb. 11	13.96	8	ab 20.83	Oct. 8	15.08
17	13.99	22	10.72	15	15.05
24	14.16	July 3	11.09	21	14.99
Mar. 3	14.28	9	11.88	25	14.94
14	14.65	16	12.49	Nov. 1	14.74
21	14.56	25	12.70	8	14.75
30	14.46	Aug. 1	13.20	15	14.77
Apr. 7	14.41	8	14.32	22	14.76
12	14.31	18	15.02	25	14.75
18	12.83	25	14.72	Dec. 1	14.60
May 8	12.82	Sept. 1	14.96	8	14.51
12	12.99	8	15.15	15	14.98
17	13.09	15	15.26	22	14.90
25	11.43	22	15.24	31	b 14.65

34/26-28A1. Charles Byrd. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 34 N., R. 26 E., about 2 miles west of Omak, about 40 feet south of Maple Hall Road and 0.4 mile east of oiled county road, along west edge of Pogue Flat. Dug irrigation well, 5 feet square at top, depth 43 feet, with open-bottom 36-inch concrete-tile casing from 38 to 43 feet. Equipped with centrifugal pump, capacity 100 gallons a minute. Taps water in gravel in extensive terrace deposit west of the Okanogan River. Measuring points: (1) Top inside edge of wood curb at ladder, 0.60 foot above land-surface datum; (2) beginning Dec. 30, 1940, top inside west edge of square concrete collar, 1.19 feet above land-surface datum. Land-surface datum is about 1,300 feet above mean sea level. Range between lowest and highest nonpumping levels yet measured, 3.8 feet. Draw-down about 2 feet when pump is operating.

Water level, in feet below land-surface datum, 1939-43

Sept. 19, 1939	a 34.49	Aug. 5, 1941	a 34.23	Aug. 14, 1942	a 32.36
Dec. 13	32.92	Oct. 6	31.05	Oct. 12	29.63
May 9, 1940	33.38	Dec. 4	31.70	Dec. 17	31.15
Dec. 30	32.99	Feb. 8, 1942	31.98	June 8, 1943	a 35.61
Mar. 24, 1941	32.85	Apr. 8	32.24	Dec. 31	32.59
June 7	a 35.71	June 3	32.03		

34/26-28P1. Samuel Peterson. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 28, T. 34 N., R. 26 E., about 2 miles west-southwest of Omak, about 300 feet north of oiled county road west and 250 feet east of oiled county road along west edge of Pogue Flat. Dug irrigation well, 4 feet square, depth 21 feet, with open-bottom timber curb. Equipped with centrifugal pump, capacity 100 gallons a minute. Taps water in gravel in extensive terrace deposit west of Okanogan River. Measuring point, top inside edge of 2-inch plank curb at ladder, marked by copper nail with washer, 1.00 foot below land-surface datum. Land-surface datum is about 1,270 feet above mean sea level. Range between lowest and highest nonpumping levels yet measured, 6.0 feet; draw-down unknown.

Water level, in feet below land-surface datum, 1939-43

Sept. 19, 1939	14.52	June 7, 1941	14.54	June 3, 1942	13.24
Dec. 13	16.89	Aug. 5	a 14.20	Aug. 14	11.20
May 9, 1940	16.40	Oct. 6	13.86	Oct. 12	11.64
Oct. 9	13.74	Dec. 4	15.48	Dec. 17	14.98
Dec. 30	17.15	Feb. 8, 1942	16.07	June 8, 1943	14.21
Mar. 24, 1941	16.65	Apr. 8	15.70	Dec. 31	14.91

a Pumping.

b Measured by Geological Survey.

34/26-35B1. City of Omak well 3. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 34 N., R. 26 E., at Omak, about 100 feet southwest of Omak Avenue and 100 feet east of Third Street East (State Highway 10 A), about 750 feet east of Okanogan River, in pump house painted yellow. Dug public-supply well, diameter 3 feet, depth 33 feet, with open-bottom concrete casing. Equipped with vertical centrifugal pump, capacity 600 gallons a minute. Taps water in gravel in alluvial deposit of Okanogan River. Measuring point, top inside edge of circular concrete collar, 0.25 foot above concrete floor of pump house and 5.00 feet below land-surface datum. Land-surface datum is about 900 feet above mean sea level. Range between lowest and highest nonpumping levels yet measured, 5.7 feet. High levels occur concurrently with freshets in Okanogan River. Draw-down about 10 feet when pump is operating.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Jan. 24, 1939	11.05	Mar. 24, 1941	10.83	June 3, 1942	a 6.86
June 9	8.08	June 7	10.13	Aug. 14	b 22.70
Sept. 19	11.58	Aug. 5	12.56	Oct. 12	b 20.12
Dec. 13	10.65	Oct. 6	10.23	Dec. 17	9.97
May 9, 1940	9.48	Dec. 4	10.00	June 8, 1943	a 19.25
Oct. 9	11.46	Feb. 9, 1942	9.50	Dec. 31	10.04
Dec. 30	10.79	Apr. 8	10.65		

36/26-13K1. Owner unknown. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 36 N., R. 26 E., about 8.5 miles north of Riverside, about 100 yards east of U. S. Highway 97, beneath windmill tower. Dug stock well, 49 $\frac{1}{2}$  feet deep and filled around 6-inch open-bottom steel casing. Equipped with lift pump and windmill. Taps water in fluvio-glacial deposit in Wagonroad Coulee, a former channel of Okanogan River. Measuring points: (1) Bottom of 2- by 6-inch timber, 3.80 feet above top of casing and at land-surface datum; (2) beginning Aug. 14, 1942, upper head of 16-inch steel-drum shield over casing, 4.50 feet above top of casing and 0.70 foot above land-surface datum. Land-surface datum is about 1,050 feet above mean sea level.

Water level, in feet below land-surface datum, 1942-43

Apr. 8, 1942	18.05	Oct. 12, 1942	34.85	June 7, 1943	33.55
June 2	23.95	Dec. 17	34.46	Dec. 30	32.94
Aug. 14	35.30				

40/27-28G1. City of Oroville well 1. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 40 N., R. 27 E., in Oroville, two blocks west of Oroville fire station, 2 $\frac{1}{2}$  blocks west of Great Northern Railway depot, and about 200 feet north of railroad track. Dug public-supply well, diameter 4 feet, depth 26 feet, with open-bottom steel casing. Equipped with two centrifugal pumps, capacities 200 and 300 gallons a minute, respectively. Taps water in gravel in valley alluvium, in angle between Similkameen River and outlet from Osoyoos Lake. Measuring point, top of I-beam pump support, on east side of well, 6.20 feet below land-surface datum. Land-surface datum is about 930 feet above mean sea level. Measured about quarterly during period January 1939 to November 1941. Float gage installed Dec. 5, 1941. Lowest and highest nonpumping levels yet measured, Apr. 6 and June 2, 1942, respectively; range, 3.4 feet. Draw-down estimated at 3-5 feet when pump is operating.

Water level, in feet below land-surface datum, 1939-43

(From float-gage readings by operator beginning Dec. 12, 1941)

Jan. 24, 1939	17.88	Dec. 18, 1941	16.74	Apr. 21, 1942	17.11
June 9	c 19.67	27	16.75	May 5	16.15
9	d 16.62	Jan. 2, 1942	16.80	21	16.01
Sept. 19	c 20.12	9	16.87	June 1	14.59
Dec. 13	c 19.23	20	16.87	2	e 14.52
May 10, 1940	c 19.20	Feb. 5	17.01	14	14.81
Oct. 9	c 19.48	9	e 17.12	30	15.02
Dec. 30	c 18.58	16	17.16	July 20	15.60
Mar. 24, 1941	c 20.29	23	17.25	Aug. 14	e 16.16
June 7	c 20.32	Mar. 2	17.38	26	16.16
Aug. 5	c 22.70	9	17.52	Sept. 8	16.48
Oct. 6	c 21.12	16	17.65	17	16.57
Dec. 5	e 16.65	Apr. 6	17.93	Oct. 12	16.42
12	16.74	8	e 17.89	22	16.38

a Okanogan River in flood.

b Pumping.

c One or more pumps operating in well.

d Pump idle 18 minutes before measurement.

e Measured by Geological Survey.



40/27-28G1. City of Oroville well 1--Continued.

Water level, in feet below land-surface datum, 1939-43  
(From float-gage readings by operator beginning Dec. 12, 1941)

Date	Water level	Date	Water level	Date	Water level
Nov. 9, 1942	16.54	Apr. 8, 1943	17.43	Sept. 10, 1943	17.22
17	16.62	20	17.02	24	17.17
Dec. 1	16.77	May 1	16.57	Oct. 5	17.20
9	16.86	15	16.13	14	17.09
17	a 16.95	24	16.00	25	16.98
Jan. 7, 1943	17.14	June 1	15.79	Nov. 8	17.26
16	17.25	7	a 15.60	18	17.37
27	17.22	26	15.20	24	17.47
Feb. 4	17.21	July 2	15.30	Dec. 1	17.08
14	17.23	15	15.63	9	17.64
23	17.37	21	15.88	15	17.75
Mar. 1	17.44	Aug. 3	16.57	21	17.82
10	17.56	14	16.85	27	17.87
20	17.66	23	17.02	30	a 17.98
27	17.75	Sept. 1	17.17		

Pierce County

## Alluvial and glacial plains of the Puget Trough

17/2-6H1. H. C. Golman. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 17 N., R. 2 E., in north-east angle of crossroads. Used dug domestic well, diameter 36 inches, depth 62.3 feet. Regional water table, probably below Vashon till. Measuring point, punch mark at center of pulley shaft, 2.00 feet above land-surface datum. Land-surface datum is about 305 feet above sea-level datum. Measurements discontinued Apr. 2, 1940.

## Water level, in feet below land-surface datum, 1937-39

Nov. 8, 1937	56.96	June 6, 1938	49.15	Nov. 7, 1938	56.48
Dec. 22	56.52	July 22	50.89	Jan. 6, 1939	58.90
Feb. 9, 1938	46.35	Aug. 22	52.37	Apr. 12	52.21
Apr. 22	47.29	Sept. 30	56.30	July 11	58.08

17/2-16Q1. Ed Shore. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 17 N., R. 2 E., about 3 miles south of Roy, about 75 feet east of highway and opposite the McKenna Spaniel Kennels, 75 feet northeast of farmhouse, in open field. Used dug domestic well, diameter 48 inches, depth 21.5 feet. Regional water table. Measuring points: (1) Top of east railing around well, 3.00 feet above land-surface datum; (2) beginning Feb. 9, 1938, top of metal tag, 0.07 foot below top of railing and 2.93 feet above land-surface datum. Land-surface datum is about 315 feet above mean sea level. Measurements discontinued after Sept. 6, 1940.

## Water level, in feet below land-surface datum, 1937-40

Dec. 22, 1937	17.48	Sept. 30, 1938	18.65	Oct. 13, 1939	18.32
Feb. 9, 1938	17.37	Nov. 7,	18.64	Dec. 27	17.86
Apr. 22	17.47	Jan. 6, 1939	17.49	Apr. 2, 1940	17.38
June 6	17.88	Apr. 12	17.36	June 5	17.74
July 22	18.59	July 10	17.82	Aug. 6	18.97
Aug. 22	18.52	Sept. 23	18.22	Sept. 6	18.47

17/2-16Q2. H. O. Martin. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 17 N., R. 2 E., about 3 miles south of Roy, 75 feet west of highway, 75 feet south of McKenna Spaniel Kennels, on rear porch of dwelling. Used dug domestic well, diameter 48 inches, depth 42.0 feet. Presumed to tap confined water beneath or in Vashon till. Measuring points: (1) Top of well cover at opening, 4.00 feet above land-surface datum; (2) beginning Feb. 9, 1938, top of metal tag, 0.10 foot below top of well cover and 3.90 feet above land-surface datum. Land-surface datum is about 320 feet above mean sea level. Measurements discontinued after Aug. 6, 1940.

a Measured by Geological Survey.

## 17/2-16Q2. H. O. Martin--Continued.

Water level, in feet below land-surface datum, 1937-40

Date	Water level	Date	Water level	Date	Water level
Dec. 22, 1937	30.07	Sept. 30, 1938	36.01	Oct. 13, 1939	36.35
Feb. 9, 1938	28.05	Nov. 7	36.38	Dec. 27	35.72
Apr. 22	29.32	Jan. 6, 1939	35.17	Apr. 2, 1940	29.66
June 6	30.80	Apr. 12	31.03	June 5	31.65
July 22	34.76	July 11	35.23	Aug. 6	34.91
Aug. 22	35.50	Sept. 23	36.25		

17/3-22Q1. G. W. Gloyes. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 17 N., R. 3 E., in north-west angle of intersection of McKenna and pole-line roads. Used dug domestic well, diameter 60 inches, depth 29 feet. Measuring points: (1) Top of well guard, 3.0 feet above land-surface datum; (2) beginning Feb. 9, 1938, top of metal tag, 0.15 foot below top of well guard and 2.85 feet above land-surface datum. Land-surface datum is about 527 feet above mean sea level. Measurements discontinued after June 5, 1940.

Water level, in feet below land-surface datum, 1937-40

Dec. 22, 1937	11.59	Sept. 30, 1938	20.93	Oct. 13, 1939	23.35
Feb. 9, 1938	6.90	Nov. 7	23.43	Dec. 27	24.01
Apr. 22	8.80	Jan. 6, 1939	21.79	Jan. 10, 1940	22.63
June 6	12.48	Apr. 12	11.65	Mar. 13	14.03
July 22	15.28	July 11	17.77	June 5	11.51
Aug. 22	17.95	Sept. 23	23.16		

18/3-7N1. Chas. G. Schwentz. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 18 N., R. 3 E., about 250 feet southwest of county road, at north edge of marsh. Used dug domestic well, diameter 36 inches, depth 14.5 feet. Regional water table, above Vashon till. Measuring points: (1) Bottom of elbow on suction pipe, 2.5 feet above land-surface datum; (2) beginning Mar. 4, 1942, top of floor at well opening, at land-surface datum. Land-surface datum is about 350 feet above mean sea level. Measurements discontinued after Feb. 9, 1943.

Water level, in feet below land-surface datum, 1937-43

Nov. 8, 1937	10.83	Mar. 13, 1940	10.38	Oct. 1, 1941	13.13
Dec. 22	10.80	June 5	11.07	Nov. 3	13.32
Feb. 9, 1938	9.87	Aug. 6	11.95	Dec. 17	12.42
Apr. 23	10.99	Sept. 4	12.00	Jan. 8, 1942	10.50
June 6	11.65	Oct. 3	12.12	Feb. 3	10.93
July 22	12.38	31	12.88	Mar. 4	11.50
Aug. 22	12.63	Dec. 2	12.94	Apr. 4	12.02
Sept. 30	12.95	30	12.20	May 5	12.44
Oct. 28	13.14	Feb. 5, 1941	11.26	June 2	12.71
Nov. 7	13.14	Mar. 4	11.53	24	12.70
Jan. 6, 1939	12.77	Apr. 4	11.70	Aug. 6	12.84
Apr. 12	11.07	30	11.80	27	13.10
July 11	12.40	May 29	12.13	Nov. 2	13.57
Sept. 23	12.88	June 25	12.43	27	12.80
Oct. 13	13.01	July 31	12.69	Dec. 31	11.40
Dec. 27	12.96	Sept. 6	12.90	Feb. 9, 1943	11.50

18/3-11N1. E. Flannery. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 11, T. 18 N., R. 3 E., on the Muck-Kapowsin road, about 0.15 mile east of the National Park Highway, 100 feet north of road. Used dug domestic well, diameter 48 inches, depth 51.5 feet. Regional water table. Measuring points: (1) Top of well vent, 1.50 feet above land-surface datum; (2) from June 6, 1938, to Jan. 5, 1940, top of floor, 0.61 foot below top of vent and 0.89 foot above land-surface datum; (3) beginning Apr. 2, 1940, top of new 2-inch-plank well casing, at land-surface datum; (4) beginning Nov. 3, 1941, top of plank well cover at 3/4-inch drilled hole, marked with copper nail and washer, 0.25 foot above land-surface datum. Land-surface datum is about 425 feet above mean sea level.

Water level, in feet below land-surface datum, 1937-43

Dec. 21, 1937	42.00	June 6, 1938	40.45	Sept. 30, 1938	47.33
Feb. 9, 1938	36.53	July 23	44.27	Nov. 30	48.57
Apr. 22	39.63	Aug. 22	45.10	Jan. 6, 1939	40.86

## 18/3-11N1. E. Flannery--Continued.

Water level, in feet below land-surface datum, 1937-43

Date	Water level	Date	Water level	Date	Water level
Apr. 12, 1939	41.04	Mar. 4, 1941	45.16	May 5, 1942	44.75
July 11	46.24	Apr. 4	44.80	June 2	45.86
Sept. 22	48.72	30	45.02	24	45.93
Oct. 13	48.85	May 29	45.88	Aug. 4	46.35
Jan. 5, 1940	49.49	June 25	46.80	27	47.20
Apr. 2	40.08	July 31	47.17	Sept. 27	48.18
June 5	42.58	Sept. 6	49.23	Nov. 3	49.20
Aug. 6	45.68	Oct. 1	49.85	Dec. 3	47.95
Sept. 4	47.11	Nov. 3	50.42	30	45.25
Oct. 3	48.22	Dec. 17	49.27	Feb. 11, 1943	42.58
31	49.12	Jan. 8, 1942	44.62	Apr. 21	41.65
Dec. 2	49.71	Feb. 3	42.89	June 12	43.70
30	48.45	Mar. 4	42.44	Oct. 8	48.65
Feb. 5, 1941	45.83	Apr. 3	43.39	Dec. 2	49.90

18/3-14Q1. A. S. Morris. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 18 N., R. 3 E., about 0.9 mile south along the National Park Highway from its intersection with section with Kapowsin road, 500 feet south of prominent terrace, 50 feet west of dwelling, in log pump house. Used drilled domestic well, diameter 6 inches, depth 61.5 feet. Taps confined water beneath Vashon till. Measuring point, top of sheet-metal collar around casing, at land-surface datum. Land-surface datum is about 460 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

May 28, 1940	41.45	July 31, 1941	48.24	Aug. 4, 1942	46.84
Aug. 6	47.01	Sept. 6	49.93	27	47.45
Sept. 4	47.82	Oct. 1	50.84	Sept. 28	48.53
Oct. 31	50.41	Nov. 3	52.10	Nov. 3	50.08
Dec. 2	48.00	Dec. 17	47.10	Dec. 3	44.57
30	46.01	Jan. 8, 1942	35.52	30	39.20
Feb. 5, 1941	41.19	Feb. 3	38.57	Feb. 11, 1943	39.05
Mar. 4	42.23	Mar. 4	40.09	Apr. 21	38.75
Apr. 4	43.34	Apr. 3	43.40	June 12	44.85
May 2	44.37	May 5	45.82	Oct. 8	49.85
29	46.11	June 2	46.91	Dec. 2	51.28
June 25	47.17	24	45.98		

18/3-19R1. Mrs. Annie Dougherty. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 18 N., R. 3 E., about 0.4 mile south along Goodacres road from its intersection with Rice-Kandle road, 200 feet east of road, about 30 feet north of large frame dwelling. Used dug domestic well, diameter 60 inches, depth about 25 feet. Regional water table, above Vashon till. Measuring points: (1) Top of 2-inch-plank well cover at pump opening, 0.10 foot above land-surface datum; (2) beginning Oct. 31, 1940, top of pump-base flange, 0.56 foot above well cover and 0.66 foot above land-surface datum. Land-surface datum is about 385 feet above mean sea level. Measurements discontinued Dec. 17, 1943.

Water level, in feet below land-surface datum, 1940-41

June 1, 1940	15.08	Dec. 30, 1940	12.36	June 25, 1941	18.64
Aug. 6	20.81	Feb. 5, 1941	12.37	July 31	20.96
Sept. 4	23.89	Mar. 4	12.49	Sept. 6	21.56
Oct. 3	25.28	Apr. 4	12.66	Oct. 1	22.16
31	21.81	30	15.20	Nov. 3	21.74
Dec. 2	17.59	May 29	17.38		

18/3-27E1. H. E. Bowman. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 18 N., R. 3 E., on Persian-lamb ranch, about 400 feet south and 500 feet east of transmission-line crossing on Army post road, in well house midway between stock barn and dwelling. Used dug domestic well, diameter 48 inches, depth 19 feet. Regional water table, above Vashon till. Measuring points: (1) Top of wooden box curb, 0.43 foot above concrete curb, and 1.90 feet above land-surface datum; (2) beginning Aug. 27, 1942, top of 2-inch-plank cover at 1-inch drilled hole, 2.00 feet above land-surface datum. Land-surface datum is about 412 feet above mean sea level.

18/3-27El. H. E. Bowman--Continued.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
June 1, 1940	14.78	June 25, 1941	15.25	June 24, 1942	14.52
Aug. 6	15.97	July 31	15.82	Aug. 4	15.55
Sept. 4	16.75	Sept. 6	16.35	27	15.95
Oct. 3	16.42	Oct. 1	16.28	Sept. 28	16.51
31	16.03	Nov. 3	15.49	Nov. 3	16.11
Dec. 2	14.00	Dec. 17	13.53	Dec. 3	11.97
30	13.90	Jan. 8, 1942	13.40	30	12.83
Feb. 5, 1941	13.91	Feb. 3	13.73	Feb. 11, 1943	12.40
Mar. 4	13.70	Mar. 4	14.39	Apr. 21	13.90
Apr. 4	14.15	Apr. 3	14.95	June 12	15.40
30	14.75	May 5	15.35	Oct. 8	16.80
May 29	15.01	June 2	15.36	Dec. 2	16.00

18/4-3El. John Howard. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 18 N., R. 3 E., about 100 feet north and 190 feet east of intersection of Puyallup-Graham and Howe roads, at edge of grove of small firs. Used dug domestic well, diameter 54 inches, depth 79.4 feet. Regional water table, below Vashon till. Measuring point, top of 2-inch plank deck at trap, marked by copper nail with washer, at land-surface datum and 7.4 feet above datum of well 18/4-3M1 (by hand level). Land-surface datum is about 561 feet above mean sea level.

Water level, in feet below land-surface datum, 1939-43

Dec. 21, 1939	79.32	Apr. 30, 1941	69.72	June 2, 1942	70.16
Jan. 5, 1940	78.61	May 29	70.70	24	71.12
Feb. 22	76.95	June 25	72.19	Aug. 4	72.35
June 10	63.40	July 31	74.78	27	73.82
Aug. 5	68.76	Sept. 6	77.34	Sept. 28	76.00
Sept. 4	72.31	Oct. 1	78.5	Nov. 3	(a)
Oct. 3	75.30	Nov. 3	(a)	Dec. 3	(a)
31	77.34	Dec. 17	(a)	30	74.1
Dec. 2	78.6	Jan. 8, 1942	76.23	Feb. 11, 1943	69.00
30	77.52	Feb. 3	69.89	Apr. 21	64.12
Feb. 5, 1941	73.14	Mar. 4	66.60	June 12	64.10
Mar. 4	70.93	Apr. 3	66.15	Oct. 8	75.50
Apr. 4	70.05	May 5	68.00	Dec. 2	(a)

18/4-3M1. C. F. Southard. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 18 N., R. 4 E., about 35 feet south and 120 feet east of intersection of Puyallup-Graham and Howe roads, about 10 feet east of frame dwelling painted gray. Used dug domestic well, diameter 48 inches, depth 6.5 feet. Perched water table, in or above Vashon till. Measuring points: (2) Top of box pump support, 1.44 feet above 1-inch board platform and 1.60 feet above land-surface datum; (3) beginning Dec. 30, 1940, top of 1-inch board platform at trap opening, marked by copper nail with washer, 0.16 foot above land-surface datum. Land-surface datum is about 554 feet above mean sea level and 7.4 feet below datum of well 18/4-3El (by hand level).

Water level, in feet below land-surface datum, 1939-43

Dec. 21, 1939	0.80	May 29, 1941	1.74	June 24, 1942	1.56
Jan. 5, 1940	1.32	June 25	3.62	26	1.54
Feb. 22	1.57	July 31	5.34	Aug. 4	4.56
June 10	3.62	Sept. 6	5.20	27	5.29
Aug. 5	6.4	Oct. 1	4.77	Sept. 28	5.84
Sept. 6	(a)	Nov. 3	2.57	Nov. 3	4.56
Oct. 3	(a)	Dec. 17	.94	Dec. 3	.71
31	1.58	Jan. 8, 1942	1.24	30	.89
Dec. 2	1.22	Feb. 3	1.04	Feb. 11, 1943	.64
30	1.14	Mar. 4	1.57	Apr. 21	1.04
Feb. 5, 1941	1.51	Apr. 3	1.65	June 12	2.94
Mar. 4	1.40	May 5	1.64	Oct. 8	6.34
Apr. 4	1.49	June 2	1.35	Dec. 2	2.44
30	2.14	20	1.28		

a Well dry.

18/4-7Pl. Joe Jupiter. Formerly owned by H. W. McFarlane. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 18 N., R. 4 E., about 0.25 mile north of Muck-Kapowsin road, on west side of T-road north, at rear of dwelling, in pump house. Used dug domestic well, diameter unknown, depth 81.3 feet. Regional water table, below Vashon till. Measuring point, top of pump-house floor at 1-inch bored hole, 5.50 feet below land-surface datum. Land-surface datum is about 515 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
June 10, 1940	78.61	June 25, 1941	78.86	Aug. 4, 1942	78.53
Aug. 6	78.69	July 31	78.95	27	78.64
Sept. 4	78.84	Sept. 6	79.18	Sept. 28	78.76
Oct. 3	79.07	Nov. 3	79.50	Nov. 3	79.09
31	79.25	Dec. 17	78.70	Dec. 3	78.05
Dec. 2	79.15	Jan. 8, 1942	78.98	30	77.95
30	78.87	Feb. 3	78.47	Feb. 11, 1943	77.8
Feb. 5, 1941	78.89	Mar. 4	78.56	Apr. 21	77.33
Mar. 4	78.40	Apr. 3	78.46	June 12	78.19
Apr. 4	78.60	May 5	78.37	Oct. 8	78.95
30	78.70	June 2	78.25	Dec. 2	79.47
May 29	78.65	24	78.33		

18/4-9R1. George Ulvang. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 9, T. 18 N., R. 4 E., about 300 feet north and 800 feet west of intersection of Puyallup-Graham and Muck-Kapowsin roads, in south end of garage and woodshed. Unused dug domestic well, diameter 42 inches, depth 72.5 feet. Semiprched water table, beneath Vashon till. Measuring points: (1) Top of pump-house floor at trap, 1.00 foot above land-surface datum; (2) beginning Feb. 9, 1938, top of metal tag, 0.09 foot below floor and 0.91 foot above land-surface datum. Land-surface datum is about 595 feet above mean sea level. Measurements discontinued after Feb. 5, 1941.

Water level, in feet below land-surface datum, 1937-41

Date	Water level	Date	Water level	Date	Water level
Dec. 21, 1937	66.77	Apr. 12, 1939	69.99	Aug. 6, 1940	69.92
Feb. 9, 1938	60.39	July 11	69.92	Sept. 4	69.99
Apr. 22	68.70	Sept. 22	69.96	Oct. 3	69.96
June 5	69.95	Oct. 15	70.09	31	69.42
July 23	70.09	Dec. 22	68.94	Dec. 2	69.04
Aug. 22	70.28	Apr. 2, 1942	69	30	68.94
Sept. 30	70.19	10	69.95	Feb. 5, 1941	69.81
Jan. 6, 1939	68.69				

18/4-10N1. Fred Erickson. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 10, T. 18 N., R. 4 E., about 300 feet north and 75 feet east of road intersection, 15 feet south of white frame dwelling. Used dug domestic well, diameter 30 inches, depth 9.5 feet. Perched water table, above Vashon till. Measuring points: (1) Top of wooden curb flush with concrete curb, 1.00 foot above land-surface datum; (2) from Feb. 9, 1938, to Apr. 12, 1939, top of metal tag, 0.16 foot below top of curb and 0.84 foot above datum; (3) beginning July 11, 1939, top of concrete well curb at penciled arrow, 1.00 foot above land-surface datum; (4) beginning Oct. 8, 1943, top of 36-inch concrete-tile casing, at land-surface datum (concrete curb removed). Land-surface datum is about 601 feet above mean sea level.

Water level, in feet below land-surface datum, 1937-43

Date	Water level	Date	Water level	Date	Water level
Dec. 21, 1937	3.08	Mar. 13, 1940	3.15	June 25, 1941	4.04
Feb. 9, 1938	3.30	Apr. 2	3.05	July 31	5.10
Apr. 22	3.35	June 10	4.11	Sept. 6	4.60
June 5	4.19	Aug. 5	5.32	Oct. 1	4.44
July 23	4.89	Sept. 4	5.75	Nov. 3	3.37
Aug. 22	5.30	Oct. 3	5.41	Dec. 17	2.55
Sept. 30	5.74	31	3.61	Jan. 8, 1942	3.70
Nov. 7	4.19	Dec. 2	3.39	Feb. 3	3.05
Jan. 6, 1939	2.79	30	3.42	Mar. 4	3.30
Apr. 12	4.07	Feb. 5, 1941	3.56	Apr. 3	3.55
July 11	3.78	Mar. 4	3.55	May 5	3.29
Sept. 22	5.35	Apr. 4	3.23	June 2	3.12
Oct. 13	5.48	30	3.94	24	3.39
Dec. 21	3.01	May 29	3.57	Aug. 4	4.11

18/4-10N1. Fred Erickson--Continued.

Water level, in feet below land-surface datum, 1937-43

Date	Water level	Date	Water level	Date	Water level
Aug. 27, 1942	4.50	Dec. 30, 1942	2.80	June 12, 1943	3.65
Sept. 28	5.07	Feb. 11, 1943	2.75	Oct. 8	5.40
Nov. 3	3.30	Apr. 21	2.95	Dec. 2	3.00
Dec. 3	2.95				

18/4-14C1. W. Rodlund. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 18 N., R. 4 E., about 110 feet south and 175 feet west of road intersection, 30 feet west of frame dwelling painted yellow, in covered pit. Used drilled domestic well, diameter 4 inches, depth 65.3 feet. Probably in the regional zone of saturation. Measuring point, top of coupling on 4-inch casing, 3.40 feet below land-surface datum. Land-surface datum is about 767 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

Mar. 5, 1940	56.58	June 25, 1941	58.20	June 24, 1942	56.92
June 10	54.90	July 31	59.02	Aug. 4	57.72
Aug. 6	56.93	Sept. 6	59.75	27	58.23
Sept. 4	57.72	Oct. 1	60.15	Sept. 28	58.97
Oct. 3	58.41	Nov. 3	60.62	Nov. 3	59.72
31	58.99	Dec. 17	60.06	Dec. 3	57.30
Dec. 2	58.90	Jan. 8, 1942	57.45	30	57.48
30	58.37	Feb. 3	56.97	Feb. 11, 1943	55.74
Feb. 5, 1941	57.42	Mar. 4	56.48	Apr. 21	54.20
Mar. 4	57.29	Apr. 3	56.65	June 12	55.48
Apr. 4	57.16	May 5	57.25	Oct. 8	58.72
30	57.10	June 2	57.30	Dec. 2	59.84
May 29	57.67				

19/2-10F1. Port Lewis Area Water District. Formerly owned by Tacoma Land & Improvement Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 19 N., R. 2 E., in the acute angle of Y-junction of Gravelly Lake and Lake City roads, in pit in eastern end of tool house, about midway between two used public-supply wells 218 feet apart. Unused drilled public-supply well, diameter 12 inches, depth 173.8 feet. Taps confined water, probably nonartesian. Measuring point, top of 12-inch casing, 3.78 feet below land-surface datum. Reference bench mark, chiseled square on top north side of concrete curb of well pit, at land-surface datum. Land-surface datum is 262.64 feet above sea-level datum of 1929. Automatic water-stage recorder installed Oct. 8, 1940, and removed Aug. 28, 1942; float gage installed Aug. 25, 1943, for readings by L. E. Crusoe, operator.

Water level, in feet below land-surface datum, 1940-43

(Selected levels, from recorder charts, Oct. 8, 1940, to Aug. 28, 1942; float-gage readings, prior to daily withdrawals in nearby public-supply wells, beginning Aug. 28, 1943)

Apr. 10, 1940	44.57	Jan. 5, 1941	47.07	May 15, 1941	45.60
June 6	45.28	10	46.73	20	45.51
Aug. 7	46.97	14	46.59	25	45.79
Sept. 3	47.63	20	46.39	31	45.75
Oct. 10	47.34	25	46.02	June 5	45.90
15	47.42	31	45.79	10	46.00
20	47.39	Feb. 4	45.62	15	46.21
25	47.42	Mar. 5	45.38	20	46.26
31	47.49	10	45.31	25	46.38
Nov. 5	47.56	15	45.31	30	46.52
10	47.55	20	45.37	July 5	46.70
15	47.62	25	45.27	31	47.58
20	47.63	31	45.37	Aug. 5	47.62
25	47.65	Apr. 5	45.37	10	47.76
30	47.62	10	45.27	15	47.79
Dec. 5	47.53	15	45.34	20	47.98
9	47.43	20	45.36	25	48.00
15	47.40	25	45.39	31	48.08
20	47.26	30	45.49	Sept. 5	48.01
25	47.17	May 5	45.37	10	48.00
31	46.91	10	45.52	15	48.20

## 19/2-10Fl. Fort Lewis Area Water District--Continued.

Water level, in feet below land-surface datum, 1940-43  
(Selected levels, from recorder charts, Oct. 8, 1940, to Aug. 28, 1942;  
float-gage readings, prior to daily withdrawals in nearby public-supply  
wells, beginning Aug. 28, 1943)

Date	Water level	Date	Water level	Date	Water level
Sept. 20, 1941	48.21	Feb. 28, 1942	44.88	Aug. 10, 1942	47.44
25	48.28	Mar. 5	45.05	14	47.44
30	48.40	10	44.92	15	a 48.30
Oct. 5	48.44	15	44.93	20	47.81
10	48.48	20	45.04	25	47.79
15	48.95	25	45.00	28	47.84
20	48.62	31	45.12	Dec. 3	48.72
25	48.71	Apr. 5	45.59	Jan. 4, 1943	47.65
31	48.95	10	45.24	Feb. 10	46.44
Nov. 5	48.78	15	45.34	Apr. 20	44.53
6	49.30	20	45.37	June 11	b 46.07
10	48.92	25	45.42	Aug. 25	a 47.59
15	48.85	30	45.49	27	46.94
20	48.84	May 5	45.56	Sept. 1	46.98
25	48.81	10	45.64	8	47.17
30	48.81	15	45.98	20	47.54
Dec. 5	48.67	20	45.94	Oct. 1	47.68
9	48.65	25	45.87	5	47.78
18	48.35	31	45.94	10	47.78
20	48.14	June 5	46.02	15	47.84
25	47.23	10	46.36	20	47.93
31	46.58	15	46.09	25	47.88
Jan. 5, 1942	46.27	20	46.14	Nov. 4	48.34
10	46.15	25	46.21	12	48.31
15	46.03	30	46.14	17	48.27
20	45.94	July 5	46.49	21	48.50
25	46.05	10	46.60	30	48.52
31	45.91	15	46.58	Dec. 6	48.59
Feb. 5	45.69	20	46.65	10	48.64
10	45.86	25	46.78	14	48.62
15	45.11	31	47.12	20	48.82
20	44.98	Aug. 3	47.06	25	48.73
25	44.96	7	47.32	30	48.72

19/2-14Cl. E. G. Heinrick. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14, T. 19 N., R. 2 E., about 300 feet north of the Y-junction of Pacific Highway and John Dougherty Road, about midway between the two roads, east of concrete wall. Unused drilled industrial well, diameter 6 inches, depth 57.8 feet. Regional water table. Measuring point, top of 6-inch casing, 0.80 foot above land-surface datum. Land-surface datum is about 275 feet above mean sea level. Water levels, in feet below land-surface datum, 1940: Apr. 10, 31.77; June 6, 32.91; Aug. 7, 35.68; Sept. 3, 36.62; measurements discontinued.

19/2-21Al. E. J. Weber. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 19 N., R. 2 E., about 350 feet northwest along Maple Street from Pacific Highway and 25 feet north of American Lake Garage. Used dug domestic well, diameter 36 inches, depth 34.4 feet. Regional water table. Measuring point, top of pump-house floor at south side of trap, at land-surface datum. Land-surface datum is about 277 feet above mean sea level. Measurements discontinued after Aug. 28, 1942.

Water level, in feet below land-surface datum, 1940-42

Apr. 10, 1940	25.15	Mar. 3, 1941	26.10	Dec. 18, 1941	29.46
June 6	25.55	Apr. 5	26.93	Jan. 10, 1942	25.41
Aug. 7	28.89	May 1	28.05	Feb. 5	25.37
Sept. 3	29.23	28	28.65	Mar. 6	25.36
Oct. 3	30.20	June 30	30.06	Apr. 3	25.62
Nov. 2	30.55	Aug. 2	30.65	May 7	26.85
Dec. 3	29.81	Sept. 3	31.14	Aug. 6	29.95
Jan. 3, 1941	27.79	30	31.60	28	30.62
Feb. 7	25.75	Nov. 1	32.00		

a Pump operating in public-supply well about 110 feet away.

b Pump operating in nearby well prior to measurement.

19/2-28C1. Washington National Guard. At Camp Murray, in NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 19 N., R. 2 E., about 0.3 mile east of Pacific Highway, in pit near elevated water tank painted orange. Used drilled public-supply well, diameter 24 inches, depth 43.5 feet. Taps confined water in or below Vashon till. Measuring point, floor of pit, 13.10 feet below land-surface datum. Land-surface datum is about 280 feet above mean sea level. From measurements made by J. L. Hendricks, Camp Murray. Measurements discontinued after Sept. 3, 1940.

## Water level, in feet below land-surface datum, 1929-40

Date	Water level	Date	Water level	Date	Water level
Sept. 28, 1929	31.3	Nov. 14, 1930	32.4	Aug. 20, 1931	29.5
Oct. 7	31.6	20	32.5	27	29.5
14	31.5	29	32.5	Sept. 3	29.9
23	31.6	Dec. 3	32.7	11	30.0
26	31.6	10	32.9	19	30.2
31	31.9	15	32.9	22	30.3
Nov. 9	31.9	18	32.9	26	30.4
15	32.1	26	33.0	Oct. 3	30.5
25	32.3	29	33.1	9	30.7
29	32.4	Jan. 5, 1931	33.2	16	30.6
Dec. 9	32.4	10	33.3	20	30.9
12	32.5	12	32.7	27	31.0
21	32.4	13	32.7	Nov. 2	31.2
30	31.3	15	32.5	9	31.2
Jan. 8, 1930	30.4	19	32.0	15	31.2
14	29.6	21	31.8	20	30.8
18	29.6	23	31.5	25	30.8
23	29.5	26	30.4	Dec. 2	30.6
30	29.5	28	29.3	7	30.4
Feb. 7	29.3	30	28.4	15	30.4
14	27.9	Feb. 2	28.0	18	28.9
20	27.1	5	27.9	22	27.9
25	25.9	10	27.9	24	27.2
Mar. 3	25.4	14	27.9	28	26.7
15	25.8	19	27.6	Jan. 3, 1932	26.1
19	26	24	26.8	9	25.8
27	25.6	28	26.4	13	24.4
Apr. 4	25.4	Mar. 3	26.4	16	23.9
10	25.6	8	26.4	20	23.2
20	26.1	16	26.4	23	22.6
27	26.4	23	25.9	29	22.5
May 4	26.9	26	25.4	Feb. 3	22.5
11	27.3	31	24.4	6	22.5
21	27.8	Apr. 5	24.0	10	22.7
29	28.1	8	23.4	16	22.8
June 5	28.3	9	22.9	24	22.0
12	28.5	10	22.7	26	20.9
19	28.9	13	22.4	29	19.9
29	28.8	14	22.2	Mar. 1	19.8
July 8	29.5	19	22.2	2	19.6
12	29.9	24	22.8	5	19.4
30	30.4	30	23.3	9	18.6
Aug. 8	30.4	May 5	23.6	15	18.8
10	30.7	12	23.9	20	18.9
20	31.0	20	24.3	29	18.9
26	31.6	28	24.8	Apr. 3	19.0
Sept. 3	31.1	June 1	25.2	15	19.4
7	31.4	7	25.6	21	19.9
12	31.4	14	26.1	28	20.3
16	31.4	21	26.6	May 1	20.5
20	31.5	July 4	27.3	10	21.1
24	31.7	9	27.4	17	22.1
30	31.7	19	27.8	25	22.6
Oct. 2	31.8	24	28.1	June 1	22.9
10	31.9	26	28.4	7	23.6
17	32.0	31	28.4	14	24.2
24	32.1	Aug. 1	28.6	30	24.7
Nov. 1	32.3	6	28.9	July 6	25.0
7	32.4	12	29.3	15	25.0



19/2-2801. Washington National Guard--Continued.

Water level, in feet below land-surface datum, 1929-40

Date	Water level	Date	Water level	Date	Water level
July 20, 1932	25.4	Sept. 20, 1933	29.0	May 14, 1936	24.8
29	25.4	26	29.2	June 1	24.6
Aug. 6	26.3	Oct. 2	29.1	15	24.8
12	26.8	9	29.2	July 1	24.5
16	27.2	19	28.8	15	24.9
20	27.5	23	28.2	27	25.4
24	27.8	28	28.1	30	25.8
27	28.0	Nov. 1	27.9	Aug. 7	27.9
Sept. 6	28.2	3	27.7	17	28.9
12	28.4	7	27.5	Sept. 2	29.0
15	28.6	15	27.3	20	29.2
19	28.7	20	27.4	27	29.8
25	28.9	23	27.5	Oct. 7	30.0
Oct. 1	29.1	Dec. 1	27.7	20	30.1
6	29.4	4	27.8	29	30.4
12	29.1	6	27.6	Nov. 4	30.4
20	28.9	10	21.2	12	30.6
29	28.9	13	20.3	19	30.7
Nov. 4	28.6	16	20.1	Dec. 1	31.1
9	28.4	18	19.0	7	31.2
11	27.7	19	18.1	15	31.2
20	27.5	20	17.3	16	31.0
29	27.1	21	16.2	18	31.0
Dec. 1	26.6	22	15.3	24	30.6
7	26.1	23	14.8	29	29.9
10	25.8	24	14.6	Jan. 1, 1937	30.1
15	25.1	26	14.8	10	29.9
20	23.3	27	15.2	16	29.5
26	22.2	29	15.8	26	29.1
30	21.7	Jan. 2, 1934	16.3	Feb. 2	28.8
Jan. 4, 1933	21.4	8	17.1	8	28.3
11	19.2	15	17.3	10	27.7
12	19.0	20	16.3	11	27.5
17	19.0	22	16.1	17	27.4
21	19.1	24	15.6	20	26.4
24	19.2	25	15.1	23	24.7
28	19.1	Feb. 1	16.3	27	24.2
Feb. 4	19.2	6	17.6	Mar. 4	23.9
15	19.1	10	17.7	10	23.9
27	18.9	15	17.8	17	24.1
Mar. 1	19.2	22	17.9	25	24.6
15	19.8	Mar. 1	18.4	Apr. 7	25.4
31	19.9	6	18.8	15	24.8
Apr. 7	20.4	15	18.9	21	23.6
14	20.9	23	19.1	23	22.7
20	21.1	29	19.2	28	22.4
27	22.1	Apr. 3	19.3	May 1	22.9
May 2	22.4	10	19.4	6	23.3
9	22.8	June 7, 1935	25.4	15	23.6
15	23.6	Dec. 6	31.1	20	24.4
20	23.9	10	30.9	June 1	25.4
27	24.1	Jan. 2, 1936	30.5	8	26.4
June 1	24.4	6	28.4	16	27.4
15	24.8	8	27.4	26	28.9
July 1	25.3	15	25.0	27	27.9
8	25.7	17	23.7	28	27.2
16	26.3	18	23.4	July 2	27.0
26	27.0	20	23.1	9	27.4
Aug. 3	27.5	28	23.1	15	28.1
9	27.8	Mar. 2	21.4	29	28.4
16	27.8	20	23.3	Aug. 5	28.4
22	27.9	26	23.4	13	28.9
Sept. 1	28.3	Apr. 1	24.4	20	29.3
8	28.5	14	24.9	Sept. 1	29.4
15	28.8	30	24.4	10	29.8

## 19/2-28C1. Washington National Guard--Continued.

Water level, in feet below land-surface datum, 1929-40

Date	Water level	Date	Water level	Date	Water level
Sept. 16, 1937	28.9	Feb. 4, 1938	17.9	Oct. 1939	30.9
22	30.0	11	17.9	Nov. 18	31.8
28	30.0	22	17.9	Dec. 1	31.9
Oct. 4	30.2	27	17.9	Jan. 3, 1940	29.9
8	30.4	Mar. 7	18.0	Feb. 2	28.6
13	30.2	19	18.3	Mar. 1	25.4
27	30.4	27	18.5	Apr. 1	22.5
Nov. 2	30.4	Apr. 1	18.5	12	21.5
9	30.4	4	18.7	12	a 21.50
15	28.6	14	19.1	May 21	24.6
19	27.9	24	19.3	26	24.6
22	25.9	May 1	20.1	June 3	24.9
25	24.6	June 1	20.6	5	ab 27.25
Dec. 4	23.8	July 1	21.9	10	25.4
7	23.6	Aug. 1	25.9	16	26.0
14	23.6	15	26.9	23	26.4
22	23.2	Sept. 4	28.4	28	26.9
28	20.9	14	29.2	July 5	27.6
29	19.8	28	30.1	11	27.7
30	19.1	Oct. 10	29.4	24	27.9
31	18.8	May 16, 1939	26.9	Aug. 1	28.9
Jan. 2, 1938	18.3	June	27.6	15	29.1
5	18.2	July	27.8	29	29.5
12	18.1	Aug.	28.9	Sept. 2	29.5
18	17.9	Sept.	29.8	3	a 29.43
27	17.9				

19/3-2Q1. I. G. Young. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 19 N., R. 3 E., about 75 feet north and 225 feet east of road intersection, 15 feet east of barn. Unused dug domestic well, diameter 72 inches, depth 11.5 feet. Local perched water table, in Vashon till. Measuring point, top of 2-inch plank deck, at north side, 0.80 foot above land-surface datum. Land-surface datum is about 424 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

Feb. 27, 1940	0.69	May 29, 1941	3.22	June 24, 1942	1.80
June 5	4.30	June 25	4.85	Aug. 4	4.65
Aug. 6	7.90	July 31	7.20	27	6.15
Sept. 4	8.86	Sept. 4	7.77	Sept. 28	7.50
Oct. 3	9.71	Oct. 1	7.72	Nov. 3	6.73
31	8.87	Nov. 3	7.35	Dec. 3	.52
Dec. 2	1.31	Dec. 17	.37	30	.30
30	1.12	Jan. 8, 1942	1.75	Feb. 10, 1943	.38
Feb. 5, 1941	1.06	Feb. 3	.40	Apr. 21	.80
Mar. 4	.97	Apr. 3	1.05	June 12	3.50
Apr. 4	.91	May 5	1.90	Oct. 8	8.66
30	3.19	June 2	1.15	Nov. 29	7.75

19/3-3Q1. D. Stuart, tenant. Former tenant, A. Nauer. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 19 N., R. 3 E., about 0.2 mile north along Portland Avenue from Lakeview-Puyallup road, 200 feet west of large red brick dwelling, in concrete-and-frame pump house. Regional water table. Used dug public-supply and stock well, diameter 48 inches, depth 156 feet. Measuring point, top of I-beam pump support, 1.50 feet below land-surface datum. Land-surface datum is about 408 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

Apr. 27, 1940 c	153.0	Mar. 4, 1941	152.50	Nov. 3, 1941	154.60
June 5	150.98	Apr. 4	151.77	Dec. 17	155.38
Aug. 6	151.16	30	151.79	Jan. 8, 1942	155.29
Sept. 4	151.22	May 29	151.92	Feb. 3	154.33
Oct. 3	151.90	June 25	152.10	Mar. 4	153.45
31	152.30	July 31	c 154.01	Apr. 3	152.36
Dec. 2	153.17	31	153.26	May 5	152.32
30	153.35	Sept. 4	153.45	June 2	152.27
Feb. 5, 1941	152.81	Oct. 1	154.02	24	152.26

a Measured by Geological Survey.

b Water level rising after recent pumping.

c Pumping.

19/3-3Q1. D. Stuart, tenant--Continued.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Aug. 4, 1942	152.82	Dec. 3, 1942	154.85	June 12, 1943	150.90
27	153.05	30	154.33	Oct. 8	152.07
Sept. 28	153.56	Feb. 10, 1943	153.30	Nov. 29	152.61
Nov. 3	154.14	Apr. 21	151.72		

19/3-7B1. L. F. Van der Stoep. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 19 N., R. 3 E., about 125 feet south and 200 feet west of road intersection, in well house. Used dug domestic well, diameter 48 inches, depth 17.9 feet. Regional water table, above Vashon till. Measuring point, top of well curb, at copper nail with washer, 2.00 feet above land-surface datum. Land-surface datum is about 293 feet above mean sea level.

Water level, in feet below land-surface datum, 1937-43

Nov. 16, 1937	12.14	Oct. 31, 1940	14.62	Mar. 4, 1942	10.41
Dec. 27	9.80	Dec. 2	13.66	Apr. 3	10.99
Feb. 8, 1938	8.20	30	13.04	May 5	11.76
Apr. 23	9.38	Feb. 5, 1941	11.60	June 2	12.43
June 6	11.02	Mar. 4	11.40	24	12.87
July 22	12.31	Apr. 4	11.68	Aug. 4	14.12
Aug. 23	13.30	30	11.96	27	14.62
Sept. 30	13.96	May 29	12.52	Sept. 28	15.10
Jan. 6, 1939	13.02	June 25	13.15	Nov. 3	15.32
Sept. 23	14.61	July 31	14.72	Dec. 3	13.12
Oct. 13	14.68	Sept. 4	15.04	30	12.65
Jan. 12, 1940	13.24	Oct. 1	15.41	Feb. 9, 1943	11.30
Apr. 4	10.05	Nov. 3	15.66	Apr. 21	9.83
June 5	11.20	Dec. 17	13.95	June 10	11.30
Aug. 6	13.04	Jan. 8, 1942	11.44	Oct. 4	14.63
Sept. 4	14.06	Feb. 3	10.93	Nov. 29	15.05
Oct. 3	14.60				

19/3-9C1. N. G. Kramer. Formerly owned by A. E. Worter. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 19 N., R. 3 E., about 110 feet south and 75 feet east of road intersection, 15 feet south of large frame dwelling. Unused dug domestic well, diameter 48 inches, depth 26.0 feet. Perched water table, in Vashon till. Measuring points: (1) Top northwest corner of well cover at 3-inch hole, 0.50 foot above land-surface datum; (2) beginning June 10, 1943, top north side of concrete curb at vertical chiseled arrow, 0.40 foot above land-surface datum. Land-surface datum is about 383 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

Feb. 27, 1940	10.66	May 29, 1941	14.07	June 24, 1942	a 21.29
June 5	10.97	June 25	15.46	Aug. 4	a 21.63
Aug. 6	15.78	July 31	a 18.88	27	18.40
Sept. 4	17.20	Sept. 4	18.60	Sept. 28	19.10
Oct. 3	18.62	Oct. 1	20.02	Nov. 3	19.60
31	19.38	Nov. 3	21.13	Dec. 3	17.80
Dec. 2	19.34	Dec. 17	16.17	30	13.23
30	16.71	Jan. 8, 1942	13.38	Feb. 9, 1943	9.27
Feb. 5, 1941	11.95	Feb. 3	10.39	Apr. 21	8.07
Mar. 4	10.92	Mar. 4	9.75	June 10	12.20
Apr. 4	12.00	Apr. 3	10.35	Oct. 8	18.45
30	12.91	May 5	11.66	Nov. 29	20.60

19/3-12A1. Howard Lee. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 19 N., R. 3 E., on Malcolm McLarty road, about 0.15 mile south of Midland-Summit road, on back porch of frame house on west side of road. Used dug domestic well, diameter 36 inches, depth 13.7 feet. Perched water body, on Vashon till. Measuring point, top of box curb at southeast corner of trap, 2.60 feet above land-surface datum. Land-surface datum is about 473 feet above mean sea level. Measurements discontinued after Jan. 8, 1942.

a Depressed by recent withdrawal.

19/3-12A1. Howard Lee--Continued.

Water level, in feet below land-surface datum, 1940-42

Date	Water level	Date	Water level	Date	Water level
Feb. 28, 1940	3.25	Dec. 30, 1940	3.46	July 31, 1941	9.10
June 5	6.00	Feb. 5, 1941	3.58	Sept. 4	10.21
Aug. 6	9.71	Mar. 4	3.48	Oct. 1	10.65
Sept. 4	10.93	Apr. 4	3.51	Nov. 3	10.74
Oct. 3	11.90	30	5.18	Dec. 17	3.35
31	9.93	May 29	4.82	Jan. 8, 1942	3.50
Dec. 2	3.60	June 25	6.35		

19/3-20R1. G. Breseman. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 19 N., R. 3 E., about 200 feet east of pavilion at Spanaway Lake, in well house. Used dug public-supply well, diameter 36 inches, depth 32.2 feet. Regional water table. Measuring point, top of southwest side of tile casing, 9.20 feet below land-surface datum. Land-surface datum is about 350 feet above mean sea level. Measurements discontinued May 29, 1941.

Water level, in feet below land-surface datum, 1940-41

Mar. 12, 1940	27.88	Oct. 3, 1940	29.14	Feb. 5, 1941	28.25
June 5	28.22	Nov. 4	29.24	Apr. 4	28.40
Aug. 7	28.71	Dec. 2	28.93	30	28.55
Sept. 4	28.95				

19/3-28F1. C. C. Modahl. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 19 N., R. 3 E., on east side of National Park Highway between Fifth and Sixth Streets, 10 feet south of frame dwelling. Used dug domestic well, diameter originally 40 inches, later backfilled around 12-inch concrete tile, depth 40 feet including pit. Regional water table, above Vashon till. Measuring points: (3) Top of pump platform at 1-inch drilled hole, 2.00 feet below land-surface datum; (4) beginning Dec. 31, 1942, inner lip, west side of concrete tile, 0.80 foot above concrete floor, 0.67 foot above pump platform, and 1.33 feet below land-surface datum. Land-surface datum is about 360 feet above mean sea level.

Water level, in feet below land-surface datum, 1937-43

Nov. 8, 1937	33.44	Aug. 7, 1940	30.90	Dec. 17, 1941	31.96
Dec. 22	30.10	Sept. 4	31.55	Jan. 8, 1942	29.10
Feb. 9, 1938	29.05	Oct. 3	32.08	Feb. 3	29.15
Apr. 23	28.74	31	32.50	Mar. 4	28.98
June 6	30.31	Dec. 2	32.00	Apr. 4	29.60
July 22	31.56	30	30.82	May 5	30.29
Aug. 23	31.76	Feb. 5, 1941	29.55	June 2	30.79
Sept. 30	33.03	Mar. 4	29.91	24	31.10
Nov. 7	33.66	Apr. 4	30.19	Aug. 27	31.84
Jan. 6, 1939	32.78	30	30.43	Nov. 2	a 32.8
Apr. 12	30.79	May 29	31.00	27	b 31.30
July 11	31.32	June 25	31.56	Feb. 9, 1943	29.63
Sept. 23	32.78	July 31	32.24	Apr. 21	28.28
Oct. 13	32.95	Sept. 6	32.80	June 10	29.68
Jan. 12, 1940	31.47	Oct. 1	33.17	Oct. 4	31.3
Apr. 4	28.19	Nov. 3	33.64	Nov. 29	32.98
June 5	29.18				

19/3-33L1. B. M. Shandrow. Formerly owned by E. L. Tarpenning. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 19 N., R. 3 E., about 0.2 mile north of Y-junction of National Park Highway with Roy Road, at rear of two-story residence painted gray. Used dug domestic well, diameter 48 inches, depth 20.6 feet. Semi-perched water table, above Vashon till. Measuring point, top of well curb at northwest corner of 2-inch cross plank, marked by copper nail with washer, 0.90 foot above land-surface datum. Land-surface datum is about 385 feet above mean sea level.

a Pumping.

b Pumping prior to measurement.

## 19/3-33L1. B. M. Shandrow--Continued.

Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Mar. 12, 1940	14.32	May 29, 1941	16.44	June 2, 1942	16.11
June 5	14.22	June 25	17.10	24	16.13
Aug. 7	16.08	July 31	19.01	Aug. 6	17.05
Sept. 4	17.04	Sept. 6	18.65	27	17.62
Oct. 3	17.92	Oct. 1	19.10	Nov. 2	18.70
31	18.44	Nov. 3	19.10	27	16.83
Dec. 2	17.86	Dec. 17	17.58	Dec. 31	15.30
30	16.84	Jan. 8, 1942	15.20	Feb. 9, 1943	14.49
Feb. 5, 1941	15.72	Feb. 3	14.88	Apr. 21	13.80
Mar. 4	15.65	Mar. 4	14.49	June 10	14.40
Apr. 4	15.80	Apr. 4	14.71	Oct. 4	18.07
30	15.85	May 55	15.51	Nov. 29	18.78

17/4-4J1. O. S. Peterson. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 19 N., R. 4 E., about 0.3 mile north of T-road junction, on west side of road, at rear of dwelling. Used dug domestic well, diameter 48 inches, depth 23.5 feet. Perched water table, in Vashon till. Measuring point 3, top of metal tag attached to wooden curb, 2.30 feet above land-surface datum. Land-surface datum is about 477 feet above mean sea level.

Water level, in feet below land-surface datum, 1937-43

Nov. 16, 1937	9.29	Sept. 4, 1940	23.05	Feb. 3, 1942	10.18
Dec. 21	10.62	Oct. 3	23.21	Mar. 4	15.28
Feb. 9, 1938	10.25	31	21.78	Apr. 3	16.31
Apr. 23	10.37	Dec. 2	13.01	May 5	20.29
June 6	21.53	30	10.54	June 2	21.43
July 23	23.19	Feb. 5, 1941	13.26	24	21.49
Aug. 23	24.51	Mar. 4	12.67	Aug. 4	22.94
Sept. 30	24.25	Apr. 4	15.14	27	23.00
Nov. 7	24.69	30	17.26	Sept. 28	23.20
Jan. 6, 1939	10.17	May 29	20.27	Nov. 3	23.58
Apr. 11	17.08	June 25	21.56	Dec. 3	10.62
July 11	23.24	July 31	22.88	30	9.80
Sept. 23	23.03	Sept. 4	23.02	Feb. 10, 1943	9.10
Oct. 13	23.20	Oct. 1	22.93	Apr. 21	14.70
Dec. 21	12.98	Nov. 3	22.65	June 12	20.37
Apr. 2, 1940	10.23	Dec. 17	9.92	Oct. 8	23.46
June 10	20.57	Jan. 2, 1942	14.55	Nov. 29	23.07
Aug. 5, 1940	22.80				

19/4-4J2. Mrs. M. R. Ollinger, tenant. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 19 N., R. 4 E., about 0.4 mile north of T-road junction, on west side of road, at rear of dwelling. Used dug domestic well, diameter 48 inches, depth 22.5 feet. Perched water table, in Vashon till. Measuring points: (1) Top of curb, 1.00 foot above land-surface datum; (2) beginning Feb. 9, 1938, top of metal tag, 0.16 foot below top of curb and 0.84 foot above land-surface datum. Land-surface datum is about 470 feet above mean sea level. Measurements discontinued after Oct. 3, 1940.

Water level, in feet below land-surface datum, 1937-40

Nov. 16, 1937	21.89	Sept. 30, 1938	26.44	Dec. 21, 1939	25.97
Dec. 21	20.10	Nov. 7	26.62	Apr. 2, 1940	21.90
Feb. 9, 1938	19.20	Jan. 6, 1939	24.05	June 10	24.78
Apr. 23	18.89	Apr. 11	24.02	Aug. 6	25.70
June 6	25.33	July 11	25.98	Sept. 4	26.02
July 23	25.79	Sept. 23	26.49	Oct. 3	26.24
Aug. 23	26.06	Oct. 13	26.63		

19/4-7A1. S. Lilja. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 19 N., R. 4 E., about 400 feet south and 320 feet west of road intersection, in open shed west of house. Used dug domestic well, diameter 48 inches, depth 36.6 feet. Perched water table, in Vashon till. Float gage installed Aug. 26, 1943. Measuring point, top of ledge at southeast corner of trap, marked by copper nail with washer, 0.10 foot above land-surface datum. Land-surface datum is about 423 feet above mean sea level.

## 19/4-7A1. S. Lilja--Continued.

Water level, in feet below land-surface datum, 1940-43  
(From float-gage readings by owner beginning Aug. 26, 1943)

Date	Water level	Date	Water level	Date	Water level
Feb. 28, 1940	18.52	Sept. 4, 1941	35.01	Dec. 30, 1942	24.72
June 10	24.50	Oct. 1	36.35	Feb. 10, 1943	20.99
Aug. 6	31.99	Nov. 3	36.52	Apr. 21	19.73
Sept. 4	33.43	Dec. 17	33.43	June 12	26.94
Oct. 3	34.17	Jan. 8, 1942	22.17	Aug. 26	34.04
31	35.10	Feb. 3	20.85	Sept. 2	34.28
Nov. 19	a 36.6+	Mar. 4	21.30	9	34.41
Dec. 2	34.66	Apr. 3	23.78	16	34.69
30	28.91	May 5	27.87	23	35.20
Feb. 5, 1941	22.95	June 2	31.23	30	36.59
Mar. 4	24.02	24	32.79	Oct. 7	36.58
Apr. 4	25.50	Aug. 4	34.00	8	b 36.55
30	26.48	27	34.50	28	36.66
May 29	30.04	Sept. 28	36.40	Nov. 4	b 36.90
June 25	32.58	Nov. 3	36.25	Dec. 27	36.44
July 31	34.06	Dec. 3	27.92		

19/4-15E1. Charles Taylor. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 19 N., R. 4 E., about 140 feet north and 600 feet east from road intersection, about 25 feet northeast of frame dwelling painted white. Unused dug domestic well, diameter 84 inches, depth 20.9 feet. Taps perched water body on Vashon till. Measuring point, top of 4- by 6-inch timber spanning well, at land-surface datum and about 452 feet above mean sea level. Measurements discontinued after Apr. 21, 1943.

Water level, in feet below land-surface datum, 1940-43

June 10, 1940	15.69	May 29, 1941	12.67	May 5, 1942	12.11
Aug. 6	19.79	June 25	16.10	June 2	11.24
Sept. 4	20.47	July 31	19.07	24	8.89
Oct. 3	20.65	Sept. 6	20.12	Aug. 4	17.25
31	21.4	Oct. 1	20.51	27	19.00
Dec. 2	16.85	Nov. 3	20.40	Nov. 3	20.4
30	7.17	Dec. 17	7.00	Dec. 3	6.30
Feb. 5, 1941	6.83	Jan. 8, 1942	9.40	30	4.00
Mar. 4	5.17	Feb. 3	4.95	Feb. 11, 1943	3.00
Apr. 4	5.87	Mar. 4	8.20	Apr. 21	8.25
30	11.82	Apr. 3	8.89		

19/4-20K1. Mrs. Margaret Gould. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 19 N., R. 4 E., about 200 feet east of Clover Creek Channel and 250 feet south of road, under large cottonwood tree. Unused dug stock well, diameter 50 inches, depth 17.6 feet. Perched water table, in Vashon till. Measuring point, top of 2-inch plank deck at copper nail with washer, at land-surface datum. Land-surface datum is about 475 feet above mean sea level. Measurements discontinued Dec. 3, when well was filled in and abandoned.

Water level, in feet below land-surface datum, 1940-42

Aug. 6, 1940	7.00	May 29, 1941	6.16	Mar. 4, 1942	3.27
Oct. 3	12.26	June 25	7.71	Apr. 3	3.40
31	11.85	July 31	9.50	May 5	4.80
Dec. 2	4.03	Sept. 6	10.52	June 24	4.20
30	2.79	Oct. 1	10.91	Aug. 4	7.75
Feb. 5, 1941	2.68	Nov. 3	10.80	27	9.12
Mar. 4	2.09	Dec. 17	2.05	Sept. 28	10.11
Apr. 4	2.07	Jan. 8, 1942	5.50	Nov. 3	11.00
30	6.01	Feb. 3	1.78		

a Well dry.

b Measured by Geological Survey.

19/4-20K3. Mrs. Margaret Gould. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 19 N., R. 4 E., about 200 feet east of Clover Creek Channel and 150 feet south of road, in rear of milk house on farm. Used drilled domestic and stock well, diameter 8 inches, depth 192.6 feet. Regional water table. Measuring points: (2) Lower face of pump flange at tapped hole, 0.40 foot above land-surface datum; (3) beginning Dec. 8, 1943, top of altered casing, 0.35 foot below land-surface datum. Land-surface datum is about 476 feet above mean sea level. Beginning Dec. 13, 1943, tape-measurement readings by Floyd R. Blyton, local observer.

## Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
Mar. 16, 1940	183.00	May 29, 1941	185.34	Aug. 27, 1942 a	186.50
June 10	183.01	June 25	185.93	Nov. 3	(b)
Aug. 6	184.30	July 31	186.90	Dec. 3	(b)
Sept. 4	186.00	Sept. 6	a 187.8	30	186.67
Oct. 3	186.95	Oct. 1	(b)	Feb. 11, 1943	184.25
31	a 188.42	Nov. 3	(b)	June 12	181.98
Dec. 2	188.35	Dec. 17	186.8	Oct. 8	a 186.35
30	187.70	Mar. 4, 1942	184.52	Dec. 8	188.35
Feb. 5, 1941	185.63	Apr. 3	184.30	13	183.35
Mar. 4	185.2	May 5	184.75	20	184.10
Apr. 4	184.9	June 24	a 185.05	27	185.35
30	184.79	Aug. 4	185.97		

19/4-21G1. Leroy Powell. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 19 N., R. 4 E., about 100 feet north of Mitchell-Gould road, 10 feet east of frame house. Used dug domestic well, diameter 36 inches, depth 8.4 feet. Perched water table just above Vashon till. Measuring point, top east side of concrete casing, 0.30 foot above land-surface datum. Land-surface datum is about 483 feet above mean sea level.

## Water level, in feet below land-surface datum, 1937-43

Nov. 16, 1937	0.68	Oct. 3, 1940	4.96	Feb. 3, 1942	2.55
Dec. 27	.89	31	2.55	Mar. 4	2.91
Feb. 9, 1938	.84	Dec. 2	2.78	Apr. 3	3.10
Apr. 23	1.25	30	2.74	May 5	3.16
June 6	3.30	Feb. 5, 1941	2.99	June 2	3.15
July 23	3.59	Mar. 4	2.71	24	3.78
Aug. 23	4.16	Apr. 4	2.84	Aug. 4	4.95
Sept. 30	4.38	30	3.80	27	5.62
Nov. 7	3.09	May 29	3.48	Sept. 28	5.98
Jan. 6, 1939	1.14	June 25	4.53	Nov. 3	3.28
Sept. 23	6.27	July 31	6.08	Dec. 3	2.78
Oct. 13	6.45	Sept. 6	5.51	30	2.48
Dec. 21	2.72	Oct. 1	5.25	Feb. 11, 1943	2.18
Apr. 2, 1940	2.58	Nov. 3	5.50	Apr. 21	2.18
June 10	3.64	Dec. 17	2.54	June 12	3.50
Aug. 6	5.10	Jan. 8, 1942	3.56	Oct. 8	6.70
Sept. 4	5.47				

19/4-24A1. Birchall A. Baker. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 19 N., R. 4 E., about 0.6 mile south of bridge across Puyallup River, 200 feet west of road, and 175 feet south of farmhouse, near fruit trees. Unused driven well, diameter 4 inches, depth 27 feet. Regional water table. Measuring point, top of 4-inch casing, 1.10 feet above land-surface datum. Land-surface datum is about 148 feet above mean sea level.

## Water level, in feet below land-surface datum, 1941-43

Sept. 4, 1941	16.80	Apr. 1, 1942	16.45	Nov. 4, 1942	16.81
Oct. 2	13.75	May 6	16.32	Dec. 2	14.87
Nov. 2	16.68	June 3	15.91	Feb. 10, 1943	14.93
Dec. 18	15.60	25	15.74	June 10	14.96
Jan. 9, 1942	15.70	Aug. 5	16.43	Oct. 5	17.07
Feb. 4	15.72	31	16.83	Nov. 29	17.07
Mar. 5	16.35	Sept. 30	17.20		

- a Pump operating in well less than 15 minutes before measurement.  
b More than 188.5 feet.

19/4-24A2. Birchall A. Baker. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 19 N., R. 4 E., about 10 feet east of well 24A1, in open pit. Unused driven well, diameter 4 inches, depth 57 feet. Regional water table. Measuring point, top of 4-inch casing, 300 feet below land-surface datum. Land-surface datum is about 148 feet above mean sea level.

Water level, in feet below land-surface datum, 1941-43

Date	Water level	Date	Water level	Date	Water level
Sept. 4, 1941	17.77	Apr. 1, 1942	16.53	Nov. 4, 1942	16.85
Oct. 2	16.83	May 6	16.41	Dec. 2	14.98
Nov. 2	16.75	June 3	16.02	Feb. 10, 1943	15.05
Dec. 18	15.71	25	15.81	Apr. 22	15.58
Jan. 9, 1942	15.85	Aug. 5	16.52	June 10	16.15
Feb. 4	15.86	31	16.91	Oct. 5	17.14
Mar. 5	16.44	Sept. 30	17.30	Nov. 29	17.15

19/4-24A3. Birchall A. Baker. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 19 N., R. 4 E., about 150 feet north and 190 feet west of well 24A1, in well house. Used drilled domestic well, diameter 5 inches, depth 145 feet. Taps confined nonartesian water. Measuring point, top of 5-inch casing, at land-surface datum. Land-surface datum is about 145 feet above mean sea level.

Water level, in feet below land-surface datum, 1941-43

Aug. 1, 1941	15.26	Mar. 5, 1942	15.11	Sept. 30, 1942	15.76
Sept. 4	14.94	Apr. 1	15.02	Nov. 4	15.03
Oct. 2	15.23	May 6	14.70	Dec. 2	13.70
Nov. 2	15.28	June 3	14.53	June 10, 1943	a 14.65
Dec. 18	14.17	25	14.40	Oct. 5	15.66
Jan. 9, 1942	14.52	Aug. 5	15.00	Nov. 20	15.60
Feb. 4	14.51	31	15.55		

19/5-19M1. C. J. Lawson. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 19 N., R. 5 E., about 1.0 mile south of bridge across Puyallup River, 160 feet east of road, 30 feet northeast of farmhouse, at foot of terrace. Used drilled irrigation well, diameter 6 inches, depth 81 feet. Regional water table. Measuring point: (2) lower lip of 3-inch elbow attached to extended casing, 2.00 feet above land-surface datum plus 0.90-foot correction for inclination of tape. Land-surface datum is about 140 feet above mean sea level. Beginning Oct. 13, 1943, tape measurements by owner.

Water level, in feet below land-surface datum, 1940-43

June 11, 1940	3.04	Nov. 2, 1941	3.16	Feb. 10, 1943	1.36
Aug. 9	3.51	Dec. 18	1.83	Apr. 22	1.80
Sept. 5	3.75	Jan. 9, 1942	2.22	June 10	2.34
Oct. 9	3.83	Feb. 4	2.08	Oct. 5	3.29
Nov. 2	2.92	Mar. 5	2.75	13	3.3
Dec. 4	1.96	Apr. 1	2.74	22	3.3
Jan. 2, 1941	2.53	May 6	2.62	30	3.3
Feb. 6	2.60	June 3	2.24	Nov. 5	2.9
Mar. 5	2.60	25	2.00	11	2.9
Apr. 4	2.50	Aug. 5	2.71	20	3.0
May 1	2.93	31	3.24	29	3.3
29	2.81	Sept. 30	3.48	Dec. 6	b 2.3
June 27	2.99	Nov. 4	2.86	14	2.4
Aug. 1	3.12	Dec. 2	.95	21	2.7
Sept. 4	3.02	31	1.27	31	2.6
Oct. 2	3.21				

19/5-31Q1. Carol Copeland. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 19 N., R. 5 E., in angle of Orting-Graham road from south to west, opposite entrance to Soldiers' Home. Unused dug domestic well, diameter 42 inches, depth 6.0 feet. Probably regional water table. Measuring point, top of metal tag attached to timber curb, 1.00 foot above land-surface datum. Land-surface datum is about 201 feet above mean sea level. Measurements discontinued after Aug. 9, 1943.

a Pumping prior to measurement.

b Nearby river at high stage.



19/5-31Q1. Carol Copeland--Continued.

## Water level, in feet below land-surface datum, 1938-40

Date	Water level	Date	Water level	Date	Water level
Jan. 10, 1938	1.28	Sept. 30, 1938	3.47	Oct. 13, 1939	3.40
Feb. 9	1.04	Nov. 7	2.02	Dec. 21	1.19
Apr. 22	1.14	Jan. 6, 1939	1.11	Apr. 3, 1940	1.52
June 6	2.57	Apr. 12	1.55	June 11	3.10
July 21	3.29	July 11	2.60	Aug. 9	4.00
Aug. 22	3.60	Sept. 22	3.25		

20/2-10D1. W. H. Craft. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 20 N., R. 2 E., on west side of Mountain View Drive about 0.1 mile south of 19th Street, at base of cedar pole. Used dug domestic well, diameter 48 inches, depth 26.0 feet. Probably semiperched water table, below Vashon till. Measuring point, top of south wood flashing, 0.33 foot above concrete curb and 0.50 foot above land-surface datum. Land-surface datum is about 232 feet above mean sea level. Measurements discontinued Aug. 1, 1943.

## Water level, in feet below land-surface datum, 1939-41

May 25, 1939	16.76	Aug. 8, 1940	19.47	Feb. 5, 1941	14.00
July 11	19.04	Sept. 5	20.76	Mar. 4	16.21
Sept. 22	20.21	Oct. 3	21.76	Apr. 3	16.95
Oct. 14	20.34	Nov. 1	21.53	May 1	18.11
Apr. 3, 1940	13.52	Dec. 3	21.57	30	19.35
June 8	16.17	31	17.30	June 26	a 24.50

20/2-10F1. C. L. Stout. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 20 N., R. 2 E., about 1,200 feet north of road intersection, on west side of road, 30 feet west of house, in semiburied concrete well house. Used dug domestic well, diameter 36 inches, depth 104.5 feet. Probably semiperched water table, below Vashon till. Float gage installed Sept. 28, 1942. Measuring points: (1) Top south side of concrete casing, 6.00 feet below land-surface datum; (2) beginning Dec. 31, 1942, top of concrete pump support, 5.80 feet below land-surface datum. Land-surface datum is about 317 feet above mean sea level.

## Water level, in feet below land-surface datum, 1941-43

(From float-gage readings by owner beginning Sept. 28, 1942)

Oct. 1, 1941	101.74	Mar. 7, 1943	103.3	Aug. 1, 1943	102.70
Nov. 1	101.76	21	103.3	8	102.67
Dec. 16	102.19	28	103.3	12	102.60
Jan. 10, 1942	102.34	Apr. 11	103.4	22	102.53
Feb. 4	102.41	18	103.3	29	102.43
Mar. 6	102.92	20	b 103.10	Sept. 4	102.45
May 5	103.07	26	103.25	12	102.42
June 2	102.60	May 9	103.2	19	102.35
26	102.65	19	103.15	Oct. 3	102.35
Aug. 5	b 102.40	June 10	bc 103.64	8	b 102.38
28	b 102.41	13	102.95	15	102.2
Sept. 28	b 102.57	20	102.90	24	102.15
Nov. 3	b 102.78	27	102.97	Nov. 28	102.25
4	102.58	30	102.85	Dec. 5	102.45
20	102.78	July 4	102.95	11	102.55
Dec. 3	b 102.95	11	102.85	19	102.55
31	b 103.10	18	102.75	26	102.80
Feb. 10, 1943	b 103.30	28	102.80		

20/2-10K1. C. W. Holman. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 20 N., R. 2 E., about 500 feet south and 150 feet east of road intersection, at wood tank tower painted yellow. Unused dug domestic well, diameter 48 inches, depth 61.3 feet. Probably semiperched water table. Measuring point, top south side of concrete curb, at land-surface datum. Land-surface datum is about 313 feet above mean sea level.

- a Pumping.
- b Measurements by Geological Survey.
- c Pumping prior to measurement.

20/2-10K1. C. W. Holman--Continued.

## Water level, in feet below land-surface datum, 1940-43

Date	Water level	Date	Water level	Date	Water level
May 23, 1940	54.26	June 26, 1941	58.15	June 26, 1942	56.88
Aug. 7	56.14	Aug. 1	59.42	Aug. 5	58.24
Sept. 5	57.45	Sept. 3	60.45	28	59.17
Oct. 3	58.67	Oct. 1	(a)	Sept. 28	60.35
Nov. 1	59.90	Nov. 1	(a)	Dec. 3	54.63
Dec. 3	60.44	Dec. 16	60.34	31	53.1
31	57.71	Jan. 10, 1942	56.72	Feb. 10, 1943	54.87
Feb. 5, 1941	54.52	Feb. 4	54.79	Apr. 20	54.00
Mar. 4	57.27	Mar. 5	56.81	June 10	54.65
Apr. 3	57.55	Apr. 2	56.22	Oct. 8	59.10
May 1	57.19	May 5	56.00	Nov. 30	(a)
30	57.57	June 2	56.23		

20/2-13H1. Owner's well 4-A. City of Tacoma. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 20 N., R. 2 E., about 290 feet south and 540 feet west of intersection of South 38th Street and South Tacoma Way. Used drilled public-supply well, diameter of inner casing 26 inches, depth 204 feet ("pilot hole" initially 294 feet). Taps confined water, nonartesian in large part. Measuring points: (4) Lowest point on lip of north 4-inch gravel pipe, at access to annular space between casings, 0.74 foot below land-surface datum plus 0.69-foot correction for inclination of tape; (6) beginning Sept. 3, 1940, top of 1-inch breather pipe in base on north side of pump, at access to inner casing, 0.21 foot above boss surrounding base of breather pipe and 1.01 feet above land-surface datum. Reference bench marks: (1) Chiseled square on north side of pump house, on top face at southeast corner of concrete apron; 0.30 foot above datum; (2) copper nail with washer, about 140 feet northwest of pump house, 30 feet east of railroad siding, in base on east side of telegraph pole; 2.64 feet below land-surface datum. Land-surface datum is 244.80 feet above sea-level datum of 1929 and 258.76 feet above city datum.

## Water level, in feet below land-surface datum, 1930-43

Nov. 19, 1930	b 13.48	Sept. 24, 1937	c 12.16	Oct. 14, 1937	12.20
25	b 14.02	25	c 12.08	15	12.20
Dec. 1	b 13.62	26	12.02	16	12.14
5	b 13.66	27	12.08	17	12.23
Nov. 22, 1932	b 14	28	11.98	18	12.29
Jan. 4, 1934	b 5	29	12.05	19	12.23
Mar. 6	b 4	30	11.95	19	e 95.4
July 12	b 6	Oct. 1	12.02	20	e 100.4
Oct. 24	b 7	2	12.05	21	e 92.4
Nov. 3	b 10	3	12.08	22	e 97.4
Jan. 27, 1935	b 12	4	d 12.16	23	13.60
Apr. 24	b 11	5	d 12.21	24	13.10
Jan. 9, 1936	b 9	6	d 12.30	25	12.85
Mar. 9, 1937	b 10	7	d 12.29	26	12.70
Sept. 17	12.01	8	d 12.29	27	12.59
20	12.08	9	d 12.31	28	12.60
20	c 12.07	10	d 12.35	29	12.60
21	c 12.09	11	d 12.34	Nov. 3	12.57
22	c 12.12	12	12.40	8	12.40
23	c 12.11	13	12.20	12	f 13.66

a Well dry.

b Measured by Tacoma Water Division; measurements in 1930 made during construction of well.

c Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m.

Sept. 25; all other municipal wells idle.

d Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

e Pumping.

f Withdrawal from well or from adjacent wells within 5 days.

## 20/2-13H1. Owner's well 4-A. City of Tacoma--Continued.

Water level, in feet below land-surface datum, 1930-43

Date	Water level	Date	Water level	Date	Water level
Nov. 19, 1937	a 12.16	Mar. 30, 1940	12.29	July 15, 1942	15.3
22	11.83	May 13	12.42	Aug. 4	15.12
Dec. 7	a 12.01	Sept. 3	14.44	6	15.29
13	a 12.73	Oct. 2	14.16	9	16
23	a 12.00	Nov. 1	14.23	17	16.1
28	11.20	Dec. 4	ab 15.1	24	16.3
Jan. 6, 1938	10.64	5	a 14.42	27	15.76
12	10.75	7	a 14.17	Sept. 28	15.53
Feb. 8	10.58	31	a 13.78	Oct. 1	15.56
Mar. 14	10.80	Feb. 4, 1941	13.15	Nov. 3	17.08
Apr. 21	11.00	Mar. 3	13.52	5	16.12
May 10	b 10.9	Apr. 3	13.40	Dec. 2	14.84
June 5	11.06	30	13.48	4	14.6
July 21	11.55	May 29	13.85	30	14.23
Aug. 23	11.74	June 26	14.29	Jan. 13, 1943	14.56
Sept. 30	11.78	July 30	15.01	27	14.59
Nov. 8	11.70	Aug. 26	b 15.0	Feb. 11	14.29
Apr. 7, 1939	11.58	Sept. 2	14.84	27	14.31
July 11	12.55	30	14.87	Mar. 6	14.43
Aug. 26	13.13	Oct. 4	b 14.0	31	14.3
Sept. 22	13.13	Nov. 2	15.07	Apr. 2	14.22
Oct. 5	b 13.8	Dec. 18	14.82	13	13.75
6	bc 13.8	Jan. 9, 1942	14.17	19	14.74
7	bc 14.0	Feb. 5	13.84	30	14.11
9	bc 14.3	Mar. 4	13.89	May 27	14.09
10	bc 14.3	11	b 13.4	June 11	14.03
11	c 14.11	Apr. 2	14.27	29	14.11
12	c 14.11	May 5	14.48	July 27	14.43
13	a 13.88	June 3	14.69	30	14.54
14	a 13.78	9	b 14.9	Aug. 30	14.81
Dec. 23	ab 13.3	11	b 15.3	Sept. 29	16.66
31	d 13.11	14	b 17.0	Oct. 30	14.58
Jan. 22, 1940	b 13.35	20	a 15.7	Nov. 29	14.41
Feb. 20	12.79	25	15.13	Dec. 29	14.78

20/2-13J1. Owner's well 6-A. City of Tacoma. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 20 N., R. 2 E., about 270 feet north and 80 feet east of intersection of South Tacoma Way and South 45th Street extended. Used drilled public-supply well, diameter of inner casing 26 inches, depth 179 feet ("pilot hole" initially 335 feet). Taps confined water nonartesian in large part. Measuring points: (4) Beginning June 6, 1939, top west side of 4-inch coupling on northwest gravel spout, marked by chiseled double arrow, 1.54 feet above land-surface datum plus 0.43-foot correction for inclination of tape; (5) beginning June 6, 1940, top east side of 4-inch coupling on southeast gravel spout, marked by chiseled single arrow, 1.55 feet above land-surface datum plus 0.58-foot correction for inclination of tape; (6) beginning Nov. 1, 1940, top of 1 $\frac{1}{2}$ -inch breather pipe in pump base, 2.33 feet above datum. Reference bench marks: (1) Bronze tablet stamped "FRW", about 55 feet south and 45 feet west of well, 9 feet east of curb along South Tacoma Way, in top of concrete monument, 3.91 feet below land-surface datum; (2) chiseled square at outside southwest corner of pump house, on top west edge of concrete girder, 1.10 feet above land-surface datum. Land-surface datum is 266.39 feet above sea-level datum of 1929 and 280.35 feet above city datum.

a Withdrawal from well or from adjacent wells within 5 days.

b Measured by Tacoma Water Division; measurements in 1930 made during construction of well.

c Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m., Oct. 12; all other municipal wells idle.

d Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.

## 20/2-13J1. Owner's well 6-A. City of Tacoma--Continued.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
June 14, 1939	a 33.06	May 29, 1941	34.47	Nov. 5, 1942	d 36.87
23	a 32.60	June 26	34.86	24	35.52
26	a 32.85	July 10	c 80	25	36.02
July 10	a 32.96	15	c 82	Dec. 3	35.15
Aug. 3	a 34.77	17	c 85	4	35.02
Oct. 11	b 97.37	30	35.64	17	34.91
13	35.77	Sept. 2	35.43	30	34.47
14	35.18	30	35.41	Jan. 27, 1943	35.17
Dec. 31	33.49	Nov. 2	35.61	Feb. 10	34.33
Feb. 20, 1940	33.19	Dec. 16	35.65	27	34.44
Mar. 30	33.06	Jan. 9, 1942	34.61	Mar. 6	34.21
May 13	33.64	Feb. 5	34.30	31	34.16
June 6	33.75	Mar. 4	34.28	Apr. 19	d 35.32
Aug. 5	35.28	Apr. 2	34.71	30	34.38
Sept. 3	35.19	May 5	35.00	May 27	d 34.45
Oct. 2	34.88	June 3	35.23	June 11	34.36
Nov. 1	34.93	25	35.60	25	34.51
28	c 76	July 24	36.0	29	34.42
Dec. 2	c 80	Aug. 4	35.67	July 26	34.69
5	d 35.17	6	35.67	30	d 34.69
7	d 34.86	7	36.0	Aug. 30	33.82
31	34.33	14	35.9	Sept. 29	35.23
Feb. 4, 1941	33.63	27	36.48	Oct. 30	34.69
Mar. 3	33.79	Sept. 28	35.94	Nov. 29	34.54
Apr. 3	33.88	Oct. 1	35.98	Dec. 29	34.98
30	33.99	31	35.90		

20/2-15L2. C. H. Erickson. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 20 N., R. 2 E., about 75 feet south and 75 feet west of road intersection, in well house. Used dug domestic well, diameter 36 inches, depth 128.5 feet. Probably semi-perched water table, below Vashon till. Measuring point, top of concrete curb, at land-surface datum. Land-surface datum is about 378 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

May 23, 1940	121.10	June 26, 1941	126.80	June 26, 1942	127.04
Aug. 7	121.60	Aug. 1	126.72	Aug. 5	126.75
Sept. 5	121.8	Sept. 3	126.74	28	126.65
Oct. 3	122.0	Oct. 1	126.70	Sept. 28	126.50
Nov. 1	125.84	Nov. 1	126.46	Nov. 3	126.37
Dec. 3	126.03	Dec. 16	126.64	Dec. 3	126.52
31	126.00	Jan. 10, 1942	126.88	31	126.30
Feb. 5, 1941	125.56	Feb. 4	126.66	Feb. 10, 1943	126.40
Mar. 4	126.07	Mar. 6	127.05	Apr. 20	126.51
Apr. 3	126.34	Apr. 2	126.86	June 10	127.05
May 1	126.42	May 5	127.05	Oct. 8	125.50
30	126.61	June 2	127.00	Nov. 30	124.80

20/2-15M1. J. W. Forsythe. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 20 N., R. 2 E., near west end and 5 feet north of Madrona Street, at crest of slope to Puget Sound, in small pump house painted white. Used dug and drilled public-supply well, diameter 8 inches, reported depth 435 feet. Taps confined nonartesian water. Measuring point, lower face of flange near 3/4-inch tapped hole in pump housing, 0.50 foot above land-surface datum. Land-surface datum is about 398 feet above mean sea level. Measurements discontinued June 26, 1941.

a Measurement made during construction of well but after nondrilling intervals of 12 or more hours.

b Pumping; measurement made during acceptance test from 12 noon, Oct. 5 to 1:38 p.m., Oct. 12.

c Pumping.

d Withdrawal from well during preceding 5 days.

## 20/2-15M1. J. W. Forsythe--Continued.

## Water level, in feet below land-surface datum, 1940-41

Date	Water level	Date	Water level	Date	Water level
Aug. 7, 1940	295.02	Dec. 3, 1940	294.4	Apr. 3, 1941	295.66
Sept. 7	295.00	Feb. 5, 1941	294.0	May 1,	295.9
Oct. 3	295.5	Mar. 4	295.5	30	296
Nov. 1	294.97				

20/2-24Fl. S. W. Bell. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 19 N., R. 2 E., about 125 feet south of South 52d Street, below shingled cover. Used dug domestic well, diameter 48 inches, depth 67.3 feet. Regional water table, below Vashon till. Measuring points: (1) Top of lower ledge of trap-door support, 0.50 foot above land-surface datum; (2) beginning Oct. 4, 1943, chiseled arrow at top north side of concrete curb, 0.20 foot above land-surface datum. Land-surface datum is about 284 feet above mean sea level.

## Water level, in feet below land-surface datum, 1940-43

May 17, 1940	62.59	July 31, 1941	64.23	June 25, 1942	63.92
June 8	62.70	Sept. 5	64.55	Aug. 5	a 65.20
Aug. 7	63.21	Oct. 2	64.94	27	64.50
Sept. 5	63.68	Nov. 3	64.95	Sept. 28	64.80
Oct. 4	63.81	Dec. 17	64.75	Nov. 3	65.18
Nov. 2	64.10	Jan. 9, 1942	a 64.74	Dec. 3	64.97
Dec. 4	64.08	Feb. 4	a 64.55	31	a 65.22
31	64.17	Mar. 5	63.90	Feb. 10, 1943	64.60
Feb. 6, 1941	63.79	Apr. 2	a 63.81	Apr. 19	63.75
Mar. 3	63.92	2	63.78	June 11	63.05
Apr. 3	63.60	May 7	63.68	Oct. 4	63.84
May 28	63.78	June 4	63.70	Dec. 2	64.01
June 26	63.92				

20/2-26J1. James Holroyd. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 26, T. 20 N., R. 2 E., about 100 feet north and 280 feet east of intersection of Custer Road and South 74th Street extended, in pit. Used dug irrigation and domestic well, diameter 12 inches, depth 37.7 feet. Regional water table, above Vashon till. Measuring point, top of inner lip of bill of concrete-tile casing, 13.80 feet below land-surface datum. Land-surface datum is about 246 feet above mean sea level.

## Water level, in feet below land-surface datum, 1940-43

Apr. 3, 1940	28.21	June 26, 1941	30.89	June 26, 1942	30.77
June 7	29.31	Aug. 1	a 32.10	Aug. 4	31.69
Aug. 8	30.75	1	31.90	28	31.98
Sept. 5	31.17	Sept. 3	32.16	Sept. 28	32.30
Oct. 2	31.40	Oct. 1	32.09	Nov. 3	32.14
Nov. 1	31.45	Nov. 1	32.07	Dec. 3	30.43
Dec. 5	30.86	Dec. 16	31.07	31	28.45
31	30.05	Jan. 10, 1942	28.60	Feb. 10, 1943	28.99
Feb. 6, 1941	28.81	Feb. 4	28.68	Apr. 20	28.20
Mar. 4	29.09	Mar. 6	28.54	June 10	29.70
Apr. 3	29.52	Apr. 2	29.14	Oct. 8	31.65
May 1	29.89	May 5	29.91	Nov. 30	31.55
30	a 30.80	June 2	30.41		

20/2-34K1. Joseph J. Werner. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 20 N., R. 2 E., about 160 feet south and 45 feet east of T-road south, in 4- by 6-foot semiburied concrete pump house. Used dug domestic and public-supply well, diameter 36 inches, depth 44.2 feet. Regional water table, above the Vashon till. Automatic water-stage recorder installed May 3, 1939, and removed June 26, 1942. Measuring points: (1) Top south side of curb, level with pump-house floor and 4.00 feet below land-surface datum; (2) beginning Aug. 11, 1940, top of  $\frac{3}{4}$ -inch pipe piercing concrete well cover, 3.06 feet below land-surface datum. Reference bench mark, copper nail with washer, about 15 feet nearly northeast of well along south edge of driveway, in root on south side of 18-inch fir stump, 0.71 foot above land-surface datum. Land-surface datum is 239.98 feet above mean sea-level datum of 1929. Measurements discontinued after June 26, 1942.

a Pumping.

20/2-34K1. Joseph J. Werner--Continued.

Water level, in feet below land-surface datum, 1939-42  
(Selected levels at 6 a.m., from recorder charts)

Date	Water level	Date	Water level	Date	Water level
May 5, 1939	40.80	May 31, 1940	39.88	June 5, 1941	40.36
10	40.84	June 5	40.04	10	40.41
15	40.88	10	40.15	15	40.44
20	40.96	15	40.13	20	40.45
25	40.96	20	40.14	25	40.50
31	40.98	25	40.22	30	40.56
June 5	40.93	30	40.28	July 5	40.60
10	41.00	July 5	40.33	10	40.64
15	40.79	10	40.38	15	40.71
20	40.36	15	40.48	20	40.74
25	40.11	20	40.55	25	40.82
30	40.04	25	40.59	31	40.88
July 5	40.05	31	40.61	Aug. 5	40.92
10	40.10	Aug. 5	40.66	10	40.96
15	40.10	15	40.63	15	41.03
20	40.17	20	40.63	20	41.08
25	40.20	25	40.63	25	41.14
31	40.25	31	40.64	31	41.16
Aug. 5	40.33	Sept. 5	40.83	Sept. 5	41.19
10	40.37	10	40.94	10	41.23
15	40.41	15	40.97	15	41.22
20	40.48	20	41.05	20	41.33
25	40.50	25	41.05	25	41.46
31	40.55	29	41.16	30	41.59
Sept. 5	40.61	Oct. 5	41.25	Oct. 5	41.65
10	40.65	10	41.36	10	41.75
15	40.71	15	41.41	15	41.79
20	40.76	20	41.42	20	41.80
25	40.80	25	41.43	25	41.88
30	40.84	31	41.58	31	42.04
Oct. 5	40.89	Nov. 3	41.67	Nov. 5	42.05
10	40.92	Dec. 5	41.53	10	42.38
15	40.91	10	41.40	15	42.02
20	41.08	15	41.42	20	41.99
25	41.24	20	41.31	25	42.05
31	41.55	Jan. 5, 1941	41.04	30	42.02
Nov. 5	41.81	10	41.02	Dec. 5	41.92
10	41.94	15	41.02	10	41.86
15	42.10	20	40.79	15	41.81
20	42.21	25	40.69	20	41.40
25	42.21	31	40.71	25	40.64
30	42.32	Feb. 5	40.73	31	40.43
Dec. 5	42.32	10	40.76	Jan. 5, 1942	40.60
21	41.60	15	40.77	10	40.60
Feb. 21, 1940	40.60	20	40.81	15	40.70
25	40.60	25	40.84	20	40.86
29	40.38	Mar. 5	40.83	25	40.75
Mar. 5	40.22	10	40.84	31	40.73
10	40.14	15	40.87	Feb. 5	40.61
15	40.16	20	40.85	10	40.40
20	40.22	25	40.83	15	40.44
25	40.28	31	40.72	20	40.51
31	40.34	Apr. 5	40.57	25	40.57
Apr. 5	40.34	10	40.27	28	40.61
10	40.34	15	40.14	Mar. 5	40.65
15	40.40	20	40.04	10	40.71
20	40.13	25	40.04	15	40.74
25	39.42	30	40.02	20	40.79
30	39.62	May 5	40.08	25	40.83
May 5	39.67	10	40.16	31	40.89
10	39.66	15	40.23	Apr. 5	40.93
15	39.72	20	40.24	10	40.88
20	39.77	25	40.28	15	40.68
25	39.84	31	40.33	20	40.49

## 20/2-34K1. Joseph J. Werner--Continued.

Water level, in feet below land-surface datum, 1939-42  
(Selected levels at 6 a.m., from recorder charts)

Date	Water level	Date	Water level	Date	Water level
Apr. 25, 1942	40.13	May 20, 1942	40.28	June 10, 1942	40.36
30	40.05	25	40.26	15	40.48
May 5	40.15	31	40.29	20	40.48
10	40.22	June 5	40.35	26	40.51
15	40.27				

20/2-36J1. T. Wilcher. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 20 N., R. 2 E., about 150 feet south of Steilacoom road and 900 feet west of Pacific Highway, beneath tank house painted yellow. Used dug domestic well, diameter 48 inches, depth 40.7 feet. Semipitched water table, above Vashon till. Measuring points: (1) Lower face of 3-inch plank spanning well, at land-surface datum; (2) beginning Aug. 7, 1940, top of floor alongside suction pipe, 5.58 feet below land-surface datum. Land-surface datum is about 275 feet above mean sea level. Measurements discontinued after June 11, 1943.

Water level, in feet below land-surface datum, 1940-43

May 28, 1940	a 31.05	May 28, 1941	33.34	Apr. 2, 1942	32.00
Aug. 7	a 44.17	June 26	36.07	May 5	32.76
Sept. 3	34.4 <sup>a</sup>	July 30	36.76	June 4	33.47
Oct. 2	35.28	Sept. 5	36.58	25	34.15
31	35.92	Oct. 2	36.89	Aug. 5	35.13
Dec. 3	35.68	Nov. 3	a 39.12	31	35.78
31	33.6	Dec. 16	34	Sept. 28	36.37
Feb. 6, 1941	a 30.9	Jan. 10, 1942	31.09	Dec. 31	30.8
Mar. 3	32.13	Feb. 5	29.68	Apr. 20, 1943	29.6
Apr. 5	32.20	Mar. 4	31.07	June 11	31.91
May 2	32.38				

20/3-9E1. National Soap Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 20 N., R. 3 E., in southwest angle of South 25th and Holgate Streets, inside and along east wall of engine room. Unused drilled industrial well, diameter 6 inches, depth 200 feet. Taps confined nonartesian water, below Vashon till. Measuring point: (2) Top of 1-inch tee on air pipe, 0.25 foot above top of pipe, 1.25 feet above land-surface datum. Land-surface datum is about 105 feet above mean sea level. Water level depressed somewhat by continuous pumping in nearby refrigeration well and by intermittent pumping in adjacent well 9E2.

Water level, in feet below land-surface datum, 1940-43

June 12, 1940	b 98.23	Mar. 4, 1941	c 65.64	Feb. 4, 1942	c 64.50
Aug. 3	b 75.35	Apr. 4	c 68.02	Mar. 6	c 70.21
9	b 81.45	May 6	c 70.91	Apr. 3	c 75.12
Sept. 5	b 97.13	30	c 72.84	May 7	c 76.18
Oct. 9	b 74.22	June 27	c 74.19	June 26	c 76.56
11	c 72.01	Aug. 1	c 74.78	Aug. 6	c 77.74
Nov. 2	74.40	Sept. 4	c 73.23	29	c 78.50
2	72.9 <sup>a</sup>	Oct. 2	c 73.00	Sept. 30	c 77.29
Dec. 5	c 68.40	Nov. 3	c 69.95	Apr. 21, 1943	c 66.6
31	c 66.45	Dec. 17	c 65.00	June 11	c 73.90
Feb. 6, 1941	c 65.15	Jan. 10, 1942	c 64.82		

20/3-15K1. L. G. Olsen. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 20 N., R. 3 E., about 25 feet east of frame dwelling at 4321 Portland Avenue, in well house. Used dug domestic well, diameter 48 inches, depth 55 feet. Taps unconfined water below Vashon till; probably regional water table. Measuring point, top of 2-inch plank floor at trap, 3.60 feet below land-surface datum. Land-surface datum is about 300 feet above mean sea level. Measurements discontinued Jan. 9, 1942.

- a Pumping intermittently during measurements.
- b Well 9E2 pumping intermittently.
- c Pump off overnight in well 9E2.

## 20/3-15K1. L. G. Olsen--Continued.

Water level, in feet below land-surface datum, 1940-41

Date	Water level	Date	Water level	Date	Water level
Apr. 25, 1940	47.00	Dec. 4, 1940	53.52	June 27, 1941	51.43
June 10	48.55	Jan. 2, 1941	53.59	Aug. 1	52.18
Aug. 9	50.62	Feb. 6	49.33	Sept. 4	52.83
Sept. 5	51.46	Mar. 5	49.98	Oct. 2	53.34
Oct. 4	52.00	Apr. 4	50.03	Nov. 2	53.83
Nov. 2	52.77	May 29	50.92		

20/3-18D1. Owner's well 2-A. City of Tacoma. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18, T. 20 N., R. 3 E., about 45 feet south and 565 feet east of intersection of South 36th Street and Union Avenue. Used drilled public-supply well, diameter of inner casing 26 inches, depth as first constructed 147.5 feet. By March 1934 casing had settled 13.5 feet; well was reconditioned and the casing extended upward to its initial level. Taps confined water, nonartesian in large part. Measuring point 6, beginning July 11, 1939, low point of lip on  $\frac{1}{2}$ -inch sounding pipe north of well, 0.70 foot above land-surface datum plus 0.17-foot correction for inclination of tape. Reference bench marks: (1) Chiseled square on top face at east end of concrete girder, 18 feet east of pump-house door, 0.10 foot above land-surface datum; (2) copper nail with washer in base on east side of easternmost of two transformer poles, 1.01 feet above land-surface datum. Land-surface datum is 244.01 feet above sea level datum of 1929 and 257.97 feet above city datum.

Water level, in feet below land-surface datum, 1930, 1934, 1937-43

Aug. 20, 1930	a 12.1	Oct. 6, 1937	d 26.34	Dec. 20, 1937	b 27.11
Sept. 29	a 13.1	7	d 27.34	28	21.22
Nov. 19	a 17.3	8	d 27.91	Jan. 6, 1938	20.08
29	a 21.3	9	d 28.28	12	20.12
Dec. 5	a 19.6	10	d 28.59	Feb. 8	19.62
15	a 17.5	11	d 28.43	Mar. 14	19.78
Nov. 1, 1934	a 20.7	12	26.68	Apr. 12	e 25.98
Aug. 10, 1937	b 34.80	13	24.64	June 5	20.26
Sept. 14	21.19	14	23.64	July 21	20.92
16	21.62	15	23.03	Aug. 23	21.95
17	21.68	16	22.55	Sept. 30	21.88
20	21.79	17	22.36	Nov. 8	21.68
21	c 21.83	18	22.32	Apr. 7, 1939	19.98
22	c 21.94	22	b 60.69	July 11	22.05
23	c 22.09	23	b 37.11	Aug. 26	23.86
24	c 22.13	24	b 30.65	Sept. 22	22.92
25	c 22.10	25	27.23	Oct. 5	a 23.9
26	22.04	26	25.63	6	af 23.9
27	21.86	27	24.17	7	af 23.9
28	21.83	28	23.50	9	af 24.2
29	21.87	Nov. 3	22.09	10	af 24.2
30	21.71	8	e 21.38	11	f 24.10
Oct. 1	21.81	12	b 37.19	12	f 24.10
2	21.86	19	b 35.87	13	24.03
3	21.85	22	23.74	14	24.00
4	21.89	Dec. 2	b 44.96	Dec. 31	g 27.41
4	d 22.02	7	25.11	Jan. 22, 1940	a 26.3
5	d 24.53	13	b 30.61	Feb. 20	26.08

a Measured by Tacoma Water Division; measurements in 1930 made during construction of well.

b Pumping in this well or nearby wells within 5 days of measurement.

c Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m.

Sept. 25; all other municipal wells idle.

d Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m.,

Oct. 11; all other municipal wells idle.

e Pumping in nearby well or wells.

f Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m.,

Oct. 12; all other municipal wells idle.

g Acceptance test of well 20/3-30C4 from 8:45 a.m., Dec. 24 to 10:15 a.m., Dec. 31; all other municipal wells idle.



## 20/3-18D1. Owner's well 2-A. City of Tacoma--Continued.

Water level, in feet below land-surface datum, 1930, 1934, 1937-43

	Water level		Water level		Water level
Mar. 30, 1940	24.97	Nov. 2, 1941	28.33	Aug. 6, 1942	c 30.98
May 13	25.13	Dec. 18	27.56	17	c 32.88
Aug. 5	26.94	Jan. 9, 1942	27.60	27	29.67
Sept. 3	25.59	Feb. 5	27.70	Sept. 28	27.63
Oct. 2	27.17	Mar. 4	27.96	Oct. 2	27.77
8	a 27.8	11	a 31.7	Nov. 3	c 33.69
Nov. 1	26.67	11	b 113	5	c 31.13
28	b 112.5	13	b 117	Dec. 2	29.09
Dec. 2	b 119.5	18	a 28	Jan. 13, 1943	26.95
3	ac 42.7	19	b 78	27	27.02
4	ac 36.5	20	b 105	Feb. 11	27.10
5	c 32.47	21	b 116	27	27.36
7	c 29.64	22	b 108	Mar. 6	27.52
31	26.58	28	a 27.2	31	c 28.86
Feb. 4, 1941	26.05	Apr. 2	26.90	Apr. 19	c 31.68
Mar. 3	26.61	25	a 26.6	30	26.67
Apr. 3	27.23	May 5	26.92	May 27	26.90
30	27.53	25	a 27	June 11	26.99
May 29	27.84	June 3	27.89	29	27.49
June 5	b 103.2	4	27.93	July 30	27.38
7	b 115.2	10	a 28.5	Aug. 30	26.84
26	26.25	11	b 117	Sept. 29	27.51
July 12	a 29.2	14	b 122	Oct. 4	27.54
30	27.82	25	27.23	30	28.21
Sept. 2	27.72	July 17	27.6	Nov. 29	26.66
30	28.22	Aug. 4	27.49	Dec. 29	26.92

20/3-19F1. Owner's well 5-A. City of Tacoma. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 20 N., R. 3 E., about 260 feet south and 135 feet east of intersection of South 54th and Lawrence Streets. Used drilled public-supply well, diameter of inner casing 26 inches, depth 356 feet ("pilot hole" initially 378 feet). Taps confined water, nonartesian in large part. Measuring points: (3) Beginning Oct. 23, 1937, lowest point on lip of west 4-inch gravel pipe, at access to annular space between casings, 0.29 feet below land-surface datum plus 0.75-foot correction for inclination of tape; (4) beginning Oct. 23, 1937, lip of south gravel pipe, 0.24 foot below datum plus 0.70-foot correction for inclination of tape; (6) beginning Nov. 1, 1940, top of 1-inch breather pipe through east side of turbine base, at access to inner casing, 0.39 foot above turbine base and 0.79 foot above land-surface datum. During periods of pumping and recovery the water level in the annular space between the casings lags greatly behind the level within the inner casing; accordingly, measuring points 3 and 4 are not ordinarily used. Reference bench marks: (1) Chiseled square on top face at southeast corner of concrete apron, on west side of pump house, 0.14 foot above land-surface datum; (2) chiseled square, on top face, near southwest corner of concrete base for blow-off pipe, about 115 feet N. 15° W. from pump house, 2.69 feet above land-surface datum. Land-surface datum is 265.56 feet above sea-level datum of 1929 and 279.52 feet above city datum.

Water level, in feet below land-surface datum, 1930-32, 1934-43

(Levels given only to nearest whole foot or whole tenth foot are from readings of pneumatic water-level gage)

Nov. 23, 1930	d 33.13	Oct. 24, 1934	d 22	Aug. 12, 1936	d 34
Jan. 27, 1931	d 33.53	Nov. 6	d 32	Dec. 14	d 34
Feb. 3	d 34.95	Apr. 24, 1935	d 32	Feb. 22, 1937	d 34
Nov. 22, 1932	d 35	25	d 33	Mar. 29	d 33
Jan. 4, 1934	d 22	Jan. 9, 1936	d 33	Aug. 7	d 36
July 12	d 24	Apr. 16	d 35	19	d 36

a Measured by Tacoma Water Division; measurements in 1930 made during construction of well.

b From reading of pneumatic water-level gage while well was pumping.

c Pumping in this well or nearby wells within 5 days of measurement.

d Measured by Tacoma Water Division; measurements in 1930 and 1931 made during development of well.

20/3-19Fl. City of Tacoma--Continued.

Water level, in feet below land-surface datum, 1930-32, 1934-43  
(Levels given only to nearest whole foot or whole tenth foot are from readings of pneumatic water-level gage)

Date	Water level	Date	Water level	Date	Water level
Aug. 29, 1937	a 34	Dec. 23, 1937	f 36.10	May 29, 1941	37.72
Sept. 17	35.85	28	35.20	June 26	38.35
20	35.88	Jan. 6, 1938	34.40	July 30	41.62
21	b 36.12	12	34.24	Sept. 3	41.21
22	b 36.94	Feb. 8	34.00	18	39.9
23	b 37.18	Mar. 14	34.11	30	40.96
24	b 37.17	Apr. 17	33.0	Nov. 2	40.90
25	b 37.24	18	e 98.0	Dec. 16	40.83
26	36.20	23	e 101.0	Jan. 9, 1942	40.79
27	36.09	May 18	33.0	Feb. 3	40.49
28	35.97	June 5	d 43.49	Mar. 4	40.25
29	35.01	12	34.0	Apr. 2	40.38
30	34.88	20	34.0	25	a 39.7
Oct. 1	34.92	July 21	34.99	May 5	40.09
2	34.83	Aug. 23	35.30	19	a 39.5
3	34.85	Sept. 30	35.49	June 3	40.03
4	34.90	Nov. 8	35.65	10	a 40.1
4	c 86.4	Dec. 30	35.0	25	40.12
5	c 99.7	Apr. 7, 1939	34.53	Aug. 4	40.1
6	c 101.2	July 11	35.97	27	40.17
7	c 102.0	Aug. 26	36.54	Sept. 28	40.11
8	c 103.0	Sept. 22	36.27	Oct. 2	40.12
9	c 103.1	Oct. 5, 1939	ag 36.1	13	40.0
10	c 103.5	9	g 36.1	23	40.2
11	c 103.5	12	g 36.71	24	39.85
12	41.74	13	f 36.51	Nov. 1	40.0
13	38.00	14	f 36.44	23	40.24
14	37.09	Nov. 14	37.1	Dec. 3	39.67
15	36.60	Dec. 21	f 37.6	4	39.7
16	36.39	24	ah 37.6	10	40.0
17	36.19	25	40.6	30	39.99
18	36.30	31	h 44.23	Jan. 15, 1943	39.92
19	d 36.44	Jan. 1, 1940	37.65	27	39.94
19	e 103.0	2	37.11	Feb. 11	39.84
20	e 105.0	22	37.1	27	39.79
21	e 100.0	Feb. 20	36.84	Mar. 6	39.75
22	e 101.0	Mar. 30	36.07	28	39.57
23	41.40	May 13	36.36	Apr. 1	39.82
24	38.51	Aug. 5	38.00	13	39.79
25	37.34	Sept. 3	37.41	30	39.92
26	36.82	Oct. 2	37.88	May 27	39.85
27	36.29	8	a 37.8	June 11	39.71
28	36.14	14	e 105.8	29	39.64
29	d 36.74	16	e 121.8	July 27	f 40.16
30	d 36.96	Nov. 1	38.64	30	39.56
Nov. 3	36.12	Dec. 5	f 38.81	Aug. 30	39.44
8	d 35.79	31	39.08	Sept. 29	39.35
12	f 42.09	Feb. 4, 1941	38.67	Oct. 4	39.30
19	f 37.05	Mar. 3	38.01	30	39.21
22	35.71	Apr. 3	36.84	Nov. 29	38.99
Dec. 7	f 36.48	30	36.94	Dec. 29	39.17
13	f 38.47				

a Measured by Tacoma Water Division; measurements in 1930 and 1931 made during development of well.

b Pump test of well 20/3-30N1 from 4:46 p.m., Sept. 20 to 4:46 p.m., Sept. 25; all other municipal wells idle.

c Pumping in this well from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

d Pumping in nearby well or wells.

e Pumping.

f Withdrawal from adjacent well or wells within 5 days preceding measurement.

g Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m., Oct. 12; all other municipal wells idle.

h Acceptance test of well 20/3-30C4 from 8:45 a.m., Dec. 24 to 10:15 a.m., Dec. 31; all other municipal wells idle.

20/3-19Fl. Owner's well 1-A. City of Tacoma. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 20 N., R. 3 E., about 90 feet south and 730 feet east of intersection of South 63d and Alder Streets. Used drilled public-supply well, diameter of inner casing 24 inches, depth 305 feet ("pilot hole" initially 310 feet). Taps confined water, nonartesian in large part. Measuring point, lowest point on lip of 4-inch gravel pipe, reached through handhole in concrete apron west of pump house door, 0.20 foot below land-surface datum plus 2.95-foot correction for inclination of tape. Reference bench mark, chiseled square, on top, at southeast corner, of concrete apron west of pump house, 0.32 foot above land-surface datum. Land-surface datum is 260.99 feet above sea-level datum of 1929 and 274.95 feet above city datum.

## Water level, in feet below land-surface datum, 1930-32, 1934-43

Date	Water level	Date	Water level	Date	Water level
Feb. 11, 1930	a 31	Oct. 17, 1937	29.94	Oct. 12, 1939	g 30.25
14	a 31	18	29.99	Nov. 14	31.1
24	a 31	19	d 42.79	Dec. 23	ae 30.7
June 11	a 29.1	20	d 47.45	24	ah 36.7
Nov. 22, 1932	a 42	21	d 49.24	25	h 39.7
Jan. 4, 1934	23	22	d 49.75	31	h 46.09
July 12	25	23	33.86	Jan. 1, 1940	31.10
Oct. 26	37	24	31.65	2	30.66
Nov. 1	28.58	25	30.77	3	ad 40.2
Jan. 10, 1935	26.8	26	30.40	22	a 30.7
Jan. 9, 1936	28.1	27	30.06	27	a 30.8
Aug. 7, 1937	25	28	29.98	Feb. 14	ae 32.3
Sept. 16	29.46	29	d 31.14	21	30.23
17	29.44	Nov. 3	e 29.86	Apr. 1	29.80
20	29.46	9	d 49.80	May 13	30.03
21	b 30.57	12	e 34.65	Aug. 5	31.46
22	b 31.08	19	30.32	Sept. 3	31.24
23	b 31.28	22	29.36	Oct. 2	31.11
24	b 31.29	Dec. 3	e 36.58	Nov. 1	31.09
25	b 31.56	7	e 29.98	Dec. 5	32.02
26	30.01	13	e 31.55	31	30.61
27	29.60	20	e 35.71	Feb. 5, 1941	30.15
28	29.60	23	e 29.83	Mar. 3	30.41
29	29.32	28	28.94	23	a 29.5
30	29.19	Jan. 6, 1938	28.11	Apr. 3	30.59
Oct. 1	29.22	12	28.02	30	30.69
2	29.17	Feb. 8	27.84	May 29	30.69
3	29.18	Mar. 14	28.01	June 26	31.17
4	c 33.47	Apr. 21	d 44.08	July 30	34.81
5	c 43.52	July 21	28.84	Sept. 3	31.97
6	c 45.17	Aug. 23	29.02	30	31.87
7	c 45.76	Sept. 30	29.15	Nov. 2	31.86
8	c 46.04	Nov. 8	29.30	13	a 31.5
9	c 46.36	16	f 86.2	Dec. 16	31.59
10	c 46.41	Dec. 10	f 103.2	Jan. 9, 1942	30.90
11	c 46.60	Jan. 4, 1939	f 101.2	Feb. 3	30.82
12	41.63	Apr. 7	28.20	Mar. 4	30.79
13	31.20	July 11	29.75	12	ad 53.2
14	30.54	26	e 30.21	28	29.2
15	30.25	Sept. 23	29.98	Apr. 2	31.07
16	30.02	Oct. 11	g 30.29	25	a 30.7

a Measured by Tacoma Water Division; measurements in 1930 made during construction of well.

b Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

c Pump test of well 20/3-19Fl from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

d Pumping in nearby well or wells.

e Withdrawal from nearby well or wells within 5 days preceding measurement.

f From reading of pneumatic water-level gage while well was pumping.

g Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m., Oct. 12, all other municipal wells idle.

h Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.

20/3-19P1. Owner's well 1-A. City of Tacoma--Continued.

Water level, in feet below land-surface datum, 1930-32, 1934-43

Date	Water level	Date	Water level	Date	Water level
May 5, 1942	31.07	Oct. 2, 1942	32.90	Apr. 30, 1943	30.30
24	a 32.2	Nov. 6	32.6	May 27	30.65
June 3	31.32	9	32.10	June 29	30.80
25	31.52	10	32.15	July 30	31.12
30	a 31.5	Dec. 3	31.27	Aug. 30	31.03
Aug. 4	b 38.56	30	30.82	Sept. 29	31.20
22	33.2	Jan. 18, 1943	29.90	Oct. 30	31.10
27	32.43	27	30.93	Nov. 29	31.00
Sept. 13	33.2	Feb. 27	29.70	Dec. 29	30.89
28	31.87	Apr. 19	b 31.84		

20/3-19P2. Owner's well 15. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 20 N., R. 3 E., about 18 feet south and 58 feet west of intersection of South 62d and Cedar Streets. Unused drilled public-supply well, diameter of casing 12 to 10 inches, depth 205 feet. Taps confined water, nonartesian in large part. Pump removed and casing sealed in July 1940. Reference bench mark, chiseled square in southwest corner of concrete sidewalk, in northeast angle of South 62d and Cedar Streets, about 85 feet east-northeast of well, 0.30 foot above land-surface datum. Land-surface datum is 266.06 feet above sea-level datum of 1929 and 280.02 feet above city datum. Measurements discontinued Oct. 11, 1939.

Water level, in feet below land-surface datum, 1908-09, 1925-31, 1937-39  
(Measurements through 1931 made by Tacoma Water Division)

June 1908	36.8	Oct. 26, 1929	35.4	Oct. 11, 1930	36.48
Aug.	43.7	28	c 36.7	17	36.50
Sept.	44.7	30	35.2	25	36.5
Oct.	40.6	31	35.3	Nov. 6	36.78
Nov.	42.3	Nov. 1	35.2	15	36.9
Dec.	42.7	2	35.2	22	d 37.26
Jan. 1909	44.7	4	35.2	28	d 37.25
Feb.	41.9	9	35.3	Dec. 12	37.3
Mar.	40.9	10	35.3	Jan. 3, 1931	36.71
Apr. 2, 1925	34.45	12	35.4	10	36.70
7	c 52.25	13	35.4	17	36.70
May 31	c 49.69	14	35.4	24	36.72
June 24	35.41	15	35.4	31	36.71
Oct. 17	35.2	27	35.7	Feb. 14	34.87
18	c 62.9	Dec. 7	35.5	21	34.9
Jan. 25, 1926	35.19	17	35.4	28	34.68
13, 1927	35.09	21	35.0	Mar. 6	34.71
May 14, 1928	c 33.7	28	35.2	21	34.23
June 15	33.8	Feb. 11, 1930	35.1	Apr. 11	34.1
July 14	c 34.7	21	35.1	18	34.11
Aug. 15	c 34.7	Mar. 7	35.2	25	34.11
Oct. 28	34.4	Apr. 4	35.1	May 2	34.10
Dec. 14	34.6	17	35.2	16	34.40
Jan. 12, 1929	34.8	May 2	35.2	23	34.42
Feb. 18	34.2	17	35.4	June 11	35.1
Mar. 23	34.3	23	35.5	July 12	34.86
Sept. 15	c 35.3	June 30	35.9	Sept. 14	35.11
Oct. 19	35.4	Sept. 13	37.15	22	b 35.37
23	35.1	20	37.2	25	b 35.43
24	35.1	27	36.66	28	b 35.34

a Measured by Tacoma Water Division; measurements in 1930 made during construction of well.

b Withdrawal from nearby well or wells within 5 days preceding measurement.

c Withdrawal from nearby well or wells within 24 hours preceding measurement.

d Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

## 20/3-19P2. Owner's well 15--Continued.

Water level, in feet below land-surface datum, 1908-09, 1925-31, 1937-39  
(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 7, 1931	35.89	Oct. 6, 1937	b 49.70	Nov. 3, 1937	c 34.74
Nov. 4	35.54	7	b 50.32	12	c 39.64
Sept. 2, 1937	34.37	8	b 50.67	19	c 35.21
14	34.37	9	b 50.83	22	34.29
20	34.39	10	b 50.98	Dec. 7	34.90
21	a 35.50	11	b 51.11	13	c 36.40
22	a 35.97	12	39.01	23	c 34.78
23	a 36.23	13	36.03	28	33.92
24	a 36.27	14	35.42	Jan. 6, 1938	33.08
25	a 36.32	15	35.16	12	33.02
26	34.93	16	34.92	Feb. 8	32.73
27	34.68	17	34.89	Mar. 14	32.98
28	34.56	18	34.89	Aug. 23	33.56
29	34.31	23	c 38.55	Sept. 30	34.09
30	34.17	24	c 36.49	Nov. 8	34.22
Oct. 1	34.19	25	c 35.64	Apr. 7, 1939	33.97
2	34.16	26	c 35.30	July 11	36.71
3	34.12	27	c 35.03	Aug. 26	35.13
4	b 37.78	28	34.89	Sept. 23	34.99
5	b 48.08				

20/3-19P3. Owner's well 1. City of Tacoma. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 20 N., R. 3 E., about 66 feet south and 51 feet west of the intersection of South 62d and Cedar Streets. Unused drilled public-supply well, diameter of casing 11-5/8 inches, depth 117 feet. Taps unconfined semiperched water. Land-surface datum is 266.21 feet above sea-level datum of 1929 and 280.17 feet above city datum. Measurements discontinued Oct. 11, 1939, when well was destroyed.

Water level, in feet below land-surface datum, 1907-9,  
1925, 1927-31, 1937-39  
(Measurements through 1931 made by Tacoma Water Division)

Oct. 1907	38.0	Dec. 14, 1928	31.4	Mar. 7, 1930	31.8
June 1908	38.8	Jan. 12, 1929	31.6	Apr. 4	31.8
Aug.	43.2	Feb. 18	31.4	17	32.3
Sept.	43.4	Mar. 23	31.4	May 2	32.3
Oct.	41.0	Oct. 19	32.4	17	32.1
Nov.	42.9	24	32.4	23	32.3
Dec.	42.4	30	32.5	June 13	32.5
Jan. 1909	38.1	Nov 1	32.5	27	33.2
Feb.	41.9	4	32.5	30	33.6
Mar.	41.6	10	32.5	July 5	d 33.62
Apr. 2, 1925	31.41	15	32.5	12	d 33.50
11	26.12	20	32.8	19	d 33.52
June 24	32.36	23	32.5	26	d 34.00
Jan. 13, 1927	32.34	Dec. 2	32.5	Sept. 5	d 34.10
May 14	d 30.9	7	32.4	13	33.70
June 15, 1928	30.8	17	32.4	20	33.7
July 14	d 31.4	21	31.7	27	33.38
Aug. 15	d 31.6	28	32.1	Oct. 11	33.3
Oct. 28	31.6	Feb. 11, 1930	31.9	17	33.4
Nov. 5	31.4	21	31.9	25	33.55
				Nov. 6	33.55

a Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

b Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

c Withdrawal from nearby well or wells within 5 days preceding measurement.

d Withdrawal from nearby well or wells within 24 hours preceding measurement.

## 20/3-19P3. Owner's well 1--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925, 1927-31, 1937-39

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Nov. 15, 1930	33.6	Sept. 2, 1937	31.94	Oct. 23, 1937	33.32
22	a 35.55	14	31.82	24	32.99
28	a 33.56	20	31.79	25	32.88
Dec. 6	b 33.9	21	c 31.95	26	32.73
12	34.04	22	c 32.02	27	32.64
20	b 33.88	23	c 32.11	28	32.65
Jan. 3, 1931	33.71	24	c 32.21	29	e 32.62
10	33.72	25	c 32.15	30	e 32.65
17	33.73	26	32.05	Nov. 3	32.61
24	33.71	27	31.90	8	e 32.28
31	33.70	28	31.88	12	33.39
Feb. 14	33.35	29	31.90	19	32.43
21	33.29	30	31.84	22	32.04
28	33.12	Oct. 1	31.87	Dec. 3	33.52
Mar. 6	33.1	2	31.89	7	32.57
21	32.7	3	31.82	13	32.90
Apr. 4	b 33.57	4	d 32.18	20	33.52
11	32.68	5	d 33.21	23	32.57
18	32.71	6	d 33.51	28	31.96
25	32.72	7	d 33.64	Jan. 6, 1938	31.05
May 2	32.71	8	d 33.68	12	31.02
16	32.81	9	d 33.81	Feb. 8	30.51
23	32.8	10	d 33.95	Mar. 14	30.47
June 11	33.28	11	d 34.01	Apr. 21	e 32.33
July 12	b 33.32	12	33.15	June 5	e 33.74
Sept. 12	b 33.92	13	32.81	July 21	31.30
16	b 33.88	14	32.72	Aug. 23	31.25
21	33.88	15	32.62	Sept. 30	31.38
22	33.85	16	32.53	Nov. 8	31.50
25	33.81	17	32.54	Jan. 4, 1939	a 36.29
28	33.83	18	32.55	Apr. 7	31.18
Oct. 7	33.81	19	e 33.48	July 11	32.09
10	b 35.14	20	e 34.02	Aug. 26	32.70
12	34.18	21	e 34.23	Sept. 23	32.43
Nov. 4	b 33.86	22	e 34.31		

20/3-19P4. Owner's well 11. City of Tacoma. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 20 N., R. 3 E., about 242 feet south and 103 feet west of intersection of South 62d and Cedar Streets. Unused drilled public-supply well, diameter of casing 14 to 11-5/8 inches, depth 240 feet. Taps confined water, nonartesian in large part. Pump removed and casing sealed in July 1940. Land-surface datum is 263.98 feet above sea-level datum of 1929 and 277.94 feet above city datum. Measurements discontinued Sept. 3, 1940.

Water level, in feet below land-surface datum, 1907-09,  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Oct. 1907	36.1	Oct. 1908	40.1	Feb. 1909	42.0
June 1908	35.5	Nov. 40.1		Mar. 41.4	
Aug. 38.9		Dec. 41.1		Apr. 2, 1925	32.35
Sept. 40.1		Jan. 1909	36.1	June 24	33.10

a Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

b Withdrawal from nearby well or wells within 24 hours preceding measurement.

c Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

d Pump test of well 20/3-19F1 from 9 a.m., Oct. 5 to 9 p.m., Oct. 11; all other municipal wells idle.

e Pumping in nearby well or wells.

20/3-19P4. Owner's well 11--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 17, 1925	35.0	Jan. 10, 1931	34.49	Oct. 12, 1937	42.19
Jan. 25, 1926	33.04	17	34.5	13	33.94
Jan. 13, 1927	32.90	24	34.51	14	33.32
May 14, 1928	a 31.6	31	34.48	15	33.05
June 15	31.6	Feb. 14	32.7	16	32.82
July 14	a 32.7	21	32.6	17	32.80
Aug. 15	a 32.6	28	32.5	18	32.80
Oct. 28	32.3	Mar. 6	32.4	19	c 44.21
Dec. 14	32.4	21	31.86	20	c 49.72
Jan. 12, 1929	32.9	28	a 32.36	21	c 51.56
Feb. 18	32.1	Apr. 11	31.97	22	c 52.03
Mar. 23	32.2	18	31.96	23	36.60
Sept. 15	a 33.4	25	31.95	24	34.36
Oct. 19	33.4	May 2	31.95	25	33.58
24	33.0	16	32.31	26	33.22
30	33.1	23	32.32	27	32.94
Nov. 1	33.1	June 6	c 32.90	28	32.80
4	33.1	11	32.92	29	c 33.93
10	33.3	July 12	a 32.70	30	c 34.10
15	33.3	Aug. 15	c 33.85	Nov. 3	32.74
Dec. 17	34.1	Sept. 14	32.94	8	32.34
21	33.0	18	a 34.52	9	c 48.16
28	33.3	22	32.83	10	c 79.50
Feb. 11, 1930	33.1	25	33.37	12	37.40
21	33.0	28	33.24	15	c 69.33
Mar. 7	32.7	Oct. 7	33.79	19	33.38
28	33.7	12	33.93	22	32.14
Apr. 4	32.8	Nov. 3	a 33.65	Dec. 7	32.79
17	33.3	4	a 33.48	13	34.38
May 2	33.3	Sept. 2, 1937	32.28	20	37.80
17	33.4	14	32.18	23	32.68
23	33.4	20	32.26	28	31.84
June 11	33.5	21	d 33.40	Jan. 6, 1938	30.94
26	a 36.7	22	d 33.84	12	30.86
30	33.8	23	d 34.11	Feb. 8	30.65
July 5	a 36.80	24	d 34.07	Mar. 14	30.87
12	a 35.37	25	d 34.17	July 21	31.68
19	a 35.38	26	32.89	Aug. 23	31.88
26	a 35.35	27	32.58	Sept. 30	31.97
Sept. 5	a 36.85	28	32.44	Nov. 8	32.15
13	34.95	29	32.19	Apr. 7, 1939	31.57
20	35.22	30	31.99	July 11	32.56
27	34.52	Oct. 1	32.08	Aug. 26	33.01
Oct. 11	34.14	2	31.96	Sept. 23	32.80
17	34.14	3	31.98	Oct. 11	f 33.17
25	34.3	4	32.02	12	f 33.11
Nov. 6	34.45	5	e 45.77	Dec. 31	g 49.01
15	34.7	6	e 47.43	Jan. 1, 1940	33.95
22	b 35.1	7	e 47.89	2	33.55
28	b 35.2	8	e 48.31	Feb. 21	32.92
Dec. 6	a 35.02	9	e 48.55	Apr. 1	32.66
12	a 35.15	10	e 48.67	May 13	32.81
Jan. 3, 1931	34.53	11	e 48.82		

a Withdrawal from nearby well or wells within 24 hours preceding measurement.

b Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

c Pumping in nearby well or wells.

d Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

e Pump test of well 20/3-19P1 from 9 a.m., Oct. 4 to 9 p.m.,

Oct. 11; all other municipal wells idle.

f Acceptance test of well 20/2-13J1 from 12 noon Oct. 5 to 1:38 p.m.

Oct. 12; all other municipal wells idle.

g Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.

20/3-19F5. Owner's well 2. City of Tacoma. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 20 N., R. 3 E., about 288 feet south and 13 feet west of intersection of South 62d and Cedar Streets, in former compressor station C. Unused drilled public-supply well, diameter of casing 10 inches, depth 123 (?) feet. Taps unconfined water, locally semiperched. Pump removed and casing sealed in August 1940. Land-surface datum is 268.69 feet above sea-level datum of 1929 and 282.65 feet above city datum. Measurements discontinued Sept. 3, 1940.

Water level, in feet below land-surface datum, 1907-9

1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 1907	40.2	Mar. 22, 1930	a 37.2	Sept. 20, 1931	a 38.62
June 1908	39.4	Apr. 4	36.6	22	37.52
Aug.	46.5	17	36.8	25	37.54
Sept.	45.2	May 2	36.7	28	37.49
Oct.	45.3	17	36.9	Oct. 7	37.90
Nov.	47.8	23	37.1	12	38.05
Dec.	48.1	June 13	37.0	Nov. 4	a 37.50
Jan. 1909	43.1	27	38.2	Sept. 2, 1937	35.10
Feb.	44.7	30	37.7	14	34.98
Mar.	45.0	July 12	a 38.84	20	35.01
Apr. 2, 1925	35.48	26	a 38.72	21	d 35.48
7	a 54.18	Sept. 5	a 40.03	22	d 35.71
May 31	a 47.18	13	38.82	23	d 35.81
June 24	36.08	20	38.84	24	d 35.86
Oct. 17	37.0	27	38.33	25	d 35.89
18	a 60.6	Oct. 11	38.34	26	35.31
Jan. 25, 1926	36.27	17	38.33	27	35.21
Jan. 13, 1927	36.06	25	38.0	28	35.15
May 14, 1928	a 33.6	Nov. 6	38.2	29	35.04
June 15	a 33.6	15	38.2	30	34.88
July 14	a 34.2	22	b 38.3	Oct. 1	34.97
Aug. 15	a 34.5	28	b 38.35	2	34.94
Oct. 28	34.6	Dec. 12	38.71	3	34.98
Dec. 14	34.5	Jan. 3, 1931	38.31	4	e 36.48
Jan. 12, 1929	34.8	10	38.34	5	e 40.87
Feb. 18	34.6	17	38.33	6	e 41.64
Mar. 23	34.3	24	38.35	7	e 42.02
Oct. 19	36.0	31	40.01	8	e 42.24
24	36.5	Feb. 14	36.91	9	e 42.42
30	36.7	21	38.92	10	e 42.53
Nov. 1	36.7	28	36.82	11	42.57
4	36.8	Mar. 6	36.75	12	37.55
10	36.9	14	a 36.9	13	36.27
15	37.0	21	36.26	14	35.95
20	38.4	Apr. 11	36.13	15	35.79
23	37.2	18	36.3	16	35.65
30	37.3	25	36.37	17	35.60
Dec. 2	37.4	May 2	36.37	18	35.69
7	37.3	16	36.49	19	c 40.88
17	37.0	23	36.51	20	c 42.98
21	36.4	June 6	c 36.98	21	c 43.89
28	36.9	11	36.97	22	c 44.17
Feb. 11, 1930	36.7	July 12	a 36.91	23	37.53
21	36.8	Aug. 15	c 37.91	24	36.43
Mar. 7	36.7	Sept. 14	37.18	25	36.15

a Withdrawal from adjacent well or wells within 24 hours preceding measurement.

b Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

c Pumping in nearby well or wells.

d Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 23; all other municipal wells idle.

e Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.



## 20/3-19P5. Owner's well 2--Continued.

Water level, in feet below land-surface datum, 1907-9  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 26, 1937	35.93	Dec. 23, 1937	35.73	July 11, 1939	34.44
27	35.81	28	34.73	Aug. 26	35.91
28	35.67	Jan. 6, 1938	34.10	Sept. 23	35.94
29	a 36.13	12	34.01	Oct. 12	b 35.77
30	a 36.21	Feb. 8, 1938	33.63	Dec. 31	c 41.95
Nov. 3	35.61	Mar. 14	33.61	Jan. 1, 1940	36.35
8	a 35.33	July 21	34.55	2	36.08
22	35.13	Aug. 23	34.59	Feb. 21	35.88
Dec. 7	35.73	Sept. 30	34.65	Apr. 1	35.47
13	36.57	Nov. 8	34.84	May 13	35.70
20	38.66	Apr. 7, 1939	34.43	Aug. 5	37.15

20/3-19P6. Owner's well 3. City of Tacoma. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 20 N., R. 3 E., about 61 feet north and 57 feet west of intersection of South 64th Street and Clement Avenue. Unused drilled public-supply well, diameter of casing 12 to 10 inches, depth 186 feet. Taps unconfined water, locally semipерched. Pump removed and casing sealed in July 1940. Reference bench mark, chiseled square on top of concrete fence-post footing at southwest corner of brick service building at transformer station, about 45 feet north and 10 feet west from well, 0.20 foot above land-surface datum. Land-surface datum is 268.39 feet above sea-level datum of 1929 and 282.35 feet above city datum. Measurements discontinued Aug. 6, 1940.

Water level, in feet below land-surface datum, 1907-9,  
1925-26, 1928-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Oct. 1907	39.8	Nov. 4, 1929	35.3	Nov. 6, 1930	36.7
June 1908	38.3	9	35.5	15	36.9
Aug.	42.8	15	35.5	22	e 36.9
Sept.	42.9	23	35.7	28	e 37.01
Oct.	43.6	30	35.7	Dec. 6	d 36.9
Nov.	43.5	Dec. 2	35.5	12	37.05
Dec.	43.6	7	35.5	Jan. 3, 1931	36.69
Feb.	46.3	17	35.5	10	36.68
Mar.	45.2	28	35.1	17	36.66
Apr. 2, 1925	34.51	Feb. 11, 1930	35.1	24	36.65
June 24	35.42	Mar. 7	34.9	31	36.66
Oct. 17	36.1	Apr. 4	34.9	Feb. 14	35.7
Jan. 25, 1926	35.32	17	35.3	21	35.5
May 14, 1928	d 33.6	May 2	35.3	28	35.7
June 15	33.6	17	35.3	Mar. 6	35.7
July 14	d 34.5	23	35.3	21	35.08
Aug. 15	d 35.1	June 30	36.1	Apr. 4	35.49
Oct. 28	34.7	July 12	d 37.01	11	35.01
Dec. 14	34.5	26	d 37.04	18	35.04
Jan. 12, 1929	34.8	Sept. 5	d 37.95	25	35.03
Feb. 18	34.6	13	37.07	May 2	35.01
Mar. 23	34.4	20	37.9	16	35.53
Sept. 15	35.5	27	36.54	23	35.52
Oct. 19	35.5	Oct. 11	36.55	June 11	36.04
24	35.3	17	36.55	July 12	d 35.80
30	35.5	25	36.58	Aug. 13	f 36.66

a Pumping in nearby well or wells.

Oct. 12; all other municipal wells idle.

c Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15

a.m. Dec. 31; all other municipal wells idle.

d Withdrawal from nearby well or wells within 24 hours preceding measurement.

e Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

f Pumping in nearby well or wells.

## 20/3-19P6. Owner's well 3--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-26, 1928-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Sept. 14, 1931	36.16	Oct. 6, 1937	c 42.08	Nov. 12, 1937	37.82
15	a 36.22	7	c 42.44	19	35.31
18	a 37.08	8	c 42.67	22	34.73
22	36.36	9	c 42.78	Dec. 7	35.29
25	36.36	10	c 42.86	13	36.91
28	36.32	11	c 43.03	20	38.47
Oct. 7	36.62	12	37.32	23	35.34
12	36.86	13	35.92	28	34.55
Nov. 4	a 36.31	14	35.57	Jan. 6, 1938	33.53
Sept. 2, 1937	34.78	15	35.41	12	33.56
14	34.61	16	35.29	Feb. 8	33.45
20	34.57	17	35.23	Mar. 14	33.55
21	b 35.21	18	35.28	July 21	34.22
22	b 35.45	19	d 41.10	Aug. 23	34.18
23	b 35.54	20	d 43.44	Sept. 30	34.23
24	b 35.56	21	d 44.42	Nov. 8	34.41
25	b 35.64	22	d 44.74	Apr. 7, 1939	34.03
26	34.96	23	37.40	July 11	34.98
27	34.80	24	36.13	Aug. 26	35.57
28	34.74	25	35.78	Sept. 23	35.19
29	34.62	26	35.54	Oct. 11	e 35.35
30	34.49	27	35.44	Dec. 31	f 45.01
Oct. 1	34.55	28	35.32	Jan. 1, 1940	36.28
2	34.55	29	d 35.91	2	35.98
3	34.55	30	d 35.98	Feb. 21	35.54
4	c 36.24	Nov. 3	35.22	Mar. 30	35.27
5	c 41.14	8	d 35.68	May 13	35.33

20/3-30C1. Owner's well 4. City of Tacoma. NE $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 132 feet south and 87 feet west of intersection of South 64th Street and Clement Avenue. Unused drilled public-supply well, diameter of casing 11-5/8 to 7 inches, depth 176 (?) feet. Taps unconfined water, locally semiperched. Pump removed and casing sealed in July 1940. Land-surface datum is 266.32 feet above sea-level datum of 1929 and 280.28 feet above city datum. Measurements discontinued Aug. 6, 1940.

Water level, in feet below land-surface datum, 1908-9,  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Aug. 1908	42.1	July 14, 1928	a 34.6	Nov. 10, 1929	35.1
Oct. 53.8		Aug. 15	a 34.6	16	35.1
Nov. 56.3		Oct. 28	34.4	27	35.4
Feb. 1909	50.1	Dec. 14	34.4	Dec. 2	35.4
Mar. 50.2		Jan. 12, 1929	34.4	7	35.3
Apr. 2, 1925	34.55	Feb. 16	34.3	17	35.3
June 24	35.15	Mar. 23	34.2	21	34.9
Oct. 17	36.0	Sept. 15	a 35.3	28	34.9
Jan. 25, 1926	35.00	Oct. 19	35.3	Feb. 11, 1930	34.9
13, 1927	34.90	24	35.0	21	34.8
May 14, 1928	a 33.6	30	35.1	Mar. 7	34.7
June 15	33.6	Nov. 4	35.0	22	a 35.5

a Withdrawal from nearby well or wells within 24 hours preceding measurement.

b Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

c Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

d Pumping in nearby well or wells.

e Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5, to 1:38 p.m., Oct. 12; all other municipal wells idle.

f Acceptance test of well 20/3-30C4 from 8:45 a.m., Dec. 24 to 10:15 a.m., Dec. 31; all other municipal wells idle.

20/3-30C1. Owner's well 4--Continued.

Water level, in feet below land-surface datum, 1908-9  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Apr. 4, 1930	34.6	Sept. 14, 1931	34.96	Oct. 20, 1937	e 48.22
17	35.0	18	a 36.42	22	e 50.24
May 2	34.9	22	35.34	23	37.64
17	35.2	25	35.32	24	35.52
23	35.3	28	35.22	25	35.01
June 13	35.3	Oct. 7	35.66	26	34.59
30	35.6	12	35.86	27	34.38
July 12	a 37.11	Nov. 4	a 35.62	28	34.25
26	a 37.10	Sept. 2, 1937	33.78	29	e 35.30
Sept. 5	a 38.30	14	33.72	30	e 35.49
13	37.79	20	33.73	Nov. 3	34.20
20	36.7	21	c 34.83	8	e 33.81
27	36.15	22	c 35.24	12	f 38.36
Oct. 11	36.0	23	c 35.43	19	34.53
17	35.90	24	c 35.56	22	33.59
25	36.1	25	c 35.52	Dec. 7	34.43
Nov. 6	36.7	26	34.32	13	35.84
15	36.7	27	34.00	20	39.68
22	b 36.72	28	33.90	23	34.47
28	b 36.77	29	33.71	28	33.58
Dec. 6	a 36.62	30	33.56	Jan. 6, 1938	32.67
12	36.71	Oct. 1	33.59	12	32.65
Jan. 3, 1931	36.3	2	33.54	Feb. 8	32.38
10	36.31	3	33.56	Mar. 14	32.63
17	36.30	4	d 36.79	July 21	33.40
24	36.31	5	d 44.81	Aug. 23	33.61
31	36.32	6	d 46.22	Sept. 30	33.64
Feb. 14	34.4	7	d 46.73	Nov. 8	34.11
21	34.2	8	d 47.05	Apr. 7, 1939	33.75
28	34.32	9	d 47.14	July 11	34.41
Mar. 6	34.29	10	d 47.27	Aug. 26	35.05
21	34.05	11	d 47.48	Sept. 23	34.61
Apr. 11	33.57	12	37.55	Oct. 12	g 34.83
18	33.59	13	35.26	Dec. 31	h 51.16
25	33.57	14	34.72	Jan. 1, 1940	35.54
May 2	33.56	15	34.52	2	34.84
16	34.32	16	34.31	Feb. 21	34.89
23	34.33	17	34.25	Mar. 30	34.46
June 11	34.71	18	34.27	May 13	34.63
July 12	a 34.75	19	e 44.52		

a Withdrawal from nearby well or wells within 24 hours preceding measurement.

b Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

c Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

d Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m.,

Oct. 11; all other municipal wells idle.

e Pumping in nearby well or wells.

f Withdrawal from adjacent well or wells within 5 days preceding measurement.

g Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:39 p.m. Oct. 12; all other municipal wells idle.

h Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.

20/3-30C2. Owner's well 5. U. S. well 68. City of Tacoma. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 155 feet south and 93 feet west of South 64th Street and Clement Avenue. Unused drilled public-supply well, diameter of casing 12 to 10 inches, depth 244 feet. Taps confined water, nonartesian in large part. Measuring point 2, top of 10-inch inner casing at seam, 0.27 foot above gasket of casing-head flange and 0.10 foot below land-surface datum. Land-surface datum is 267.38 feet above sea-level datum of 1929 and 281.34 feet above city datum. Automatic water-stage recorder operated intermittently Sept. 18, 1937, to July 11, 1939, and continuously thereafter.

Water level, in feet below land-surface datum 1908-9,

1925-31, 1937-43

(Measurements through 1931 by Tacoma Water Division; beginning Jan. 1, 1938 selected noon levels from recorder charts)

Date	Water level	Date	Water level	Date	Water level
Aug. 1908	42.1	Sept. 27, 1930	37.60	Sept. 26, 1937	35.95
Sept. 41.3		Oct. 11	37.28	Oct. 1	35.20
Oct. 54.9		17	37.28	2	35.16
Nov. 55.4		25	37.35	3	35.14
Dec. 56.2		Nov. 6	37.4	4	c 38.95
Feb. 1909	52.4	15	38.1	5	c 48.50
Mar. 49.8		22	a 38.15	6	c 49.79
Apr. 2, 1925	35.61	28	a 38.0	7	c 50.02
June 24	36.40	Dec. 12	38.12	8	c 50.48
Oct. 17	37.2	Jan. 3, 1931	37.68	9	c 50.60
Jan. 25, 1926	36.30	10	37.66	10	c 50.74
13, 1927	36.12	17	37.65	11	c 50.86
June 15, 1928	34.7	24	37.66	12	38.81
Oct. 28	35.5	31	37.66	13	37.01
Dec. 14	35.5	Feb. 14	35.9	14	36.40
Jan. 12, 1929	35.8	21	36.0	15	36.12
Feb. 18	35.3	28	35.75	16	35.84
Mar. 23	35.2	Mar. 6	35.55	17	35.86
Oct. 19	36.5	21	35.57	18	35.90
26	36.2	Apr. 11	34.90	19	d 47.61
31	36.4	18	35.1	20	d 51.83
Nov. 4	36.3	25	35.0	21	d 53.19
10	36.4	May 2	35.04	22	d 54.03
15	36.4	16	35.67	23	39.61
27	36.7	23	35.65	24	37.20
Dec. 7	36.6	June 11	36.11	25	36.66
17	36.5	Sept. 14	36.23	26	36.21
21	36.0	20	37.04	27	35.99
28	36.2	25	36.61	28	35.90
Feb. 11, 1930	36.1	Oct. 7	37.13	29	d 37.09
21	36.1	12	37.28	30	d 37.30
Apr. 17	36.3	Sept. 2, 1937	35.40	Nov. 3	35.83
May 2	36.3	14	35.32	8	d 35.50
17	36.6	18	35.45	19	e 36.13
23	36.5	20	35.24	22	35.27
June 13	36.6	21	b 36.54	Dec. 7	e 35.92
30	37.0	22	b 37.04	23	e 35.83
July 19	38.23	23	b 37.27	28	34.97
Sept. 13	38.11	24	b 37.33	Jan. 1, 1938	34.49
20	38.13	25	b 37.34	6	f 34.00

a Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

b Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

c Pump test of well 2-/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

d Pumping in nearby well or wells.

e Withdrawal from nearby well or wells within 5 days preceding measurement.

f Automatic water-stage recorder not operating; measured by tape.

20/3-30C2. Owner's well 5--Continued.

Water level, in feet below land-surface datum, 1908-9,  
1925-31, 1937-43(Measurements through 1931 by Tacoma Water Division; beginning Jan. 1, 1938  
selected noon levels from recorder charts)

Date	Water level	Date	Water level	Date	Water level
Jan. 12, 1938	a 34.03	Feb. 15, 1940	36.89	Jan. 31, 1941	36.18
Feb. 8	a 33.83	20	36.94	Feb. 5	36.13
Mar. 15	34.04	25	36.00	10	36.18
20	33.95	28	35.86	15	36.31
25	33.96	Mar. 11	36.62	20	36.34
31	33.72	15	35.88	25	36.39
Apr. 5	33.79	20	35.83	28	36.32
10	33.86	25	35.79	Mar. 5	36.47
15	33.96	31	37.78	10	36.39
26	34.46	Apr. 5	35.91	15	36.51
30	34.16	10	35.95	20	36.55
May 5	34.04	15	35.87	25	36.47
10	34.04	20	36.07	31	36.40
20	34.60	25	36.01	Apr. 5	36.49
July 21	a 34.82	30	36.04	10	36.48
Aug. 22	a 34.98	May 5	36.44	15	36.61
23	a 35.05	10	36.06	20	36.59
Sept. 28	a 35.03	15	36.02	25	36.71
30	a 35.09	20	36.02	30	36.67
Nov. 8	a 35.25	27	36.89	May 5	36.64
Apr. 7, 1939	a 34.92	June 5	36.82	10	36.82
May 18	a 35.29	9	36.50	15	36.81
25	35.34	July 16	38.56	20	36.80
31	35.40	20	38.61	25	37.07
June 3	35.50	25	37.97	31	36.64
13	35.52	31	37.44	June 4	36.70
19	35.53	Aug. 5	37.44	15	37.73
July 11	36.17	10	38.47	26	37.22
15	36.24	15	37.87	30	37.19
20	36.34	20	38.13	Aug. 5	38.08
24	36.01	25	37.55	17	38.40
Aug. 14	36.44	31	37.59	25	38.50
20	36.02	Sept. 5	37.22	31	38.07
26	36.24	10	37.20	Sept. 5	37.98
31	35.99	15	37.20	10	37.83
Sept. 5	35.94	20	37.20	15	37.83
10	35.91	25	37.20	21	38.43
15	36.01	30	37.14	25	37.89
20	35.99	Oct. 5	37.24	30	37.82
25	35.93	10	37.24	Oct. 3	37.79
30	36.04	20	37.78	10	38.23
Oct. 5	36.01	25	37.25	15	37.99
10	36.18	31	37.12	20	37.92
15	36.19	Nov. 5	36.94	25	37.89
20	36.33	10	36.94	31	37.86
25	36.27	15	36.89	Nov. 5	37.88
31	36.23	20	36.78	10	37.73
Nov. 18	36.46	25	36.84	19	38.37
25	36.12	Dec. 6	37.61	25	37.66
30	36.27	10	37.08	30	37.72
Dec. 5	36.24	15	36.81	Dec. 5	37.56
11	36.54	20	36.76	16	37.55
21	37.24	25	36.58	25	37.57
Jan. 8, 1940	36.39	31	36.59	31	36.82
15	36.24	Jan. 5, 1941	36.41	Jan. 5, 1942	36.71
20	36.33	10	36.55	10	36.77
26	36.53	15	36.51	15	36.72
31	36.66	22	36.52	20	36.83
Feb. 5	36.45	25	36.22	25	36.82

a Automatic water-stage recorder not operating; measured by tape.

## 20/3-30C2. Owner's well 5--Continued.

Water level, in feet below land-surface datum, 1908-9,  
1925-31, 1937-43

(Measurements through 1931 by Tacoma Water Division; beginning Jan. 1, 1938  
selected noon levels from recorder charts)

Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1942	36.79	Sept. 15, 1942	37.97	May 20, 1943	36.45
Feb. 5	36.74	20	37.88	31	36.43
10	36.62	25	37.81	June 5	36.57
15	36.50	30	37.79	10	36.70
20	36.55	Oct. 5	37.78	15	36.67
25	36.62	10	37.83	20	36.64
28	36.68	20	38.04	25	36.65
Mar. 5	36.69	28	38.30	30	36.79
9	36.57	Nov. 7	38.74	July 5	36.70
17	37.37	10	37.80	10	36.84
25	37.84	15	37.41	15	37.00
31	36.97	20	37.39	20	36.99
Apr. 5	36.94	Dec. 5	36.93	25	37.07
10	36.89	9	36.85	31	37.01
15	36.96	15	37.04	Aug. 5	36.92
20	36.87	20	36.84	10	36.88
25	37.00	25	36.84	15	36.91
30	36.99	31	36.74	20	36.87
May 5	37.05	Jan. 5, 1943	36.73	30	36.95
10	37.08	10	36.64	Sept. 5	36.90
15	37.11	20	36.57	10	37.03
25	37.48	25	36.74	15	37.00
31	37.21	31	36.80	20	36.98
June 5	37.19	Feb. 5	36.74	25	36.99
10	37.19	10	36.47	30	37.10
20	37.78	15	36.43	Oct. 5	37.14
25	37.51	20	36.51	10	37.04
30	37.47	25	36.57	15	37.12
July 5	37.47	Mar. 5	36.60	20	37.01
9	37.48	10	36.60	25	37.03
15	37.48	15	36.58	30	37.04
20	37.39	20	36.64	Nov. 30	37.00
25	37.61	Apr. 20	36.91	Dec. 10	37.85
30	37.48	25	36.30	15	37.08
Aug. 26	38.64	30	36.21	20	37.02
31	37.99	May 5	36.28	25	36.96
Sept. 5	38.50	10	36.27	31	36.86
10	37.97	15	36.37		

20/3-30C3. Owner's well 6. City of Tacoma. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 116 feet north and 68 feet west of intersection of South 68th Street and Clement Avenue. Unused drilled public-supply well, diameter of casing 12 to 10 inches, depth 205 feet. Taps confined, nonartesian water, in large part. Pump removed and casing sealed in July 1940. Reference bench mark, copper nail with washer in base on east side of power pole, in southwest angle at intersection of streets, about 125 feet south of well, 1.19 feet above land-surface datum. Land-surface datum is 267.99 feet above sea-level datum of 1929 and 281.95 feet above city datum. Measurements discontinued in July 1940, when pump was removed and casing sealed.

Water level, in feet below land-surface datum, 1907-8,  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Oct. 1907	39.5	Oct. 1908	54.0	Mar. 1909	48.6
June 1908	42.8	Nov.	61.2	Apr. 2, 1925	35.87
Aug. 42.0		Dec.	61.2	June 24	36.56
Sept. 48.7		Feb. 1909	52.9	Oct. 17	36.5

## 20/3-30C3. Owner's well 6--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Jan. 25, 1926	36.54	Dec. 12, 1930	38.1	Oct. 3, 1937	35.48
Jan. 13, 1927	36.35	20	37.96	4	e 37.96
May 14, 1928	a 34.9	Jan. 3, 1931	37.73	5	e 45.50
June 15	34.9	10	37.75	6	e 46.78
Oct. 28	35.9	17	37.77	7	e 47.31
Dec. 14	35.8	24	37.77	8	e 47.44
Jan. 12, 1929	36.2	31	37.76	9	e 47.67
Feb. 18	35.7	Feb. 14	37.77	10	e 47.78
Mar. 23	35.7	21	36.74	11	e 47.88
Oct. 19	36.7	28	36.16	12	39.34
24	36.5	Mar. 6	36.26	13	36.99
30	36.5	14	a 36.28	14	36.49
Nov. 4	36.5	21	35.81	15	36.23
10	36.5	Apr. 4	a 35.86	16	36.10
15	36.7	11	35.1	17	36.02
27	36.9	18	35.12	18	36.07
Dec. 7	36.5	25	35.1	19	b 44.04
17	36.6	May 2	35.12	20	b 49.35
21	36.1	16	35.76	21	b 50.80
28	36.3	23	35.75	22	b 51.20
Feb. 11, 1930	36.1	June 6	b 36.23	23	39.36
21	36.1	11	36.22	24	37.27
Mar. 7	36.1	July 12	a 36.17	25	36.71
22	a 36.7	Aug. 15	b 37.33	26	36.35
28	a 36.7	Sept. 12	a 37.11	27	36.25
Apr. 4	36.1	14	36.46	Nov. 3	f 36.08
11	a 36.3	18	a 37.68	19	f 36.22
17	36.3	22	36.86	22	35.44
May 2	36.3	25	36.74	Dec. 7	35.86
17	36.5	28	36.74	13	37.35
23	36.5	Oct. 7	37.17	20	41.35
June 11	b 36.5	12	37.23	23	35.89
13	36.7	Nov. 4	a 36.84	28	35.00
30	36.9	Sept. 2, 1937	35.56	Jan. 6, 1938	34.17
July 12	a 38.40	14	35.51	12	34.13
26	a 38.40	20	35.60	Feb. 8	34.04
Aug. 3	39.75	21	d 37.21	Mar. 14	34.25
Sept. 13	38.10	22	d 37.65	Apr. 21	45.67
20	38.12	23	d 37.89	June 5	50.75
27	37.58	24	d 38.04	July 21	35.07
Oct. 11	37.5	25	d 38.01	Aug. 23	35.30
17	37.5	26	36.24	Sept. 30	35.33
25	37.35	27	35.84	Nov. 8	35.51
Nov. 6	37.62	28	35.79	Apr. 7, 1939	35.13
15	35.7	29	35.62	July 11	35.96
22	c 37.9	30	35.48	Aug. 26	36.48
28	c 38.1	Oct. 1	35.53	Sept. 23	36.17
Dec. 6	a 37.65	2	35.48	Oct. 12	g 36.33

a Withdrawal from adjacent well or wells within 24 hours preceding measurement.

b Pumping in nearby well or wells.

c Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

d Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

e Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m.,

Oct. 11; all other municipal wells idle.

f Withdrawal from nearby well or wells within 5 days preceding measurement.

g Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:39 p.m. Oct. 12; all other municipal wells idle.

## 20/3-30C3. Owner's well 6--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Dec. 31, 1939	a 66.21	Jan. 2, 1940	36.41	Mar. 30, 1940	35.68
Jan. 1, 1940	36.84	Feb. 21	36.16	May 13	36.00

20/3-30C4. Owner's well 8-A. City of Tacoma. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 295 feet south and 35 feet west of intersection of South 66th Street and Clement Avenue. Used drilled public-supply well, diameter of inner casing 26 inches, depth 307 feet. Taps confined water, nonartesian in large part. Measuring points: (6) Beginning June 6, 1940, top of 4-inch coupling on west gravel spout marked by chiseled single arrow, 0.94 foot above land-surface datum plus 0.32-foot correction for inclination of tape; (7) beginning June 6, 1940, top of 4-inch coupling on east gravel spout, marked by chiseled double arrow, 0.87 foot above land-surface datum plus 0.45-foot correction for inclination of tape; (9) beginning Oct. 2, 1940, top of 1 $\frac{1}{2}$ -inch breather nipple in pump-house flange 2.07 feet above land-surface datum. Reference bench marks: (1) copper nail with washer in base on west side of power pole, on west side of Clement Avenue, about 35 feet north and 18 feet east from well, 0.07 foot above land-surface datum; (2) chiseled square on top west edge of concrete girder at outside southwest corner of pump house, 0.50 foot above land-surface datum. Land-surface datum is 267.80 feet above sea-level datum of 1929 and 281.76 feet above city datum.

Water level, in feet below land-surface datum, 1939-43

Oct. 12, 1939	b 35.96	Apr. 3, 1941	36.41	Aug. 27, 1942	38.08
Dec. 11	b 36.05	30	36.51	Sept. 1	37.1
26	c 91.42	May 28	36.52	28	37.58
29	c 97.33	June 26	36.99	Oct. 2	37.64
31	c 96.02	July 30	f 41.48	13	37.65
Jan. 1, 1940	36.64	Aug. 7	38	23	37.61
2	36.21	18	f 36.8	31	37.6
Feb. 21	36.21	26	f 37.8	Dec. 3	36.93
Mar. 30	35.63	Sept. 3	37.79	15	36.86
Apr. 13	35.88	18	35.8	30	36.53
June 5	36.48	30	37.68	Jan. 13, 1943	36.60
Aug. 5	37.19	Nov. 2	37.68	27	36.66
Sept. 3	37.00	13	37.8	Feb. 11	36.43
Oct. 2	37.01	Dec. 16	37.37	27	36.41
9	36.8	Jan. 9, 1942	36.62	Mar. 6	36.50
Nov. 1	36.93	Feb. 3	36.55	31	36.60
28	d109.	Mar. 4	36.53	Apr. 19	37.18
29	d124	19	35.8	30	36.04
30	d127	Apr. 2	36.84	May 27	36.40
Dec. 1	d129	25	e 35.7	June 11	36.47
2	d129	May 5	36.89	29	36.65
3	e 40.5	19	e 35.9	July 30	36.88
4	e 37.9	June 3	37.08	Aug. 30	36.83
5	e 37.0	9	e 37.4	Sept. 29	37.03
7	37.17	20	e 37.0	Oct. 30	36.92
31	36.44	25	37.30	Nov. 29	36.86
Feb. 4, 1941	36.03	30	e 37.6	Dec. 29	36.85
Mar. 3	36.27	July 22	38.6		

a Withdrawal from adjacent well or wells within 24 hours preceding measurement.

b Measurement made during construction of well.

c Pumping since 8:45 a.m. Dec. 24.

d Pumping.

e Measured by Tacoma Water Division.

f Withdrawal from well within 5 days preceding measurement.



20/3-30Fl. Owner's well 7. City of Tacoma. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 84 feet north and 49 feet west of intersection of South 70th Street and Clement Avenue. Unused drilled public-supply well, diameter of casing 12 inches, depth 126 feet. Taps unconfined water, locally semiperched. Land-surface datum is 267.78 feet above sea-level datum of 1929 and 281.74 feet above city datum. Pump removed and casing sealed. in July 1940. Measurements discontinued in August 1940.

Water level, in feet below land-surface datum, 1907-9,  
1925-31, 1934, 1937-40  
(Measurements through 1934 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 1907	40.7	Dec. 21, 1929	32.3	Feb. 21, 1931	33.66
June 1908	49.5	28	32.6	28	33.06
Aug.	48.3	Feb. 11, 1930	32.3	Mar. 6	33.05
Sept.	51.5	21	32.1	14	a 33.0
Oct.	52.3	Mar. 7	32.2	21	32.6
Nov.	55.3	22	a 32.7	28	a 32.75
Jan. 1909	48.5	28	a 32.6	Apr. 4	a 32.78
Feb.	49.5	Apr. 4	32.2	11	32.4
Mar.	47.7	11	a 32.6	18	32.41
Apr. 2, 1925	33.1	17	32.6	25	32.39
7	a 36.95	May 2	32.7	May 2	32.37
May 31	a 37.35	17	32.8	16	32.64
June 24	34.37	23	32.8	23	32.65
Oct. 18	a 39.0	June 11	b 32.8	June 6	b 33.14
Jan. 25, 1926	33.54	13	32.8	11	33.12
Jan. 13, 1927	33.21	23	a 34.5	July 12	a 33.03
May 8, 1928	b 31.5	26	a 33.7	Aug. 15	b 33.45
14	a 31.5	30	33.4	Sept. 12	a 33.44
21	b 32.1	July 1	b 34.5	17	a 33.56
24	b 32.3	5	a 33.80	22	33.39
25	b 32.3	12	a 33.81	25	33.39
June 15	32.1	19	a 33.79	28	33.37
July 14	a 32.9	26	a 33.81	Oct. 7	33.36
Aug. 15	a 33.1	Sept. 5	a 33.95	11	a 33.81
Oct. 28	33.1	13	33.72	12	33.67
Nov. 5	32.9	20	33.77	Nov. 4	a 33.59
Dec. 14	32.7	27	33.60	Jan. 26, 1934	b 32.3
Jan. 12, 1929	32.7	Oct. 11	33.6	Sept. 2, 1937	32.05
Feb. 18	32.7	17	33.81	14	31.99
Mar. 23	32.5	25	33.5	20	d 31.98
Oct. 19	33.3	Nov. 6	33.75	21	d 32.47
24	33.1	15	33.7	22	d 32.64
30	33.1	22	c 33.65	23	d 32.67
Nov. 4	33.1	28	c 33.67	24	d 32.72
9	33.1	Dec. 6	a 33.97	25	d 32.77
14	33.1	12	34.43	26	32.31
20	33.2	Jan. 3, 1931	33.88	27	32.26
23	33.2	10	33.89	28	32.23
30	33.2	17	33.90	29	32.17
Dec. 2	33.1	24	33.90	30	32.13
7	33.1	31	33.91	Oct. 1	32.13
17	33.1	Feb. 14	33.90	2	32.13

a Withdrawal from nearby well or wells within 24 hours preceding measurement.

b Pumping in nearby well or wells.

c Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

d Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

## 20/3-30F1. Owner's well 7--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-31, 1934, 1937-40

(Measurements through 1934 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1937	32.19	Oct. 24, 1937	32.81	Jan. 12, 1938	30.62
4	a 32.44	25	32.70	Feb. 8	30.63
5	a 33.40	26	32.63	Mar. 14	31.00
6	a 33.68	27	32.58	Apr. 21	b 32.38
7	a 33.81	28	b 32.60	June 5	b 33.86
8	a 33.84	29	b 32.97	July 21	31.80
9	a 33.89	30	b 33.05	Aug. 23	31.90
10	a 33.94	Nov. 3	32.55	Sept. 30	31.95
11	a 33.99	8	b 32.44	Nov. 8	32.00
12	32.91	9	b 34.76	Jan. 4, 1939	b 35.68
13	32.60	10	b 36.67	Apr. 7	31.75
14	32.46	12	33.25	July 11	32.54
15	32.44	19	c 31.92	Aug. 26	32.95
16	32.40	22	30.68	Sept. 23	32.74
17	32.36	Dec. 3	c 32.82	Oct. 12	d 32.75
18	32.41	7	32.00	Dec. 31	e 44.69
19	b 33.82	13	32.33	Jan. 1, 1940	33.09
20	b 34.49	20	33.07	2	33.04
21	b 34.77	23	32.18	Feb. 21	32.52
22	b 34.85	28	31.62	Mar. 30	32.16
23	33.14	Jan. 6, 1938	30.34	May 13	32.40

20/3-30F2. Owner's well 13. City of Tacoma. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 265 feet south and 1 foot west of intersection of South 70th Street and Clement Avenue (projected). Unused drilled public-supply well, diameter of casing 9-3/4 inches, depth 229 feet. Taps confined water, nonartesian in large part. Land-surface datum is 270.27 feet above sea-level datum of 1929 and 284.23 feet above city datum. Pump removed and casing sealed in July 1940. Measurements discontinued Aug. 5, 1940.

Water level, in feet below land-surface datum, 1908-9,  
1926-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

June 1908	46.5	Jan. 13, 1927	36.42	Oct. 30, 1929	36.5
Aug.	44.2	May 8, 1928	b 35.3	Nov. 4	36.5
Sept.	49.7	14	f 34.7	9	36.5
Oct.	53.8	21	b 36.0	14	36.5
Nov.	56.6	25	b 36.7	27	36.7
Dec.	55.0	June 15	35.3	Dec. 7	36.6
Jan. 1909	50.3	July 14	f 36.0	19	36.7
Feb.	47.7	Aug. 15	36.5	21	35.9
Mar.	45.7	Oct. 28	36.4	28	36.1
Apr. 2	36.23	Dec. 14	36.0	Feb. 11, 1930	35.8
May 31	f 44.09	Jan. 12, 1929	36.0	21	35.7
June 24	36.96	Feb. 18	36.0	Mar. 7	35.8
Oct. 17	37.5	Mar. 23	35.9	22	f 36.1
18	f 46.0	Oct. 19	36.7	28	f 36.1
Jan. 25, 1926	36.71	24	36.5	Apr. 4	35.6

a Pump test of well 20/3019F1 from 9 a.m., Oct. 4 to 9 p.m.,

Oct. 11; all other municipal wells idle.

b Pumping in nearby well or wells.

c Withdrawal from adjacent well or wells within 5 days preceding measurement.

d Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m. Oct. 12; all other municipal wells idle.

e Acceptance test on well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.

f Withdrawal from nearby well or wells within 24 hours preceding measurement

20/3-30F2. Owner's well 13--Continued.

Water level, in feet below land-surface datum, 1908-9  
1926-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Apr. 11, 1930	a 36.2	June 11, 1931	36.34	Oct. 19, 1937	b 39.84
17	36.3	July 12	a 36.31	20	b 41.96
May 2	36.1	Aug. 15	b 36.87	21	b 42.66
17	36.3	Sept. 12	a 36.93	22	b 42.77
23	36.1	14	36.64	23	37.35
June 11	b 36.3	17	a 37.39	24	36.48
13	36.1	20	a 37.11	25	36.25
26	a 37.9	21	36.67	26	36.09
30	36.9	25	36.76	27	35.98
July 5	a 37.61	28	36.73	28	b 36.10
12	a 37.41	Oct. 7	36.82	29	b 37.41
19	a 37.40	11	a 37.54	30	b 37.56
26	a 37.90	12	37.14	Nov. 3	35.93
Sept. 5	a 37.90	Nov. 4	a 36.86	8	b 35.75
13	37.28	Sept. 4, 1937	35.41	12	f 37.83
20	37.21	14	35.32	19	f 35.57
27	36.90	20	35.36	22	35.17
Oct. 11	37.16	21	d 36.81	Dec. 3	f 37.76
17	37.14	22	d 37.11	7	35.50
25	37.0	23	d 37.26	13	36.03
Nov. 6	37.22	24	d 37.32	20	38.04
15	37.3	25	d 37.36	23	35.55
22	c 37.35	26	35.87	28	34.93
28	c 37.35	27	35.65	Jan. 6, 1938	33.76
Dec. 6	a 37.52	28	35.63	12	33.81
12	38.05	29	35.56	Feb. 8	33.90
Jan. 3, 1931	37.32	30	35.50	Mar. 14	34.29
10	37.30	Oct. 1	35.52	Apr. 21	b 38.36
17	37.31	2	35.48	June 5	b 41.51
24	37.30	3	35.41	July 21	35.12
31	37.32	4	e 36.14	Aug. 23	35.18
Feb. 14	37.28	5	e 39.12	Sept. 30	35.25
21	36.4	6	e 39.64	Nov. 7	35.38
28	36.1	7	e 39.92	Apr. 7, 1939	34.98
Mar. 6	36.2	8	e 39.88	July 11	35.80
14	a 36.38	9	e 40.05	Aug. 26	36.23
21	35.9	10	e 40.05	Sept. 23	35.99
Apr. 4	36.05	11	e 40.18	Oct. 12	g 36.09
11	36.1	12	37.10	Dec. 31	h 45.86
18	36.2	13	36.23	Jan. 1, 1940	36.73
25	36.11	14	36.01	2	36.53
May 2	36.10	15	35.92	Feb. 21	36.10
16	36.02	16	35.82	Mar. 30	35.60
23	36.1	17	35.81	May 13	35.77
June 6	b 36.35	18	35.82		

a Withdrawal from nearby well or wells within 24 hours preceding measurement.

b Pumping in nearby well or wells.

c Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

d Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

e Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

f Withdrawal from nearby well or wells within 5 days preceding measurement.

g Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m. Oct. 12; all other municipal wells idle.

h Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.

20/3-30F3. Owner's well 8. City of Tacoma. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 54 feet north and 50 feet west of intersection of South 72d Street and Clement Avenue. Unused drilled public-supply well, diameter of casing 12 to 10 inches, depth 151 feet. Taps unconfined water, locally semiperched. Pump removed and casing sealed in July 1940. Reference bench mark, copper nail with washer in base, on west side of power pole, about 85 feet north of well and across Clement Avenue, 2.77 feet above land-surface datum. Land-surface datum is 268.81 feet above sea level datum of 1929 and 282.77 feet above city datum. Measurements discontinued Aug. 5, 1940.

Water level, in feet below land-surface datum, 1907-9,  
1925-31, 1937-40  
(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 1907	42.2	Dec. 21, 1929	33.3	Feb. 14, 1931	34.90
June 1908	46.8	28	33.5	21	34.09
Aug. 45.9		Feb. 11, 1930	34.1	28	33.92
Sept. 50.6		21	33.0	Mar. 6	33.93
Oct. 55.2		Mar. 7	33.0	14	b 33.92
Dec. 55.6		22	b 33.3	21	33.48
Jan. 1909	51.9	28	b 33.5	Apr. 4	b 33.60
Feb. 51.8		Apr. 4	33.0	11	33.57
Apr. 2, 1925	33.87	11	b 33.4	18	33.59
7	a 40.49	17	33.5	25	33.60
May 31	b 38.57	May 2	33.6	May 2	33.59
June 24	34.61	17	33.6	16	33.61
Oct. 17	35.2	23	33.7	23	33.6
Jan. 25, 1926	34.30	June 11	a 33.8	June 6	a 34.06
Jan. 13, 1927	33.92	13	33.7	11	34.05
May 8, 1928	a 32.3	30	34.3	July 12	b 33.87
14	b 32.4	July 5	b 34.68	Aug. 15	a 34.43
21	a 33.1	12	b 34.73	Sept. 12	a 34.43
24	a 33.1	19	b 34.75	14	34.31
25	a 33.1	26	b 34.77	15	b 34.25
June 15	33.0	Aug. 3	b 35.10	18	b 34.39
July 14	b 33.9	9	b 35.09	22	34.32
Aug. 15	b 34.3	17	b 35.08	25	34.36
Oct. 28	34.2	Sept. 5	b 34.94	28	34.31
Nov. 5	34.0	13	34.57	Oct. 7	34.46
Jan. 12, 1929	33.7	20	34.53	12	34.48
Feb. 18	33.8	27	34.33	Nov. 4	b 34.46
Mar. 23	33.3	Oct. 11	34.47	Sept. 2, 1937	32.82
Oct. 23	34.1	17	34.45	14	32.77
26	34.1	25	34.51	20	32.86
Nov. 1	34.1	Nov. 6	34.59	21	d 33.69
4	34.1	15	34.5	22	d 33.98
9	34.1	22	c 34.62	23	d 34.01
12	34.1	28	c 34.57	24	d 34.12
16	34.1	Dec. 6	b 34.89	25	d 34.17
20	34.1	12	35.45	26	33.18
23	34.1	20	b 35.07	27	33.04
27	34.1	Jan. 3, 1931	34.91	28	33.06
30	34.1	10	34.91	29	33.07
Dec. 2	34.0	17	34.89	30	32.98
7	34.1	24	34.90	Oct. 1	32.99
17	34.1	31	34.91	2	33.01

a Pumping in nearby well or wells.

b Withdrawal from nearby well or wells within 24 hours preceding measurement.

c Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

d Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

## 20/3-30F3. Owner's well 8--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1937	32.95	Oct. 24, 1937	33.68	Jan. 12, 1938	31.29
4	a 33.15	25	33.51	Feb. 8	31.38
5	a 34.12	26	33.47	Mar. 14	31.88
6	a 34.33	27	33.41	Apr. 21	33.07
7	a 34.48	28	b 33.49	June 5	b 34.44
8	a 34.52	29	b 34.36	Aug. 23	32.66
9	a 34.59	30	b 34.45	Sept. 30	32.76
10	a 34.61	Nov. 3	33.42	Nov. 8	32.84
11	a 34.66	8	b 33.28	Jan. 4, 1939	b 37.59
12	33.74	10	b 38.26	Apr. 7	32.54
13	33.39	12	34.21	May 18	32.92
14	33.31	19	b 32.85	July 11	33.34
15	33.27	22	32.57	Aug. 26	33.79
16	33.24	Dec. 2	b 38.52	Sept. 23	33.56
17	33.26	3	33.74	Oct. 12	d 33.51
18	33.26	7	32.74	Dec. 31	e 36.80
19	b 35.13	13	33.17	Jan. 1, 1940	34.27
20	b 36.00	20	b 34.01	2	34.12
21	b 36.34	23	32.95	Feb. 21	33.65
22	b 36.43	28	32.45	Mar. 30	33.15
23	c 33.95	Jan. 6, 1938	31.13	May 13	33.34

20/3-30L1. Owner's well 14. City of Tacoma. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 281 feet south and 9 feet west of intersection of South 72d Street and Clement Avenue (projected). Unused drilled public-supply well, diameter of casing 12 inches, depth 155 feet (?). Taps unconfined water, locally semipерched. Reference bench mark, copper nail with washer in foot on east side of 30-inch fir tree, about 65 feet west of well, 3.59 feet below land-surface datum. Land-surface datum is 268.05 feet above sea level datum of 1929 and 282.01 feet above city datum. Pump removed and casing sealed in July 1940. Measurements discontinued Aug. 5, 1940

Water level, in feet below land-surface datum, 1908-9,  
1926-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

June 1908	46.3	June 24, 1909	33.67	Oct. 28, 1928	33.4
Aug.	43.0	Oct. 18	c 38.6	Nov. 5	33.3
Sept.	46.1	Jan. 25, 1926	33.42	Dec. 14	33.0
Oct.	48.0	13, 1927	33.05	Jan. 12, 1929	32.6
Nov.	48.1	May 8, 1928	b 31.5	Feb. 18	32.6
Dec.	49.1	14	c 31.7	Mar. 23	32.6
Jan. 1909	44.3	21	b 32.0	Oct. 19	33.4
Feb.	46.1	24	b 32.2	23	33.3
Mar.	43.2	25	b 32.6	26	33.3
Apr. 2	38.29	June 15	32.3	Nov. 1	33.4
7	c 35.79	July 14	a 33.2	4	33.4
May 31	c 37.27	Aug. 15	a 33.6	9	33.5

a Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m.,  
Oct. 11; all other municipal wells idle.

b Pumping in nearby well or wells.

c Withdrawal from nearby well or wells within 24 hours preceding measurement.

d Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m. Oct. 12; all other municipal wells idle.

e Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.

20/3-30L1. Owner's well 14--Continued.

Water level, in feet below land-surface datum, 1908-9,  
1926-31, 1937-40  
(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Nov. 12, 1929	37.4	Jan. 17, 1931	34.11	Oct. 4, 1937	e 32.50
16	33.4	24	34.10	5	e 33.42
22	a 33.5	31	34.10	6	e 33.62
27	33.4	Feb. 7	b 33.78	7	e 33.76
Dec. 2	a 33.3	14	34.0	8	e 33.81
7	33.4	21	32.2	9	e 33.84
17	33.4	28	32.95	10	e 33.91
21	32.6	Mar. 6	32.95	11	e 33.92
28	32.9	14	a 33.1	12	33.06
Feb. 11, 1930	32.5	21	33.71	13	32.70
21	32.2	28	b 32.75	14	32.57
Mar. 7	32.3	Apr. 4	a 32.76	15	32.52
22	a 32.9	11	33.69	16	32.49
28	a 32.8	18	32.7	17	32.54
Apr. 4	32.4	25	32.69	18	32.51
11	32.7	May 2	32.70	19	b 34.82
17	32.8	8	a 33.95	20	b 35.93
May 2	32.7	16	32.75	21	b 36.40
17	32.8	23	32.77	22	b 36.41
23	32.8	June 6	b 33.15	23	33.20
June 11	b 32.9	11	33.14	24	32.94
13	32.9	July 12	a 33.00	25	32.82
20	b 35.52	Aug. 15	b 33.68	26	32.73
24	b 43.04	Sept. 12	a 33.67	27	32.70
30	33.5	15	a 33.51	28	b 32.85
July 5	a 33.90	18	a 35.51	30	b 34.44
12	a 33.78	21	33.54	Nov. 3	32.73
19	a 33.78	25	33.57	8	b 32.51
26	a 33.81	28	33.47	12	33.69
Aug. 3	a 34.31	Oct. 7	33.59	19	32.19
9	b 34.22	11	33.81	22	31.92
17	b 34.21	Nov. 4	33.86	Dec. 7	32.11
Sept. 5	a 34.10	Sept. 2, 1937	32.13	13	32.62
13	34.02	14	32.05	20	33.57
20	33.79	20	32.06	23	32.27
27	34.75	21	d 33.68	28	31.65
Oct. 11	33.55	22	d 33.97	Jan. 6, 1938	30.49
17	33.57	23	d 34.07	12	30.60
25	33.65	24	d 34.17	Feb. 8	30.69
Nov. 6	33.9	25	d 34.22	Mar. 14	31.07
15	33.8	26	32.53	Apr. 21	33.27
22	c 33.82	27	32.39	June 5	b 35.00
28	c 33.85	28	32.32	July 21	31.80
Dec. 6	a 33.9	29	32.37	Aug. 23	31.92
12	34.18	30	32.25	Sept. 30	31.95
20	b 34.0	Oct. 1	32.31	Nov. 8	32.11
Jan. 3, 1931	34.0	2	32.31	Jan. 4, 1939	37.34
10	34.1	3	32.29	Apr. 7	31.74

a Withdrawal from nearby well or wells within 24 hours preceding measurement.

b Pumping in nearby well or wells.

c Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22 at 12 noon.

d Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

e Pump test of well 20/3-19F1 from 9 a.m., Oct. 6 to 9 p.m., Oct. 11; all other municipal wells idle.

20/3-30L1. Owner's well 14--Continued.

Water level, in feet below land-surface datum, 1908-9,  
1926-31, 1937-40

(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
May 18, 1939	32.16	Oct. 12, 1939	a 32.94	Feb. 21, 1940	33.08
July 11	32.54	Dec. 31	b 35.96	Mar. 30	32.36
Aug. 26	32.83	Jan. 1, 1940	33.54	May 13	32.65
Sept. 23	32.66	2	33.37		

20/3-30L2. Owner's well 9. City of Tacoma. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 34 feet north and 5 feet east of intersection of South 74th Street and pipe-line service road. Unused drilled public-supply well, diameter of casing 12 inches, depth 149 feet. Taps unconfined water, locally semiperched. Reference bench mark, copper nail with washer in base on east side of power pole, about 10 feet south and 45 feet west of well, 1.28 feet above land-surface datum. Land-surface datum is 258.42 feet above sea-level datum of 1929 and 272.38 feet above city datum. Pump removed and casing sealed in July 1940. Measurements discontinued in August 1940.

Water level, in feet below land-surface datum, 1907-9,  
1925-27, 1929-31, 1934, 1937-40

(Measurements through 1934 made by Tacoma Water Division)

Oct. 1907	31.4	Nov. 15, 1929	23.5	Oct. 17, 1930	23.55
June 1908	40.3	20	23.6	25	23.6
Aug. 34.8		22	23.6	Nov. 6	23.7
Oct. 38.6		23	23.5	15	23.8
Nov. 38.08		27	23.5	22	e 23.9
Dec. 39.3		Dec. 2	23.6	28	e 24.0
Jan. 1909	40.5	7	23.5	Dec. 6	c 24.08
Feb. 45.3		17	23.4	12	24.22
Mar. 46.2		21	23.1	20	d 24.17
Apr. 2, 1925	21.3	28	23.1	Jan. 3, 1931	24.12
May 31	c 23.59	Feb. 11, 1930	22.7	10	24.13
June 24	23.65	21	22.6	17	24.14
Oct. 18	c 27.6	Mar. 7	22.7	24	24.14
Jan. 25, 1926	23.59	22	c 23.0	31	24.14
13, 1927	23.32	28	c 23.0	Feb. 7	d 23.62
May 8	d 21.5	Apr. 4	22.7	14	24.15
14	d 21.6	11	c 22.9	21	23.6
21	d 22.0	17	22.9	28	23.17
24	d 22.2	May 2	23.0	Mar. 6	23.17
25	d 22.4	17	23.1	14	c 23.22
June 15	22.1	23	23.0	21	22.9
July 14	c 22.9	June 11	d 23.0	28	c 22.90
Aug. 15	c 23.4	13	23.0	Apr. 4	c 23.0
Oct. 28	23.4	23	c 24.1	11	22.9
Nov. 5	23.3	30	23.6	18	23.02
Dec. 14	23.0	July 5	c 23.77	25	22.9
Jan. 12, 1929	23.0	12	c 23.80	May 2	23.0
Feb. 18	23.2	19	c 23.82	8	c 23.68
Mar. 23	22.8	26	c 23.90	16	23.41
Oct. 19	23.6	Sept. 5	c 24.15	23	23.4
26	23.6	13	24.00	June 6	d 25.00
30	23.5	20	23.8	11	c 24.9
Nov. 4	23.5	27	23.71	July 12	c 23.16
9	23.5	Oct. 11	23.6	Aug. 15	d 23.77

a Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38

p.m. Oct 12; all other municipal wells idle.

b Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15

a.m. Dec. 31; all other municipal wells idle.

c Withdrawal from nearby well or wells within 24 hours preceding

measurement.

d Pumping in nearby well or wells.

e Well 20/3-18D1 pumping continuously for 7 days beginning Nov. 22

at 12 noon.

## 20/3-30L2. Owner's well 9--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-27, 1929-31, 1934, 1937-40

(Measurements through 1934 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Sept. 12, 1931	a 23.67	Oct. 7, 1937	d 23.21	Dec. 2, 1937	b 24.80
14	23.53	8	d 23.33	7	22.22
18	a 23.57	9	d 23.32	13	22.69
22	23.66	10	d 23.36	20	23.18
25	23.71	11	d 23.36	23	22.56
28	23.68	12	22.90	28	21.90
Oct. 7	23.76	13	22.82	Jan. 6, 1938	20.70
10	b 24.28	14	22.77	12	20.90
12	23.76	15	22.70	Feb. 8	20.89
Nov. 4	a 23.77	16	22.71	Mar. 14	21.19
Jan. 26, 1934	b 21.2	17	22.68	Apr. 21	21.64
Sept. 2, 1937	22.23	18	22.70	June 5	b 23.04
14	22.13	19	b 23.57	July 21	22.01
20	22.26	20	b 23.93	Aug. 23	22.08
21	c 22.88	21	b 24.32	Sept. 30	22.25
22	c 23.10	22	b 24.32	Nov. 8	22.29
23	c 23.23	23	23.22	Jan. 4, 1939	24.58
24	c 23.31	24	23.06	Apr. 7	22.88
25	c 23.34	25	22.96	May 17	22.75
26	22.70	26	23.09	27	22.55
27	22.54	27	22.82	July 11	23.75
28	22.60	28	b 22.85	Aug. 26	23.50
29	22.61	29	b 23.54	Sept. 23	23.28
30	22.44	30	b 23.65	Oct. 12	e 23.25
Oct. 1	22.52	Nov. 3	22.98	Dec. 31	f 25.23
2	22.53	8	b 22.78	Jan. 1, 1940	23.93
3	22.46	12	23.40	2	23.78
4	d 22.59	15	b 24.78	Feb. 21	23.44
5	d 23.10	19	23.33	Mar. 30	22.72
6	d 23.23	22	22.16	Apr. 13	22.89

20/3-30L3. Owner's well 10. City of Tacoma. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 640 feet south and 185 feet west of intersection of South 74th Street and pipe-line service road. Unused drilled public-supply well, diameter of casing 12 to 10 inches, depth 207 feet. Taps confined water, nonartesian in large part. Reference bench mark, chiseled cross on top face at east side of iron manhole rim, about 30 feet west of well at land-surface datum. Land-surface datum is 256.33 feet above sea-level datum of 1929 and 270.29 feet above city datum. Pump removed and casing sealed in July 1940. Measurements discontinued Aug. 23, 1940.

Water level, in feet below land-surface datum, 1907-9,  
1925-26, 1928-31, 1937-38

(Measurements through 1931 made by Tacoma Water Division)

Oct. 1907	27.7	Nov. 1908	30.0	Apr. 2, 1925	22.04
June 1908	27.3	Dec. 1908	29.3	7	24.87
Aug. 1908	27.3	Jan. 1909	27.7	May 31	a 25.60
Sept. 1908	28.0	Feb. 1909	40.2	June 24	22.75
Oct. 1908	28.5	Mar. 1909	42.1	Jan. 25, 1926	21.19

a Withdrawal from nearby well or wells within 24 hours preceding measurement.

b Pumping in nearby well or wells.

c Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

d Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

e Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38 p.m.

Oct. 12; all other municipal wells idle.

f Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15 a.m. Dec. 31; all other municipal wells idle.



## 20/3-30L3. Owner's well 10--Continued.

Water level, in feet below land-surface datum, 1907-9,  
1925-26, 1928-31, 1937-38  
(Measurements through 1931 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
May 21, 1928	a 21.4	Sept. 28, 1937	22.78	Oct. 24, 1937	23.45
24	a 21.7	29	22.66	25	23.23
25	a 21.8	30	22.60	26	23.11
Nov. 4, 1929	23.3	Oct. 1	22.66	27	22.95
June 20, 1930	a 24.42	2	22.66	28	a 24.31
26	b 23.8	3	22.64	29	a 27.36
July 1	a 24.23	4	d 22.61	30	a 27.65
Mar. 13, 1931	b 22.87	5	d 23.32	Nov. 3	23.09
23	a 25.1	6	d 23.52	8	a 22.93
24	a 24.50	7	d 23.55	10	a 29.73
May 8	a 26.68	8	d 23.62	12	24.21
June 6	a 22.86	9	d 23.64	19	22.89
11	22.83	10	d 23.66	22	22.53
Sept. 12, 1931	b 23.42	11	d 23.74	30	a 30.73
Nov. 3	a 26.75	12	23.23	Dec. 3	23.88
4	b 23.72	13	22.93	7	22.52
Sept. 2, 1937	22.20	14	22.86	13	22.96
14	22.23	15	22.80	20	23.80
20	22.27	16	22.75	23	22.44
21	c 26.55	17	22.79	28	21.96
22	c 26.85	18	22.78	Jan. 6, 1938	21.25
23	c 27.11	19	a 27.09	12	20.54
24	c 27.33	20	a 28.56	Feb. 8	20.47
25	c 27.36	21	a 29.17	Mar. 14	20.85
26	23.11	22	a 28.25	Apr. 21	a 21.79
27	22.90	23	23.77		

20/3-30L5. Owner's well 7-A. City of Tacoma. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30. T. 20 N., R. 3 E., about 80 feet south and 45 feet west of intersection of South 74th Street and Clement Avenue. Used drilled public-supply well, diameter of inner casing 26 inches, depth 307 feet ("pilot hole" initially 350 feet). Taps confined water, nonartesian in large part. Measuring points: (3) Beginning June 6, 1940, top of 4-inch coupling on west gravel spout, marked by chiseled arrow, 0.77 foot above land-surface datum plus 0.54-foot correction for inclination of tape; (6) beginning Nov. 1, 1940, top of 1-inch breather pipe in west side of pump-base flange, 0.30 foot above boss on flange and 1.35 feet above datum. Reference bench mark, chiseled square on top east edge of concrete girder, at outside northeast corner of pump house, 0.20 foot above land-surface datum. Land-surface datum is 255.68 feet above sea-level datum of 1929 and 269.64 feet above city datum.

Water level, in feet below land-surface datum, 1939-43

May 17, 1939	e 20.48	Feb. 21, 1940	e 21.78	Nov. 1	22.04
27	e 21.42	June 6	21.17	Dec. 5	22.26
June 6	e 21.62	Aug. 5	21.92	7	22.05
27	e 21.76	11	22.07	31	21.50
Oct. 11	e 21.73	Sept. 3	22.03	Feb. 4, 1941	20.83
12	e 21.68	Oct. 2	22.03	Mar. 3	21.18

a Pumping in nearby well or wells.

b Withdrawal from nearby well or wells within 24 hours preceding measurement.

c Pump test of well 20/3-30N1 from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle.

d Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m., Oct. 11; all other municipal wells idle.

e Measurement made during construction period but after nondrilling interval of 12 hours or more.

## 20/3-30L5. Owner's well 7-A--Continued.

Water level, in feet below land-surface datum, 1939-43

Date	Water level	Date	Water level	Date	Water level
Apr. 3, 1941	21.18	Apr. 4, 1942	a 22	Dec. 30	21.10
30	21.20	25	a 21.3	Jan. 13, 1943	a 21.05
May 28	21.27	May 5	21.76	27	a 21.18
June 26	21.71	25	21	Feb. 11	20.95
July 12	a 23	June 3	21.97	27	a 20.81
30	25.36	9	a 22.5	Mar. 6	a 20.91
Aug. 26	a 23.1	12	a 23.5	31	a 20.83
Sept. 3	22.74	25	22.20	Apr. 19	20.71
5	a 23.5	30	a 22.3	30	a 20.53
30	22.51	July 22	a 22.6	May 27	a 21.08
Nov. 2	22.56	Aug. 4	22.30	June 11	21.22
13	a 22.8	6	22.86	29	a 21.41
Dec. 16	22.11	14	a 23.2	July 30	a 21.62
Jan. 9, 1942	21.17	16	a 23.40	Aug. 30	a 21.70
Feb. 3	21.25	27	22.50	Sept. 29	a 21.78
Mar. 4	21.10	Sept. 28	22.25	Oct. 30	a 21.73
11	a 23.5	Oct. 2	a 22.59	Nov. 29	a 21.73
28	22	Nov. 3	a 27.41	Dec. 29	a 21.90
Apr. 2	21.74	Dec. 3	21.43		

20/3-30N1. Owner's well 3-A. City of Tacoma. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 20 N., R. 3 E., about 485 feet north and 845 feet east of intersection of Union Avenue and south boundary of Tacoma. Used drilled public-supply well, diameter of inner casing 26 inches, depth 313 feet ("pilot hole" initially 358 feet). Taps confined water, nonartesian in large part. Measuring points: (4) Lowest point on lip of south 4-inch gravel pipe, at access to annular space between casings, 0.20 foot above land-surface datum plus 0.44-foot correction for inclination of tape; (5) lip of north gravel pipe, 0.05-foot above land-surface datum plus 0.65-foot correction for inclination of tape; (6) top face on west side of pump-base flange, through 1-inch tapped hole, at access to inner casing, 0.90 foot above land-surface datum. Measurements indicate that water levels within the inner casing and in the annular space outside agree throughout the full range of fluctuations caused by pumping; accordingly, measuring point 4 is used ordinarily. Reference bench marks: (1) Chiseled square in top face, at northeast corner of concrete apron, west of pump house, 0.75 foot above land-surface datum; (2) chiseled square, on top face, at south corner of brick-and-concrete curb of blow-off basin, about 55 feet N. 65° E. of bench mark 1, 0.02 foot below land-surface datum. Land-surface datum is 271.63 feet above sea-level datum of 1929 and 285.59 feet above city datum.

Water level, in feet below land-surface datum, 1931-43  
(Measurements prior to September 1937 made by Tacoma Water Division)

Mar. 31, 1931	38.75	July 12, 1934	40	Sept. 21, 1937	b 106.3
24	38.67	Oct. 26	41	22	b 103.6
May 4	39.45	Nov. 1	37.5	24	b 104.2
5	38.55	Jan. 10, 1935	39.7	25	b 105.8
16	39.05	Apr. 17	37	26	39.75
Mar. 9, 1932	47	24	36	27	39.32
22	39	Jan. 9, 1936	39	28	39.14
Nov. 22	43.1	Apr. 19	40	29	39.07
Dec. 24, 1933	41	Mar. 29, 1937	38.9	30	38.94
26	40	Sept. 16	38.66	Oct. 1	38.94
Jan. 5, 1934	40	17	38.67	2	38.95
22	40	20	38.71	3	38.94

a Measured by Tacoma Water Division.

b Pumping from 4:46 p.m. Sept. 20 to 4:46 p.m. Sept. 25; all other municipal wells idle. Water-level measurements are from readings of pneumatic gage.

## 20/3-30N1. Owner's well 3-A--Continued.

Water level, in feet below land-surface datum, 1931-43  
(Measurements prior to September 1937 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Oct. 4, 1937	a 39.07	Dec. 23, 1937	d 38.65	Oct. 2, 1940	39.62
5	a 40.14	28	37.89	10	f 40.1
6	a 40.61	Jan. 6, 1938	37.35	Nov. 1	39.74
7	a 40.75	12	36.53	Dec. 2	f 47.4
8	a 40.71	Feb. 8	36.57	3	f 41.9
9	a 40.86	Mar. 14	36.96	4	f 41.1
10	a 40.91	Apr. 21	38.33	5	f 40.7
11	a 40.94	May 28	37.3	7	40.01
12	40.19	June 21	38.07	31	39.40
13	39.51	Aug. 23	38.38	Feb. 4, 1941	38.47
14	39.32	Sept. 30	38.62	Mar. 3	38.71
15	39.25	Nov. 8	38.81	Apr. 3	38.80
16	39.15	Dec. 30	38.3	30	38.93
17	39.18	Apr. 7, 1939	37.70	May 28	39.09
18	39.21	July 11	38.86	Aug. 6	d 40.4
19	b 95.8	Aug. 3	38.3	26	40.4
20	b 101.3	22	40.3	Sept. 3	40.55
21	b 100.3	24	38.3	5	f 40.2
22	b 101.3	26	39.31	18	41
	44.51	Sept. 23	39.30	30	40.48
23	40.86	Oct. 11	e 39.48	Nov. 2	40.48
24	40.08	12	e 39.40	13	f 40.2
25	39.76	Nov. 14	39.3	Dec. 16	40.08
26	39.56	16	39.3	Jan. 9, 1942	39.03
27	39.41	Dec. 16	40.4	Feb. 3	38.76
28	39.39	21	40.3	Mar. 4	38.59
Nov. 3	39.46	24	f 41.0	28	39.4
8	c 39.17	26	f 41.3	Apr. 2	39.12
9	b 104.3	27	f 41.4	4	f 38.7
10	b 108.3	28	f 41.9	25	f 38.8
11	b 107.3	29	f 41.7	May 5	39.18
12	41.63	30	f 41.7	24	38.4
14	b 109.3	31	g 41.21	June 3	39.44
15	b 111.3	Jan. 1, 1940	39.82	9	f 39.5
16	b 111.3	2	38.67	12	ef 45.5
19	39.50	27	39.6	20	f 39.9
22	38.90	Feb. 5	f 39.5	25	39.64
25	b 96.3	10	f 39.8	30	f 39.8
26	b 102.3	12	f 42.4	July 22	f 40.2
27	b 103.3	13	f 40.9	24	f 40.1
28	b 106.3	14	f 40.3	Aug. 4	40.18
29	b 106.3	15	f 40.2	6	40.94
30	b 106.3	16	f 39.9	9	f 40.4
Dec. 1	b 108.3	17	f 39.9	17	f 40.61
2	b 108.3	18	f 39.2	27	40.28
	46.98	21	38.73	Sept. 1	f 40.3
3	41.46	Mar. 30	38.03	28	40.16
7	38.90	May 13	38.26	Oct. 2	f 39.98
13	d 39.70	Aug. 5	39.46	Nov. 20	f 41.11
20	d 41.17	Sept. 3	39.57	Dec. 3	39.76

- a Pump test of well 20/3-19F1 from 9 a.m., Oct. 4 to 9 p.m.,  
Oct. 11; all other municipal wells idle.  
b Pumping.  
c Pumping in nearby well or wells.  
d Withdrawal from well within 5 days preceding measurement.  
e Acceptance test of well 20/2-13J1 from 12 noon, Oct. 5 to 1:38  
p.m. Oct. 12; all other municipal well idle.  
f Measured by Tacoma Water Division.  
g Acceptance test of well 20/3-30C4 from 8:45 a.m. Dec. 24 to 10:15  
a.m. Dec. 31; all other municipal wells idle.

20/3-30N1. Owner's well 3-A--Continued.

Water level, in feet below land-surface datum, 1931-43  
(Measurements prior to September 1937 made by Tacoma Water Division)

Date	Water level	Date	Water level	Date	Water level
Dec. 30, 1942	39.06	Apr. 14, 1943	a 39.10	Aug. 30	a 39.46
Jan. 13, 1943	a 39.01	15	a 38.73	Sept. 29	a 39.68
27	a 38.99	19	b 38.50	Oct. 4	39.68
Feb. 11	38.82	30	a 38.09	30	a 39.71
27	a 38.61	May 27	a 38.53	Nov. 29	a 39.64
Mar. 6	a 38.63	June 11	38.66	Dec. 3	a 39.4
31	a 38.61	29	a 38.88	29	39.85
Apr. 2	a 39.17	July 30	a 39.33		

20/3-32D1. E. B. Gustafson. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 32, T. 20 N., R. 3 E., on north side of South 84th Street, about 600 feet east of cross road, near property-line fence, in small depression. Used dug domestic well, diameter 48 inches, depth 15.7 feet. Taps perched water body, above Vashon till. Measuring point, top of door sill of shed over well, 1.50 feet above land-surface datum. Land-surface datum is about 306 feet above mean sea level. Water levels, in feet below land-surface datum, 1940: Apr. 22, 8.29; June 10, 9.10; Aug. 7, 10.92; Sept. 5, 11.9; measurements discontinued.

20/3-32D2. Mr. Bronson. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 32, T. 20 N., R. 3 E., about 150 feet north and 300 feet west of crossing of South 82d Street and Alaska Street extended, in building about 50 feet southwest of barn. Used drilled domestic and stock well, diameter 10 inches, depth 80 feet. Regional water table, below Vashon till. Measuring point, top of 10-inch casing, 6.20 feet below land-surface datum. Land-surface datum is about 314 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

Apr. 24, 1940	62.63	May 30, 1941	63.13	June 3, 1942	63.65
June 9	62.31	June 27	63.35	25	63.55
Aug. 7	62.83	Aug. 1	63.72	Aug. 5	63.98
Sept. 5	63.20	Sept. 4	64.5	31	64.13
Oct. 4	63.39	Oct. 2	64.69	Sept. 30	64.43
Nov. 2	63.58	Nov. 2	64.68	Nov. 4	64.90
Dec. 10	64.00	Dec. 18	64.8	Dec. 2	64.96
Jan. 2, 1941	63.96	Jan. 9, 1942	64.9	31	64.60
Feb. 6	63.19	Feb. 4	64.25	Feb. 10, 1943	64.15
Mar. 5	63.63	Mar. 5	63.78	Oct. 5	63.70
Apr. 4	65	Apr. 2	63.68	Nov. 29	63.40
May 1	64.04	May 6	63.40		

20/3-32D3. E. Lambert. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 32, T. 20 N., R. 3 E., about 50 feet south and 200 feet east of intersection of South 82d and Sprague Streets, in a local depression. Used dug domestic well, diameter 30 inches, depth 18 feet. Taps perched water body, on Vashon till. Measuring point, top of 2- by 4-inch extended well curb, at copper nail with washer, 2.50 feet above land-surface datum. Land-surface datum is about 304 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43

Oct. 4, 1940	15.50	Sept. 4, 1941	15.65	Aug. 5, 1942	14.31
Nov. 2	16.50	Oct. 2	16.65	31	15.20
Dec. 4	15.95	Nov. 2	(c)	Sept. 30	16.+
Jan. 2, 1941	12.84	Dec. 18	15.27	Nov. 4	(c)
Feb. 6	10.58	Jan. 9, 1942	10.42	Dec. 2	15.20
Mar. 5	11.09	Feb. 4	10.57	31	12.04
Apr. 4	11.43	Mar. 5	10.04	Feb. 10, 1943	10.63
May 1	11.11	Apr. 2	10.76	Apr. 22	9.20
30	12.61	May 6	11.65	June 10	11.14
June 27	13.36	June 3	12.46	Oct. 5	15.3
Aug. 1	14.43	25	13.05	Nov. 29	(c)

a Measured by Tacoma Water Division.

b Withdrawal from well within 5 days preceding measurement.

c Well dry.

20/3-32G1. J. L. Ryan. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 20 N., R. 3 E., about 200 feet south and 75 feet east of intersection of South 84th Street and South M Street extended, in open field near picket fence. Used dug domestic well, diameter 48 inches, depth about 101 feet. Regional water table, below Vashon till. Measuring point, top of 4- by 12-inch timber collar of curb, at land-surface datum. Land-surface datum is about 348 feet above mean sea level. Measurements discontinued after June 3, 1942.

## Water level, in feet below land-surface datum, 1940-42

Date	Water level	Date	Water level	Date	Water level
Aug. 7, 1940	97.4	Apr. 4, 1941	98.73	Dec. 18, 1941	99.77
Sept. 5	98.54	May 1	98.80	Jan. 9, 1942	99.90
Oct. 4	98.68	29	98.83	Feb. 4	99.31
Nov. 2	98.88	June 27	99.02	Mar. 5	99.78
Dec. 4	99.00	Aug. 1	99.20	Apr. 2	99.30
Jan. 2, 1941	99.43	Sept. 4	99.43	May 6	99.40
Feb. 6	98.72	Oct. 2	99.66	June 3	99.75
Mar. 5	99.25	Nov. 2	99.70		

20/3-34E1. Frank Reding. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 20 N., R. 3 E., in north-west angle of intersection of Golden-Givens Road and East 84th Street, west of dwelling. Used dug stock well, diameter 48 inches, depth 19.8 feet. Taps perched water body, just above Vashon till. Measuring point, top of 2-inch plank deck at copper nail with washer, 0.50 foot above land-surface datum. Land-surface datum is about 423 feet above mean sea level.

## Water level, in feet below land-surface datum, 1940-43

Apr. 20, 1940	3.75	June 27, 1941	6.69	June 25, 1942	4.25
June 10	5.96	Aug. 1	8.30	Aug. 5	6.32
Aug. 7	9.45	Sept. 4	9.13	31	7.45
Sept. 5	10.27	Oct. 2	8.58	Sept. 30	9.10
Oct. 4	10.50	Nov. 2	8.04	Nov. 4	9.50
Nov. 2	8.56	Dec. 18	1.50	Dec. 2	2.50
Dec. 4	3.50	Jan. 9, 1942	3.70	31	2.49
Jan. 2, 1941	3.07	Feb. 4	2.38	Feb. 10, 1943	2.45
Feb. 6	2.98	Mar. 5	2.74	Apr. 22	3.20
Mar. 5	2.80	Apr. 2	3.54	June 10	5.55
Apr. 4	2.66	May 6	3.93	Oct. 5	11.25
May 1	4.82	June 3	3.62	Nov. 29	7.40
29	4.95				

20/3-35G1. I. S. Broxson. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 20 N., R. 3 E., about 150 feet south of East 84th Street and 0.2 mile east of Waller Road, 15 feet west of garage, in small brick pump house. Used dug domestic well, diameter 30 inches, depth 186 feet. Regional water table, below Vashon till. Measuring points: (1) Top east side of metal plate supporting pump, 3.00 feet below land-surface datum; (2) beginning Feb. 6, 1941, top of 1-inch pipe piercing concrete well cover, 2.80 feet below land-surface datum. Land-surface datum is about 428 feet above mean sea level. Float gage installed Aug. 26, 1943.

Water level, in feet below land-surface datum, 1940-43  
(From float-gage readings by owner beginning Aug. 26, 1943)

June 10, 1940	180.18	Feb. 4, 1942	181.55	Sept. 10, 1943	180.54
Aug. 7	180.09	Mar. 5	181.39	16	180.58
Sept. 5	180.27	Apr. 2	180.94	26	180.63
Oct. 4	180.48	May 6	180.59	Oct. 2	180.66
Nov. 2	180.67	June 3	180.53	5	180.70
Dec. 4	180.93	June 25	180.60	12	180.80
Jan. 2, 1941	181.05	Aug. 5	180.82	17	180.75
Feb. 6	180.90	31	180.96	26	180.83
Mar. 5	181.18	Sept. 30	181.15	Nov. 5	180.89
Apr. 4	180.90	Nov. 4	181.30	11	180.91
May 1	180.74	Dec. 2	181.45	25	181.00
29	180.61	31	181.65	Dec. 2	181.05
Sept. 4	180.92	Feb. 10, 1943	181.67	12	181.08
Oct. 2	181.09	Apr. 22	181.00	19	181.13
Nov. 2	181.23	June 10	180.42	25	181.16
Dec. 18	181.43	Aug. 26	180.44	30	181.17
Jan. 9, 1942	181.54	Sept. 2	180.49		

a Measured by Geological Survey.

20/4-24F1. Standard Brands of California, Inc. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 20 N., R. 4 E., near northwest corner of Sumner, north of T-road east from Williams Road, about 50 feet northwest of administration building, in small concrete reservoir. Unused since 1926 except for standby and fire protection. Drilled industrial well, diameter 16 to 12 inches, depth about 480 feet. Taps confined (artesian) water. Measuring points: (1) Top of 4- by 4-inch timber spanning reservoir, 3.31 feet above land-surface datum common to wells 24F1, 24F2, and 24F3; (2) Dec. 9-30, 1937, top of 12-inch welded-pipe extension of casing, 4.40 feet above land-surface datum; (3) beginning Jan. 6, 1938, top of 12-inch galvanized-iron extension of casing, 5.40 feet above land-surface datum. Reference bench mark, in common with wells 24F2 and 24F3, top of stud bolt marked with chiseled cross, at right-angle turn of overhead conveyor, on northeast concrete footing, 1.41 feet above land-surface datum common to the three wells. Land-surface datum is 62.80 feet above sea level datum of 1929. Automatic water-stage recorder operated on well Dec. 8, 1937 to Aug. 1, 1938. Measurements discontinued after July 31, 1938.

Water level, in feet above land-surface datum, 1937-38  
(From recorder charts beginning Dec. 10, 1937)

Date	Water level	Date	Water level	Date	Water level
Nov. 29, 1937	a 2.49	Feb. 20, 1938	3.53	May 9, 1938	3.14
Dec. 3	a 2.57	25	3.28	15	3.21
10	3.11	28	3.56	21	2.88
15	3.18	Mar. 5	3.42	June 5	2.68
20	3.47	10	3.11	10	1.68
25	3.64	15	3.19	14	1.49
31	4.41	20	3.56	20	2.06
Jan. 5, 1938	4.09	26	3.45	25	1.27
10	4.38	31	3.76	30	.80
15	4.10	Apr. 5	3.57	July 5	1.23
20	4.41	10	3.68	10	2.09
25	4.09	15	3.25	15	.86
31	3.99	20	3.62	22	.21
Feb. 5	4.03	25	3.79	26	.69
10	3.34	30	3.23	31	.77
15	3.48	May 5	3.00		

20/4-24F2. Standard Brands of California, Inc. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 20 N., R. 4 E., about 100 feet north of administration building and 50 feet north of well 24F1. Unused drilled test well, diameter 8 inches, depth 168 feet. Taps confined (artesian) water. Measuring point, top of 8-inch casing extension at chiseled arrow, 2.00 feet above land-surface datum, which is same as that of wells 24F1 and 24F3. Land-surface datum is 62.80 feet above sea-level datum of 1929. For reference bench mark see well 24F1.

Water level, in feet with reference to land-surface datum, 1937-43  
(Except as indicated, well 24F3 pumping at time of each measurement)

Nov. 30, 1937	b +1.94	Sept. 5, 1940	+0.40	Feb. 4, 1942	+0.88
Dec. 3	b +1.92	Oct. 9	+ .31	Mar. 5	+ .60
9	b +1.85	Nov. 2	+ .24	Apr. 1	+ .27
June 17, 1938	+1.06	Dec. 4	+1.30	May 6	+ .09
July 21	+ .21	Jan. 2, 1941	+1.04	June 3	+1.10
Aug. 22	+ .82	Feb. 6	+1.08	25	.00
Sept. 30	- .19	Mar. 5	+ .70	Aug. 5	- .58
Nov. 7	+ .59	Apr. 4	+ .46	31	- .55
Jan. 6, 1939	+ .84	May 1	+ .34	Sept. 30	-1.27
Apr. 12	+1.39	29	+ .07	Nov. 4	- .93
July 11	+1.29	June 27	+ .45	Dec. 2	.00
Sept. 22	- .72	Aug. 1	- .74	31	+ .47
Oct. 13	- .79	Sept. 4	- .36	Feb. 10, 1943	+ .25
Jan. 11, 1940	+1.53	Oct. 2	- .75	Apr. 22	+1.12
Apr. 3	(c)	Nov. 2	- .18	June 10	+ .35
June 11	+1.48	Dec. 18	+ .30	Oct. 5	-1.60
Aug. 9	+ .53	Jan. 9, 1942	+ .70	Nov. 29	- .77

- a Tape measurement.  
b Pump in well 24F3 idle.  
c Well flowing.

20/4-24F3. Standard Brands of California, Inc. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 20 N., R. 4 E., about 220 feet north of administration building and 120 feet northeast of well 24F2, in small concrete sump. Used drilled industrial well, diameter 18 inches, depth 562 feet. Taps confined (artesian) water. Measuring point, top edge of 4- by 8-inch trap at chiseled arrow, 3.91 feet above land-surface datum, which is same as that of wells 24F1 and 24F2. Land-surface datum is 62.80 feet above sea-level datum of 1929. Reference bench mark same as for well 24F1.

Water level, in feet with reference to land-surface datum, 1937-43 (1 of 2 pumps, with capacities of 750 and 1,000 gallons a minute, respectively, operating in well at time of each measurement)

Date	Water level	Date	Water level	Date	Water level
Nov. 30, 1937	+1.46	Sept. 5, 1940	+0.06	Jan. 9, 1942	+0.53
Dec. 3	+1.47	Oct. 9	-1.43	Feb. 4	+3.36
9	+1.29	Nov. 2	+6.68	Mar. 5	+1.13
17	+1.73	Dec. 4	-7.77	Apr. 1	-.48
July 21, 1938	-1.51	Jan. 2, 1941	+1.15	May 6	-1.91
Aug. 22	+9.97	Feb. 6	+1.27	June 3	-.69
Sept. 30	-1.07	Mar. 5	1.30	25	-.60
Nov. 30	-.02	Apr. 4	-.91	Aug. 5	-2.70
Jan. 6, 1939	1.41	May 1	-.82	31	-2.60
Apr. 12	+3.36	29	-.38	Sept. 30	-3.51
July 11	+3.39	June 27	-.85	Nov. 4	-3.09
Sept. 22	-5.27	Aug. 1	-2.57	Dec. 2	-2.29
Oct. 13	-3.37	Sept. 4	-1.07	Feb. 10, 1943	-1.49
Jan. 11, 1940	+1.28	Oct. 2	-2.05	Apr. 22	-.07
Apr. 3	+0.06	Nov. 2	-.94	Oct. 5	-1.99
June 11	-1.07	Dec. 18	-1.01	Nov. 29	-3.11
Aug. 9	-1.69				

20/3-36H2. Frank Chervenka. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 20 N., R. 4 E., about 0.25 mile south of cross road, 300 feet west of county road, in open field. Used drilled irrigation well, diameter 6 inches, depth 77 feet. Probably regional water table. Measuring point (2) Top of coupling on 6-inch casing, 0.20 foot above land-surface datum. Land-surface datum is about 82 feet above mean sea level.

Water level, in feet below land-surface datum, 1938-43

Jan. 10, 1938	4.69	Dec. 4, 1940	5.98	June 3, 1942	6.61
Feb. 9	5.07	Jan. 2, 1941	5.72	25	6.51
Apr. 22	4.91	Feb. 6	5.63	Aug. 5	7.20
June 6	6.53	Mar. 5	5.86	31	7.61
July 23	7.55	Apr. 4	5.93	Sept. 30	7.95
Aug. 23	7.96	May 1	6.42	Nov. 4	7.68
Sept. 30	8.34	29	6.59	Dec. 2	6.20
Nov. 7	8.04	June 27	a 6.90	31	5.70
Jan. 6, 1939	6.54	27	b 13.27	Aug. 5	7.20
Apr. 12	6.40	Aug. 1	7.24	31	7.61
July 11	7.69	Sept. 4	7.40	Sept. 30	7.95
Sept. 22	8.67	Oct. 2	7.58	Nov. 4	7.68
Oct. 13	8.79	Nov. 2	7.42	Dec. 2	6.20
Dec. 21	6.57	Dec. 18	6.16	31	5.70
Apr. 3, 1940	6.01	Jan. 9, 1942	5.59	Feb. 10, 1943	5.75
June 11	7.20	Feb. 4	5.35	Apr. 22	5.52
Aug. 9	7.18	Mar. 5	5.90	June 10	6.50
Sept. 5	7.33	Apr. 1	6.21	Oct. 5	8.02
Oct. 9	7.46	May 6	6.57	Nov. 29	7.80
Nov. 2	6.79				

a Pump stopped 10 minutes before measurement.

b Pumping.

21/2-25B2. City of Tacoma. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 25, T. 21 N., R. 2 E., about 135 feet S. 13° W. from overflow weir at north end of sump at Mason Gulch Spring, 50 feet southwest of pump station. Unused drilled test well, diameter 15 inches, depth about 480 feet (unverified). Taps confined water. Measuring point, top of 15-inch casing at seam, 1.50 feet above land-surface datum. Land-surface datum is about 138 feet above mean sea level.

Water level, in feet below land-surface datum, 1938, 1940-43

Date	Water level	Date	Water level	Date	Water level
Nov. 20, 1938	40.04	May 30, 1941	42.55	May 6, 1942	43.32
Apr. 3, 1940	40.26	June 26	42.75	June 2	43.19
June 10	41.59	Aug. 1	42.87	4	43.25
Aug. 8	41.74	Sept. 3	42.74	20	43.34
Sept. 4	41.72	Oct. 1	43.00	Sept. 28	43.44
Oct. 2	41.69	Nov. 1	42.96	Nov. 3	43.30
Nov. 1	41.57	Dec. 14	42.94	Dec. 31	43.15
Dec. 5	41.63	Jan. 10, 1942	43.11	Apr. 20, 1943	43.57
31	41.58	Feb. 4	42.88	June 10	43.86
Feb. 5, 1941	41.74	Mar. 5	43.20	Oct. 8	44.25
Mar. 3	41.80	Apr. 1	43.22	Nov. 30	44.08
Apr. 3	42.07	May 4	43.23		

21/3-26N1. Owner's well Tiderflats 1. City of Tacoma. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 21 N., R. 3 E., about 100 feet north and 875 feet east of intersection of South 11th Street and Taylor Way. Used drilled public-supply well, diameter 18 to 12 $\frac{1}{2}$  inches, depth 776 feet. Taps confined artesian (flowing) water. Pressure head in well fluctuates synchronously with and about a fourth as much as the tidal height in Hylebos Waterway, about 400 feet away. Measuring point (reference mark for mercury manometer), pump house floor at center of south side, 0.95 foot above land-surface datum. Reference bench mark, a chiseled square at southwest corner of pump-house door sill, 0.65 foot above land-surface datum. Measuring point for tidal height in Hylebos Waterway,  $\frac{1}{4}$ -inch lag bolt and washer in girder of deck, at north end of car bumper, at outboard end of coal dock at municipal steam electric plant, 0.28 foot above land-surface datum. Land-surface datum is 12.88 feet above sea-level datum of 1929 and 26.84 feet above city datum. After Feb. 11, 1943, water level was below land-surface datum and measurements were not obtainable.

Water level in well 21/3-26N1 and corresponding tidal height of Hylebos Waterway, in feet 1938, 1940-43

Date	Time	Well			Waterway Above (+) or below (-) sea level datum of 1929
		Above land- surface datum	Above city datum	Above sea- level datum of 1929	
Feb. 2, 1938	4:06 p.m.	a 7.82	34.66	20.70	+3.71
2	6:20 p.m.	8.90	35.74	21.78	+5.06
2	6:45 p.m.	8.97	35.81	21.85	+4.78
2	7:00 p.m.	8.94	35.78	21.82	+4.50
2	7:15 p.m.	8.92	35.76	21.80	+4.18
2	7:31 p.m.	8.85	35.69	21.73	+3.80
2	7:48 p.m.	8.75	35.59	21.63	+3.36
2	8:05 p.m.	8.65	35.49	21.53	+2.84
2	8:51 p.m.	8.24	35.08	21.12	+1.05
2	9:21 p.m.	7.93	34.77	20.81	- .18
2	9:52 p.m.	7.70	34.54	20.58	-1.44
2	10:21 p.m.	7.51	34.35	20.39	-2.66
2	10:48 p.m.	7.38	34.22	20.26	-3.44
2	11:26 p.m.	7.26	34.10	20.14	-4.33
2	11:49 p.m.	7.24	34.08	20.12	-4.71
3	12:09 a.m.	7.24	34.08	20.12	-4.69
3	12:29 a.m.	7.28	34.12	20.16	-4.60
3	12:50 a.m.	7.35	34.19	20.23	-4.35
3	1:12 a.m.	7.42	34.26	20.30	-3.99

a Waste valve on well discharge closed about 2 p.m.



21/3-26N1. Owner's well Tideflats 1--Continued.

Water level in well 21/3-26N1 and corresponding tidal height of Hylebos Waterway, in feet 1938, 1940-43

Date	Time	Well			Waterway Above (+) or below (-) sea level datum of 1929
		Above land- surface datum	Above city level datum	Above sea- level of 1929	
Feb. 3, 1938	1:28 a.m.	7.49	34.33	20.37	-3.52
3	2:45 a.m.	8.09	34.93	20.97	-.94
3	3:12 a.m.	8.38	35.22	21.26	+5.53
3	3:42 a.m.	8.76	36.60	21.64	+2.00
3	4:08 a.m.	9.05	35.89	21.93	+3.17
3	4:42 a.m.	9.45	36.29	22.33	+4.51
3	5:06 a.m.	9.70	36.54	22.58	+5.55
3	5:22 a.m.	9.89	36.73	22.77	+5.90
3	5:38 a.m.	10.06	36.90	22.94	+6.27
3	5:53 a.m.	10.17	37.01	23.05	+6.55
3	6:09 a.m.	10.21	37.05	23.09	+6.78
3	6:25 a.m.	10.33	37.17	23.21	+6.75
3	6:48 a.m.	10.34	37.18	23.22	+7.06
3	7:03 a.m.	10.34	37.18	23.22	+7.11
3	7:20 a.m.	10.33	37.17	23.21	+6.91
3	7:33 a.m.	10.31	37.15	23.19	+6.76
3	7:47 a.m.	10.24	37.08	23.12	+6.69
3	9:37 a.m.	9.42	36.26	22.30	+4.02
3	10:03 a.m.	9.17	36.01	22.05	+3.04
3	10:34 a.m.	8.85	35.69	21.73	+1.70
3	11:04 a.m.	8.60	35.44	21.48	+7.74
3	11:21 a.m.	8.47	35.31	21.35	+3.39
3	11:34 a.m.	8.40	35.24	21.28	-.03
3	11:48 a.m.	8.32	35.16	21.20	-.31
3	12:03 p.m.	8.27	35.11	21.15	-.68
3	12:18 p.m.	8.21	35.05	21.09	-.82
3	12:33 p.m.	8.17	35.01	21.05	-1.01
3	12:49 p.m.	8.16	35.00	21.04	-1.10
3	1:04 p.m.	8.17	35.01	21.05	-1.02
3	1:53 p.m.	8.22	35.06	21.10	-.99
3	3:17 p.m.	8.69	35.53	21.57	+1.09
3	3:24 p.m.	8.71	35.55	21.59	+1.24
3	6:56 p.m.	9.73	36.57	22.61	+5.01
8	3:23 p.m.	a 4.19	31.03	17.07	-3.81
8	3:51 p.m.	4.91	31.75	17.79	-4.58
8	4:16 p.m.	5.23	32.07	18.11	-5.10
8	4:41 p.m.	5.49	32.33	18.37	-5.41
8	5:12 p.m.	5.72	32.56	18.60	-5.55
8	10:16 p.m.	8.40	35.24	21.28	+2.49
9	7:45 a.m.	9.08	35.92	21.96	+3.75
9	9:31 a.m.	9.56	36.40	22.44	+5.28
9	4:50 p.m.	7.50	34.34	20.38	-4.60
10	6:00 a.m.	9.08	35.92	21.96	+2.80
July 29	5:24 a.m.	b 9.14	35.98	22.02	+4.91
30	8:05 a.m.	8.93	35.77	21.81	+3.10
30	1:46 p.m.	7.11	33.95	19.99	-5.65
Dec. 5, 1940	8:30 a.m.	4.07	30.91	16.95	+5.99
Jan. 3, 1941	9:50 a.m.	3.94	30.78	16.82	+6.16
Feb. 7	9:10 a.m.	3.70	30.54	16.58	+2.4
Mar. 5	11:00 a.m.	3.85	30.69	16.73	+3.30
Apr. 4	8:03 a.m.	3.90	30.74	16.78	+3.61
May 6	7:50 a.m.	2.10	28.94	14.98	-1.95
31	9:45 a.m.	2.99	29.83	15.87	+6.1
June 27	7:50 a.m.	2.80	29.64	15.68	+1.26
July 31	7:55 a.m.	2.51	29.35	15.39	-.09

a Waste valve closed 3:10 p.m.

b Waste valve closed 8:30 a.m.

Note: On and after Dec. 5, 1940, waste valve was closed overnight before each measurement.

21/3-26N1. Owner's well Tideflats 1--Continued.  
 Water level in well 21/3-26N1 and corresponding tidal height of Hylebos  
 Waterway, in feet, 1938, 1940-43

Date	Time	Well			Waterway Above (+) or below (-) sea level datum of 1929
		Above land- surface datum	Above city datum	Above sea- level datum of 1929	
Sept. 4, 1941	8:10 a.m.	1.60	28.44	14.48	-5.28
Oct. 2	8:00 a.m.	1.5	28.3	14.3	-5.99
Nov. 3	8:05 a.m.	3.05	29.89	15.93	+2.22
Dec. 18	3:00 p.m.	5.05	31.89	17.93	+7.3
Feb. 4, 1942	8:10 a.m.	4.65	31.49	17.53	+6.41
Mar. 6	8:05 a.m.	3.80	30.64	16.68	+6.04
Apr. 3	8:05 a.m.	3.80	30.64	16.68	+4.61
May 7	8:15 a.m.	2.65	29.49	15.53	+6.6
June 4	8:30 a.m.	2.60	29.44	15.48	+2.41
Aug. 6	8:10 a.m.	.95	27.8	13.83	-5.24
30	10:50 a.m.	2.26	30.10	15.14	+1.35
Sept. 29	11:28 a.m.	1.34	28.18	14.22	+3.50
Nov. 3	4:00 p.m.	.88	27.72	13.76	+4.04
Dec. 2	3:10 p.m.	1.04	27.88	13.92	+4.50
31	2:10 p.m.	1.01	27.85	13.89	
Feb. 11, 1943	12:25 p.m.	.61	27.45	13.49	

#### Stages in water-table lakes

American Lake. T. 19 N., R. 2 E., in secs. 10, 15, 16, 17, 20, 21, 29, and 30, in elongate kettle hole on Steilacoom Plain; area about 1.8 square miles. Murray Lake enters from east; no surface outlet. Small quantities of water withdrawn in summer for use on many abutting properties. Measuring point, copper nail with washer in top, at northwest corner of plank deck of walkway to diving float at Tacoma Country and Golf Club, at northeast end of lake, in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, 240.10 feet above sea-level datum of 1929. Reference bench mark, chiseled cross in top of northwest rivet of column flange in northwest footing of steel water tank, about 150 feet northeast of measuring point, 277.47 feet above sea-level datum of 1929.

#### Lake stage, in feet above sea-level datum of 1929, 1938, 1940-43

Date	Stage	Date	Stage	Date	Stage
Sept. 27, 1938	232.85	July 30, 1941	230.7	June 25, 1942	230.95
3, 1940	231.2	Sept. 3	229.6	Aug. 6	229.95
Oct. 2	231.0	Oct. 2	229.35	28	229.9
Nov. 4	231.1	Nov. 2	229.00	Sept. 29	230.0
Dec. 3	231.15	Dec. 18	229.25	Dec. 3	229.9
31	231.3	Jan. 10, 1942	229.95	Jan. 4, 1943	230.3
Feb. 4, 1941	231.80	Feb. 4	230.9	Feb. 10	230.8
Mar. 3	232.05	Mar. 6	231.4	Apr. 20	231.7
Apr. 5	232.17	Apr. 1	231.6	June 11	231.1
May 1	232.00	May 7	231.57	Oct. 7	230.3
28	231.75	June 4	231.35	Dec. 2	229.7
June 26	231.3				

Gravelly Lake. T. 19 N., R. 2 E., in secs. 10 and 11, in kettle hole on Steilacoom Plain; area about 0.3 square mile. No surface inlet or outlet. Small quantities of water withdrawn in summer for use on abutting properties. Measuring point, chiseled square in top, at southwest corner of concrete footing of second post from end of property-line fence north, on northwest side of lake, in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, about 150 feet northward along shore from public lane at south boundary of property of C. A. Strong, 214.97 feet above sea level datum of 1929.

#### Lake stage, in feet above sea-level datum of 1929, 1938, 1940-43

Sept. 27, 1938	214.17	Feb. 4, 1941	214.02	June 26, 1941	214.0
Oct. 11, 1940	212.89	Mar. 3	214.57	July 30	212.8
31	212.7	Apr. 3	214.82	Sept. 3	212.4
Dec. 3	212.6	May 1	214.87	Oct. 2	211.6
31	213.0	28	214.7	Nov. 2	211.3

## Gravelly Lake--Continued.

Lake stage, in feet above sea-level datum of 1929, 1938, 1940-43

Date	Stage	Date	Stage	Date	Stage
Dec. 18, 1941	211.6	June 4, 1942	214.2	Feb. 10, 1943	213.6
Jan. 10, 1942	213.4	25	214.1	Apr. 20,	215.7
Feb. 4	214.1	Aug. 6	212.9	June 11	214.8
Mar. 6	214.92	Sept. 29	212.5	Oct. 7	212.1
Apr. 3	215.0	Dec. 3	211.8	Dec. 2	211.5
May 7	214.41	Jan. 4, 1943	212.9		

Spanaway Lake. T. 19 N., R. 3 E., in secs 20, 28, and 29, in depression on Steilacoom Plain, area about 0.5 square mile. Small stream (fed in part by drainage ditches) enters from south; discharge northward by Spanaway Creek through small outlet works with flash board ordinarily fixed in height. No diversion of water. Staff gage, in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, on east side of lake, at private park owned by G. Bresemann, on south side of mooring slip, inside at northwest corner of park boat house. Zero of gage, about 319 feet above mean sea level.

Lake stage, in feet above approximate sea-level datum, 1940-43

June 7, 1940	320.81	Sept. 6, 1941	320.54	Dec. 30, 1942	321.12
Aug. 7	320.56	Oct. 1	320.50	Feb. 9, 1943	321.11
Sept. 4	320.49	Nov. 3	320.42	Apr. 21	321.1
Oct. 3	320.47	Dec. 17	320.85	June 10	320.85
Nov. 2	320.55	Jan. 8, 1942	321.08	Aug. 23	320.68
4	320.54	Feb. 3	321.07	Oct. 4	320.65
Dec. 2	320.65	Mar. 4	321.05	10	320.70
30	320.76	Apr. 4	320.94	17	320.83
Feb. 5, 1941	320.84	May 5	320.81	21	320.80
Mar. 4	320.81	June 2	320.75	23	320.80
Apr. 4	320.74	24	320.70	Nov. 2	320.74
30	320.65	Aug. 6	320.68	13	320.73
May 29	320.60	27	320.51	21	320.73
June 25	320.52	Nov. 2	320.86	29	320.68
July 31	320.40	27	321.14		

Steilacoom Lake. Sec. 3, T. 19 N., R. 2 E., and sec. 34, T. 20 N., R. 2 E., in kettle hole on Steilacoom Plain; area about 0.5 square mile. Clover Creek and Ponce de Leon Creek enter from south, and east, respectively; Chambers Creek drains lake northward through culvert with movable flash boards. Measuring point, plank deck of pier, marked by copper nail with washer, at Lakewood Ice Arena, at north end of lake, in NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, 208.41 feet above sea level datum of 1929. Reference bench mark, chiseled square on top, at east end, of south concrete headwall at outlet culvert, 213.04 feet above sea level datum of 1929. Automatic water-stage recorder maintained on well Sept. 26, 1938, to June 26, 1941. Measurements discontinued after June 11, 1943.

Lake stage, in feet above sea-level datum of 1929, 1938-43  
(Stage at 6 a.m., from recorder charts, through June 26, 1941)

Oct. 1, 1938	203.42	Jan. 5, 1939	203.55	Mar. 25, 1939	204.86
5	203.38	10	203.65	31	204.78
10	203.35	15	203.78	Apr. 5	204.74
15	203.32	20	203.85	10	204.65
20	203.27	25	203.89	15	204.58
25	203.26	31	203.93	20	204.49
31	203.28	Feb. 5	203.99	25	204.41
Nov. 5	203.28	10	204.05	30	204.36
10	203.30	15	204.38	May 5	204.30
15	203.29	20	204.76	10	204.25
20	203.45	25	204.92	15	204.19
25	203.59	28	204.93	20	204.14
30	203.92	Mar. 5	204.91	25	204.17
Dec. 5	204.43	10	204.88	31	204.20
10	204.65	15	204.87	June 5	204.33
(a)		20	204.87	10	204.36

a Automatic water-stage recorder not operating.

## Steilacoom Lake--Continued.

Lake stage, in feet above sea-level datum, of 1929, 1938-43  
(Stage at 6 a.m., from recorder charts, through June 26, 1941)

Date	Stage	Date	Stage	Date	Stage
June 15, 1939	204.69	Mar. 25, 1940	204.89	Dec. 15, 1940	204.31
20	205.12	31	204.96	20	204.42
25	205.38	Apr. 5	204.96	25	204.49
29	205.51	10	204.94	31	204.65
	(a)	15	204.87	Jan. 5, 1941	204.70
July 29	205.90	20	205.47	10	204.74
31	205.90	22	205.79	15	204.77
Aug. 5	205.88		(a)	20	204.88
10	205.85	23	206.11	25	204.92
15	205.82	30	206.08	31	204.99
20	205.77	May 5	206.14	Feb. 1	204.97
25	205.76	10	206.14		(a)
31	205.73	15	206.07	Mar. 3	204.87
Sept. 5	205.73	20	206.05	2	204.87
10	205.70	25	206.03	10	204.85
15	205.66	31	206.10	15	204.84
20	205.63	June 5	205.92	20	204.90
25	205.61	10	205.90	25	204.93
30	205.56	15	205.98	31	205.19
Oct. 5	205.55	20	206.06	Apr. 5	205.50
10	205.56	25	206.06	10	205.69
15	205.42	30	206.05	15	205.93
20	204.98	July 5	206.04	20	206.16
25	204.53	10	205.95	25	206.22
31	203.91	15	205.83	30	206.21
Nov. 1	203.79	20	205.76	May 5	206.22
	(a)	25	205.75	10	206.20
11	203.34	31	205.75	15	206.15
15	203.30	Aug. 5	205.72	20	206.16
20	203.24	10	205.70	25	206.14
25	203.20	15	205.81	31	206.10
30	203.32	20	205.85	June 5	206.07
Dec. 5	203.43	25	205.85	10	206.02
10	203.62	31	205.75	15	205.97
15	203.71	Sept. 5	205.43	20	206.02
20	203.72	10	205.31	25	205.94
25	203.71	15	206.27	26	b 205.93
31	203.85	20	205.21	July 30	205.49
Jan. 5, 1940	203.95	25	205.04	Nov. 2	203.56
10	204.02	30	204.90	Dec. 16	203.91
15	204.10	Oct. 5	204.78	Jan. 10, 1942	205.01
20	204.08	10	204.67	Feb. 5	205.11
25	204.05	15	204.67	Mar. 4	204.91
31	204.01	20	204.64	Apr. 1	204.67
Feb. 5	204.00	25	204.57	May 5	206.19
10	204.31	31	204.22	June 4	206.06
	(a)	Nov. 5	204.04	Aug. 28	205.61
18	204.61	10	204.05	Sept. 28	205.41
20	204.64	15	203.99	Nov. 3	204.86
25	204.74	20	203.99	Dec. 3	204.81
29	204.90	25	204.00	31	204.86
Mar. 5	204.98	30	204.09	Feb. 10, 1943	205.01
10	205.04	Dec. 5	204.22	Apr. 20	205.41
15	205.01	10	204.27	June 11	205.71
20	204.95				

a Automatic water-stage recorder not operating.

b Automatic water-stage recorder removed.

Skagit County

## Alluvial plain of the Skagit River

35/5-30M1. City of Sedro Woolley. In Sedro Woolley, in NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 35 N., R. 5 E., about 150 feet south and 50 feet east of intersection of Dunlop and Township Streets, about 40 feet south and 10 feet east of stand-by well 30M2. Unused driven well, diameter 4 inches, depth 22 feet, with steel casing. No pump. Taps water in flood-plain deposit of Skagit River. Measuring point, top of 4-inch casing, 0.30 foot above land-surface datum. Land-surface datum is about 45 feet above mean sea level. Water levels, in feet below land-surface datum: Apr. 6, 1942, 7.70; Apr. 15, 1943, 4.62; Oct. 20, 1943, 7.92.

Snohomish County

## Stillaguamish River Basin

30/7-18L1. City of Granite Falls well 2. In Granite Falls, in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 30 N., R. 7 E., at rear southeast corner of high school, in brick pump house. Drilled public-supply well, diameter 12 inches, depth 43 feet, with open-bottom steel casing. Equipped with turbine pump, capacity 150 gallons a minute (removed in summer of 1941). Taps water in gravel and sand in alluvial deposit of Pilchuck River, a tributary of South Fork Stillaguamish River. Measuring point, top north side of steel casing, 0.30 foot above land-surface datum. Land-surface datum is about 390 feet above mean sea level.

## Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
Oct. 1938	a33.20	Oct. 10, 1940	a32.7	June 22, 1942	11.06
May 19, 1939	a25.34	Dec. 27	15.63	Oct. 3	16.77
Aug. 22	a31.09	Apr. 2, 1941	12.77	Jan. 2, 1943	11.06
Dec. 28	12.23	June 28	a34.7	Apr. 15	12.45
May 25, 1940	11.95	Apr. 7, 1942	11.66	Oct. 20	18.40

30/7-18N1. City of Granite Falls. In Granite falls, in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 30 N., R. 7 E., 3 blocks south and 1 block east from street intersection, about 300 feet north of grade school, in clump of second-growth firs. Unused dug irrigation well, 8 by 11 feet across, depth 14 feet, with open-bottom plank curb. Equipped with horizontal piston pump, capacity 100 gallons a minute. Taps water in alluvial deposit of Pilchuck River. Measuring points: (1) Base of lower flange, at elbow of 4-inch suction pipe, at land-surface datum; (2) top of 2-inch plank deck at well opening, at land-surface datum. Land-surface datum is about 380 feet above mean sea level.

## Water level, in feet below land-surface datum, 1940-43

Oct. 10, 1940	6.42	Oct. 3, 1941	5.35	Oct. 3, 1942	5.80
Dec. 27	4.56	Jan. 7, 1942	4.08	Jan. 2, 1943	3.47
Apr. 5, 1941	3.45	Apr. 7	4.20	Apr. 15	4.11
June 28	4.86	June 22	3.58	Oct. 20	6.13

30/7-18N2. City of Granite Falls well 1. In Granite Falls, in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 30 N., R. 7 E., about 25 feet west of well 18N1, in open-curbed pit. Unused drilled public-supply wells, diameter 12 inches, depth 340 feet, with open-bottom steel casing. Not equipped with pump because yield is less than 100 gallons a minute. Measuring point, top inside edge of steel casing, 3.10 feet below land-surface datum. Land-surface datum is about 380 feet above mean sea level.

## Water level, in feet below land-surface datum, 1940-43

Oct. 10, 1940	7.51	Oct. 3, 1941	6.41	Oct. 3, 1942	6.70
Dec. 27	5.01	Jan. 7, 1942	4.90	Jan. 2, 1943	4.37
Apr. 2, 1941	5.65	Apr. 7	5.04	Apr. 15	5.10
June 28	5.92	June 22	4.40	Oct. 20	6.96

a Pumping.

## Spokane County-Columbia Plateau

24/41-10A1 (\*948, p. 149). Delbert Kramer. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T 24 N., R. 41 E. Taps water in basalt. Considerable draw-down within short period of pumping, recovers slowly. Land-surface datum is about 2,385 feet above mean sea level.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 17	43.54	June 1	31.01	Oct. 9	44.01
Apr. 3	33.75	Aug. 10	41.96	Dec. 20	32.91

25/41-28R1 (\*948, p. 150). United States Army. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 25 N., R. 41 E. Taps water in basalt. Land-surface datum is about 2,415 feet above mean sea level. Water level, in feet below land-surface datum, 1943: Feb. 17, 10.00. Well subsequently destroyed; measurements discontinued.

25/41-36R1 (\*948, p. 150). J. D. Stark. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 25 N., R. 41 E. Land-surface datum is about 2,390 feet above mean sea level.

## Water level, in feet below land-surface datum, 1943

Feb. 17	23.51	June 7	20.09	Oct. 9	23.70
Apr. 3	17.57	Aug. 10	22.40	Dec. 20	25.29

## Spokane Valley

25/42-13B1 (886, p. 918; \*889-B, pp. 93, 94; 910, p. 169; 940, p. 144; 948, p. 143). Washington Water Power Co. well 90. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 25 N., R. 42 E. Empire Ice & Shingle Co. Taps water in tongue of fluvioglacial gravel in Spokane Valley. Land-surface datum is 1,883.37 feet above sea-level datum of 1929. Pump operating in well at time of each measurement.

## Water level, in feet below land-surface datum, 1943

Jan. 12	189.50	June 4	181.58	Oct. 8	191.54
Feb. 16	189.89	July 7	184.60	Nov. 5	191.58
Apr. 1	188.26	Aug. 11	189.15	Dec. 20	190.99
May 17	205.70	Sept. 10	190.68		

25/42-14L1 (\*948, p. 143). Riverside Park Cemetery Association. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 25 N., R. 42 E. Taps water in gravel of glacial outwash in Spokane Valley. Land-surface datum is about 1,787 feet above mean sea level.

Water level, in feet below land-surface datum, 1943  
(From float-gage readings by maintenance employees)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	96.47	Mar. 25	96.49	June 10	88.86	Aug. 25	96.93
9	96.43	31	95.40	15	89.00	Sept. 1	97.30
15	96.46	Apr. 5	93.96	20	89.19	6	97.27
20	96.50	10	92.50	25	89.57	10	97.36
25	96.68	15	91.33	30	89.97	15	97.50
30	96.73	20	90.01	July 6	90.78	20	97.63
Feb. 5	96.59	24	89.22	10	92.32	25	97.86
10	96.53	30	87.51	17	93.25	27	97.88
15	96.56	May 5	87.22	21	93.85	Oct. 6	98.12
18	96.61	10	87.21	24	93.76	7	98.06
20	96.81	15	87.36	31	94.72	8	98.08
25	96.67	20	87.72	Aug. 5	95.60	9	98.06
Mar. 5	96.50	25	88.23	8	95.58	Dec. 10	98.12
10	96.48	31	88.36	10	98.05	15	98.03
15	96.52	June 2	88.39	16	96.25	20	97.88
20	96.53	5	88.37	21	96.86	27	97.92

a Pumping.

b Measured by Geological Survey.

25/43-11G1 (886, p. 918; \*889-B, pp. 94, 97; 910, p. 170; 940, p. 144, 948, p. 144). Owner's well 1. City of Spokane, Water Division. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 25 N., R. 43 E. Taps water in tongue of fluvioglacial gravel in Spokane Valley. Water level depressed somewhat by continuous withdrawal in nearby wells. Land-surface datum is 1,902.21 feet above sea-level datum of 1929. Measurements discontinued after 1942; see record for well 11G3.

25/43-11G2 (886, p. 918; \*889-B, p. 98; 910, p. 170; 940, p. 145; 948, p. 144). Owner's well 2. City of Spokane, Water Division. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 25 N., R. 43 E. Taps water in tongue of fluvioglacial gravel in the Spokane Valley. Water level depressed somewhat by continuous withdrawal from nearby wells. Land-surface datum is 1,902.48 feet above sea-level datum of 1929. Measurements discontinued after 1942; see record for well 11G3.

25/43-11G3 (886, p. 919; \*889-B, pp. 98, 99; 910, p. 170; 940, p. 145; 948, p. 144). Owner's well 3. City of Spokane, Water Division. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 25 N., R. 43 E. Taps water in tongue of fluvioglacial gravel in Spokane Valley. Water level depressed somewhat by continuous withdrawal from nearby wells. Land-surface datum is 1,902.11 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943  
(From float-gage readings at 8 a.m. by A. H. Schafer,  
pumping-plant engineer)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	23.53	Apr. 2	618.64	June 28	19.83	Sept. 27	29.22
11	25.81	5	17.32	July 5	25.17	Oct. 4	27.57
18	25.95	12	15.83	12	26.11	11 a	27.81
25	26.42	19	13.23	19	28.33	18	27.82
Feb. 1	25.30	26	12.55	26	27.66	25	28.61
8	25.82	May 3	14.71	Aug. 2	27.86	Nov. 1	28.29
15	27.18	10	15.57	9	28.47	8	27.38
19 a	26.60	17	16.91	12 a	29.02	15	27.61
22	26.28	24	18.14	16	29.01	22	27.21
Mar. 1	25.55	31	17.00	23	28.73	29	27.13
8	25.59	June 4 a	17.38	30	28.49	Dec. 6	26.60
15	26.38	7	18.08	Sept. 6	27.80	13	27.05
22	26.42	14	19.13	13	28.49	20	26.07
29	22.33	21	19.28	20	28.83	22 a	26.64

25/43-11G4 (886, p. 919; \*889-B, pp. 99, 100; 910, p. 171; 940, p. 145; 948, p. 145). Owner's well 4. City of Spokane, Water Division. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 25 N., R. 43 E. Taps water in fluvioglacial gravel in Spokane Valley. Water level depressed somewhat by continuous withdrawal from this well or nearby wells. Land-surface datum is 1,902.04 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 19	27.64	June 4	18.72	Oct. 11	29.44
Apr. 2	19.36	Aug. 12	31.31	Dec. 22	28.64

25/43-11G5 (886, p. 919; 910, p. 171; 940, p. 146; 948, p. 145). Owner's well 5. City of Spokane, Water Division. Taps water in fluvioglacial gravel in Spokane Valley. Water level moderately depressed by continuous withdrawal from this well or nearby wells. Land-surface datum is 1,902.04 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Feb. 19	26.90	June 4	17.73	Oct. 11	29.65
Apr. 2	19.34	Aug. 12	31.86	Dec. 22	27.49

a Measured by Geological Survey.

25/43-11G6 (886, p. 919; \*889-B, pp. 101-107; 910, p. 171; 940, p. 146; 948, p. 145). Owner's "gage well" 1. City of Spokane, Water Division. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 25 N., R. 43 E. Taps water in fluvio-glacial gravel in Spokane Valley. Water level affected by pumping in nearby wells. Land-surface datum is 1,934.31 feet above sea-level datum of 1929. Operation of water-stage recorder taken over from Geological Survey by City Water Division on Dec. 22, 1943.

Water level at noon, in feet below land-surface datum, 1943  
(Selected levels, from recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	56.25	Apr. 5	48.85	July 5	55.60	Sept. 30	59.65
10	56.35	10	47.76	10	55.12	Oct. 5	58.48
15	56.64	15	46.37	15	57.70	10	58.58
20	56.54	20	44.13	20	58.08	15	59.27
25	57.31	25	43.94	25	57.88	20	59.05
31	55.77	30	45.33	31	59.33	25	59.40
Feb. 5	56.08	May 5	45.70	Aug. 5	59.07	Nov 31	58.99
10	56.55	10	46.53	10	59.26	Nov. 5	58.64
15	57.62	15	47.60	15	59.46	10	58.73
20	57.91	20	49.03	20	59.61	15	58.48
25	58.49	25	48.92	25	59.21	20	58.12
28	56.43	31	47.73	31	59.05	25	58.85
Mar. 5	56.46	June 5	48.57	Sept. 5	58.67	30	58.00
10	56.90	10	49.97	10	59.08	Dec. 5	57.73
15	57.17	15	49.62	15	59.32	10	57.26
20	57.49	20	50.19	20	59.52	15	57.27
25	57.12	25	50.20	25	59.41	20	57.22
31	51.84	30	52.65				

25/43-11K1 (886, p. 920; \*889-B, pp. 108-113; 910, p. 171; 940, p. 146; 948, p. 146). Owner's "gage well" 2. City of Spokane, Water Division. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 25 N., R. 43 E. Taps water in fluvio-glacial gravel in Spokane Valley. Water level moderately depressed by continuous withdrawal from nearby wells. Land-surface datum is 1,945.37 feet above sea-level datum of 1929. Water-stage recorder removed Dec. 22, 1943.

Water level at noon, in feet below land-surface datum, 1943  
(Selected levels, from recorder charts.)

Jan. 5	66.31	Mar. 20	67.39	Aug. 5	68.37	Oct. 20	68.79
10	66.61	25	67.16	10	68.45	25	69.06
15	66.61	31	63.40	15	68.84	31	68.77
20	66.53	June 5	58.56	20	68.89	Nov. 5	68.49
25	67.15	10	59.80	25	68.75	10	68.49
31	66.26	15	60.16	31	68.46	15	68.50
Feb. 5	66.19	20	60.55	Sept. 5	68.29	20	68.29
10	66.62	25	60.56	10	68.51	25	68.50
15	67.39	30	62.27	15	68.72	30	68.03
20	67.76	July 5	64.97	20	69.25	Dec. 5	67.85
25	66.52	10	66.31	25	68.99	10	67.37
28	66.59	15	66.53	30	69.22	15	67.38
Mar. 5	66.37	20	67.22	Oct. 5	68.24	20	67.26
10	66.80	25	67.20	10	68.27	22	67.56
15	67.00	31	68.40	15	68.90		

25/43-14K1 (886, p. 920; \*889-B, pp. 113, 114; 910, p. 172; 940, p. 147; 948, p. 146). Washington Water Power Co. well 3. Ohio Match Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 25 N., R. 43 E. Taps water in fluvio-glacial gravel in Spokane Valley. Land-surface datum is 1,927.40 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Jan. 11	a46.92	May 18	a41.95	Aug. 10	a47.97	Nov. 4	48.66
Feb. 17	a47.22	June 4	a39.46	Sept. 16	a48.58	Dec. 24	47.96
Apr. 2	a43.80	July 7	a44.47	Oct. 8	a48.31		

a Pumping.



25/43-17D1 (886, p. 921; \*889-B, pp. 114, 115; 910, p. 172; 940, p. 147; 948, p. 146). Washington Water Power Co. well 88. New Method Laundry. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 25 N., R. 43 E. Taps water in fluvio-glacial gravel. Land-surface datum is 1,909.22 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	a48.45	June 4	a43.79	Sept. 10	a49.00	Nov. 5	49.51
Feb. 16	a48.75	Aug. 11	a48.70	Oct. 8	a49.37	Dec. 21	a49.20
Apr. 1	a47.87						

25/44-2B1 (886, p. 921; \*889-B, pp. 115, 116; 910, p. 172; 940, p. 147; 948, p. 146). Washington Water Power Co. well 49. Trentwood Irrigation District. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 2, T. 25 N., R. 44 E. Taps water in fluvio-glacial gravel. Land-surface datum is 2,035.30 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	a100.35	May 4	91.70	Aug. 12	98.50	Nov. 5	101.40
Feb. 17	a101.52	June 4	a92.05	Sept. 10	a99.52	Dec. 23	100.50
Apr. 2	a99.70	July 6	94.25	Oct. 8	100.76		

25/44-15E1 (886, p. 921; \*889-B, pp. 118, 119; 910, p. 173; 940, p. 147; 948, p. 147). Washington Water Power Co. well 15. Owner's well 5. Modern Electric Water Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 25 N., R. 44 E. Taps water in fluvio-glacial gravel. Land-surface datum is 2,052.17 feet above sea-level datum of 1929. One or more of three pumps operating in well at time of each measurement.

Water level, in feet below land-surface datum, 1943  
(From float-gage readings by maintenance employees)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	133.95	Apr. 5	131.96	July 5	132.17	Sept. 19	139.60
11	134.02	11	130.45	6	b131.66	26	134.49
17	134.17	17	128.95	11	133.25	Oct. 8	b134.81
23	134.26	24	126.95	18	133.85	24	134.90
30	134.75	May 1	125.77	26	135.84	30	134.97
Feb. 7	134.08	4	b125.77	Aug. 1	132.16	Nov. 4	135.06
13	134.17	8	125.55	8	136.71	10	134.96
16	b134.23	16	125.74	12	b137.78	21	134.98
27	134.25	22	125.98	20	139.34	Dec. 4	134.99
Mar. 6	134.21	31	126.73	28	138.78	11	134.91
13	134.18	June 4	b126.03	Sept. 7	139.26	19	134.77
20	134.31	14	129.46	9	b139.24	24	b135.10
27	134.16	20	127.64	12	139.37	29	134.98
Apr. 2	b133.13	28	130.21				

25/44-19D1 (886, p. 921; \*889-B, pp. 119-121; 910, p. 173; 940, p. 148; 948, p. 147). Washington Water Power Co. well 5. Edgecliff Sanitarium. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 25 N., R. 44 E. Taps water in fluvio-glacial gravel. Land-surface datum is 1,969.57 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	78.63	May 4	74.53	Aug. 10	a78.89	Nov. 5	80.15
Feb. 17	78.98	June 4	a71.28	Sept. 16	a79.63	Dec. 24	79.56
Apr. 2	77.42	July 6	a74.53	Oct. 8	80.65		

25/44-21J1 (886, p. 922; \*889-B, pp. 121-122; 910, p. 173; \*940, p. 148; 948, p. 148). Washington Water Power Co. well 17. Owner's well 3. Modern Electric Water Co. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 25 N., R. 44 E. Land-surface datum is 2,021.63 feet above sea-level datum of 1929. Taps water in fluvio-glacial gravel.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	101.84	May 4	93.54	Aug. 12	a104.85	Nov. 4	102.44
Feb. 17	101.88	June 4	a98.07	Sept. 16	a106.67	Dec. 24	102.27
Apr. 2	101.20	July 6	a100.19	Oct. 8	102.02		

a Pumping.

b Measured by Washington Water Power Co. or Geological Survey.

25/44-22N1 (\*948, p. 148). Owner's well 7. Modern Electric Water Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 25 N., R. 44 E. Taps water in fluvioglacial gravel. Land-surface datum is about 2,065 feet above mean sea level.

Water level, in feet below land-surface datum, 1943  
(From float-gage readings by maintenance man)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	144.60	Apr. 28	141.03	July 20	a144.64	Sept. 27	144.74
13	144.61	May 6	(c)	26	a145.55	Oct. 8	144.69
20	144.71	13	(c)	31	a145.93	16	144.84
26	144.70	19	(c)	Aug. 5	a146.47	30	145.17
Feb. 3	144.68	25	(c)	10	a146.90	Nov. 5	145.22
18	144.70	June 3	a139.64	12	a147.04	8	145.31
25	144.71	4	a139.95	15	143.78	16	145.33
Mar. 4	144.69	6	a140.05	20	a147.67	27	145.32
12	144.68	10	a139.78	25	a147.84	Dec. 4	145.26
18	144.76	13	a140.56	30	a148.06	12	145.19
24	144.81	24	138.60	Sept. 5	144.19	20	144.91
31	144.45	29	a141.03	10	a148.12	24	144.87
Apr. 7	143.92	July 5	a142.19	15	a148.26	24	b144.49
13	143.93	10	a143.56	20	a148.45	28	144.65
21	143.92	15	a143.89				

25/44-23D1 (886, p. 922; \*889-B, pp. 123-124; 910, p. 173; 940, p. 148; 948, p. 148). Washington Water Power Co. well L.A.L. Lewis A. Lewis. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 25 N., R. 44 E. Taps water in fluvioglacial gravel. Land-surface datum is 2,016.74 feet above sea level datum of 1929.

Water level, in feet below land-surface datum, 1943

Jan. 11	90.39	May 4	81.84	Aug. 13	d90.11	Nov. 5	91.26
Feb. 17	90.68	June 6	d82.77	Sept. 16	d91.18	Dec. 24	90.92
Apr. 2	89.32	July 6	80.24	Oct. 8	90.68		

25/45-10C1 (886, p. 922; \*889-B, p. 125; 910, p. 172; 940, p. 148; 948, p. 148). Washington Water Power Co. well 41. Mrs. George Clark. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 25 N., R. 45 E. Taps water in fluvioglacial gravel. Land-surface datum is 2,019.54 feet above sea level datum of 1929.

Water level, in feet below land-surface datum, 1943

Jan. 11	65.10	May 4	54.15	Aug. 13	60.35	Nov. 4	64.00
Feb. 17	65.54	June 6	54.59	Sept. 10	61.17	Dec. 23	64.28
Apr. 2	60.90	July 6	56.45	Oct. 8	62.70		

25/45-16C1 (886, p. 922; \*889-B, pp. 126-127; 910, p. 173; 940, p. 148; 948, p. 147). U. S. well 70; Washington Water Power Co. well 38. Inland Empire Paper Co. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 25 N., R. 45 E. Taps water in fluvioglacial gravel. Land-surface datum is 2,055.89 feet above sea-level datum of 1929. Water-stage recorder removed Dec. 23, 1943.

Water level, in feet below land-surface datum, 1943  
(From float-gage readings by Mrs. Levira Vigus Jan. 1 to Aug. 15 and John Rudebaugh thereafter)

Jan. 11	107.41	Mar. 28	107.85	June 7	97.29	Oct. 15	105.60
18	107.50	29	107.85	15	97.45	23	106.00
25	108.25	Apr. 2	e106.81	21	97.61	29	106.32
28	107.77	4	104.87	28	97.80	Nov. 4	e106.48
Feb. 1	108.24	12	103.65	July 6	e98.88	5	106.54
7	107.49	19	101.50	Aug. 13	e102.95	12	106.76
15	107.58	26	99.10	20	103.36	19	106.86
17	e107.66	28	99.08	26	103.57	26	106.93
22	107.78	May 4	e97.96	Sept. 3	103.68	Dec. 3	106.97
28	107.70	10	97.54	10	104.37	10	106.81
Mar. 1	107.70	17	97.74	18	104.41	17	106.63
8	107.71	24	97.79	24	104.36	24	106.89
15	107.81	28	97.67	Oct. 2	105.29	31	106.89
22	107.91	June 6	e97.35	8	e105.37		

- a Pump with capacity of 1,500 gallons a minute operating.
- b Measured by Geological Survey.
- c Water level above range of float gage.
- d Pumping.
- e Measured by Geological Survey or Washington Water Power Co.

25/45-18A1 (886, p. 923; \*889-B, pp. 127-128; 910, p. 174; 940, p. 149; 948, p. 148). Washington Water Power Co. well 40. O. B. Nilson. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 25 N., R. 45 E. Taps water in fluvio-glacial gravel. Land-surface datum is 2,036.80 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	91.74	May 18	82.43	Aug. 13	88.29	Oct. 8	90.39
Feb. 18	92.15	July 6	84.17	Sept. 16	89.37	Nov. 4	91.47
Apr. 2	91.08						

26/43-7Q1 (\*948, p. 149). C. E. Marr. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 26 N., R. 43 E. Taps water in fluvio-glacial gravel. Land-surface datum is about 1,795 feet above mean sea level. Water-stage recorder removed Dec. 21, 1943.

Water level at noon, in feet below land-surface datum, 1943  
(From recorder charts)

Jan. 5	76.96	Apr. 5	76.55	July 5	75.49	Sept. 30	75.77
10	76.96	10	76.46	10	75.42	Oct. 5	75.82
15	76.94	15	75.43	15	75.39	10	75.87
20	76.94	20	76.38	20	75.37	15	75.92
25	76.96	25	76.32	25	75.35	20	75.97
31	76.95	30	76.27	31	75.35	25	76.02
Feb. 5	76.93	May 5	76.23	Aug. 5	75.36	31	76.08
10	76.90	10	76.18	10	75.37	Nov. 5	76.12
15	76.89	15	76.14	15	75.37	10	76.17
20	76.86	20	76.02	20	75.41	15	76.22
25	76.85	25	75.96	25	75.45	20	76.27
28	76.83	31	75.90	31	75.50	25	76.32
Mar. 5	76.79	June 5	75.85	Sept. 5	75.55	30	76.37
10	76.78	10	75.78	10	75.58	Dec. 5	76.41
15	76.77	15	75.72	15	75.62	10	76.45
20	76.77	20	75.66	20	75.66	15	76.50
25	76.74	25	75.60	25	75.71	20	76.53
31	76.62	30	75.54				

26/43-19A1 (886, p. 923; \*889-B, pp. 128-129; 910, p. 174; 940, p. 149; 948, p. 149). Washington Water Power Co. well C.H. Country Homes Estates. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 26 N., R. 43 E. Taps water in fluvio-glacial gravel. Land-surface datum is 1,935.91 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943  
(From float-gage readings by A. O. Brown, observer)

Jan. 1	137.21	Mar. 29	136.87	May 23	135.41	July 30	a136.80
4	137.18	Apr. 3	ab137.35	24	a136.01	Aug. 8	a135.38
11	137.14	5	136.83	30	135.11	10	a135.41
12	ab137.65	12	136.82	June 2	135.06	11	ab137.07
15	a137.63	19	136.70	3	135.04	16	a135.59
18	137.11	26	136.58	4	ab135.42	22	a135.72
25	137.06	3	136.32	5	a136.03	26	a137.38
Feb. 1	137.00	8	136.14	12	a135.30	Sept. 1	a135.96
6	136.98	9	136.04	15	a135.20	4	a136.14
8	136.98	10	136.08	19	134.56	10	a136.21
15	ab137.30	11	135.90	27	a134.94	16	a136.36
23	137.01	12	135.85	July 2	a134.97	25	a136.48
27	137.00	14	a136.27	4	a136.36	Oct. 6	a136.72
Mar. 1	136.99	15	135.75	10	a136.43	9	136.32
7	136.93	16	135.70	15	a135.01	Dec. 21	ab137.50
9	137.01	17	ab136.13	19	a135.04	25	a137.56
16	136.95	18	135.62	26	a135.17	29	a137.55
22	136.93	21	135.48				

a One or two pumps operating.

b Measured by Washington Water Power Co. or Geological Survey.

26/43-34P1 (886, p. 923; \*889-B, pp. 129-131; 910, p. 174; 940, p. 149; 948, p. 149). Washington Water Power Co. well 80. Great Northern Railway Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 26 N., R. 43 E. Taps water in fluvio-glacial gravel. Land-surface datum is 2,035.98 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1943  
(From readings of owner's float gage by B. Waller)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	177.5	Apr. 10	175.5	June 19	171.0	Aug. 2	175.0
23	177.5	23	173.5	July 3	172.5	10	176.5
Feb. 6	177.5	May 1	171.0	10	173.0	12	abl77.67
20	177.5	21	171.5	17	173.5	Oct. 9	bl79.21
Mar. 13	177.5	June 4	abl72.60	26	174.5	Dec. 22	bl76.74
27	177.5						

26/44-32R1 (886, p. 923; \*889-B, p. 132; 910, p. 175; 940, p. 149). Washington Water Power Co. well 46. Hutton Settlement. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 26 N., R. 44 E. Taps water in fluvio-glacial gravel. Land-surface datum is 2,002.08 feet above sea-level datum of 1929.

Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Jan. 2, 1942	98.00	Sept. 18, 1942	100.12	May 4, 1943	91.12
Feb. 6	al02.34	Oct. 8	100.58	June 4	a 93.03
Mar. 3	98.65	Nov. 12	al04.22	Aug. 12	a 98.64
31	98.96	Dec. 12	al02.74	Sept. 10	a 98.02
May 5	96.11	Jan. 12, 1943	99.40	Oct. 8	al01.93
June 1	96.09	Feb. 17	al02.10	Nov. 5	100.24
July 6	96.04	Apr. 2	al01.99	Dec. 24	100.46
Aug. 11	al00.65				

#### Thurston County

#### Alluvial and glacial plains of the Puget Trough

16/1W-19G1. Town of Tenino. In Tenino, in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 16 N., R. 1 W., 75 feet north of T-junction of Garfield and Sheridan Streets, in open field. Dug public-supply well, diameter 10 feet, depth 42 feet, with open-bottom timber crib. Taps water from coarse gravel beneath alluvial plain of Scatter Creek. Measuring point, top of 3-inch plank deck at 3/4-inch bored hole, marked by copper nail with washer, 1.00 foot above land-surface datum. Land-surface datum is about 285 feet above mean sea level.

Water level, in feet below land-surface datum, 1941-43

Apr. 5, 1941	7.25	Mar. 3, 1942	6.96	Nov. 20, 1942	6.00
May 28	7.59	Apr. 8	7.11	Dec. 4	4.03
June 30	9.26	May 7	8.00	Jan. 6, 1943	4.95
Sept. 30	12.53	June 27	7.47	Feb. 12	3.69
Oct. 7	12.72	Aug. 3	9.16	June 9	8.10
Jan. 10, 1942	6.16	Sept. 1	10.50	Oct. 22	11.92
Feb. 6	4.86	Oct. 5	12.10		

#### Walla Walla County

#### Walla Walla River Basin

6/35-16B1 (\*777, p. 155; 817, p. 251; 840, p. 343; 845, p. 408; 886, p. 622; 910, p. 24; 940, p. 25). Claude Winn. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 6 N., R. 35 E. Taps water in alluvial deposit of Little Walla Walla River. Land-surface datum is 730.81 feet above mean sea level.

- a Pumping.  
b Measured by Geological Survey.

6/35-16B1. Claude Winn--Continued.

## Water level, in feet below land-surface datum, 1942-43

Date	Water level	Date	Water level	Date	Water level
Jan. 12, 1942	4.77	June 26, 1942	3.48	Jan. 15, 1943	2.98
Feb. 10	3.54	July 10	5.05	Feb. 20	3.38
Mar. 11	3.88	25	5.20	Mar. 20	4.22
23	4.33	Aug. 10	5.40	Apr. 15	3.96
Apr. 10	4.95	26	5.72	May 10	4.58
25	4.85	Sept. 11	5.70	June 2	4.73
May 10	4.33	Oct. 10	4.91	22	4.16
26	3.63	Nov. 10	4.01	Sept. 24	5.57
June 10	4.46	Dec. 15	3.12	Nov. 3	4.96

## Whatcom County

## Alluvial and glacial plains of the Puget Trough

40/1-4J1. City of Blaine. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 40 N., R. 1 E., about 3 miles east of Blaine, at city reservoir, alongside road. Drilled public-supply well, diameter 12 inches, depth 746 feet, with open-bottom steel casing. Turbine pump, capacity 750 gallons a minute. Taps water in fluvioglacial deposits(?). Measuring point, lower lip of threaded hole on north side of pump base, 0.65 foot above concrete floor of pump house, at land-surface datum and about 175 feet above mean sea level.

## Water level, in feet below land-surface datum, 1938-43

Oct. 25, 1938	65.96	Oct. 10, 1940	65.68	Apr. 7, 1942	65.65
May 19, 1939	65.56	Dec. 26	65.17	June 23	65.59
Aug. 22	a 82.64	Apr. 2, 1941	64.93	Oct. 3	67.35
22	b 76.97	June 28	65.30	Apr. 15, 1943	67.06
Dec. 15	65.23	Oct. 3	65.27	Oct. 20	67.67
May 11, 1940	64.92	Jan. 6, 1942	65.58		

41/1-31Q1. City of Blaine. In Blaine, in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 41 N., R. 1 E., about 50 feet south and 25 feet west of intersection of 12th Street and G Street (projected). Unused drilled public-supply well, diameter 12 inches, depth 247 feet, with steel casing. Taps water encountered in gravel of an extensive and dissected fluvioglacial deposit. Measuring point, top of channel on well cap, 3.00 feet above land-surface datum. Land-surface datum is about 55 feet above mean sea level. Measurements temporarily discontinued in 1942.

## Water level, in feet above land-surface datum, 1939-42

May 19, 1939	18.85	Dec. 26, 1940	17.17	Jan. 6, 1942	17.77
Aug. 14	17.68	Apr. 2, 1941	18.1	Apr. 7	18.76
Dec. 15	18.29	June 28	17.95	June 23	18.03
May 11, 1940	18.85	Oct. 3	18.39	Oct. 3	17.35
Oct. 10	18.10				

## Whitman County

## Palouse River Basin

14/45-4N1 (\*845, p. 710; 886, p. 928, 910, p. 179; 940, p. 151; 948, p. 153). Emory Crawford. Formerly owned by J. T. Graham. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 14 N., R. 45 E. Taps confined water (artesian), in basalt. Land-surface datum is 2,381.96 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 29, 43.30; Dec. 27, 44.28.

14/45-5B1 (\*845, p. 710; 886, p. 928, 910, p. 179; 940, p. 151; 948, p. 153). Owner's well 1. Washington State College. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 14 N., R. 45 E. Taps confined water (artesian), in basalt. Land-surface datum is 2,363.04 feet above sea-level datum of 1929. Water levels, in feet below land-surface datum, 1943: May 29, 27.68; Dec. 27, 28.63.

a Water level depressed by withdrawal prior to measurement; pump idle 20 minutes.

b Water level depressed by withdrawal prior to measurement; pump idle 52 minutes.

14/45-5D2 (\*845, p. 711; 886, p. 928; 910, p. 179; 940, p. 151; 948, p. 153). Standard Lumber Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 14 N., R. 45 E. Taps confined water (artesian), in basalt. Land-surface datum is 2,336.65 feet above sea-level datum of 1929. Water level, in feet above land-surface datum, 1943: May 29, 0.57.

14/45-11N2 (\*840, p. 633; 845, p. 696; 886, p. 925; 910, p. 150; 948, 150). Formerly well 23A. Water-table well. Land-surface datum is about 2,523 feet above mean sea level, 16.50 feet above assumed datum of earlier reports, and 0.50 foot below top of casing. Water levels, in feet below land-surface datum, 1943: May 29, 4.02; Dec. 27, 6.03.

15/45-30C1 (\*817, pp. 487, 496; \*845, pp. 684, 705; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 151). Owner's well 2N. Soil Conservation Service, U. S. Dept. of Agriculture. Water-table well. Land-surface datum is 2,510.58 feet above sea-level datum of 1929, and 1.60 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	1.75	Mar. 15	1.22	Apr. 10	1.96	May 25	2.88
23	1.13	22	1.94	27	2.77	Oct. 9	4.58
Mar. 6	2.15	30	1.78	May 1	1.95		

15/45-30C2 (\*817, pp. 487, 496; \*845, pp. 684, 705; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 151). Owner's well 3N. Soil Conservation Service. Water-table well. Land-surface datum is 2,524.66 feet above sea-level datum of 1929, and 1.90 feet below measuring point. Measurements temporarily discontinued after May 25, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	22.71	Mar. 15	18.80	Apr. 10	18.91	May 1	18.95
23	19.01	22	18.75	27	19.20	25	19.90
Mar. 6	18.60	30	19.23				

15/45-30F1 (\*817, pp. 487, 496; \*845, pp. 684, 705; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 150). Owner's well 1N. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,551.01 feet above sea-level datum of 1929 and 1.00 foot below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	31.51	Mar. 15	31.66	Apr. 10	31.39	May 25	34.21
23	29.40	22	32.20	27	32.89	Oct. 9	37.56
Mar. 6	32.76	30	29.07	May 1	33.20		

15/45-30F2 (\*817, pp. 487, 497; \*845, pp. 684, 707; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 152). Owner's well 1S. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,586.93 feet above sea-level datum of 1929 and 1.80 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	74.53	Mar. 15	70.64	Apr. 10	69.13	Mar 25	71.07
23	71.43	22	70.72	27	69.40	Oct. 9	72.63
Mar. 6	70.69	30	70.10	May 1	70.43		

15/45-30F3 (\*817, pp. 487, 497; \*845, pp. 684, 707; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 152). Owner's well 2S. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,556.39 feet above sea-level datum of 1929 and 1.00 foot below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	46.06	Mar. 15	42.73	Apr. 10	42.00	May 25	42.98
23	43.66	22	42.56	27	42.20	Oct. 9	44.70
Mar. 6	42.87	30	41.60	May 1	42.27		

15/45-30F4 (\*817, pp. 487, 497; \*845, pp. 684, 707; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 152). Owner's well 35. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,522.02 feet above sea-level datum of 1929 and 1.90 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	17.36	Mar. 15	14.93	Apr. 10	16.65	May 25	17.78
23	9.65	22	16.77	27	17.03	Oct. 9	18.34
Mar. 6	11.51	30	17.25	May 1	16.30		

15/45-30F5 (\*817, pp. 487, 497; \*845, pp. 684, 707; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 152). Owner's well 45. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,499.47 feet above sea-level datum of 1929 and 1.00 foot below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	0.35	Mar. 15	0.23	Apr. 10	0.25	May 25	0.95
23	.38	22	.33	27	.60	Oct. 9	3.54
Mar. 6	.73	30	.34	May 1	.31		

15/45-30F6 (\*817, pp. 487, 497; \*845, pp. 684, 707; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 153). Owner's well 55. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,511.75 feet above sea-level datum of 1929 and 1.40 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 23	4.42	Mar. 22	5.60	Apr. 27	6.42	May 25	7.93
Mar. 6	5.15	30	5.42	May 1	6.33	Oct. 9	10.09
15	4.95	Apr. 10	7.02				

15/45-30F8 (\*817, pp. 487, 496; \*845, pp. 684, 705; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 151). Owner's well 1E. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Soil Conservation Service. Water-table well. Land-surface datum is 2,585.10 feet above sea-level datum of 1929 and 2.60 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	71.30	Mar. 15	67.26	Apr. 10	66.49	May 25	66.98
23	68.22	22	66.91	27	66.01	Oct. 9	69.08
Mar. 6	68.60	30	67.01	May 1	66.61		

15/45-30G1 (\*817, pp. 487, 496; \*845, pp. 684, 705; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 151). Owner's well 3E. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,548.90 feet above sea-level datum of 1929 and 1.40 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	17.31	Mar. 15	14.05	Apr. 10	16.17	May 25	20.10
23	10.22	22	15.74	27	18.83	Oct. 9	22.77
Mar. 6	11.14	30	17.58	May 1	19.06		

15/45-30G2 (\*817, pp. 487, 496; \*845, pp. 684, 705; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 151). Owner's well 4E. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,565.18 feet above sea-level datum of 1929 and 2.30 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

## 15/45-30G2. Owner's well 4E--Continued.

Water level, in feet below land-surface datum, 1943							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	35.48	Mar. 15	31.62	Apr. 10	32.70	May 25	32.64
23	32.43	22	31.70	27	32.14	Oct. 9	34.67
Mar. 6	31.04	30	31.95	May 1	31.88		

15/45-30G3 (\*817, pp. 487, 496; \*845, pp. 684, 705; 886, p. 927; 910, p. 178; 940, p. 150; 948, p. 152). Owner's well 5E. Soil Conservation Service. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 15 N., R. 45 E. Water-table well. Land-surface datum is 2,594.12 feet above sea-level datum of 1929 and 1.60 feet below measuring point. Measurements temporarily discontinued after Oct. 9, 1943.

Water level, in feet below land-surface datum, 1943							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 9	49.74	Mar. 15	52.91	Apr. 10	53.81	May 25	61.45
23	48.20	22	54.20	27	58.26	Oct. 9	63.86
Mar. 6	50.91	30	53.53	May 1	58.99		

15/46-20K1 (\*777, pp. 261; 262; 817, pp. 488, 490, 491; \*840, pp. 628, 630; 845, p. 690; 948, p. 150). Formerly well 7, J. D. Carson. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 15 N., R. 46 E. Water-table well. Land-surface datum is about 2,579 feet above mean sea level, 17.20 feet above assumed datum of earlier reports, and 1.10 feet below measuring point. Water level, in feet below land-surface datum, 1943: May 29, 6.12.

18/43-35P1. G. H. Noe. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 18 N., R. 43 E. At northern outskirts of Steptoe, about 0.28 mile north of T-junction of U. S. Highway 195 and State Highway 18, about 400 feet north, along lane, of U. S. Highway 195, 85 feet east of lane, in open field. Drilled domestic well, diameter 6 inches, depth 132 feet, with open-bottom steel casing. Equipped with automatic suction pump, which is about 350 feet southwest of well. Taps water in basalt. Measuring point, top north side of steel casing, 0.03 foot above top of concrete-block collar of casing, at land-surface datum. Land-surface datum is 2,320 feet above mean sea level.

Water level, in feet below land-surface datum, 1940-43					
Date	Water level	Date	Water level	Date	Water level
Oct. 4, 1940	16.06	Oct. 10, 1941	12.45	Aug. 13, 1942	12.87
Dec. 28	12.36	Dec. 5	11.65	Oct. 5	14.29
Mar. 28, 1941	9.62	Feb. 4, 1942	9.58	Dec. 10	12.16
June 4	10.36	Apr. 1	9.22	May 29, 1943	9.07
Aug. 8	12.03	June 6	10.39	Dec. 27	12.80

Yakima County

## Yakima River Basin

10/20-3P1. City of Toppenish well 3. In Toppenish, in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3, T. 10 N., R. 20 E., about 150 feet southeast of intersection of Asotin and Lincoln Streets, and about 50 feet west of water tower. Drilled public-supply well, diameter 12 inches, depth 190 feet, with open-bottom steel casing. Equipped with turbine pump, capacity 875 gallons a minute. Taps water in gravel in valley alluvium west of Yakima River. Measuring point, top north side of steel casing, 0.28 foot above concrete floor and 5.25 feet below land-surface datum. Land-surface datum is about 750 feet above mean sea level. Pumping level is 35 to 40 feet below static water level.

Water level, in feet below land-surface datum, 1938-43					
Date	Water level	Date	Water level	Date	Water level
Oct. 11, 1938	a42.45	June 5, 1939	a44.06	Oct. 2	6.72
11	b 7.75	Dec. 14	11.40	Dec. 31	11.54
Jan. 26, 1939	12.48	May 15, 1940	a47.66	Mar. 28, 1941	a48.70

a Pumping.

b Measurement made 8 minutes after pump stopped.



10/20-3P1. City of Toppenish well 3--Continued.

Water level, in feet below land-surface datum, 1938-43

Date	Water level	Date	Water level	Date	Water level
June 2, 1941	7.16	Apr. 7, 1942	a46.43	Feb. 10, 1943	12.43
Aug. 4	a43.49	June 5	7.36	May 1	a47.75
Oct. 3	7.32	Aug. 13	a42.61	June 10	a46.18
Dec. 2	11.13	Oct. 20	8.03	Dec. 14	11.73
Feb. 3, 1942	12.47	Dec. 8	10.89		

a Pumping.

## WYOMING

By A. M. Morgan

### PROGRAM OF WORK

Periodic measurements of water level in observation wells in Wyoming were continued in 1943 by the Geological Survey, United States Department of the Interior, in cooperation with the Wyoming State Planning and Conservation Board. The program is being carried out in connection with an investigation of the ground-water resources of the State, which, up to the present time, has been conducted in the extreme southeastern part only, where three areas are under study. Two of these--the Egbert-Pine Bluffs-Carpenter area and the Cheyenne area--are in Laramie County, and the third--the Laramie area--is in Albany County. In the Cheyenne area the city of Cheyenne is cooperating in the work, and in the Laramie area the city of Laramie is cooperating. At the beginning of 1943 the number of wells included under the program was 180, and at the end of the year it was 201. During the year 1,643 individual measurements were made, in most of the wells at monthly or about monthly intervals. No automatic water-stage recorders were operated during the year.

### FLUCTUATIONS OF WATER LEVEL

As conditions affecting water levels differ in the aforementioned areas, the fluctuations are here discussed by areas.

#### Egbert-Pine Bluffs-Carpenter area

The investigation of the ground-water resources of an area lying between Egbert and Pine Bluffs was begun in November 1940 and has been continued each year since. In August 1942 the investigation was extended to an area adjoining on the south and west in the vicinity of Carpenter. The enlarged area thus formed, called for convenience the Egbert-Pine Bluffs-Carpenter area, occupies the southeastern corner of Laramie County and covers about 400 square miles. It includes the lowlands of the valleys of Lodgepole Creek and its principal tributaries--Muddy Creek, Spring Creek, and Chevington Draw--the valley of Crow Creek and adjacent terraces near Carpenter, and a large upland area formed by remnants of the High Plains.

The principal aquifer in the lowlands of the basin of Lodgepole Creek, including the basins of its tributaries, is the Brule formation, of Oligocene age. The ground water in this formation occurs in joints and fractures in the weathered upper part, which is either exposed at the surface or mantled by Quaternary deposits. In 1943 about 6,000 acres of land in the Egbert-Pine Bluffs-Carpenter area was irrigated by ground water, nearly all of which was derived from the Brule formation.

During 1943 periodic measurements of water level were continued in 24 wells penetrating the Brule formation in the lowlands of the Lodgepole Creek Basin. Beginning in March and April, measurements were made in 11 newly established wells and in 28 test wells that were drilled by the Geological Survey in those months. These test wells and the new observation wells are strung across the lowlands in four lines coinciding with the north-south section lines that are located at the following distances west of the Nebraska-Wyoming State line: 0.5 mile, 3.5 miles, 8.5 miles, and 10.5 miles.

There were seasonal fluctuations of water level in 1943 in all the wells in this lowland area. In the wells for which there is a complete record for the year the fluctuation ranged from 0.20 foot to 15.0 feet. The greatest range in fluctuation is shown by the wells in the valley of Muddy Creek, in which the range in amount of recharge from Muddy Creek at different times is also great. Most of the wells showed a rise of water level in May and June, following a 5-day period of rain, in which 3.49 inches fell at Pine Bluffs. The precipitation at Pine Bluffs for the year, however, was 3.35 inches below normal, and therefore the rise of the water levels in May and June failed to offset their decline in the later part of the summer. Over most of the area they were lower in December 1943 than in December 1942. The change in the water levels from the end of December 1942 to the end of December 1943 ranged from a rise of 0.65 foot, in a well near the lower perennial stretch of Lodgepole Creek, to a decline of 3.98 feet, in a well near Muddy Creek. The average change in 24 wells in the lowlands was a decline of 0.75 foot.

Water levels in the upland parts of the Egbert-Pine Bluffs-Carpenter area show little seasonal or annual fluctuation. The change in water levels in 14 upland wells ranged from a rise of 0.15 foot to a decline of 0.16 foot. The average change in the 14 wells during 1943 was a rise of 0.01 foot.

In the lowlands along Crow Creek in the vicinity of Carpenter and on the terrace extending eastward from Carpenter the water levels in the observation wells, in general, showed a rise in 1943. The trend of the levels throughout the year was generally upward in nearly all the wells, although in some the levels declined slightly in the late summer. The fluctuation of the water levels in these wells ranged during the year from 0.24 foot to 5.70 feet. In 15 wells in the vicinity of Carpenter the change in water level during 1943 ranged from a rise of 6.10 feet to a decline of 1.58 feet. The average change was a rise of 1.63 feet.

#### Cheyenne area

The Cheyenne area covers about 640 square miles in the southwestern part of Laramie County. The principal aquifer in the area is the Ogallala (?) formation, of late Tertiary (upper Miocene and Pliocene) age, which underlies the area between Cheyenne and the front of the Laramie Mountains. This formation consists of interbedded sands, gravels, silts, and clays. It is the aquifer of the Cheyenne well field, located 7 to 9 miles west of Cheyenne, and is the source of nearly all the ground water used for stock and for domestic purposes in the vicinity of Cheyenne.

The water levels in the individual wells in the Cheyenne well field are seldom comparable, as in all the wells they are affected by local pumping. Pumping is intermittent, and the period of pumping or of rest in any given well before the water level is measured is variable. In general, however, the trend of the water levels is downward. As would be expected, the highest stages are reached during periods when the wells are not pumped, and the lowest during periods of pumping. In 1943 the highest stages reached in nearly all wells were lower than the highest stages reached in 1942, and the lowest stages were lower than the lowest reached in 1942.

The Cheyenne well field contains 11 pump-operated wells. The pumps are operated intermittently and, except during periods of peak demand, such as that beginning with January and extending through March of 1942 and that of July 1943, there are seldom more than six wells pumping at a time. Beginning in June 1941 and extending through March 1942, however, the wells were pumped almost continuously. The water levels declined steadily during that period, and the yield of all the wells gradually dropped off. After April 1, 1942, the wells were pumped intermittently only, with the result

that during the last half of 1942 the yield ceased to decline, and during 1943 it increased in nearly all wells. In 1942 the average yield to a well was 279,000 gallons a day; in 1943 it was 314,000 gallons a day. The average number of pumping days was 186.7 in 1942 and 167.5 in 1943.

The following table shows the pumpage in the Cheyenne area, by months, in 1942 and 1943:

Pumpage from the Cheyenne well field, Wyo., in gallons, 1942-43

<u>Month</u>	<u>1942</u>	<u>1943</u>
January	70,450,000	47,448,000
February	62,088,000	42,104,000
March	66,767,000	50,783,000
April	32,005,000	48,200,000
May	34,984,000	56,973,000
June	37,040,000	48,894,000
July	56,247,000	78,088,000
August	49,812,000	57,436,000
September	40,211,000	49,782,000
October	40,906,000	35,349,000
November	42,126,000	30,009,000
December	46,689,000	34,163,000
	573,729,000	579,150,000

In wells in the upland area outside the Cheyenne well field the water levels in 1943 rose generally above the levels at corresponding times in 1942. In Laramie County well 13.68.13 cc, which is situated between the well field and Lonetree Creek, the water level rose 1.57 feet during the period May to December 1943, and it was 2.51 feet higher in June 1943 than in July 1942. The rise in this well appears to be the result of recharge from Lonetree Creek.

The Ogallala (?) formation is underlain by the Brule formation, of Oligocene age. The Brule is exposed in a narrow belt along the mountain front from Granite Canyon northward beyond the bounds of the Cheyenne area. In the vicinity of Federal, 12 to 14 miles northwest of Cheyenne, several exploratory wells were drilled into the Brule formation by the city of Cheyenne in 1942 and 1943. The wells were tested but were not pumped after the tests.

The water levels in most of the Brule wells in the vicinity of Federal were higher in December 1943 than in December 1942. In the wells located north of the South Fork of Lodgepole Creek (Laramie County wells 15.69.6 abb, 15.69.6 acc, and 15.69.6 bdb) the water levels rose gradually during the period January to September or January to October and then became more or less constant. The rise of the water levels in these wells appears to

have been due largely to slow recovery from the pumping tests that were made on well 15.69.6 acc in December 1942. In the wells south of the South Fork of Lodgepole Creek (wells 15.69.8 cbc, 15.69.18 ddd, and 15.69.21 abd) the water levels rise in the spring and early summer and decline in the fall and winter. The fluctuation is greatest in the wells located farthest from Lodgepole Creek.

#### Laramie area

The Laramie area comprises about 280 square miles in the southern part of Albany County. Near its center is the city of Laramie. In 1943 there was a general decline of the water levels in wells throughout the Laramie area, which was greatest in wells penetrating the principal aquifer, the Casper formation, of Pennsylvanian age. In these wells the fluctuation of the water levels ranged from 1.09 to 4.94 feet. In Albany County wells 15.73.2 bab, 15.73.2 aba, 15.73.2 acd, 15.73.13 bbb, and 15.72.6 dcd there were seasonal fluctuations caused by pumping of the Pope wells (city of Laramie municipal-supply wells). The water levels rise in winter, when pumping is light, and decline in summer, when pumping is heavy. In addition, the water level in wells 15.73.2 bab, 15.73.2 aba, 16.73.35 aaa, and 15.73.2 acd declined sharply during July and August, owing to the lowering of the orifice of City Spring about a foot. In the Casper wells in the northern part of the area, where there is no heavy pumping, water levels also declined throughout the year, but gradually. The decline from the end of December 1942 to the end of December 1943 in 19 wells penetrating the Casper formation ranged from 0.32 foot to 2.49 feet. The greatest decline took place in well 15.73.13 bbb, which is located about 0.6 mile from the heavily pumped municipal wells. The net lowering of the water level in this well in 1943 amounted to 2.49 feet. The average decline in water level in all 19 Casper wells was 1.06 feet.

The city of Laramie obtains water not only from the city-owned Pope wells but also from two springs that issue from the Casper formation. One of these, City Spring, which is situated due east of Laramie, had a constant flow of 1,635,000 gallons a day throughout 1943 except during the period July 15 to September 16. On July 15 a weir at the orifice of the spring was removed, which lowered the discharge opening approximately a foot and increased the flow of the spring to 1,840,000 gallons for that day. The

flow then gradually decreased and on July 26 was 1,667,000 gallons. After July 26 it continued to decrease slowly and by September 17 was again 1,635,000 gallons a day, which was the flow before the weir was removed. The lowering of the orifice of the spring also caused a corresponding decline in water level in wells within a radius of a mile.

Soldier Spring, the other spring contributing to the municipal water supply of Laramie, is about 4.5 miles southwest of Laramie and 1.2 miles south of the Pope wells. The flow of Soldier Spring has a seasonal fluctuation caused by the pumping of the Pope wells. In 1943 the flow increased from an average of 1,312,000 gallons a day in January to 1,431,000 gallons a day in April, from which it then decreased, until, in September, it was 1,080,000 gallons a day. During the last 3 months of the year it again increased and in December was 1,198,000 gallons a day, which, however, is 82,000 gallons a day less than the average for December 1942.

The water levels in wells in the Laramie area penetrating the Satanka formation, of Permian age, also declined during 1943. The decline from December 1942 to December 1943 ranged from 0.24 foot to 1.98 feet and averaged 0.85 foot in 10 Satanka wells. The seasonal fluctuation of water levels in wells tapping the Satanka indicates changes of artesian pressure in the underlying Casper formation, although with a slight lag.

In all but one of the wells in the Laramie area penetrating post-Satanka formations the water levels declined in 1943. The exception is a well that was not pumped; all the other wells were pumped for stock water. The changes in water levels during 1943 ranged from a rise of 0.06 foot to a decline of 5.50 feet. The average change, not taking into account the decline of 5.50 feet in well 17.73.5 aab, which was exceptional, was a decline of 0.63 foot.

#### WELL-NUMBERING SYSTEM

Each observation well in Wyoming is designated by a number that serves to locate it. The first segment of the number indicates the township, the second the range, and the third the section. The letters that make up the last segment indicate the position of the well in the section, the first letter indicating the quarter section, the second the 40-acre tract within the quarter section, and the third the 10-acre tract within the 40-acre tract. The quarters of section and tract are lettered in the order shown in the accompanying diagram.

b	a
c	d

A digit at the end of a number indicates a particular well of two or more in the same 10-acre tract. Thus, the third well listed in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 14 N., R. 67 W., would be numbered 14.67.36.acc3.

#### WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

##### Albany County

##### Laramie area

18.73.22.aaa. John Bell. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22, T. 18 N., R. 73 W. Used stock well, diameter 6 inches. Aquifer, Chugwater formation (?). Measuring point, top of casing, 3.68 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Jan. 8, 40.82; Feb. 19, 40.90.

18.73.24.bdb (\*948, p. 194). John Bell. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 18 N., R. 73 W. Measuring point is 2.72 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 6, 394.71; Feb. 19, 395.08; Apr. 23, 394.94.

18.73.26.acc (\*948, p. 194). John Bell. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 18 N., R. 73 W. Measuring point is 2.6 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 13, 124.06; Oct. 8, 125.83; Dec. 16, 123.99.

a 18.73.27.adc 1 (\*948, p. 194). John Bell. SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 18 N., R. 73 W. Measuring point is 0.65 foot above land-surface datum.

##### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	27.09	Feb. 19	27.10	May 13	27.16	Oct. 8	28.03
Feb. 6	27.06	Apr. 23	28.17	Sept. 15	28.09		

18.73.27.adc 2 (\*948, p. 194). John Bell. SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27, T. 18 N., R. 73 W. Measuring point is 0.75 foot above land-surface datum.

##### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	23.76	Feb. 19	23.74	June 2	23.54	Oct. 8	24.87
16	23.72	Apr. 23	23.45	Sept. 15	24.74	Dec. 16	25.10
Feb. 6	23.66	May 13	23.51				

18.73.31.cdd (\*948, p. 194). King Bros. Sheep Ranch. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 18 N., R. 73 W. Measuring point is 2.0 feet above land-surface datum.

##### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	22.41	Apr. 23	23.15	June 2	23.05	Oct. 8	22.91
16	22.32	May 13	23.13	Sept. 15	22.96	Nov. 24	22.81
Feb. 6	22.73						

18.73.33.caa. John Bell. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 18 N., R. 73 W. Used stock well, diameter 5 inches, depth 100 feet. Aquifer, Cretaceous. Equipped with windmill. Measuring point, top of casing, 0.3 foot above land-surface datum.

##### Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 16	13.95	Apr. 23	14.08	Nov. 24	17.25
Feb. 6	14.03	May 13	14.06		

a Through an oversight this well was listed twice in Water-Supply Paper 948, on page 194 under its correct number, as here given, and on page 193 under the number 17.73.27 adc.



18.73.34.dcc (\*948, p. 194). Mr. Riedsell.  $SW\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$  sec. 34, T. 18 N., R. 73 W. Measuring point is 1.00 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Jan. 3, 71.48.

18.75.35.acc (\*948, p. 194). John Bell.  $SW\frac{1}{4}SW\frac{1}{4}NE\frac{1}{4}$  sec. 35, T. 18 N., R. 73 W. Measuring point is 2.11 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	179.74	Feb. 19	179.66	June 2	179.01	Nov. 24	179.81
16	179.08	Apr. 23	179.23	Oct. 8	180.30	Dec. 16	130.01
Feb. 6	179.59	May 13	179.39				

17.72.31.cbb (\*948, p. 191). King Bros. Sheep Ranch.  $NW\frac{1}{4}NW\frac{1}{4}SW\frac{1}{4}$  sec. 31, T. 17 N., R. 72 W. Measuring point is 2.42 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 11, 168.50; Oct. 8, 168.68; Dec. 16, 172.14.

17.73.1.bcb (\*943, p. 191). King Bros. Sheep Ranch.  $NW\frac{1}{4}SW\frac{1}{4}NW\frac{1}{4}$  sec. 1, T. 17 N., R. 73 W. Measuring point is 3.93 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	197.93	Feb. 19	198.05	July 8	198.37	Oct. 8	198.60
16	197.50	Apr. 29	198.14	Aug. 11	198.16	Dec. 16	198.64
Feb. 6	197.91	May 13	198.55	Sept. 15	198.28		

17.73.4.ddd (\*948, p. 191). Mr. Kreuger.  $SE\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 4, T. 17 N., R. 73 W. Measuring point is 0.86 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 3	46.54	Feb. 19	46.78	May 13	45.31
Feb. 6	46.84	Apr. 29	46.56	June 2	46.61

17.73.5.aab (\*948, p. 191). Mr. Kreuger.  $NW\frac{1}{4}NE\frac{1}{4}NE\frac{1}{4}$  sec. 5, T. 17 N., R. 73 W. Measuring point is 3.22 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	34.01	Feb. 19	33.18	June 2	33.04	Nov. 24	50.59
16	33.63	Apr. 23	33.54	Sept. 15	47.38	Dec. 16	39.78
Feb. 6	33.43	May 13	33.31	Oct. 8	44.13		

17.73.7.ddd (\*948, p. 192). King Bros. Sheep Ranch.  $SE\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 7, T. 17 N., R. 73 W. Measuring point is 1.8 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	42.71	Apr. 23	42.70	July 8	42.71	Oct. 8	42.55
16	42.70	May 13	42.58	Aug. 10	42.56	Nov. 24	42.54
Feb. 6	42.52	June 2	42.43	Sept. 15	42.61	Dec. 16	42.63
19	43.25						

17.73.10.bcc (\*943, p. 192). King Bros. Sheep Ranch.  $SW\frac{1}{4}SW\frac{1}{4}NW\frac{1}{4}$  sec. 10, T. 17 N., R. 73 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	24.32	Feb. 19	24.36	Sept. 15	24.47	Nov. 24	24.60
16	24.18	July 8	24.43	Oct. 8	24.31	Dec. 16	24.64
Feb. 6	24.39	Aug. 11	24.42				

17.73.11.dbb (\*948, p. 192). King Bros. Sheep Ranch. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 11, T. 17 N., R. 73 W. Measuring point is 1.95 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	63.24	Apr. 29	63.59	Aug. 11	63.78	Oct. 8	64.01
Feb. 6	63.25	May 13	63.73	Sept. 15	63.90	Dec. 16	64.19
19	63.33	July 8	63.93				

17.73.12.ccb (\*948, p. 192). King Bros. Sheep Ranch. NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 17 N., R. 73 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	52.80	Feb. 19	52.83	June 2	52.82	Sept. 15	52.99
16	52.79	Apr. 29	52.81	July 8	52.86	Oct. 8	53.09
Feb. 6	52.81	May 13	52.83	Aug. 11	52.88		

17.73.13.caa (\*948, p. 192). King Bros. Sheep Ranch. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 17 N., R. 73 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	119.20	Apr. 29	118.32	July 8	118.57	Oct. 8	118.70
Feb. 6	117.96	May 13	118.29	Aug. 11	118.50	Dec. 16	118.99
19	118.11						

17.73.14.dbb (\*948, p. 192). King Bros. Sheep Ranch. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 17 N., R. 73 W. Measuring point is 1.30 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	46.42	Feb. 19	46.50	July 8	47.07	Oct. 8	47.19
16	46.21	May 13	46.88	Aug. 11	46.95	Nov. 24	47.34
Feb. 6	46.46	June 2	46.75	Sept. 15	47.11	Dec. 16	47.40

17.73.17.aaa (\*948, p. 192). King Bros. Sheep Ranch. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 17 N., R. 73 W. Measuring point is 0.94 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	38.96	Feb. 19	39.01	Aug. 11	40.53	Nov. 24	39.88
16	38.74	May 13	46.35	Sept. 15	40.86	Dec. 16	39.82
Feb. 6	39.16	July 8	41.54	Oct. 8	40.26		

17.73.21.cca (\*948, p. 193). King Bros. Sheep Ranch. NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 17 N., R. 73 W. No measurements made in 1943.

17.73.22.ccd (\*948, p. 193). King Bros. Sheep Ranch. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 17 N., R. 73 W. Measuring point is 2.85 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	37.07	Feb. 19	36.75	July 8	37.46	Oct. 8	37.35
16	37.00	May 13	37.24	Aug. 10	37.45	Nov. 24	37.38
Feb. 6	37.09	June 2	37.40	Sept. 15	37.34	Dec. 16	37.39

17.73.24.ddd (\*948, p. 193). King Bros. Sheep Ranch. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 17 N., R. 73 W. Measuring point is 0.84 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	162.84	Feb. 19	163.06	Aug. 10	163.45	Nov. 24	164.11
16	162.48	May 13	163.23	Sept. 15	163.57	Dec. 16	163.95
Feb. 6	162.91	July 8	163.51	Oct. 8	164.11		

17.73.26.dbd (\*948, p. 193). King Bros. Sheep Ranch.  $SE\frac{1}{4}NW\frac{1}{4}SE\frac{1}{4}$  sec. 26, T. 17 N., R. 73 W. Measuring point is 3.60 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	22.84	Feb. 19	22.94	July 8	23.44	Oct. 8	23.60
16	22.60	May 13	23.13	Aug. 10	23.40	Nov. 24	23.70
Feb. 6	22.86	June 2	23.04	Sept. 15	23.45	Dec. 16	23.82

17.73.27.dcd (\*948, p. 193). King Bros. Sheep Ranch.  $SE\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$  sec. 27, T. 17 N., R. 73 W. Measuring point is 3.00 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	60.42	Apr. 27	62.57	Aug. 10	60.45	Nov. 24	60.67
Feb. 6	60.52	May 13	60.57	Sept. 15	60.54	Dec. 16	60.70
19	60.32	July 8	60.50	Oct. 8	60.60		

17.73.28.aaa (\*948, p. 193). King Bros. Sheep Ranch.  $NE\frac{1}{4}NE\frac{1}{4}NE\frac{1}{4}$  sec. 28, T. 17 N., R. 73 W. Measuring point is 1.09 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 3	31.14	Feb. 19	31.35	May 13	31.30
Feb. 6	31.19	Apr. 27	31.39		

17.73.33.aab King Bros. Sheep Ranch.  $NW\frac{1}{4}NE\frac{1}{4}NE\frac{1}{4}$  sec. 33, T. 17 N., R. 73 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	19.08	Apr. 28	19.03	July 8	18.89	Oct. 8	19.58
16	19.05	May 13	18.94	Aug. 11	19.27	Nov. 24	19.50
Feb. 6	19.25	June 2	18.79	Sept. 15	19.54	Dec. 16	19.50
19	19.21						

16.72.5.dda. Warren Land & Livestock Co.  $NE\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 5, T. 16 N., R. 72 W. Used stock well, diameter 8 inches. Equipped with windmill. Measuring point, top of clamp, 0.25 foot above top of casing, 3.9 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 10, 182.8; Apr. 26, 182.9; Nov. 24, 183.65.

16.72.9.ddd. Warren Land & Livestock Co.  $SE\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 9, T. 16 N., R. 72 W. Used stock well, diameter 8 inches. Equipped with windmill. Measuring point, top of casing, 1.25 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 9, 202.60; Apr. 26, 203.15; Nov. 24, 203.76.

16.73.2.ddc (\*948, p. 190). King Bros. Sheep Ranch.  $SW\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 2, T. 16 N., R. 73 W. Measuring point is 2.18 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	100.69	Feb. 19	98.42	Aug. 10	102.26	Oct. 8	102.28
16	100.57	May 13	103.13	Sept. 15	102.86	Dec. 16	101.56
Feb. 6	99.03	July 8	101.92				

16.73.15.ddb. Union Pacific Railroad.  $NW\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 15, T. 16 N., R. 73 W. Used stock well, diameter 8 inches, depth 1,001 feet. Aquifer, Casper formation. Measuring point, end of tank inlet pipe, 9.5 feet above land-surface datum. Water level, in feet above land-surface datum, 1943: May 14, 34.9.

16.73.28.cdc. Albany County.  $SW\frac{1}{4}SE\frac{1}{4}SW\frac{1}{4}$  sec. 28, T. 16 N., R. 73 W. Unused flowing well; diameter  $6\frac{1}{2}$  inches, depth 1,500 feet. Aquifer, Casper formation. Measuring point, top of welded cap on casing, 0.68 foot above land-surface datum. Well flowing prior to measurements. Casing appears to have developed leaks since Jan. 12 measurement. Water levels, in feet above land-surface datum, 1943: Jan. 9, 76.6; Jan. 12, 76.0; Jan. 13, 60.9; May 14, 46.9.

16.73.33.dbb. University of Wyoming.  $NW\frac{1}{4}NW\frac{1}{4}SE\frac{1}{4}$  sec. 33, T. 16 N., R. 73 W. Unused drilled well, diameter 8 inches, depth 1,240 feet. Aquifer, Casper formation. Measuring point, valve at south side of well, 5.4 feet below land-surface datum. Well flowing prior to measurements. Water levels, in feet above land-surface datum, 1943: Jan. 9, 54.7; May 14, 53.5.

16.73.26.acc (\*948, p. 190). Warren Land & Livestock Co.  $SW\frac{1}{4}SW\frac{1}{4}NE\frac{1}{4}$  sec. 26, T. 16 N., R. 73 W. Measuring point is 3.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	81.82	Feb. 19	82.00	July 7	82.77	Oct. 7	82.33
16	81.80	May 13	82.06	Aug. 10	83.02	Nov. 24	82.01
Feb. 6	82.12	June 2	82.28	Sept. 14	81.99	Dec. 14	82.00

16.73.26.dcc (\*948, p. 190). Union Pacific Athletic Club.  $SW\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$  sec. 26, T. 16 N., R. 73 W. No measurements made in 1943.

16.73.34.dda (\*948, p. 191). Spring Creek Camp. W. L. Carlisle.  $NE\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 24, T. 16 N., R. 73 W. No measurements made in 1943.

16.73.35.aaa (\*948, p. 191). City of Laramie well Turner 3.  $NE\frac{1}{4}NE\frac{1}{4}NE\frac{1}{4}$  sec. 35, T. 16 N., R. 73 W. Measuring point is 0.98 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	71.02	Apr. 21	70.86	July 7	71.07	Oct. 7	71.80
16	70.92	May 13	70.88	Aug. 10	71.50	Nov. 24	71.98
Feb. 6	70.96	June 2	72.00	Sept. 14	71.72	Dec. 15	72.01
19	71.01						

15.72.6.dcd (\*948, p. 183). Warren Land & Livestock Co.  $SE\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$  sec. 6, T. 15 N., R. 72 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	161.28	Feb. 19	163.22	July 7	163.18	Oct. 7	162.94
16	161.19	Apr. 22	161.33	Aug. 10	163.92	Nov. 24	163.02
Feb. 6	161.36	May 13	161.26	Sept. 14	162.62	Dec. 14	163.14

15.72.9.ddb. Warren Land & Livestock Co.  $NW\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 9, T. 15 N., R. 72 W. Used stock well, diameter 8 inches. Measuring point, top of pipe clamp, 0.52 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: Aug. 25, 96.45.

15.72.19.cac (\*948, p. 183). Warren Land & Livestock Co.  $SW\frac{1}{4}NE\frac{1}{4}SW\frac{1}{4}$  sec. 19, T. 15 N., R. 72 W. Measuring point is 0.97 foot above land surface.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 22	49.24	Sept. 11	49.83	Dec. 16	49.78
July 7	49.66	Nov. 24	49.70		

15.73.2.aba (\*948, p. 183). City of Laramie well Turner 2.  $NE\frac{1}{4}NW\frac{1}{4}NE\frac{1}{4}$  sec. 2, T. 15 N., R. 73 W. Measuring point is 0.32 foot above land-surface datum.

## 15.73.2.aba--Continued.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	30.25	Apr. 22	30.11	July 7	30.21	Oct. 7	31.11
16	30.20	May 13	30.15	Aug. 10	30.97	Nov. 24	31.18
Feb. 6	30.22	June 2	30.14	Sept. 14	31.08	Dec. 14	31.21
19	30.23						

15.73.2.acd (\*948, p. 183). City of Laramie well Turner 4.  $SE\frac{1}{4}SW\frac{1}{4}NE\frac{1}{4}$  sec. 2, T. 15 N., R. 73 W. Measuring point is 1.73 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	18.97	Feb. 19	18.64	July 7	18.39	Oct. 7	20.20
9	18.92	Apr. 22	18.19	Aug. 10	19.15	Nov. 24	20.24
16	18.83	May 13	18.09	Sept. 14	19.95	Dec. 15	20.19
Feb. 6	18.68	June 2	18.01				

15.73.2.bab (\*948, p. 183). City of Laramie well Turner 1.  $NW\frac{1}{4}NE\frac{1}{4}NW\frac{1}{4}$  sec. 2, T. 15 N., R. 73 W. Measuring point is 0.58 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	2.55	Apr. 22	2.43	July 7	2.52	Oct. 7	3.39
16	2.50	May 13	2.41	Aug. 10	3.30	Nov. 24	3.47
Feb. 6	2.48	June 2	2.43	Sept. 14	3.39	Dec. 15	3.50
19	2.55						

15.73.4.dbb. Certainteed Products Co.  $NW\frac{1}{4}NW\frac{1}{4}SE\frac{1}{4}$  sec. 4, T. 15 N., R. 73 W. Unused drilled well, diameter 5 inches, depth 950 feet. Aquifer, Casper formation. Measuring point, top of welded cap, 1.2 feet below land-surface datum. Well flowing before measurements. Water levels, in feet above land-surface datum, 1943: Jan. 9, 39.8; Jan. 11, 35.4; Jan. 12, 59.4; Jan. 14, 62.3.

15.73.9.ddd (\*948, p. 184). Holly Hunt.  $SE\frac{1}{4}SE\frac{1}{4}SE\frac{1}{4}$  sec. 9, T. 15 N., R. 73 W. Measuring point is 0.72 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	0.53	Apr. 23	0.53	July 8	1.83	Oct. 7	1.12
16	.44	May 13	.36	Aug. 10	1.76	Nov. 24	.99
Feb. 6	.58	June 2	.31	Sept. 14	1.16	Dec. 16	1.06
19	.57						

15.73.11.cba (\*948, p. 184). Holly Hunt.  $NE\frac{1}{4}NW\frac{1}{4}SW\frac{1}{4}$  sec. 11, T. 15 N., R. 73 W. Measuring point is 3.15 feet above land-surface.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	10.04	Apr. 23	9.73	July 8	9.80	Oct. 7	10.19
16	10.00	May 13	9.79	Aug. 10	9.93	Nov. 24	10.25
Feb. 6	10.05	June 2	9.77	Sept. 14	9.15	Dec. 16	10.40
19	10.05						

15.73.12.bcc (\*948, p. 184). Oliver Wood.  $SW\frac{1}{4}SW\frac{1}{4}NW\frac{1}{4}$  sec. 12, T. 15 N., R. 73 W. Measuring point is 0.80 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 6, 62.27; Feb. 19, 63.70; Apr. 22, 59.44.

15.73.12.dbb (\*948, p. 184). C. T. Wallis.  $NW\frac{1}{4}NW\frac{1}{4}SE\frac{1}{4}$  sec. 12, T. 15 N., R. 73 W. Measuring point is 1.45 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 6, 64.12; Feb. 19, 60.23.

15.73.13.bbb (\*948, p. 184). Otto Berner.  $NW\frac{1}{4}NW\frac{1}{4}NW\frac{1}{4}$  sec. 13, T. 15 N., R. 73 W. Measuring point is 0.50 foot above land-surface datum.

## 15.73.13.bbb. Otto Berner--Continued.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	60.27	Apr. 22	58.74	July 7	60.91	Oct. 7	63.68
16	59.90	May 13	58.78	Aug. 10	62.91	Nov. 24	62.46
Feb. 6	59.85	June 2	59.29	Sept. 14	63.22	Dec. 16	62.54
19	59.89						

15.73.15.aab (\*948, p. 190). Mr. Connor. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 15 N., R. 73 W. Measuring point is 0.80 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	17.04	Apr. 23	17.33	July 8	18.20	Oct. 7	18.68
16	17.03	May 13	17.05	Aug. 10	18.32	Nov. 24	18.73
Feb. 6	17.22	June 2	16.96	Sept. 14	18.45	Dec. 16	19.00
19	17.10						

15.73.15.bdd (\*948, p. 190). Mr. Connor. SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 15 N., R. 73 W. Measuring point is 4.0 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.39	Feb. 19	4.90	July 8	5.37	Sept. 14	5.73
16	4.38	May 13	4.25	Aug. 10	5.75	Oct. 7	5.94
Feb. 6	4.49	June 2	4.13				

15.73.15.ddb (\*948, p. 190). Mr. Connor. NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15, T. 15 N., R. 73 W. Measuring point is 0.80 foot below land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	29.71	Apr. 22	29.66	July 8	30.26	Oct. 7	31.09
16	29.70	May 13	29.47	Aug. 10	30.51	Nov. 24	31.60
Feb. 6	29.81	June 2	29.43	Sept. 14	30.87	Dec. 16	31.70
19	29.91						

Laramie County

## Cheyenne area

15.67.32.dba (\*948, p. 179). Formerly well 177. NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32, T. 15 N., R. 67 W. Warren Livestock Co. No measurements made in 1943.

15.68.21.aca. City of Cheyenne. NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 15 N., R. 67 W. Unused abandoned test well. No casing. Measuring point, top of 1 $\frac{1}{2}$ -pipe set in concrete base, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 14, 182.63; Sept. 16, 182.59.

15.68.30.cd (\*948, p. 180). Formerly well 187. Warren Livestock Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 15 N., R. 68 W. No measurements made in 1943.

15.68.33.abb (\*948, p. 181). Formerly well 188. Warren Livestock Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 15 N., R. 68 W. No measurements made in 1943.

15.68.34.aaa (\*948, p. 179). Formerly well 179. Owner unknown. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 15 N., R. 68 W. No measurements made in 1943.

15.69.5.abd. City of Cheyenne. SE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 5, T. 15 N., R. 69 W. Unused municipal well, diameter 10 inches. Aquifer, Brule formation. Measuring point is 5.5 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	57.31	Feb. 27	57.60	June 8	55.13	Oct. 9	55.23
Feb. 8	65.01	Mar. 6	57.55	July 9	54.59	Nov. 16	55.55
13	58.04	Apr. 3	57.75	Aug. 14	54.66	Dec. 27	55.75
21	57.68	May 22	55.43	Sept. 16	55.09		

15.69.5.ccb. City of Cheyenne. NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 15 N., R. 69 W. Unused and abandoned test well. No casing. Aquifer, Brule formation. Measuring point, top of 4- by 6-inch board at arrow, at land-surface datum. Water levels, in feet below land-surface datum, 1943: June 8, 120.26; July 9, 119.90; Aug. 14, 119.76; Oct. 9, 119.52.

15.69.5.ddb. City of Cheyenne. NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 15 N., R. 69 N., Unused abandoned test well. No casing. Aquifer, Brule formation. Measuring point is at land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 21	90.00	June 8	86.41	Sept. 16	86.13	Nov. 16	85.93
Mar. 6	86.61	July 9	86.16	Oct. 9	86.00	Dec. 27	85.93
Apr. 3	86.63	Aug. 14	86.06				

15.69.6.abb (\*948, p. 182). Formerly well 198. King Merritt. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 15 N., R. 69 W. Measuring point is 1.0 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Jan. 2	4.98	Jan. 30	4.28	Mar. 6	3.80	Sept. 16	3.75
8	4.74	Feb. 8	4.10	Apr. 3	4.44	Oct. 9	3.97
16	4.52	13	4.07	June 8	4.08	Nov. 16	3.97
25	4.34	21	3.93	July 9	3.99	Dec. 27	3.98
29	4.27	27	3.37	Aug. 14	3.72		

15.69.6.acc (\*948, p. 182). Formerly well 197. City of Cheyenne. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 15 N., R. 69 W. Measuring point is 0.8 foot below land-surface datum.

## Water level, in feet below land-surface datum, 1943

Jan. 2	31.54	Feb. 8	29.76	Apr. 3	29.05	Sept. 16	25.82
8	30.86	13	29.73	May 22	29.26	Oct. 9	26.43
16	30.34	21	29.53	June 8	27.57	Nov. 16	26.50
25	30.13	27	29.47	July 9	27.30	Dec. 27	26.50
30	29.97	Mar. 6	29.39	Aug. 14	26.36		

15.69.6.bdb (\*948, p. 182). Formerly well 199. King Merritt. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 6, T. 15 N., R. 69 W. Measuring point is at land-surface datum.

## Water level, in feet below land-surface datum, 1943

Jan. 2	33.50	Jan. 30	33.43	Mar. 6	33.15	Aug. 14	31.60
8	33.56	Feb. 8	33.33	Apr. 3	32.93	Sept. 16	31.46
16	33.57	13	33.31	May 22	32.55	Oct. 9	31.35
25	33.51	21	33.20	June 8	32.34	Nov. 16	31.27
29	33.45	27	33.17	July 9	31.93	Dec. 27	31.24

15.69.6.ddd. King Merritt. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 15 N., R. 69 W. Abandoned drilled well, diameter 5 inches. Measuring point, edge of casing, 0.8 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Jan. 8	152.00	Feb. 8	151.48	May 22	151.94	Sept. 16	152.73
16	151.37	13	152.10	June 8	151.01	Oct. 9	152.10
25	151.68	21	151.70	July 9	151.99	Nov. 16	151.97
30	151.55	27	151.71	Aug. 14	152.18	Dec. 27	151.87

15.69.8.cbc (\*948, p. 181). Formerly well 194. City of Cheyenne. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 15 N., R. 69 W. Measuring point is 1.7 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Jan. 2	146.49	Feb. 13	146.98	May 22	146.78	Sept. 16	146.75
8	146.70	21	146.66	June 8	146.85	Oct. 9	146.51
25	146.67	27	146.63	July 9	146.72	Nov. 16	146.59
30	146.62	Mar. 6	146.67	Aug. 14	146.66	Dec. 27	146.48
Feb. 8	146.57	Apr. 3	146.80				

15.69.9.aaa (\*948, p. 180). Formerly well 186. King Merritt. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 15 N., R. 69 W. Measuring point is 1.7 feet above land-surface datum. No measurements made in 1943.

15.69.9.cas (\*948, p. 179). Formerly well 182. City of Cheyenne. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 9, T. 15 N., R. 69 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	71.47	Feb. 8	71.50	Mar. 6	71.73	Sept. 16	71.85
8	71.64	13	71.76	May 22	72.10	Oct. 9	71.80
16	71.28	21	71.61	June 8	71.51	Nov. 16	71.41
25	71.45	27	71.57	Aug. 14	72.37	Dec. 27	71.05
30	71.50						

15.69.10.cd (\*948, p. 180). Formerly well 185. Mr. Van Tassel. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 10, T. 15 N., R. 69 W. Measuring point is at land-surface datum. Water level, in feet below land-surface datum, 1943: May 22, 84.07.

15.69.12.cc (\*948, p. 180). Formerly well 184. E. A. Goodman. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 15 N., R. 69 W. No measurements made in 1943.

15.69.15.abb. City of Cheyenne. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 15 N., R. 69 W. Measuring point, top of 4-inch casing, 2.67 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
June 24	77.16	Sept. 16	77.09	Nov. 16	77.12
Aug. 14	77.04	Oct. 9	77.09	Dec. 27	77.10

15.69.15.bbc (\*948, p. 181). Formerly well 195. Community of Federal well. SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 15 N., R. 69 W. Measuring point is 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: May 22, 97.03.

15.69.18.ddd (\*948, p. 179). Formerly well 181. Mr. Lorenz. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 15 N., R. 69 W. Measuring point is 2.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	18.78	Feb. 21	18.57	July 9	15.46	Oct. 9	18.92
30	18.73	27	18.54	Aug. 14	16.44	Nov. 16	19.87
Feb. 8	18.64	May 22	14.92	Sept. 16	18.05	Dec. 27	20.00
13	18.63	June 8	14.67				

15.69.21.abb (\*948, p. 181). Formerly well 196. City of Cheyenne. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 15 N., R. 69 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	55.90	Feb. 13	55.90	May 22	55.20	Sept. 16	54.69
16	55.91	21	55.75	June 8	54.99	Oct. 9	54.72
25	55.93	27	55.64	July 9	55.15	Nov. 16	54.76
30	55.87	Apr. 3	55.54	Aug. 14	54.84	Dec. 27	54.82
Feb. 8	55.79						

15.69.24.bb (\*948, p. 180). Formerly well 183. E. A. Goodman. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 15 N., R. 69 W. No measurements made in 1943.

14.66.31.bd (\*948, p. 181). Formerly well 190. State Capital well. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 14 N., R. 66 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	11.77	June 8	10.51	Sept. 9	11.47	Nov. 27	13.76
Apr. 14	11.64	Aug. 12	10.85	Oct. 30	12.39	Dec. 27	12.83
May 10	10.83						



14.67.10.ccc (\*940, p. 168; 948, p. 175). Formerly well 131. Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 10, T. 14 N., R. 67 W. Measuring point is 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	14.61	May 10	13.97	Aug. 12	14.42	Oct. 4	15.64
Mar. 8	14.83	June 8	13.60	Sept. 9	15.33	Dec. 27	14.67
Apr. 14	14.44	July 12	13.70				

14.67.31.bbd (\*940, p. 167; 948, p. 175). Formerly well 123. Mark T. Cox, III. SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 14 N., R. 67 W. No measurements made in 1943.

14.67.36.ccc (\*940, p. 167; 948, p. 175). Formerly well 129. Curtis Vaughn. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, T. 14 N., R. 67 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 4	37.20	May 10	38.11	Aug. 12	36.14	Nov. 9	37.13
Mar. 8	37.60	June 8	36.45	Sept. 9	36.50	Dec. 24	37.20
Apr. 14	38.11	July 10	36.85	Oct. 4	36.77		

14.68.2.dd (\*948, p. 179). Formerly well 178. Fred Koster. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 14 N., R. 68 W. No measurements made in 1943.

14.68.14.cb (\*940, p. 167; 948, p. 174). Formerly well 122. City of Cheyenne. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 14 N., R. 68 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 4	8.22	May 10	8.18	Sept. 9	8.48	Nov. 9	8.43
Mar. 8	8.29	June 8	7.82	Oct. 4	8.56	Dec. 24	7.60
Apr. 14	8.08	Aug. 12	8.24				

14.68.17.dcd (\*940, p. 166; 948, p. 173). Formerly well 120. City of Cheyenne. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17, T. 14 N., R. 68 W. Measuring point is 3.7 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 4	6.18	May 10	5.92	Aug. 12	6.79	Nov. 9	6.80
Mar. 8	6.21	June 8	5.22	Sept. 9	6.80	Dec. 24	6.49
Apr. 14	5.91	July 12	6.27	Oct. 4	6.80		

14.68.20.abc (\*940, p. 166; 948, p. 173). Formerly well 121. City of Cheyenne. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 20, T. 14 N., R. 68 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 4	9.61	May 10	9.37	Aug. 12	9.97	Nov. 9	10.13
Mar. 8	9.91	June 8	8.85	Sept. 9	8.63	Dec. 24	10.02
Apr. 14	9.26	July 12	9.78	Oct. 4	10.08		

14.68.20.bab (\*940, p. 166; 948, p. 173). Formerly well 119. City of Cheyenne. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 14 N., R. 68 W. Measuring point is 5.4 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 4	19.50	May 10	19.01	Aug. 12	19.70	Nov. 9	18.60
Mar. 8	16.93	June 8	16.81	Sept. 9	20.15	Dec. 24	17.96
Apr. 14	18.52	July 12	19.01	Oct. 4	19.10		

14.68.20.bbb (\*940, p. 166; 948, p. 173). Formerly well 118. City of Cheyenne. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 14 N., R. 68 W. Measuring point is 5.7 feet below land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 8, 6.85; Nov. 9, 6.27; Dec. 24, 5.96.

14.68.20.bbc (\*940, p. 165; 948, p. 173). Formerly well 117. City of Cheyenne. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 14 N., R. 68 W. Measuring point is 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	10.36	May 10	8.93	July 12	9.34	Sept. 9	11.26
Mar. 8	10.64	June 8	6.57	Aug. 12	10.48	Oct. 4	9.23
Apr. 14	8.68						

14.68.23.ddc (\*940, p. 162; 948, p. 170). Formerly well 103. City of Cheyenne. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 14 N., R. 68 W. Measuring point is 1.34 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Aug. 12, 59.46; Sept. 9, 60.46; Oct. 4, 61.38; Dec. 24, 51.33.

14.68.23.ddd (\*940, p. 162; 948, p. 170). Formerly well 104. City of Cheyenne. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 14 N., R. 68 W. Measuring point is 1.0 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	8.54	May 10	8.89	Aug. 12	5.73	Nov. 9	9.33
Mar. 8	8.42	June 8	8.02	Sept. 9	5.45	Dec. 24	3.13
Apr. 14	8.44	July 12	10.69	Oct. 4	6.32		

14.68.25.aba (\*940, p. 164; 948, p. 171). Formerly well 111. City of Cheyenne. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 14 N., R. 68 W. No measurements made in 1943.

14.68.25.dda (\*940, p. 164; 948, p. 171). Formerly well 112. City of Cheyenne. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 14 N., R. 68 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 14	41.21	Aug. 12	41.60	Oct. 4	41.12
June 8	38.37	Sept. 9	41.49		

14.68.26.bd (\*940, p. 171; 948, p. 178). Formerly well 163. Rex Crews. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26, T. 14 N., R. 68 W. No measurements made in 1943. Measurements discontinued.

14.68.26.cbb (\*940, p. 163; 948, p. 171). Formerly well 109. City of Cheyenne. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 14 N., R. 68 W. Measuring point is 1.0 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	59.39	May 10	60.80	Aug. 12	62.03	Nov. 9	60.94
Mar. 8	59.83	June 8	57.78	Sept. 9	62.38	Dec. 24	58.37
Apr. 14	60.35	July 10	61.60	Oct. 4	61.53		

14.68.26.cbc 1 (\*940, p. 162; 948, p. 170). Formerly well 107. City of Cheyenne. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 14 N., R. 68 W. Measuring point is 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 8	a 66.70	June 8	22.79	Aug. 12	a 62.26	Nov. 9	a 58.38
Apr. 14	a 67.03	July 10	a 67.10	Sept. 9	a 64.49	Dec. 24	22.00
May 10	a 64.86						

14.68.26.cbc 2 (\*940, p. 163; 948, p. 170). Formerly well 108. City of Cheyenne. Measuring point is 0.8 foot above land surface. Water level, in feet below land-surface datum, 1943: June 8, 11.74.

14.68.26.db (\*940, p. 171; 948, p. 178). Formerly well 164. Rex Crews. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 14 N., R. 68 W. No measurements made in 1943.

14.68.26.dd (\*940, p. 171; 948, p. 178). Formerly well 165. Irvin O'Connor. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 14 N., R. 68 W.

a Pumping.

14.68.27.dcc (\*940, p. 162; 948, p. 169). Formerly well 102. City of Cheyenne. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T. 14 N., R. 68 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 8	a 54.48	June 8	a 55.62	Sept. 9	a 56.44	Nov. 9	a 51.64
Apr. 14	a 59.60	July 12	a 57.30	Oct. 4	42.56	Dec. 24	41.04
May 10	42.15						

14.68.28.bb (\*948, p. 179). Formerly well 175. Arthur Francis. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 14 N., R. 68 W. No measurements made in 1943.

14.68.30.daa (\*940, p. 171; 948, p. 178). Formerly well 166. Irvin O'Connor. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, T. 14 N., R. 68 W. Measuring point is 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 8, 66.13; May 10, 66.01.

14.68.34.aab (\*940, p. 162; 948, p. 169). Formerly well 101. City of Cheyenne. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 14 N., R. 68 W. Measuring point is 1.0 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Mar. 8	a 46.50	May 10	33.24	Sept. 9	37.00	Nov. 9	a 43.54
Apr. 14	a 48.94	June 8	a 49.42	Oct. 4	33.20	Dec. 24	31.23

14.68.34.ccb. City of Cheyenne. NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34, T. 14 N., R. 68 W. Drilled municipal well, diameter 12 inches. Completed December 1943, not yet in use. Aquifer, Ogallala formation. Measuring point, top of casing, 0.5 foot below land-surface datum. Water levels, in feet below land-surface datum, 1943: Nov. 9, 71.70; Dec. 24, 71.77.

14.68.36.ab (\*940, p. 165; 948, p. 172). Formerly well 115. City of Cheyenne. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 14 N., R. 68 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 4	27.12	Apr. 14	27.41	June 8	30.92	Aug. 12	31.89
Mar. 8	28.58	May 10	31.72	July 10	30.54	Sept. 15	31.42

14.68.36.adb (\*940, p. 164; 948, p. 172). Formerly well 114). City of Cheyenne. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, T. 14 N., R. 68 W. Measuring point is 0.7 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 4, 28.02; Mar. 8, 29.71; Apr. 14, 27.93.

14.68.36.bc (\*940, p. 165; 948, p. 172). Formerly well 116. City of Cheyenne. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 14 N., R. 68 W. Measuring point is 1.45 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Feb. 4, 21.57; Mar. 8, 24.52; Apr. 14, 22.07; Oct. 4, 31.45.

13.66.18.ad (\*948, p. 179). Formerly well 174. P. J. Black Lumber Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 13 N., R. 66 W. No measurements made in 1943.

13.66.32.ad (\*948, p. 178). Formerly well 168. Dorian Lumis. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 13 N., R. 66 W. No measurements made in 1943.

a Pumping.

13.66.32.cad (\*940, p. 168; 948, p. 176). Formerly well 133. W. J. Merna. SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 13 N., R. 66 W. Measuring point is 1.5 feet below land surface.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	53.35	June 8	53.81	Sept. 9	53.80	Nov. 9	54.01
Apr. 14	55.47	July 12	53.63	Oct. 4	53.80	Dec. 24	53.85
May 10	53.52	Aug. 12	53.70				

13.67.2.da (\*948, p. 178). Formerly well 169. Bresnehan Estate. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 2, T. 13 N., R. 67 W. No measurements made in 1943.

13.67.6.add (\*940, p. 167; 948, p. 175). Formerly well 126. A. L. King. SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 13 N., R. 67 W. No measurements made in 1943.

13.67.6.daa (\*940, p. 167; 948, p. 175). Formerly well 127. A. L. King. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 13 N., R. 67 W. No measurements made in 1943.

13.67.6.ddd (\*940, p. 167; 948, p. 175). Formerly well 124. A. L. King. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 6, T. 13 N., R. 67 W.

13.67.11.aaa (\*940, p. 170; 948, p. 177). Formerly well 140. J. J. Brannigan. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 13 N., R. 67 W. Measuring point is 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 8	19.23	May 10	19.23	Sept. 9	18.59
Apr. 14	19.28	June 8	18.80	Oct. 4	18.79

13.67.13.bb (\*940, p. 170; 948, p. 177). Formerly well 146. Warren Livestock Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13, T. 13 N., R. 67 W. No measurements made in 1943.

13.67.15.aa (\*940, p. 170; 948, p. 177). Formerly well 139. Warren Livestock Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 15, T. 13 N., R. 67 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	21.62	May 10	21.05	Aug. 12	22.75	Oct. 4	21.96
Mar. 8	21.59	June 8	19.17	Sept. 9	21.49	Dec. 24	22.54
Apr. 14	21.26						

13.67.15.bb (\*940, p. 168; 948, p. 176). Formerly well 137. Warren Livestock Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 13 N., R. 67 W.

Water level, in feet below land-surface datum, 1943

Feb. 7	13.66	May 10	13.75	Aug. 12	13.18	Nov. 9	14.25
Mar. 8	15.48	June 8	13.26	Sept. 9	13.48	Dec. 24	13.81
Apr. 14	13.76	July 12	12.92	Oct. 4	13.72		

13.67.16.ab (\*940, p. 169; 948, p. 176). Formerly well 139. Warren Livestock Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 13 N., R. 67 W. Measuring point is 3.88 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 7	2.29	May 10	2.41	Aug. 12	1.83	Nov. 9	2.37
Mar. 8	2.34	June 8	1.85	Sept. 9	2.10	Dec. 24	2.26
Apr. 14	2.44	July 12	1.58	Oct. 4	2.22		

13.67.19.ca (\*940, p. 170; 948, p. 177). Formerly well 147. Warren Livestock Co. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 13 N., R. 67 W. No measurements made in 1943.

13.67.21.bd (\*940, p. 170; 948, p. 177). Formerly well 148. Warren Livestock Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 13 N., R. 67 W. No measurements made in 1943.

13.67.27.bb (\*940, p. 171; 948, p. 177). Formerly well 149. Warren Livestock Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 13 N., R. 67 W. No measurements made in 1943.

13.67.33.ac 1 (\*940, p. 168; 948, p. 176). Formerly well 136. Union Pacific Railroad. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 13 N., R. 67 W. Measuring point is 5.3 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	65.26	May 10	65.17	Aug. 12	65.78	Nov. 9	65.14
Mar. 8	65.20	June 8	65.47	Sept. 9	65.81	Dec. 24	65.19
Apr. 14	65.33	July 12	65.10				

13.68.4.dbb (\*948, p. 181). Formerly well 193. Art. King. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 13 N., R. 68 W. Measuring point, pump base, south side, 0.4 foot above land-surface datum. Water level, in feet below land-surface datum, 1943: June 18, 103.50.

13.68.8.cb (\*948, p. 181). Formerly well 192. Bert McGee. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 13 N., R. 68 W. No measurements made in 1943.

13.68.13.cc (\*948, p. 181). Formerly well 191. Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13, T. 13 N., R. 68 W. Measuring point is 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: May 15, 39.03; June 18, 38.34; Sept. 16, 38.06; Dec. 24, 37.46.

13.68.18.ab (\*940, p. 171; 948, p. 178). Formerly well 150. William Conrad. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 13 N., R. 68 W. No measurements made in 1943.

13.68.31.cc (\*940, p. 171; 948, p. 178). Formerly well 154. Warren Livestock Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 13 N., R. 68 W. No measurements made in 1943.

13.69.11.ad (\*948, p. 178). Formerly well 170. Bert McGee. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 11, T. 13 N., R. 69 W. No measurements made in 1943.

13.69.12.ac (\*948, p. 179). Formerly well 171. Bert McGee. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, T. 13 N., R. 69 W. No measurements made in 1943.

13.69.24.dd (\*948, p. 181). Formerly well 139. Warren Livestock Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 13 N., R. 69 W. No measurements made in 1943.

13.69.34.dd (\*940, p. 171; 948, p. 178). Formerly well 162. Warren Livestock Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 13 N., R. 69 W. No measurements made in 1943.

12.65.6.ab (\*940, p. 172; 948, p. 178). Formerly well 167. Owner unknown. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 12 N., R. 65 W. No measurements made in 1943.

12.67.5.ddd (\*940, p. 170; 948, p. 177). Formerly well 143. Warren Livestock Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 12 N., R. 67 W. No measurements made in 1943.

12.67.11.ba (\*940, p. 170; 948, p. 177). Formerly well 144. Warren Livestock Co. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 12 N., R. 67 W. No measurements made in 1943.

12.68.1.dc (\*940, p. 168; 948, p. 177). Formerly well 134. Warren Livestock Co. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 12 N., R. 68 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 7	20.13	July 12	18.53	Sept. 9	19.99	Nov. 9	20.27
Mar. 8	20.79	Aug. 12	20.13	Oct. 4	20.46	Dec. 24	20.10
June 8	17.28						

Laramie County

Egbert-Pine Bluffs--Carpenter area

15.60.8.cb (\*910, p. 182; 940, p. 158; 948, p. 162). Formerly well 8. Victor Sundlin. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 15 N., R. 60 W. Measuring point is 0.2 foot below land-surface datum.

## 15.60.8.cb. Victor Sundlin--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	88.01	May 21	88.09	Aug. 16	89.04	Nov. 17	88.51
Mar. 12	88.03	June 10	88.10	Sept. 11	89.23	Dec. 22	88.35
Apr. 19	88.02	July 14	88.53	Oct. 6	89.06		

15.60.20.ccc. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 15 N., R. 60 W. Drilled well, diameter 5 inches, depth 103 feet. Measuring point, top of casing, 0.63 foot above 2- by 4-foot platform and 0.1 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	48.14	July 16	48.23	Nov. 17	48.30
May 21	48.15	Sept. 13	48.33	Dec. 22	48.31

15.60.30.aab. Owner unknown. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 15 N., R. 60 W. Used irrigation well, equipped with turbine pump. Aquifer, Brule formation. Measuring point, mouth of discharge pipe, 4.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 23	57.57	July 16	57.95	Nov. 18	59.42
Apr. 16	57.61	Sept. 13	60.27	Dec. 22	59.01

15.60.30.cb (\*910, p. 183; 940, p. 159; 948, p. 163). Formerly well 18. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 15 N., R. 60 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	43.79	May 20	43.88	Aug. 16	43.65	Nov. 17	44.53
Mar. 12	43.80	June 10	43.98	Sept. 11	44.41	Dec. 22	44.76
Apr. 19	43.83	July 14	43.84	Oct. 6	44.48		

15.60.32.ab (\*910, p. 184; 940, p. 161; 948, p. 165). Formerly well 30. W. T. Young. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 32, T. 15 N., R. 60 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	46.63	May 21	47.12	July 14	47.98	Sept. 11	49.78
Mar. 12	46.70	June 10	47.69	Aug. 16	49.03	Nov. 17	48.10
Apr. 16	46.76						

15.60.34.ad. Owner unknown. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34, T. 15 N., R. 60 W. Abandoned dug well, diameter 3 feet, depth 62.4 feet. Measuring point, U.S. Geological Survey bench mark in log over well, 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20	60.12	May 21	60.23	Sept. 13	(a)	Dec. 22	61.80
Apr. 16	60.13	July 16	60.89	Nov. 18	62.34		

15.60.34.bc (\*910, p. 183; 940, p. 159; 948, p. 163). Formerly well 17. Owner unknown. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34, T. 15 N., R. 60 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	68.21	May 20	68.10	July 14	73.20	Nov. 17	69.87
Mar. 12	68.59	June 10	72.33	Aug. 16	74.29	Dec. 22	70.64
Apr. 16	68.10						

14.60.1.aaa. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 92 feet. Measuring point, top of 2- by 4-inch well cover, at land-surface datum.

a Dry.

14.60.1.aaa--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	53.84	July 16	53.73	Nov. 18	55.45
May 21	53.75	Sept. 13	55.42	Dec. 22	55.15

14.60.1.daa. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 82 feet. Measuring point, top of  $\frac{1}{4}$ -inch pipe, 0.7 foot above 2- by 4-foot platform, 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20	57.18	Apr. 16	50.47	July 16	50.01	Nov. 18	51.35
Apr. 16	49.46	May 21	49.95	Sept. 13	50.88	Dec. 22	51.24

14.60.5.bcc. Mr. Gross. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 14 N., R. 60 W. Used drilled irrigation well, diameter 20 inches. Measuring point, mouth of discharge pipe, 7.33 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	28.40	Sept. 13	31.03	Dec. 22	29.41
May 20	28.44	Nov. 18	29.82		

14.60.7.dda. NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 61 feet. Measuring point, top of edge of 2- by 4-foot platform, 0.2 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	2.91	July 16	3.56	Nov. 18	3.37
May 20	2.62	Sept. 13	4.11	Dec. 22	3.39

14.60.7.ddd. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 40 feet. Measuring point, below top of 2- by 4-foot platform, 0.25 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	18.21	July 16	18.54	Nov. 18	18.47
May 20	18.09	Sept. 13	19.19	Dec. 22	18.41

14.60.8.bcc. H. L. Wisroth. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 14 N., R. 60 W. Used drilled irrigation well (4 wells connected; water level measurements in side well 4 feet from pumped well). Measuring point, top of oil-drum casing, east side, 1.12 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	31.12	July 16	42.48	Nov. 18	32.99
May 20	31.07	Sept. 13	35.63	Dec. 22	32.32

14.60.8.cbc (\*910, p. 183; 940, p. 159; 948, p. 163). Formerly well 19. H. L. Wisroth. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 14 N., R. 60 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	10.31	May 20	9.91	Aug. 16	13.27	Nov. 18	12.22
Mar. 12	10.20	June 10	10.12	Sept. 11	16.65	Dec. 22	10.90
Apr. 16	10.08	July 14	10.94	Oct. 6	15.11		

14.60.10.dcc (\*910, p. 182; 940, p. 158; 948, p. 163). Formerly well 13. Mrs. Ellison. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 14 N., R. 60 W. Measuring point is at land-surface datum.

14.60.10.dcc. Mrs. Ellison--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	16.22	May 20	15.38	Aug. 16	15.81	Nov. 17	16.55
Mar. 12	15.99	June 10	14.80	Oct. 6	17.21	Dec. 22	16.45
Apr. 16	15.72	July 14	15.25				

14.60.11.bbb. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 40 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	15.83	July 16	16.50	Nov. 18	16.35
May 21	14.11	Sept. 13	17.35	Dec. 22	17.52

14.60.11.bbc. SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 40 feet. Measuring point, top of casing, 0.2 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	13.95	July 16	14.68	Nov. 18	14.36
May 24	13.10	Sept. 13	15.22	Dec. 22	14.56

14.60.11.bcc 1. Jim Wilkinson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11, T. 14 N., R. 60 W. Used drilled irrigation well, reported depth 100 feet. Aquifer, alluvium. Measuring point, mouth of discharge pipe, 7.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 16, 15.60; May 21, 15.09; Nov. 18, 16.03; Dec. 22, 16.12.

14.60.11.bcc 2. Drilled well, diameter 5 inches, depth 100 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	14.84	Apr. 16	14.43	July 16	15.15	Nov. 18	15.00
19	14.66	May 21	14.09	Sept. 13	16.25	Dec. 22	14.98

14.60.11.cbb. Drilled well, diameter 5 inches, depth 20 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	11.83	Apr. 16	13.03	July 16	12.31	Nov. 18	13.57
19	12.76	May 21	11.75	Sept. 13	13.91	Dec. 22	13.41

14.60.11.cbc. Drilled well, diameter 5 inches, depth 40 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	17.70	Apr. 16	17.41	July 16	17.26	Nov. 18	17.95
19	17.67	May 21	17.14	Sept. 13	18.77	Dec. 22	17.90

14.60.11.ccc. Drilled well, diameter 5 inches, depth 184 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 16	29.41	Apr. 16	29.13	July 16	28.60	Nov. 18	29.80
18	29.39	May 21	29.02	Sept. 13	30.69	Dec. 22	29.55
19	29.39						

14.60.14.bbc. E. G. Sanders. Used dug and drilled irrigation well. Aquifer, Brule formation. Measuring point, top of 2- by 4-inch support for pump pipe, 1.38 feet below concrete curb of pit, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Mar. 15	32.03	July 16	31.63	Nov. 18	32.79
Apr. 16	32.11	Sept. 13	33.48	Dec. 22	32.47
May 19	31.94				



14.60.16.dcc. Mrs. John Wilkinson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 14 N., R. 60 W. Dug and drilled irrigation well, diameter 12 inches, depth 100 feet. Measuring point, top of 2- by 4-inch cover over well, 3.7 feet below land-surface datum. Equipped with turbine pump. Water levels, in feet below land-surface datum, 1943: Mar. 21, 12.08; Apr. 17, 12.61; Nov. 19, 12.53; Dec. 22, 12.19.

14.60.18.add. SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 102 feet. Measuring point, top of 2- by 4-inch cover at 1-inch hole, 0.2 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 23	58.15	May 20	57.04	Sept. 13	58.10	Dec. 22	57.28
Apr. 16	57.23	July 16	56.90	Nov. 18	57.53		

14.60.18.dad. SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 103 feet. Measuring point, top edge of pipe nailed at top of 2- by 4-inch cover, 0.15 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	54.11	July 16	53.78	Nov. 18	54.45
May 20	53.90	Sept. 13	55.06	Dec. 22	54.19

14.60.18.dda. NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 124 feet. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	54.95	May 20	53.82	Sept. 13	55.02	Dec. 22	54.19
Apr. 16	54.09	July 16	53.36	Nov. 18	54.42		

14.60.18.ddd. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 18, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 103 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	56.35	Apr. 17	55.30	July 16	55.30	Nov. 18	56.27
Apr. 16	56.17	May 20	55.63	Sept. 13	57.05	Dec. 22	56.09

14.60.20.cbc. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 62 feet. Measuring point, top of casing, 0.15 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 17	37.90	July 16	37.18	Nov. 18	38.34
May 21	37.43	Sept. 13	40.35	Dec. 22	38.04

14.60.21.aaa. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 40 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	2.98	May 20	2.69	Sept. 13	5.07	Dec. 22	3.40
Apr. 17	3.19	July 16	3.85	Nov. 19	3.76		

14.60.21.aba. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 102 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21	7.05	Apr. 17	6.79	July 16	7.41	Dec. 22	7.32
22	8.73	May 20	6.35	Nov. 19	7.71		

14.60.21.abb. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 21, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 41 feet. Measuring point is 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Apr. 17, 8.41; May 20, 8.08.

14.60.28.bb (\*910, p. 183; 940, p. 160; 948, p. 164). Formerly well 26. Mr. Campbell. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 14 N., R. 60 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	21.48	May 21	20.46	Sept. 11	22.30	Nov. 18	21.27
Mar. 12	21.09	June 10	20.08	Oct. 6	22.40	Dec. 22	21.08
Apr. 15	20.76						

14.60.29.bbb. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 14 N., R. 60 W. Mr. Paullin. Abandoned irrigation well. Measuring point, top of 6- by 12-inch cover at U.S. Geological Survey washer, at land-surface datum. Water levels, in feet below land-surface datum, 1943: Apr. 17, 44.77; July 16, 44.94; Nov. 18, 47.03; Dec. 22, 44.64.

14.60.29.bbc. Mr. Paullin. SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 14 N., R. 60 W. Used drilled irrigation well, diameter 24 inches, depth 120 feet. Measuring point, hole in pump base, north side, 2.28 feet above land-surface datum. Water levels, in feet below land-surface datum, 1943: Apr. 17, 45.85; May 21, 45.56; Dec. 22, 46.09.

14.60.29.bcc. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 14 N., R. 60 W. Drilled well, diameter 5 inches, depth 104 feet. Measuring point, top of casing, 0.56 foot above 2- by 4-inch cover, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 17	42.90	July 16	43.08	Dec. 22	43.20
May 21	42.63	Nov. 18	43.80		

14.60.30.cc (\*910, p. 183; 940, p. 159; 948, p. 164). Formerly well 21., Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 14 N., R. 60 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	25.29	May 21	26.04	Aug. 16	25.15	Nov. 17	25.73
Mar. 12	25.61	June 10	25.72	Sept. 11	25.64	Dec. 22	25.99
Apr. 15	25.80	July 14	24.75	Oct. 6	25.52		

14.61.2.ca (\*910, p. 183; 940, p. 160; 948, p. 164). Formerly well 24. Carl Bogle. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 14 N., R. 61 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	26.41	May 20	26.62	Aug. 16	27.14	Nov. 17	26.50
Mar. 12	26.44	June 10	26.46	Sept. 11	26.65	Dec. 22	26.50
Apr. 19	26.43	July 14	27.74	Oct. 6	26.52		

14.61.7.ccc. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 14 N., R. 61 W. Drilled well, diameter 5 inches, depth 101 feet. Measuring point, top of casing, 0.5 foot above 2- by 4-inch cover at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 30	29.82	May 19	30.40	Sept. 13	29.47	Dec. 22	29.99
Apr. 17	30.35	July 16	29.43	Nov. 17	29.79		

14.61.14.ab (\*910, p. 183; 940, p. 160; 948, p. 164). Formerly well 23. H. R. Eggers. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14, T. 14 N., R. 61 W. Measuring point is 0.7 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	57.26	May 20	57.22	Aug. 16	57.29	Nov. 17	57.35
Mar. 12	57.24	June 10	57.17	Sept. 11	57.32	Dec. 22	57.34
Apr. 19	57.17	July 14	57.24	Oct. 6	57.29		

14.61.16.bbb. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 14 N., R. 61 W. Drilled well, diameter 5 inches, depth 62 feet. Measuring point, top of pipe, 0.62 foot above 2- by 4-inch well cover, 0.10 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 17	42.36	July 16	42.62	Nov. 19	42.71
May 19	42.46	Sept. 13	42.79	Dec. 22	42.71

14.61.18.bbc. SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18, T. 14 N., R. 61 W. Drilled well, diameter 5 inches, depth 118 feet. Measuring point, top of casing, 0.45 foot above 2- by 4-inch cover, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 30	18.47	May 19	19.05	Sept. 13	18.16	Dec. 22	18.77
Apr. 17	18.99	July 16	17.80	Nov. 17	18.53		

14.61.18.bcb (\*910, p. 132; 940, p. 157; 948, p. 162). Formerly well 4. F. J. Janesofsky. Formerly owned by Bert Tucker. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18, T. 14 N., R. 61 W. Measuring point is 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Mar. 30, 23.81; Apr. 17, 23.19; May 19, 23.12.

14.61.18.cbc. Mr. Bomhoff. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 14 N., R. 61 W. Measuring point, top of 6- by 12-inch timber at U. S. Geological Survey washer, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 17	27.94	July 16	27.40	Nov. 17	27.72
May 19	28.00	Sept. 13	27.46	Dec. 22	27.90

14.61.18.ccb. NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18, T. 14 N., R. 61 W. Drilled well, diameter 5 inches, depth 80 feet. Measuring point, top of casing, 0.5 foot above 2- by 4-inch cover, at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 17	26.60	July 16	26.02	Nov. 17	26.40
May 19	26.68	Sept. 13	26.18	Dec. 22	26.56

14.61.21.bb (\*910, p. 131; 940, p. 157; 948, p. 161). Formerly well 2. C. E. Kaser. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 14 N., R. 61 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	42.71	May 19	43.25	Aug. 16	43.58	Oct. 6	43.38
Mar. 12	42.94	June 10	43.07	Sept. 11	43.53	Nov. 18	43.38
Apr. 17	43.13	July 14	44.71				

14.61.21.bcb. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 21, T. 14 N., R. 61 W. Drilled well diameter 5 inches, depth 41 feet. Measuring point, top of casing, 0.65 foot above 2- by 4-inch cover at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 17	36.47	July 16	37.43	Nov. 19	36.75
May 19	36.61	Sept. 13	36.86	Dec. 22	36.81

14.61.21.cbc. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 14 N., R. 61 W. Drilled well, diameter 5 inches, depth 104 feet. Measuring point, top of casing, 0.63 foot above top of 2- by 4-inch cover, at land-surface datum.

## 14.61.21.cbc--Continued.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 27	24.23	May 19	23.34	Sept. 13	23.55	Dec. 22	23.59
Apr. 17	23.28	July 16	23.73	Nov. 19	23.52		

14.61.27.bcb 1. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 14 N., R. 61 W. Abandoned irrigation well. Measuring point, hole in center of cover over well, at land-surface datum. This well has been replaced by well 14.61.27.bcb 2, 20 feet northwest, at which land surface is 0.65 foot higher than at this well. Water levels, in feet below land-surface datum, 1943: Mar. 25, 25.34; Apr. 16, 26.76; May 19, 26.75; July 16, 27.40.

14.61.27.bcb 2. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 14 N., R. 61 W. Abandoned domestic well, diameter 4 inches. Equipped with hand pump. Measuring point, bottom of hole, east side of casing, 0.75 foot above land-surface datum. Water levels, in feet below land-surface datum, 1943: Nov. 19, 27.50; Dec. 22, 27.70.

14.61.28.bbb. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28, T. 14 N., R. 61 W. Drilled well, diameter 5 inches, depth 62 feet. Measuring point, top of casing, 1.8 feet above cover and 0.4 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 16	17.87	July 16	17.82	Nov. 19	18.08
May 19	17.83	Sept. 13	18.08	Dec. 22	18.14

14.61.29.bb (\*910, p. 182; 940, p. 158; 948, p. 162). Formerly well 6. Owner unknown. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 14 N., R. 61 W. Measuring point is 1.3 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	23.56	May 20	23.64	Aug. 16	23.54	Nov. 17	23.78
Mar. 15	23.67	June 10	23.31	Sept. 11	23.73	Dec. 22	23.85
Apr. 16	23.74	July 14	23.48	Oct. 6	23.79		

14.62.12.cc (\*910, p. 182; 940, p. 157; 948, p. 161). Formerly well 3. C. E. Kaser. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 14 N., R. 62 W. Measuring point is 0.2 foot below land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	4.44	May 20	3.97	Sept. 11	5.80	Nov. 17	4.85
Mar. 12	4.34	July 14	5.05	Oct. 6	4.96	Dec. 22	4.71
Apr. 17	4.34	Aug. 16	6.54				

14.62.22.bb (\*910, p. 183; 940, p. 159; 948, p. 164). Formerly well 22. J. W. Minnick. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 22, T. 14 N., R. 62 W. Measuring point is 0.3 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	95.41	June 10	95.32	Sept. 11	95.38	Nov. 17	95.32
Mar. 12	95.39	July 14	95.27	Oct. 6	95.38	Dec. 22	95.39
Apr. 16	95.42	Aug. 16	95.34				

14.62.24.ad (\*910, p. 182; 940, p. 157; 948, p. 162). Formerly well 5. Union Pacific Railroad. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24, T. 14 N., R. 62 W. Measuring point is 0.5 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	28.37	May 19	29.14	Aug. 16	29.55	Nov. 17	28.50
Mar. 12	28.48	June 10	28.44	Sept. 11	28.34	Dec. 22	28.60
Apr. 16	28.57	July 14	28.14	Oct. 5	28.39		

14.62.24.daa. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 24, T. 14 N., R. 62 W. Drilled well, diameter 5 inches. Measuring point, top of casing, 0.45 foot above 2- by 4-inch cover, at land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Apr. 17	21.54	July 16	21.06	Nov. 17	21.45
May 19	21.62	Sept. 13	21.33	Dec. 22	21.56

14.62.36.db (\*910, p. 183; 940, p. 160; 948, p. 164). Formerly well 28. J. M. Bastain. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 14 N., R. 62 W. Measuring point, prior to May 21, 0.8 foot above land-surface datum; after May 21, 0.2 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	7.79	May 21	6.50	Aug. 16	8.62	Nov. 20	8.17
Mar. 12	7.65	June 10	7.23	Sept. 11	8.86	Dec. 22	7.97
Apr. 15	7.37	July 14	7.92	Oct. 6	8.76		

14.63.12.cd (\*940, p. 161; 948, p. 165). Formerly well 31. Owner unknown. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 14 N., R. 63 W. Measuring point is 0.9 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	62.01	May 20	61.99	Aug. 16	61.99	Nov. 17	62.05
Mar. 12	62.00	June 10	61.97	Sept. 11	62.04	Dec. 22	62.10
Apr. 16	62.02	July 14	61.95	Oct. 6	62.05		

14.63.20.dc (\*940, p. 161; 948, p. 165). Formerly well 32. Owner unknown. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 14 N., R. 63 W. Measuring point is 0.25 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	79.36	May 20	79.35	Aug. 16	79.53	Nov. 17	79.35
Mar. 12	79.36	June 10	79.34	Sept. 11	79.25	Dec. 22	79.39
Apr. 16	79.36	July 14	79.34	Oct. 6	79.35		

14.63.34.daa (\*948, p. 163). Formerly well 60. F. G. Noyes. NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34, T. 14 N., R. 63 W. Measuring point is 1.0 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	95.51	Apr. 15	95.35	July 15	95.49	Oct. 5	95.45
Feb. 17	95.37	May 11	95.48	Aug. 13	95.45	Dec. 28	95.45
Mar. 11	95.38	June 9	95.34	Sept. 10	95.41		

13.60.8.cb (\*910, p. 183; 940, p. 159; 948, p. 163). Formerly well 20. Herbert Campbell. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8, T. 13 N., R. 60 W. Measuring point, prior to Nov. 19, 0.4 foot above land-surface datum; after Nov. 19, mouth of discharge pipe, 4.57 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	37.11	May 21	31.25	June 9	31.23	Dec. 22	41.02
Mar. 15	35.65	June 10	31.25	Nov. 19	41.00	28	40.91
Apr. 15	33.91						

13.60.24.aa (\*910, p. 182; 940, p. 158; 948, p. 162). Formerly well 9. Owner unknown. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 13 N., R. 60 W. Measuring point is 0.2 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	10.95	May 21	9.11	Aug. 16	13.23	Nov. 19	13.59
Mar. 15	10.95	June 10	9.04	Sept. 11	13.38	Dec. 22	12.81
Apr. 15	9.59	July 14	11.69	Oct. 6	14.10		

13.60.31.aa (\*910, p. 181; 940, p. 156; 948, p. 161). Formerly well 1. W. T. Young, Jr. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, T. 13 N., R. 60 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	37.08	Apr. 15	36.56	July 15	41.68	Oct. 5	39.32
Feb. 17	37.00	May 11	37.56	Aug. 13	38.63	Nov. 20	37.87
Mar. 11	36.83	June 9	37.40	Sept. 10	39.67	Dec. 28	37.67

13.60.31.cc (\*948, p. 168). Formerly well 70. William Young. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 13 N., R. 60 W. No measurements made in 1943.

13.60.31.ddd (\*948, p. 168). Formerly well 69. William Young. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 13 N., R. 60 W. Measuring point is 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	17.36	Apr. 15	16.73	Aug. 13	20.07	Nov. 20	18.21
Feb. 17	17.25	May 11	18.01	Sept. 10	21.41	Dec. 28	17.98
Mar. 11	17.07	June 9	17.00	Oct. 5	19.11		

13.61.3.dc (\*910, p. 183; 940, p. 160; 948, p. 164). Formerly well 27. Jim Dolan. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 13 N., R. 61 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	16.98	May 21	15.99	Sept. 11	21.90	Nov. 19	19.12
Mar. 12	16.51	June 10	16.98	Oct. 6	20.60	Dec. 22	18.47
Apr. 15	16.42						

13.61.5.dba (\*910, p. 182; 940, p. 158; 948, p. 163). Formerly well 14. J. D. Wasson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 5, T. 13 N., R. 61 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	8.58	May 21	7.62	Aug. 16	9.61	Nov. 20	8.39
Mar. 12	8.51	June 10	8.27	Sept. 11	9.77	Dec. 22	8.30
Apr. 15	8.43	July 14	9.03	Oct. 6	9.46		

13.61.12.cc (\*910, p. 182; 940, p. 158; 948, p. 162). Formerly well 12. Mr. Kelley. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 13 N., R. 61 W. Measuring point is 0.3 foot below land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	1.28	June 10	1.63	Sept. 11	8.07	Nov. 19	5.83
May 21	.98	Aug. 16	6.88	Oct. 6	8.12	Dec. 22	5.26

13.61.16.dc (\*910, p. 182; 940, p. 158; 948, p. 162). Formerly well 11. Owner unknown. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, T. 13 N., R. 61 W.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 30	40.30	Apr. 15	40.28	June 10	40.38
Mar. 15	40.29	May 21	40.31		

13.61.18.bc (\*910, p. 182; 940, p. 158; 948, p. 162). Formerly well 10. Mr. Johnson. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18, T. 13 N., R. 61 W. No measurements made in 1943.

13.61.22.cb (\*910, p. 182; 940, p. 159; 948, p. 163). Formerly well 15. Owner unknown. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 13 N., R. 61 W. Measuring point is 1.28 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 30	45.77	Apr. 15	46.55	Nov. 19	45.80
Mar. 15	46.06	May 21	45.79	Dec. 28	45.79

13.61.31.ddc (\*948, p. 168). Formerly well 67. Max Thelan.  
SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 13 N., R. 61 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	45.27	May 11	45.32	Aug. 13	45.26	Nov. 20	45.06
Feb. 17	45.29	June 9	45.25	Sept. 10	45.13	Dec. 28	45.00
Mar. 11	45.26	July 15	45.25	Oct. 5	45.71		

13.62.16.ccc (\*948, p. 168). Formerly well 62. State of Wyoming.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 16, T. 13 N., R. 62 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	56.63	Apr. 15	56.60	July 15	56.64	Oct. 5	56.69
Feb. 17	56.65	May 11	56.74	Aug. 13	56.73	Nov. 20	56.65
Mar. 11	56.63	June 9	56.65	Sept. 10	56.71	Dec. 28	56.70

13.62.21.ccc (\*948, p. 168). Formerly well 64. Union Pacific Railroad.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21, T. 13 N., R. 62 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	44.18	May 18	44.18	Sept. 10	44.18	Nov. 20	44.13
Feb. 17	44.18	June 9	44.20	Oct. 5	44.18	Dec. 28	44.18
Mar. 11	44.18	Aug. 13	44.30				

13.62.24.aba (\*948, p. 168). Formerly well 68. Lydia M. Wilkowski.  
NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 13 N., R. 62 W. Measuring point is 1.6 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	53.72	Apr. 15	53.50	July 15	53.59	Oct. 5	53.56
Feb. 17	53.63	May 11	53.50	Aug. 13	53.63	Nov. 20	53.53
Mar. 11	53.60	June 9	53.59	Sept. 10	53.57	Dec. 28	53.56

13.63.28.add (\*948, p. 168). Formerly well 63. George L. Reeder.  
SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 28, T. 13 N., R. 63 W. Measuring point is 0.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	52.17	Apr. 15	52.17	July 15	52.20	Sept. 10	52.20
Feb. 17	52.18	May 11	52.18	Aug. 13	52.20	Oct. 5	52.27
Mar. 11	52.17	June 9	52.16				

13.62.29.bc (\*948, p. 166). Formerly well 43. Wm. H. Chamberlain.  
SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 13 N., R. 62 W. Measuring point is 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	47.41	Apr. 15	47.30	July 15	47.30	Oct. 5	47.29
Feb. 17	47.42	May 11	47.36	Aug. 13	47.35	Nov. 20	47.14
Mar. 11	47.35	June 9	47.33	Sept. 10	47.29	Dec. 28	47.13

13.62.29.ccc (\*948, p. 166). Formerly well 44. Union Pacific Railroad.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 13 N., R. 62 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	56.76	Apr. 15	56.09	July 15	56.29	Oct. 5	55.26
Feb. 17	56.53	May 11	56.00	Aug. 13	57.21	Nov. 20	56.51
Mar. 11	56.36	June 9	55.86	Sept. 10	56.87	Dec. 28	54.92

13.62.31.cac (\*948, p. 166). Formerly well 45. Carpenter General Store.  
SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 31, T. 13 N., R. 62 W. Measuring point is 0.25 foot above land-surface datum.

## 13.62.31.cac. Carpenter General Store--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	56.92	Apr. 15	54.12	July 15	51.55	Oct. 5	52.91
Feb. 17	55.28	May 11	53.63	Aug. 13	51.63	Nov. 20	54.15
Mar. 11	54.74	June 9	53.21	Sept. 10	52.23		

13.63.4.cb (\*948, p. 167). Formerly well 59. James L. Bailey.  
NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4, T. 13 N., R. 63 W. No measurements made in 1943.

13.63.8.acc (\*948, p. 166). Formerly well 40. Emil Gustafson.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 13 N., R. 63 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	68.15	Apr. 15	67.22	July 15	66.34	Oct. 5	65.99
Feb. 17	67.77	May 11	67.11	Aug. 13	66.19	Dec. 28	66.06
Mar. 11	68.66	June 9	66.79	Sept. 10	66.31		

13.63.10.aaa (\*948, p. 168). Formerly well 61. William Dittmer.  
NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 13 N., R. 63 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	67.51	Apr. 15	67.43	July 15	67.56	Oct. 5	67.40
Feb. 17	67.52	May 11	67.52	Aug. 13	67.61	Nov. 20	67.42
Mar. 11	67.48	June 9	67.45	Sept. 10	67.60	Dec. 28	67.38

13.63.14.dcc (\*948, p. 166). Formerly well 41. Ralph V. Kent.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14, T. 13 N., R. 63 W. Measuring point is at land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	37.94	Apr. 15	37.84	July 15	37.65	Oct. 5	37.75
Feb. 17	37.90	May 11	37.84	Aug. 13	37.77	Nov. 20	37.69
Mar. 11	37.90	June 9	37.77	Sept. 10	37.72	Dec. 28	37.67

13.63.22.bba (\*948, p. 167). Formerly well 55. Ralph V. Kent.  
NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 22, T. 13 N., R. 63 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	56.34	Apr. 15	56.22	July 15	56.10	Oct. 5	56.12
Feb. 17	56.31	May 11	56.73	Aug. 13	56.10	Dec. 28	56.13
Mar. 11	56.29	June 9	56.12	Sept. 10	56.11		

13.63.26.ca (\*948, p. 167). Formerly well 56. Ed Oline. NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 13 N., R. 63 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	49.53	Apr. 15	49.19	July 15	49.69	Oct. 5	49.18
Feb. 17	49.36	May 11	49.14	Aug. 13	49.13	Nov. 20	49.22
Mar. 11	49.26	June 9	49.16	Sept. 10	49.12	Dec. 28	49.24

13.63.30.bcc (\*948, p. 166). Formerly well 42. James H. Carnes.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 13 N., R. 63 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	43.49	Apr. 15	43.49	July 15	43.34	Oct. 5	43.22
Feb. 17	43.55	May 11	43.57	Aug. 13	43.59	Nov. 20	43.22
Mar. 11	43.50	June 9	43.62	Sept. 10	43.18	Dec. 28	43.30

13.63.33.cb (\*948, p. 166). Formerly well 47. D. A. Bunnell.  
NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 33, T. 13 N., R. 63 W. Measuring point is 1.0 foot above land-surface datum.



## 13.63.33.cb. D. A. Bunnell--Continued.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	47.88	Mar. 11	47.53	May 11	47.22	Nov. 20	46.35
Feb. 17	47.66	Apr. 15	47.35	June 9	47.09	Dec. 28	46.34

13.64.28.ccb (\*948, p. 167). Formerly well 49. L. A. Foster.  
NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 28, T. 13 N., R. 64 W. Measuring point is 0.75 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	144.94	Apr. 15	144.45	July 15	144.52	Oct. 5	144.50
Feb. 17	144.50	May 11	144.62	Aug. 13	144.55	Dec. 28	144.49
Mar. 11	144.50	June 9	144.54	Sept. 10	144.51		

13.64.30.cbb (\*948, p. 167). Formerly well 58. Wilbur Sevope.  
NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, T. 13 N., R. 64 W. Measuring point is 1.3 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level
Jan. 13	177.68	Mar. 11	178.65	June 9	177.74
Feb. 17	177.80	May 11	177.81		

13.64.35.ad (\*948, p. 166). Formerly well 48. Twila G. Wilcox.  
NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35, T. 13 N., R. 64 W. No measurements made in 1943.

13.65.24.ad (\*948, p. 167). Formerly well 57. C. H. Senior. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 13 N., R. 65 W. No measurements made in 1943.

12.60.5.ccd (\*948, p. 169). Formerly well 71. William Young.  
SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, T. 12 N., R. 60 W. Measuring point is 1.75 feet above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	24.39	Apr. 15	25.66	July 15	25.23	Nov. 20	25.21
Feb. 17	24.27	May 11	23.99	Sept. 10	27.02	Dec. 28	24.98
Mar. 11	24.14	June 9	23.48	Oct. 5	26.33		

12.61.1.dcc (\*948, p. 169). Formerly well 72. Union Pacific Railroad. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1, T. 12 N., R. 61 W. Measuring point is 0.4 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	63.30	Apr. 15	63.09	July 15	65.57	Oct. 5	63.25
Feb. 17	63.29	May 11	63.19	Aug. 13	65.13	Nov. 20	63.21
Mar. 11	64.15	June 9	63.13	Sept. 10	63.16	Dec. 28	63.14

12.61.2.ba (\*910, p. 182; 940, p. 159; 948, p. 163). Formerly well 16.  
NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 12 N., R. 61 W. No measurements made in 1943.

12.61.10.dcc (\*948, p. 169). Formerly well 73. Joseph L. McDonald.  
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 12 N., R. 61 W. Measuring point is 1.0 foot above land-surface datum.

## Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	37.74	Apr. 15	37.74	July 15	38.02	Oct. 5	37.99
Feb. 17	37.83	May 11	37.94	Aug. 13	38.13	Nov. 20	37.89
Mar. 11	37.85	June 9	37.97	Sept. 10	38.02	Dec. 28	37.86

12.62.6.aab (\*948, p. 167). Formerly well 53. William Flamme.  
NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6, T. 12 N., R. 62 W. Measuring point is 0.1 foot above land-surface datum.

## 12.62.6.aab. William Flamme--Continued.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	67.19	Apr. 15	64.86	July 15	62.90	Oct. 5	61.61
Feb. 17	66.28	May 11	64.35	Aug. 13	62.30	Nov. 20	61.49
Mar. 11	65.65	June 9	63.76	Sept. 10	61.85	Dec. 28	61.66

12.62.8.aa (\*948, p. 168). Formerly well 65. Bank of Carpenter. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 12 N., R. 62 W. Measuring point is 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	56.54	Apr. 15	56.09	July 15	55.83	Oct. 5	55.69
Feb. 17	56.38	May 11	56.00	Aug. 13	55.78	Nov. 20	55.52
Mar. 11	56.26	June 9	55.85	Sept. 10	56.85	Dec. 28	55.36

12.62.9.aba (\*948, p. 168). Formerly well 66. D. A. Bunnell. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9, T. 12 N., R. 62 W. Measuring point is 1.4 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Feb. 17	51.14	May 11	50.84	Sept. 10	50.71	Nov. 20	50.47
Mar. 11	52.74	June 9	50.80	Oct. 5	50.64	Dec. 28	50.34
Apr. 15	50.80	Aug. 13	50.95				

12.62.13.abb (\*948, p. 169). Formerly well 74. Roy D. Smith. NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 12 N., R. 62 W. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	24.75	Mar. 11	24.75	May 11	24.75	Dec. 28	24.71
Feb. 17	24.80	Apr. 15	24.72	June 9	24.74		

12.63.3.baa (\*948, p. 167). Formerly well 54. Roy L. Gasuraunt. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3, T. 12 N., R. 63 W. Measuring point is 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	46.57	Apr. 15	45.60	July 15	44.59	Oct. 5	44.24
Feb. 17	46.16	May 11	45.41	Aug. 13	43.52	Nov. 20	43.68
Mar. 11	45.91	June 9	45.14	Sept. 10	45.08	Dec. 28	43.38

12.63.3.da (\*948, p. 166). Formerly well 46. Wyoming Farm Loan Board. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3, T. 12 N., R. 63 W. Measuring point is 0.25 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	32.88	Apr. 15	32.93	July 15	30.99	Sept. 10	30.88
Feb. 17	32.48	May 11	31.72	Aug. 13	32.09	Oct. 5	30.42
Mar. 11	32.26	June 9	31.43				

12.63.7.db 1 (\*948, p. 167). Formerly well 52. Mrs. F. E. Bollan. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 12 N., R. 63 W. Measuring point is 2.0 feet below land-surface datum.

Water level, in feet below land-surface datum, 1943

Mar. 11	2.11	May 11	2.79	July 15	3.85	Sept. 10	4.51
Apr. 15	2.62	June 9	2.64	Aug. 13	3.84	Oct. 5	4.70

12.63.7.db 2 (\*948, p. 167). Formerly well 51. Mrs. F. E. Bollan. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 12 N., R. 63 W. No measurements made in 1943.

12.63.12.da (\*948, p. 169). Formerly well 75. Otis Breeden. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12, T. 12 N., R. 63 W. Measuring point is 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1943

Jan. 13	4.83	Apr. 15	4.38	July 15	5.03	Oct. 5	5.75
Feb. 17	5.19	May 11	4.92	Aug. 13	5.52	Nov. 20	5.75
Mar. 11	5.62	June 9	3.67	Sept. 10	5.75	Dec. 28	5.83

12.64.4.bb (\*948, p. 167). Formerly well 50. Wyoming Hereford Ranch. NW $\frac{1}{4}$  sec. 4, T. 12 N., R. 64 W. Measuring point is 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1943

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	152.00	Mar. 11	152.15	May 11	152.40	July 15	152.13
Feb. 17	152.12	Apr. 15	152.06	June 9	152.09	Dec. 28	152.09

