STATE OF OREGON

GROUND - WATER LEVELS 1964

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OREGON GROUND-WATER LEVELS

by

Jack E. Sceva and Robert DeBow

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INTRODUCTION

Ground water, like surface water, is part of nature's never-ending water cycle. A part of the precipitation that falls on the surface of the earth seeps into the ground. This water replenishes soil moisture and the excess continues to seep downward until it encounters a "zone of saturation." This is a zone where all the interstices or void spaces in the rock materials are filled with water. The water in such zones is termed "ground water."

Ground water moves under hydrostatic pressure from the point or area of recharge to the point or area of discharge. It may remain in storage in the ground on this journey from a few hours to many years. Ground water discharge occurs in springs, or by evaporation or transpiration. Ground water discharge constitutes a large part of the summer flow of most of our streams and rivers. Pumping from wells also constitutes a form of ground water discharge.

Under natural conditions, nature tends to keep a balance between ground water discharge and ground water recharge. That is, the amount of annual recharge is balanced each year by an equal amount of ground water discharge. If recharge was distributed evenly throughout the year, the water table, which is the surface of a ground water body, would remain relatively stationary. In most places, however, ground water recharge is seasonal. In Oregon, most of the ground water recharge occurs in the

winter and spring months. This seasonal distribution of ground water recharge results in a seasonal fluctuation of the water table. During the recharge period, a steeper slope or gradient on the water table is required to move the additional quantity of water. This steeper slope is produced by a rise in the water table. During the summer and autumn months when recharge is generally at a minimum, the lower gradient required to move the ground water is produced by a lowering of the water table. During long periods of above average precipitation there will generally be an above average position for the water table and during long periods of below average precipitation the position of the water table will decline.

Whenever a well or group of wells go into operation, they upset this natural balance between recharge and discharge. In order for nature to adjust to this situation, there must be either a reduction in the amount of natural ground water discharge or there must be an increase in the amount of recharge. These changes are produced by changes in the gradients on the water table. If pumping exceeds the amount of annual recharge, nature will ultimately force a new balance on the system, as the water table will decline each year until it is no longer physically possible to withdraw more water than the amount of annual recharge.

There are two major factors that control the availability of ground water. These are the availability of water for recharge, and the occurrence of permeable geologic formations to absorb and transmit ground water.

The Cascade Mountains divide the State into two climatic provinces. The area lying west of the Cascade Mountains has a temperate marine climate that is characterized by mild temperatures and abundant precipitation. The precipitation has a marked seasonal distribution, being very high in the winter and spring months and ranges from about 30 inches in the Willamette Valley to as much as 120 inches in some parts of the Coast Range. Eastern Oregon has a continental type of climate, having more severe temperatures and less precipitation than

Western Oregon. Precipitation ranges from less than eight inches in some of the desert basins to more than 40 inches in some of the higher mountainous areas.

In general, Western Oregon has large quantities of water available for ground water recharge, while in many parts of Eastern Oregon the available water supply for ground water recharge is relatively small. In some areas in Eastern Oregon, precipitation is generally insufficient to replace soil moisture deficiencies.

The occurrence of permeable rock formations capable of absorbing and transmitting ground water varies greatly from place to place in the State. The most permeable rock formations occur in the Cascade Mountains. These permeable rock formations are composed chiefly of young volcanic rocks. They lie in a belt that receives relatively large quantities of recharge. The ground water discharge from these rock formations forms the many large springs that occur on both sides of the Cascade Mountains.

Coarse alluvial sediments composed chiefly of volcanic rock types were deposited along the eastern part of the Willamette River Valley by the swift streams flowing off the Cascade Mountains. These coarse-grained sediments form the chief water-bearing zones in the Willamette Valley. Streams eroding the softer sedimentary rocks that compose a large part of the coast range deposited relatively fine-grained deposits along the western margin of the valley. This difference in character of the alluvial sediments from one side of the Willamette Valley to the other accounts for the difference in the availability of ground water in these two areas. In general, the Coast Range and Klamath Mountains are barren of permeable rock units. Even though these areas receive large amounts of precipitation, only small supplies of ground water can be developed. Along our coastal area, there are many areas under lain by sand dune deposits. These sand dune areas absorb large quantities of water and are

capable of furnishing relatively large supplies of ground water. Vigilance will be required in the development of some of these sand dune areas to prevent encroachment of saline water from the Pacific Ocean.

In Eastern Oregon, the central mountains are composed chiefly of relatively impermeable rock formations which are capable of yielding only small supplies of ground water. Intermountain basins such as the Baker, the Wallowa and the Grande Ronde Valleys contain permeable rock formations and moderately large supplies of ground water that have been or could be developed. The area lying north of the central mountains is underlain by the Columbia River Basalt Formation. This formation is of wide areal extent in both Oregon and Washington and is generally capable of yielding moderate to large supplies of ground water. Ground water supplies in the industrial area being developed near Boardman, Oregon will be developed from this formation. Since precipitation along the Columbia Slope area is generally low, vigilance will be required in this area to prevent the overdevelopment of the ground-water supply. The basin and plateau areas of Southeastern Oregon contain permeable rock formations. Where these formations contain water, they are generally capable of furnishing moderate to large supplies of ground water. Precipitation is also low in this part of the state, and problems of local overdevelopment of the ground-water resources could occur.

The State Engineer has carried on a program for the measurement of ground-water levels for many years in cooperation with the Ground Water Branch of the U. S. Geological Survey. This program was expanded in 1962 and the task of measuring water levels was assumed by the State Engineer. This report presents hydrographs of wells located in many of the larger ground-water basins. These hydrographs show the extent of ground water depletion during periods of withdrawal and the extent of recovery during recharge periods and serve as an early warning system to depict areas where problems of ground-water supply are liable to develop.

To date, Oregon has very few serious problems of ground-water mining. Two areas have been determined as being "critical" on the basis of declining water levels. These are the Cow Valley area in Northern Malheur County and The Dalles area in Wasco County. Both of these areas have been closed to further appropriations except for stock and domestic purposes. Both of the orders of the State Engineer determining these areas as being "critical" have been appealed to our courts to determine the constitutionality of Oregon's Ground Water Act.

GROUND WATER INVESTIGATIONS AND REPORTS

Ground-water investigations by the State Engineer were continued in the Salem Hills area of Marion County, the westside business district in Portland, and The Dalles area in Wasco County. Investigations to appraise the ground water potential in Hood River and Lincoln Counties were begun during the year. Ground Water Report No. 3, "Records of Wells and Springs, Water Levels and Chemical Quality of Ground Water in the East Portland Area, Oregon" by B. L. Foxworthy, G. M. Hogenson and E. R. Hampton was published in July, 1964.

The State Engineer's cooperative program with the U. S. Geological Survey for ground-water investigations in the French Prairie-Mission Bottom area of Marion County, the Molalla-Salem Slope area of Clackamas and Marion Counties, and the Eola-Amity Hills area of Polk and Yamhill Counties have progressed to the report preparation stage. A cooperative report describing the ground water resources of the Fort Rock Basin was published as professional paper 383-B by the Geological Survey. This report, "Geologic factors that control the occurrence and availability of ground water in the Fort Rock Basin, Lake County, Oregon" by E. R. Hampton, can be obtained from the U. S. Government Printing Office.

OBSERVATION WELL PROGRAM

The observation well program consists of the periodic measurement of the depth to water or artesian pressure in water wells located throughout the State. At the close of the year, the observation well net had been expanded to 750 wells located as follows:

County	Number of Observation Wells
Baker	11
Benton	7
Clackamas	33
Clatsop	2
Columbia	1
Coos	6
Crook	6
Curry	0
Deschutes	5
Douglas	7
Gilliam	2
Grant	6
Harney	48
Hood River	2
Jackson	5
Jefferson	5
Josephine	9
Klamath	57
Lake	111
Lane	15
Lincoln	0
Linn	41
Malheur	50
Marion	79
Morrow	29
Multnomah	29
Polk	9
Sherman	3
Tillamook	18
Umatilla	42
Union	16
Wallowa	0
Wasco	38
Washington	36
Wheeler	1
Yamhill	21

This report contains hydrographs for 192 observation wells. For convenience in using this report, the depicted hydrographs have been grouped together by area.

A reference number assigned to each area is shown on Figure 1 and is listed on the top of each page of hydrographs. A complete list of observation wells is given on page 104. Water level information and measuring point descriptions for the wells in the observation network can be obtained from the State Engineer.

The hydrographs presented in this report have all been drawn with a vertical scale of one division equals one foot. This scale has masked some of the detail that was shown on the hydrographs given in the 1963 report where many different scales were used. This loss of detail is believed to be more than compensated by the uniform scale which allows an easy comparison of one hydrograph with another.

This report has been expanded to include additional hydrographs in the Ordnance area of Morrow and Umatilla Counties, the Pendleton-Pilot Rock area of Umatilla County, the John Day Valley in Grant County, the Southern Malheur and Southern Harney Counties, the Sprague River Valley in Klamath County and the Umpqua River Valley in Douglas County.

ACKNOWLEDGEMENTS

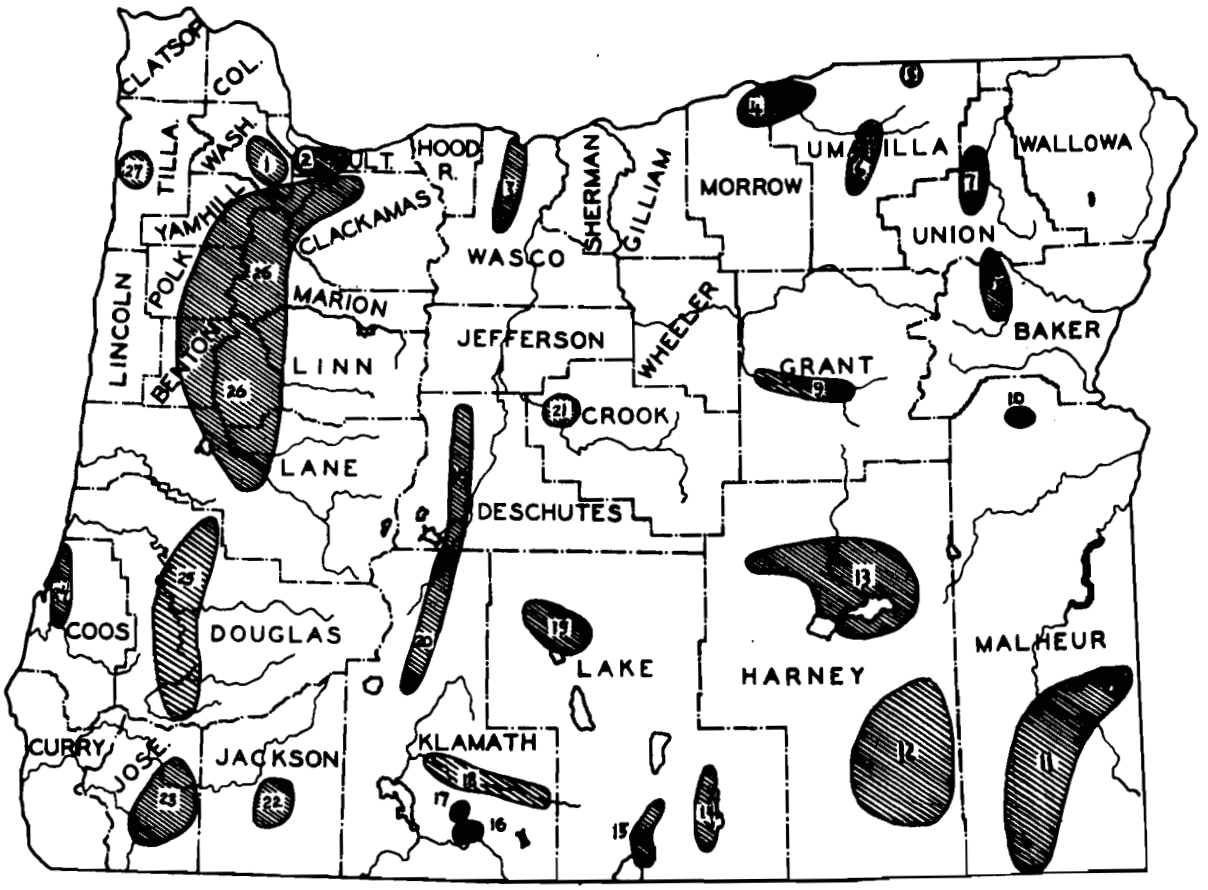
We wish to acknowledge the help and assistance furnished by the Pacific Power and Light Company, the Harvey Aluminum Company, General Foods, Inc., and the Dalles City, Milton-Freewater, Pendleton, Hermiston and Woodburn Water Departments, and the personnel of the Umatilla Army Depot at Ordnance for measuring ground water levels and making them available for this report. Appreciation is also given to the many well owners of the State who have cooperated in making their wells available for measurement in this program.

WELL NUMBERING SYSTEM

The well numbering system used in this report gives the township, range, section and 40-acre subdivision of the section in which the well is located. The first number is the township, and the second number is the range. In townships lying south of the Willamette Base Line and in ranges lying east of the Willamette Meridian, the letters "S" and "E" are omitted. The number following the hyphen indicates the section and the letter indicates the subdivision of the section as depicted in the following diagram. The number in parentheses following the letter is the serial number of the well.

For example, the well numbered 27/17-22R(2) indicates the well is in the SE¼ SE¼, Section 22, Township 27 South, Range 17 East, and is the second well noted in this 40-acre tract.

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



Ground Water Areas Represented By Hydrographs In This Report

1. Tualatin Valley
2. Portland Metropolitan Area
3. The Dalles Area
4. Columbia Slope Area
5. Milton-Freewater Area
6. Pendleton-Pilot Rock Area
7. Grande Ronde Valley
8. Baker Valley
9. Upper John Day Valley
10. Cow Valley Area
11. Southern Malheur Area
12. Southern Harney Area
13. Harney Basin
14. Warner Valley
15. Goose Lake Basin
16. Yonna Valley
17. Swan Lake Valley
18. Sprague River Valley
19. Fort Rock Area
20. Chemult-Lapine-Sisters Area
21. Prineville Area
22. Medford Area
23. Grants Pass Area
24. Coos Bay Area
25. Umpqua River Valley
26. Willamette Basin
27. Tillamook

TUALATIN VALLEY (1)

The Tualatin Valley is a broad basin that has been partially filled with fine-grained lake deposits composed chiefly of silt and clay. The bedrock, which forms the surrounding hills and underlies the lake deposits, is a series of basaltic lava flows known as the Columbia River Basalt. Ground water generally occurs in the broken contact zones between individual lava flows in the basalt formation. The basaltic lava flows are underlain by marine sedimentary rocks that are generally barren of potable water supplies.

Water levels in most wells throughout the Tualatin Valley recover each spring to the previous spring high position. Some of the wells developing water from the basalt in the Cooper Mountain and Bull Mountain areas have shown a small decline in recent years.

OBSERVATION WELLS

1N/2W-35E(1) (E. L. Lewis) is a 23-foot dug well in valley fill deposits at Orenco. Periodic water level measurements available from 1951 to date.

1N/3W-36R(2) (General Foods, Birdseye Division) is a 171-foot drilled well in valley fill deposits at Hillsboro. Periodic water level measurements available from 1951 to date.

1/1W-19R(3) (E. Miller) is a 320-foot drilled well in basalt located near the Cooper Mountain School.

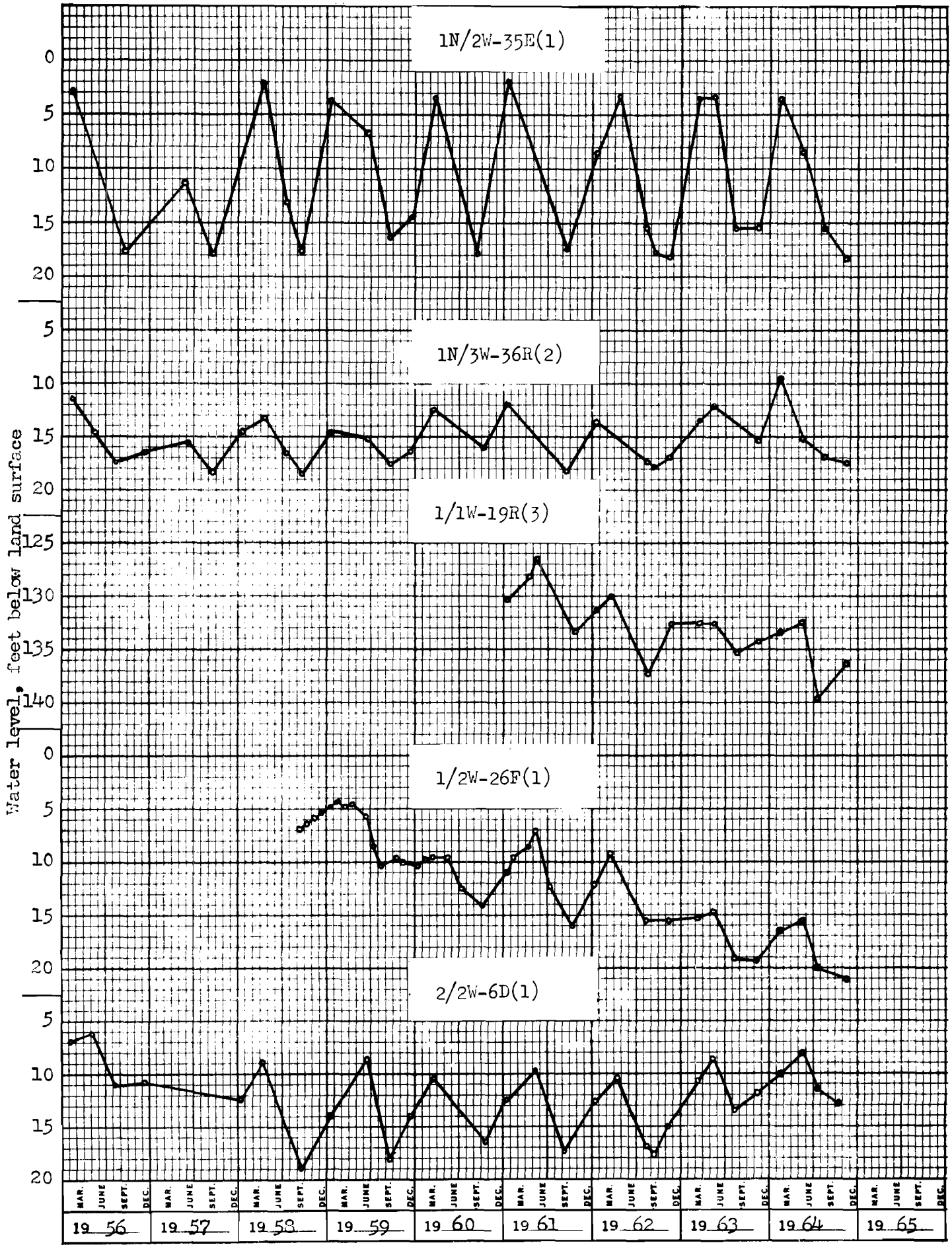
1/2W-26F(1) (K. Schaefer) is a 403-foot drilled well in basalt located at the west end of Cooper Mountain.

2/2W-6D(1) (S. Rotchstrom) is a 486-foot drilled well in basalt located about 6 miles south of Hillsboro. Periodic water level measurements available from 1951 to date.

REFERENCES

Hart, D. H. and Newcomb, R. C., 1956, Preliminary report on the ground water resources of the Tualatin Valley, Oregon: U. S. Geological Survey open-file report.

TUALATIN VALLEY (1)



TUALATIN VALLEY (1)

1/4W-2H(1) (Myron Sheeler) is a 78-foot drilled well in gravel located about two miles west of Forest Grove. Measurements available from 1951 to date.

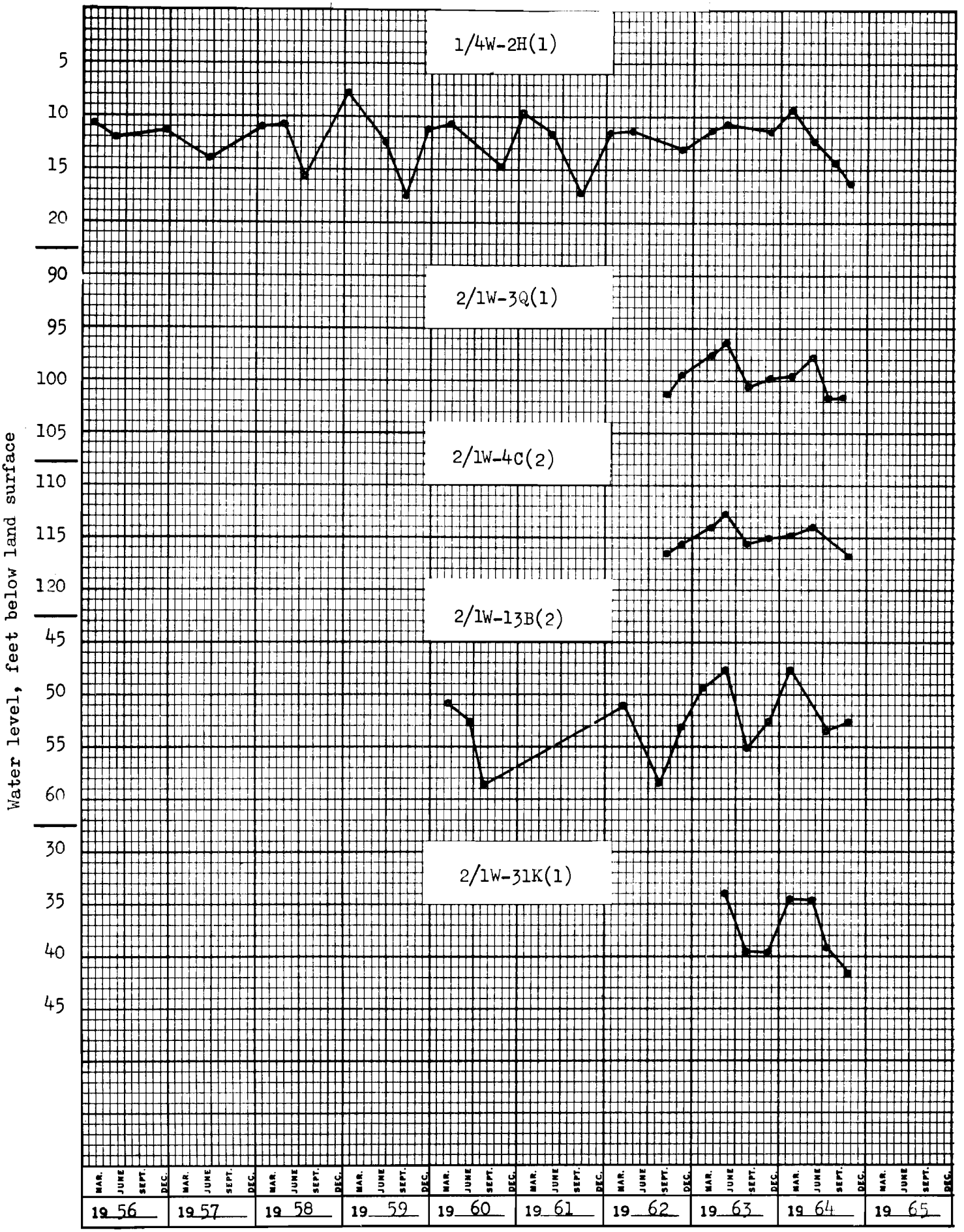
2/1W-3Q(1) (Leonard S. Davis) is a 218-foot drilled well in basalt located about one mile west of Tigard

2/1W-4C(2) (Harris H. Hanson) is a 600-foot well drilled in basalt located about two miles west of Tigard.

2/1W-13B(2) (Ralph Sittel) is a 162-foot drilled well in sand located about one and one-half miles northeast of Tualatin.

2/1W-31K(1) (Ralph Reynolds) is a 215-foot drilled well in basalt located about one mile southwest of Sherwood.

TUALATIN VALLEY (1)



PORTLAND METROPOLITAN AREA (2)

The westside business district of Portland is one of the most concentrated areas of large ground-water developments in the Portland Metropolitan Area. Ground water is used for heating and cooling of many of the large office buildings.

The westside business district is underlain by water-bearing alluvial sand and gravel deposits and the Columbia River Basalt Formation. The water-bearing gravels are separated from the underlying basalt by a section of silt and clay known as the Sandy River Mudstone. Wells develop water from both the gravels and basalt. Owing to sewer charges, many operators have constructed recharge wells for the disposal of waste water. Some operators pump water from the basalt and dispose of water in the gravels and some operators pump water from the gravels and dispose of water into the basalt. This seasonal transfer of water from one formation to another and difference in water quality and water temperature has created a very complex hydrologic condition.

OBSERVATION WELLS

1/1-3D(3) (Pacific Power & Light Co. - Public Service Bldg.) is a 100-foot drilled well in gravel in the westside business district.

1N/1-33C(2) (Good Samaritan Hospital) is a 400-foot drilled well in basalt in the westside business district.

1/1-10P(1) (J. Donald Kroeker & Associates) is a 486-foot drilled well in basalt in Westside Portland near Ross Island.

1N/1-33L(1) (Fred Meyer, Inc.) is a 195-foot drilled well in gravel in the westside business district.

1N/1-34N(6) (Pittock Block, Inc.) is a 96.6-foot drilled well in gravel in the westside business district.

REFERENCES

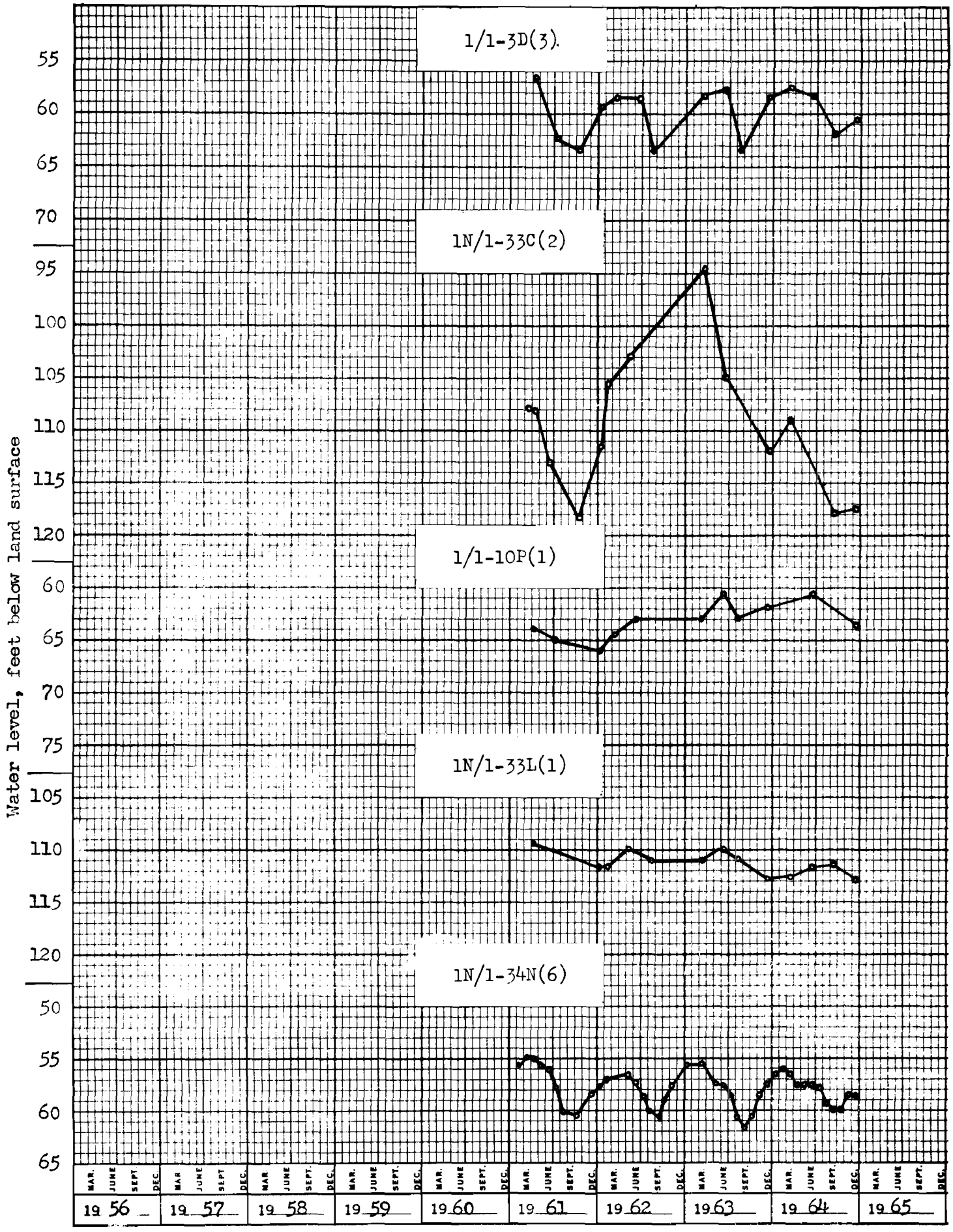
Brown, S. G., 1963, Problems of utilizing ground water in the westside business district of Portland, Oregon: U. S. Geological Survey Water Supply Paper 1619-O.

Foxworthy, B. L., Hogenson, G. M., and Hampton, E. R., 1964, Records of wells and springs, water levels and chemical quality of ground water in the East Portland Area, Oregon: State Engineer Ground Water Report No. 3.

Griffin, W. C., et. al., 1956, Water resources of the Portland, Oregon and Vancouver, Washington area: U. S. Geological Survey Circular 372.

Hogenson, G. M., 1962, Ground water in the East Portland area, Oregon: U. S. Geological Survey open-file report.

PORTLAND METROPOLITAN AREA (2)

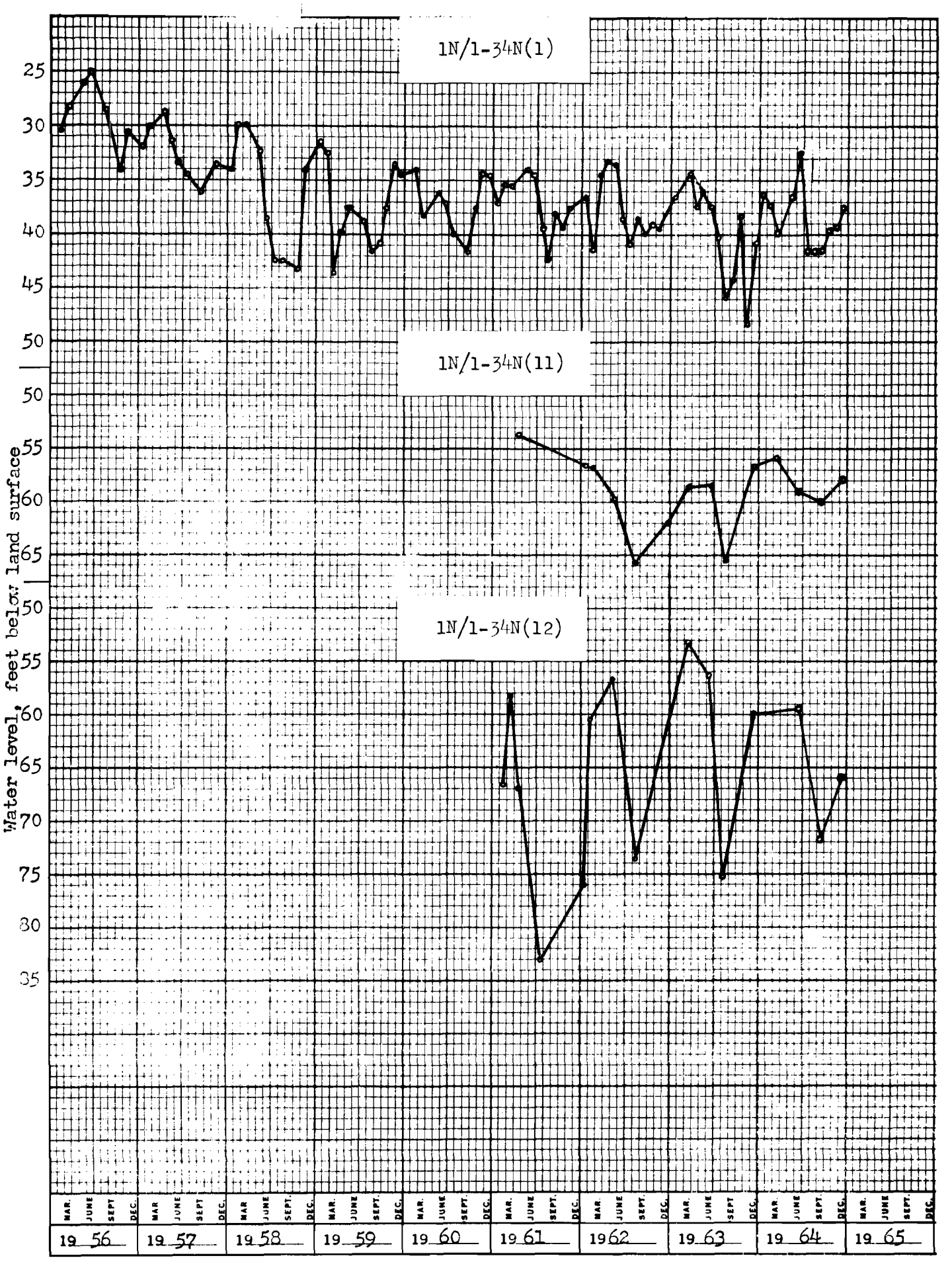


1N/1-34N(1) (Weisfield's Inc.) is a 155-foot drilled well in gravel in the westside business district. Periodic water level measurements available from 1940 to date.

1N/1-34N(11) (Dirks Medical Center) is a 418-foot drilled well in basalt in the westside business district.

1N/1-34N(12) (Federal Reserve Bank) is a 755-foot drilled well in basalt in the westside business district.

PORTLAND METROPOLITAN AREA (2)



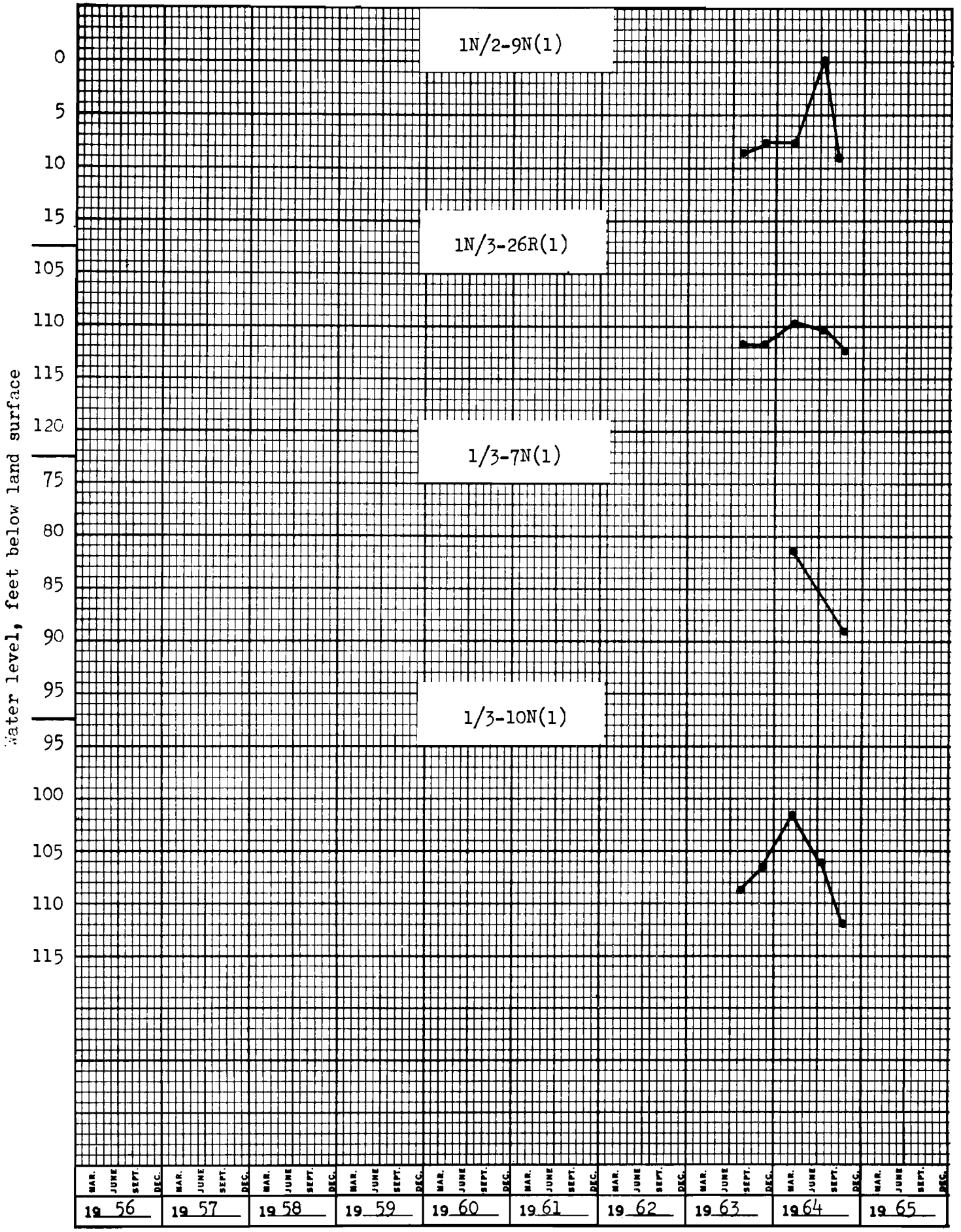
1N/2-9N(1) (Port of Portland) is a 155-foot drilled well in sand and gravel located about one mile north of Parkrose.

1N/3-26R(1) (Kazuo Fujii) is a 478-foot drilled well in gravel located about one mile southwest of Troutdale.

1/3-7N(1) (Meadowland Dairy) is a 261-foot drilled well in sand and gravel located about two miles southwest of Gresham.

1/3-10N(1) (Forest Lawn Memorial Park) is a 715-foot drilled well in gravel located in Gresham.

PORTLAND METROPOLITAN AREA (2)



THE DALLES AREA (3)

The area in and around Dalles City has been declared a "Critical Ground Water Area" because of declining water levels. The ground-water reservoir developed by most of the municipal, industrial and irrigation wells develop ground water from a very permeable zone in the Columbia River Basalt Formation. This zone has been named The Dalles Ground Water Reservoir and is locally known as "The Dalles Pool." The 1964 spring high position of the water level in The Dalles Ground Water Reservoir was at an altitude of about 42 feet or some 31 feet below the adjacent level of the Bonneville pool in the Columbia River. Without a reduction in ground-water withdrawals or an increase in ground-water recharge, ground water levels in The Dalles Ground Water Reservoir will continue to decline.

OBSERVATION WELLS

1N/13-3E(1) (Dalles City - City Hall Well) is a 200.5-foot drilled well in The Dalles Ground Water Reservoir. Periodic water level measurements available from 1926-1930; 1951-1952 and 1958 to date.

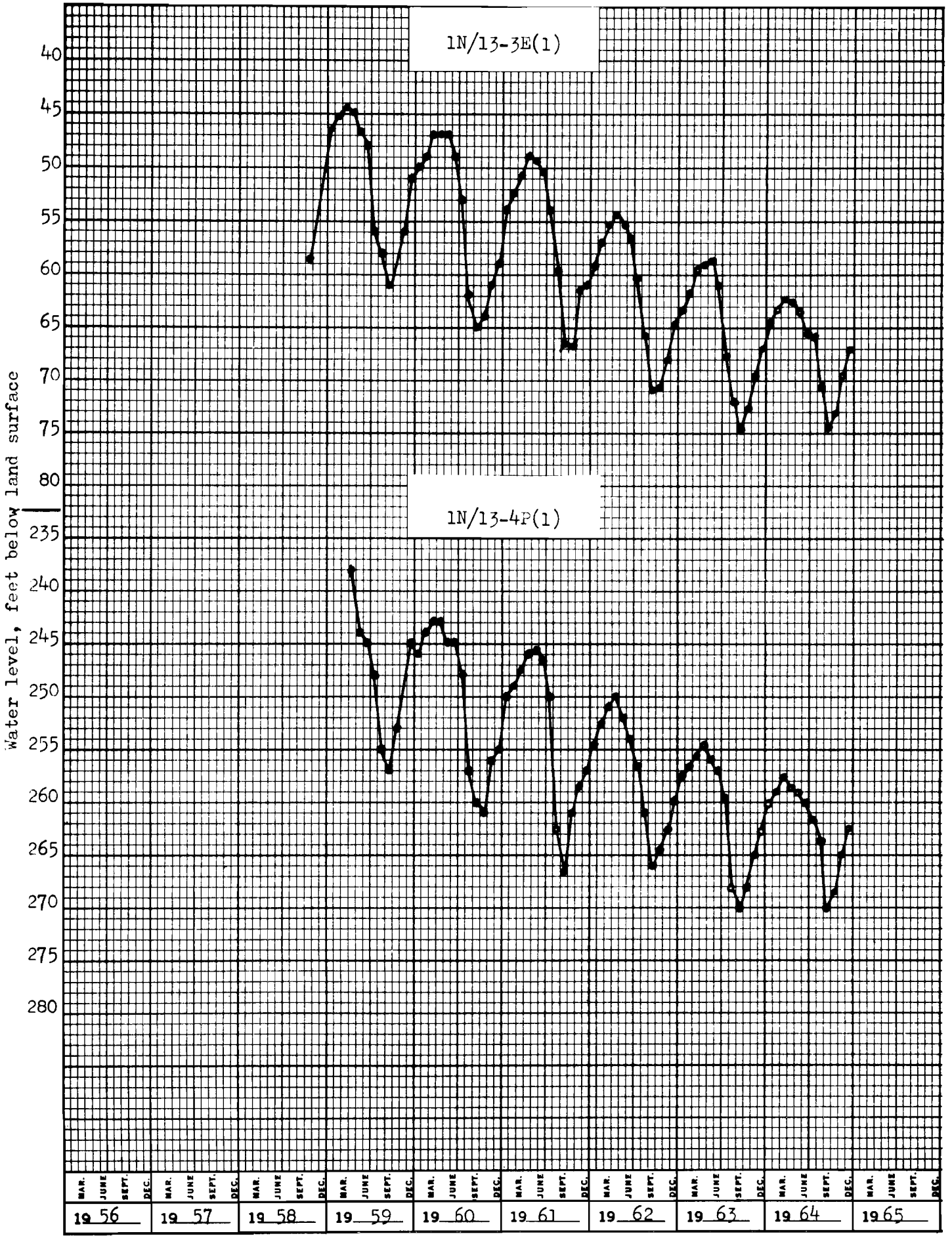
1N/13-4P(1) (Dalles City - Marx Well) is a 570-foot drilled well in The Dalles Ground Water Reservoir.

Measurements on Wamic Water Coop Association Well 4/12-14D(1) were discontinued as the pump control electrodes in the well prevent its recovery to static level.

REFERENCES

Piper, A. M., 1932, Geology and ground-water resources of The Dalles Region, Oregon: U. S. Geological Survey Water Supply Paper 659-B.

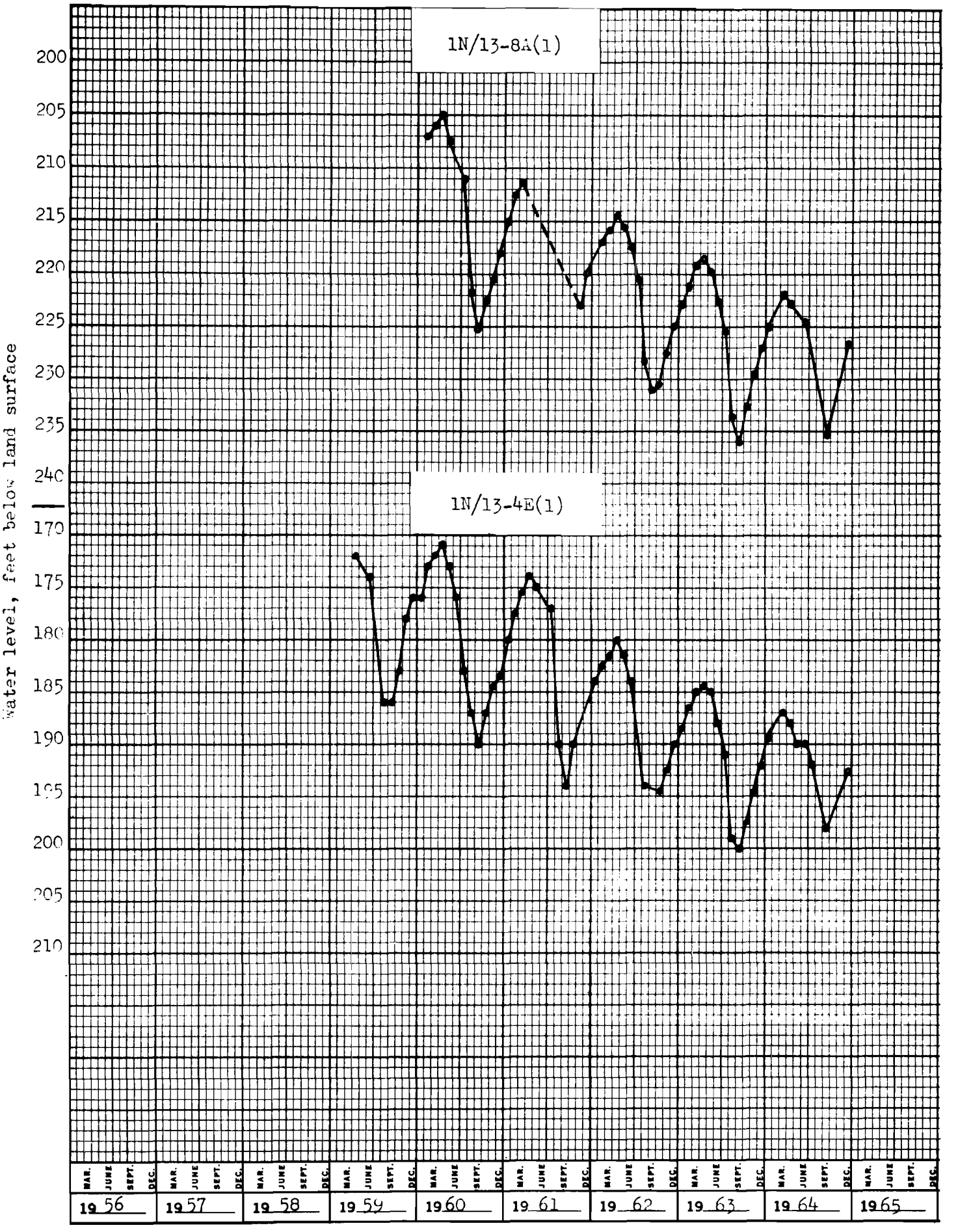
THE DALLES AREA (3)



1N/13-8A(1) (G. S. Williams) is a 341-foot drilled well in The Dalles Ground Water Reservoir.

1N/13-4E(1) (Odd Fellows Cemetery) is a 306-foot drilled well in The Dalles Ground Water Reservoir.

THE DALLES AREA (3)

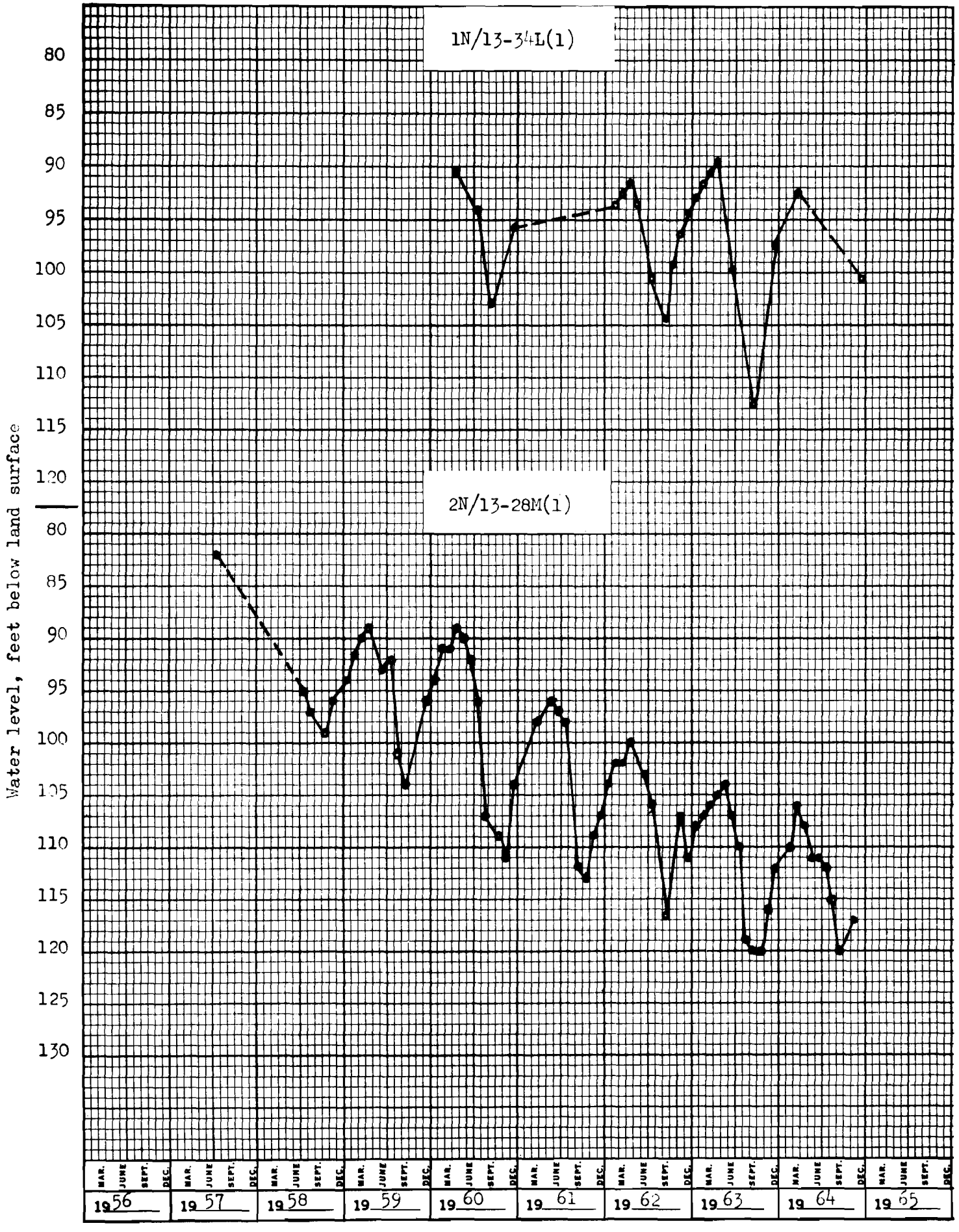


THE DALLES AREA (3)

1N/13-34L(1) (William O. Wright & Walter Cruikshank) is a 500-foot drilled well in basalt located in the Fivemile Creek Valley.

2N/13-28M(1) (Harvey Aluminum Company) is a 314-foot drilled well in The Dalles Ground Water Reservoir.

THE DALLES AREA (3)



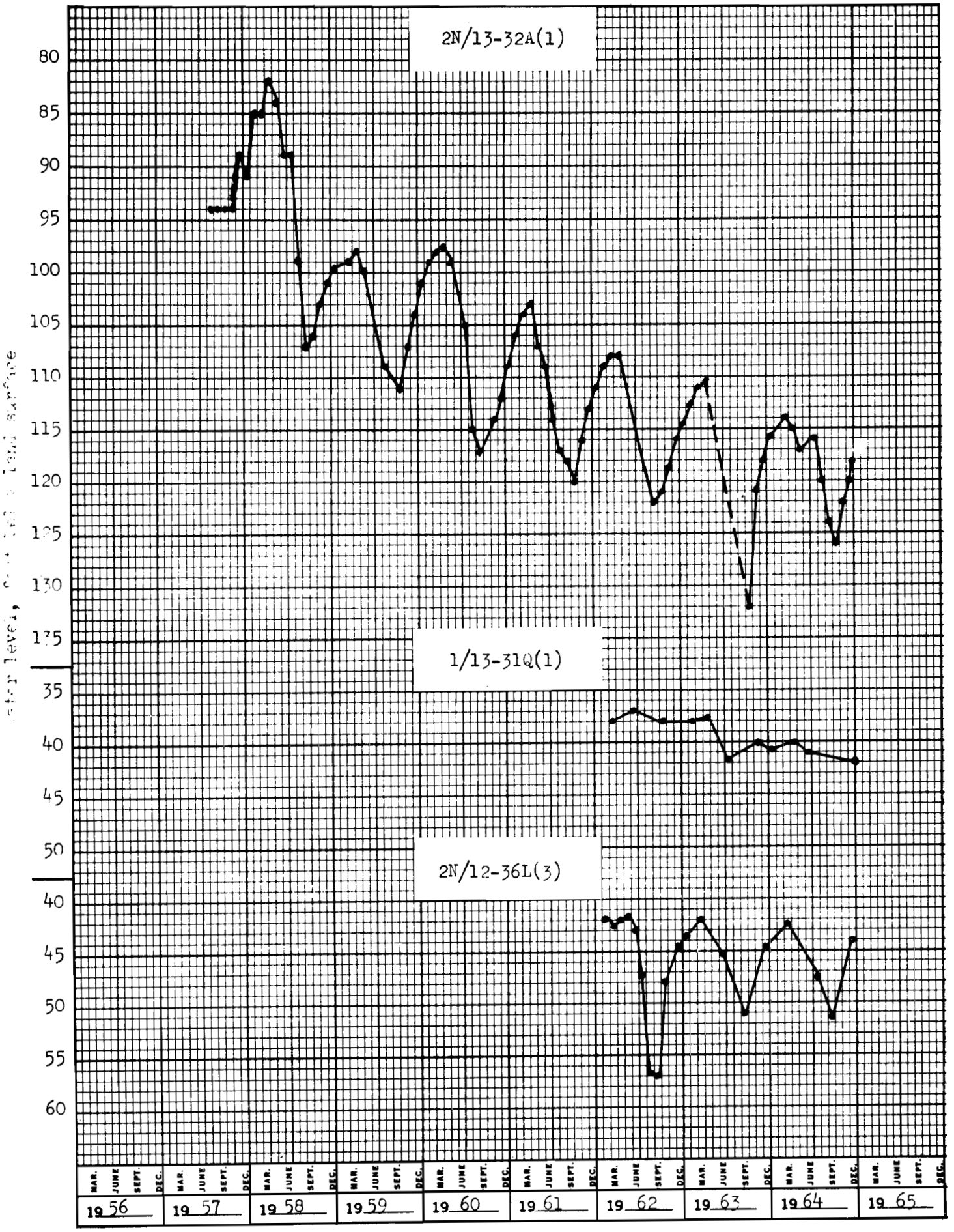
THE DALLES AREA (3)

2N/13-32A(1) (Chenowith Irrigation Coop) is a 275-foot drilled well in The Dalles Ground Water Reservoir.

1/13-31Q(1) (Harvey McAllister) is a 111-foot drilled well in basalt located near Dufur.

2N/12-36L(3) (W. S. Nelson) is a 320-foot drilled well in sandstone in the Chenowith Valley.

THE DALLES AREA (3)

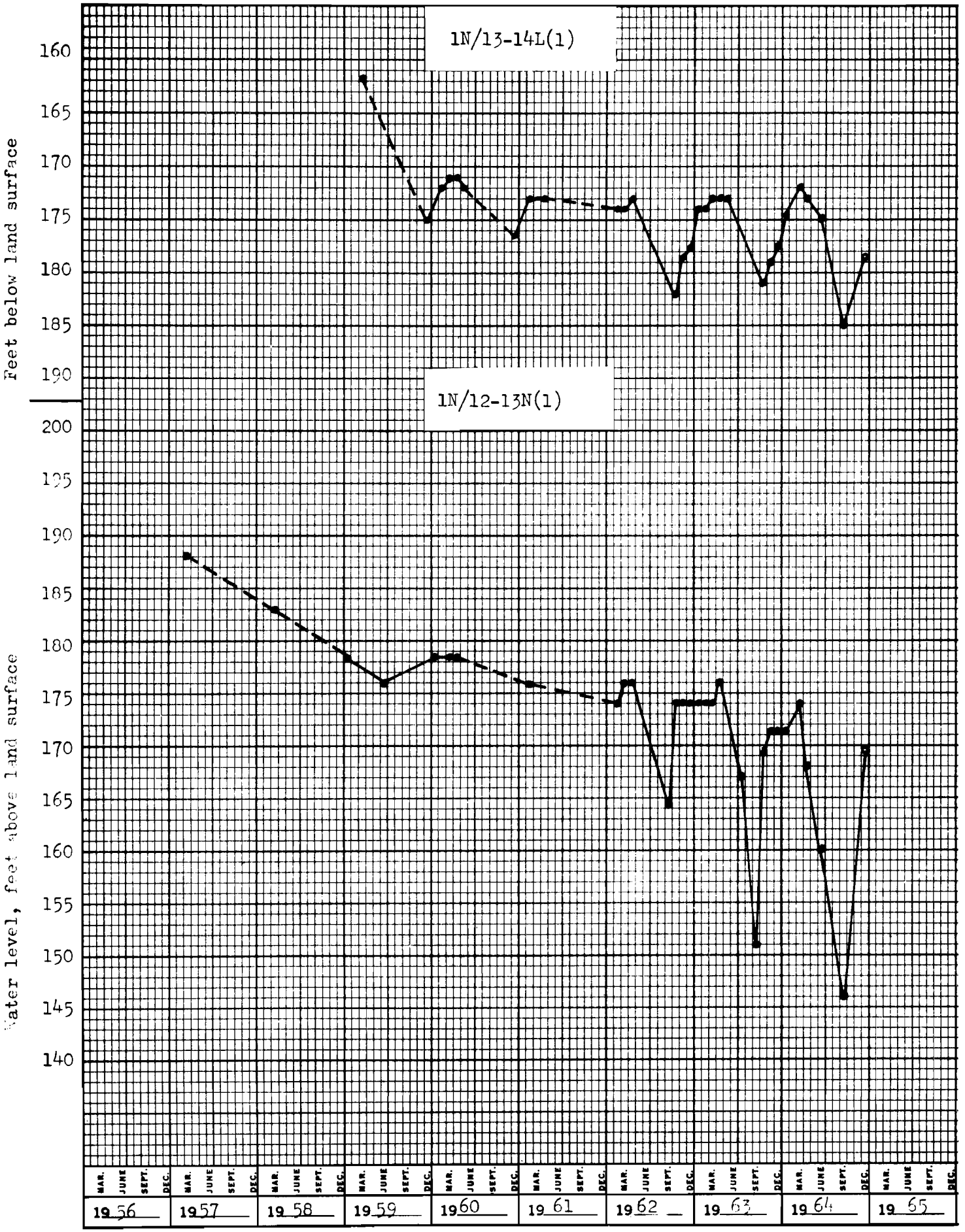


THE DALLES AREA (3)

1N/13-14L(1) (Dewey Wagenblast) is a 230-foot drilled well in basalt located in the Three Mile Creek Valley.

1N/12-13N(1) (Julius Sandoz) is a 572-foot drilled artesian well in basalt located in the Mill Creek Valley.

THE DALLES AREA (3)



COLUMBIA SLOPE AREA (4)

The Columbia Slope area includes the broad northward sloping area in northwestern Umatilla County and northern Morrow County. A large part of this area is underlain by glaciofluvial deposits of sand and gravel that were deposited by the ancestral Columbia River. These strata are underlain by the Columbia River Basalt Formation. A number of the deep wells in the basalt formation in this area have shown a decline in recent years.

OBSERVATION WELLS

3N/26-4L(1) (Luther Cramer) is a 623-foot drilled well in basalt located about eight miles southwest of Ordnance. Reported as 32R(1) in Ground Water Report No. 4.

4N/27-32J(1) (R. Holzapfel) is a 310-foot drilled well in basalt located about two miles southwest of Ordnance.

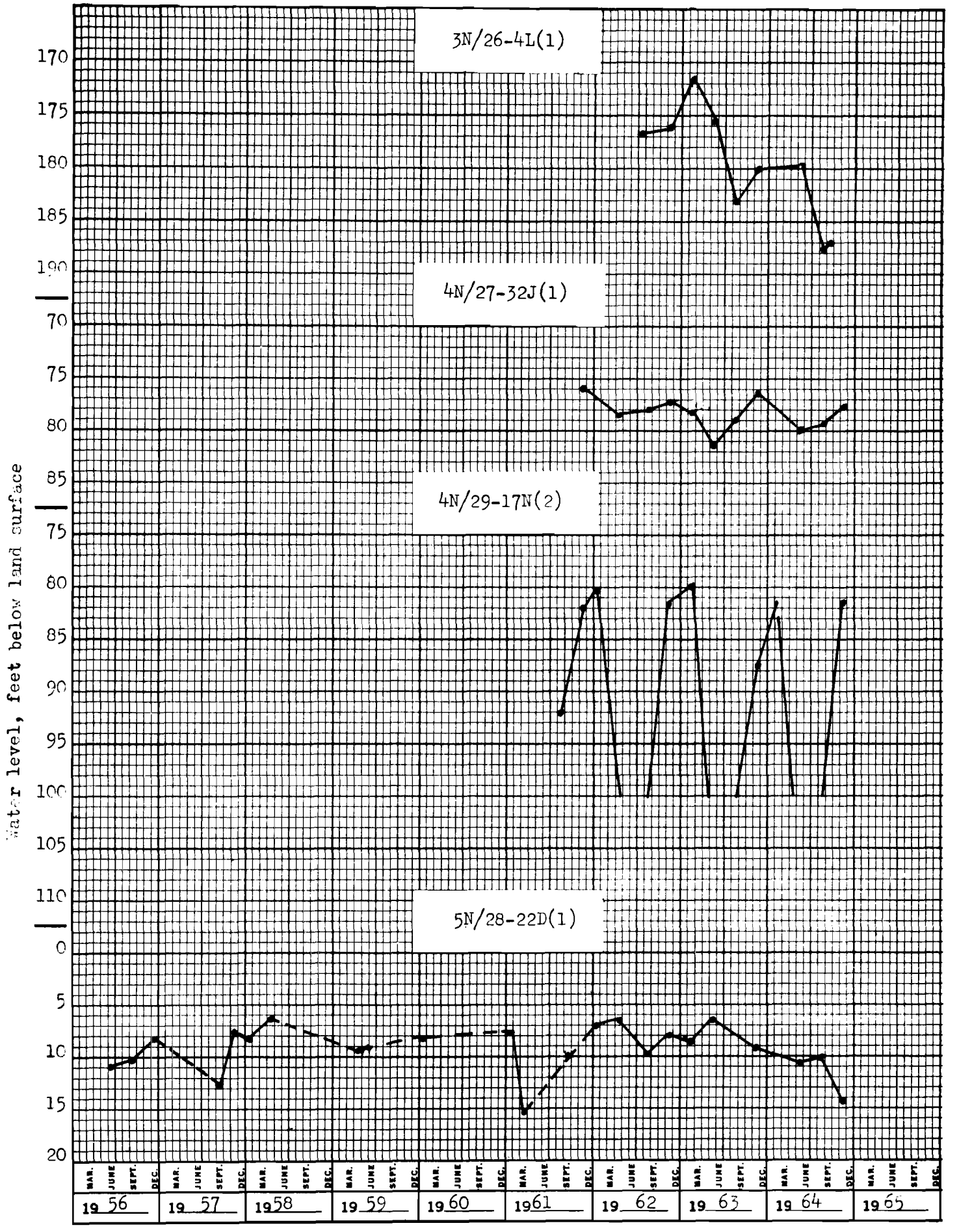
4N/29-17N(2) (Ben Dreyer) is a 207-foot drilled well in white sand located about one mile north of Stanfield.

5N/28-22D(1) (Munson Auto Court) is a 189-foot drilled well in basalt located about three miles south of Umatilla. Periodic water level measurements available from 1953 to date.

REFERENCES

Hogenson, G. M., 1964, Geology and ground water of the Umatilla River Basin, Oregon: U. S. Geological Survey Water Supply Paper 1620.

COLUMBIA SLOPE AREA (4)

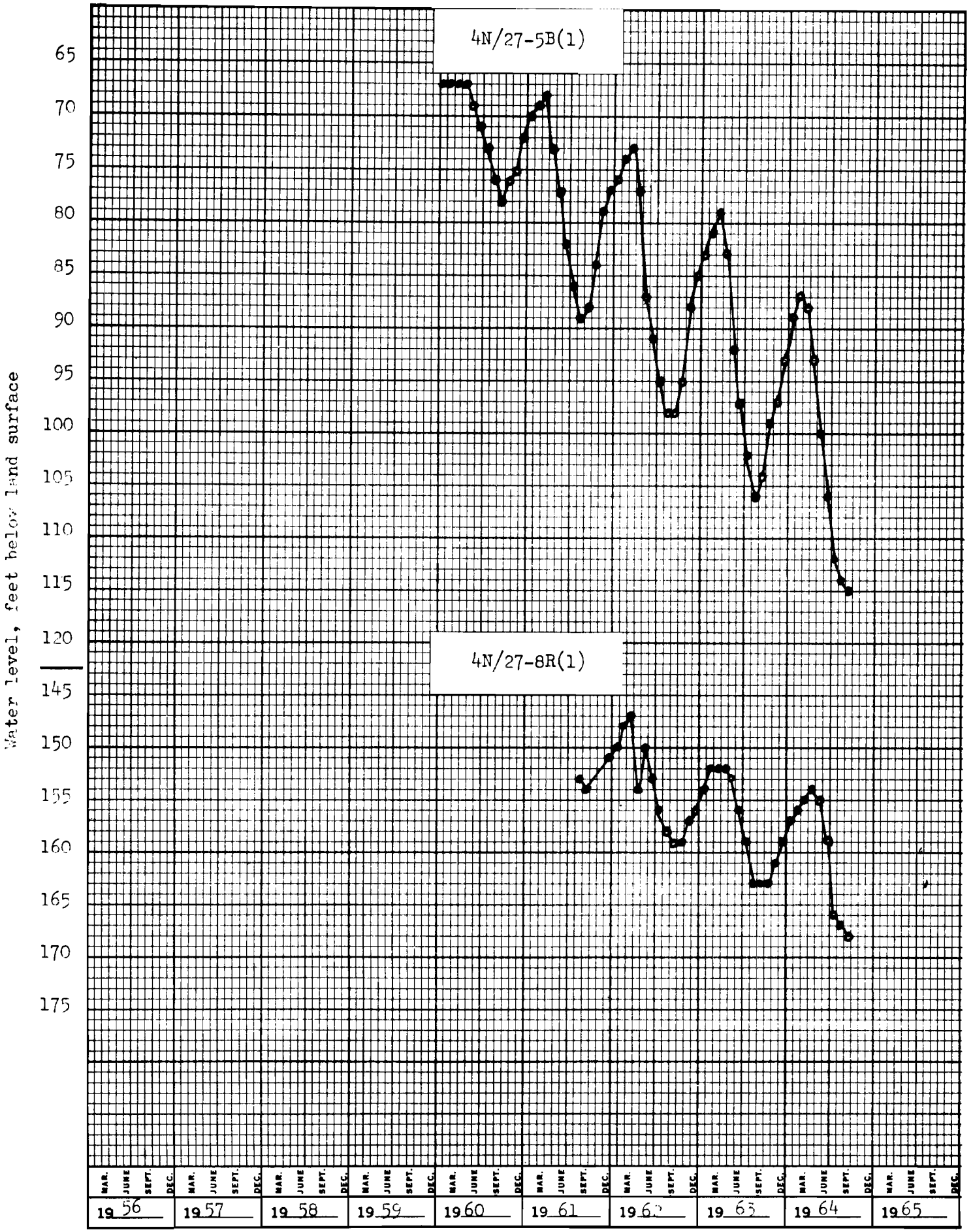


COLUMBIA SLOPE AREA (4)

4N/27-5B(1) (Umatilla Army Depot-Well No. 6) is a 710-foot well in basalt at Ordnance.

4N/27-8R(1) (Umatilla Army Depot-Well No. 3) is a 453-foot well in basalt at Ordnance.

COLUMBIA SLOPE AREA (4)

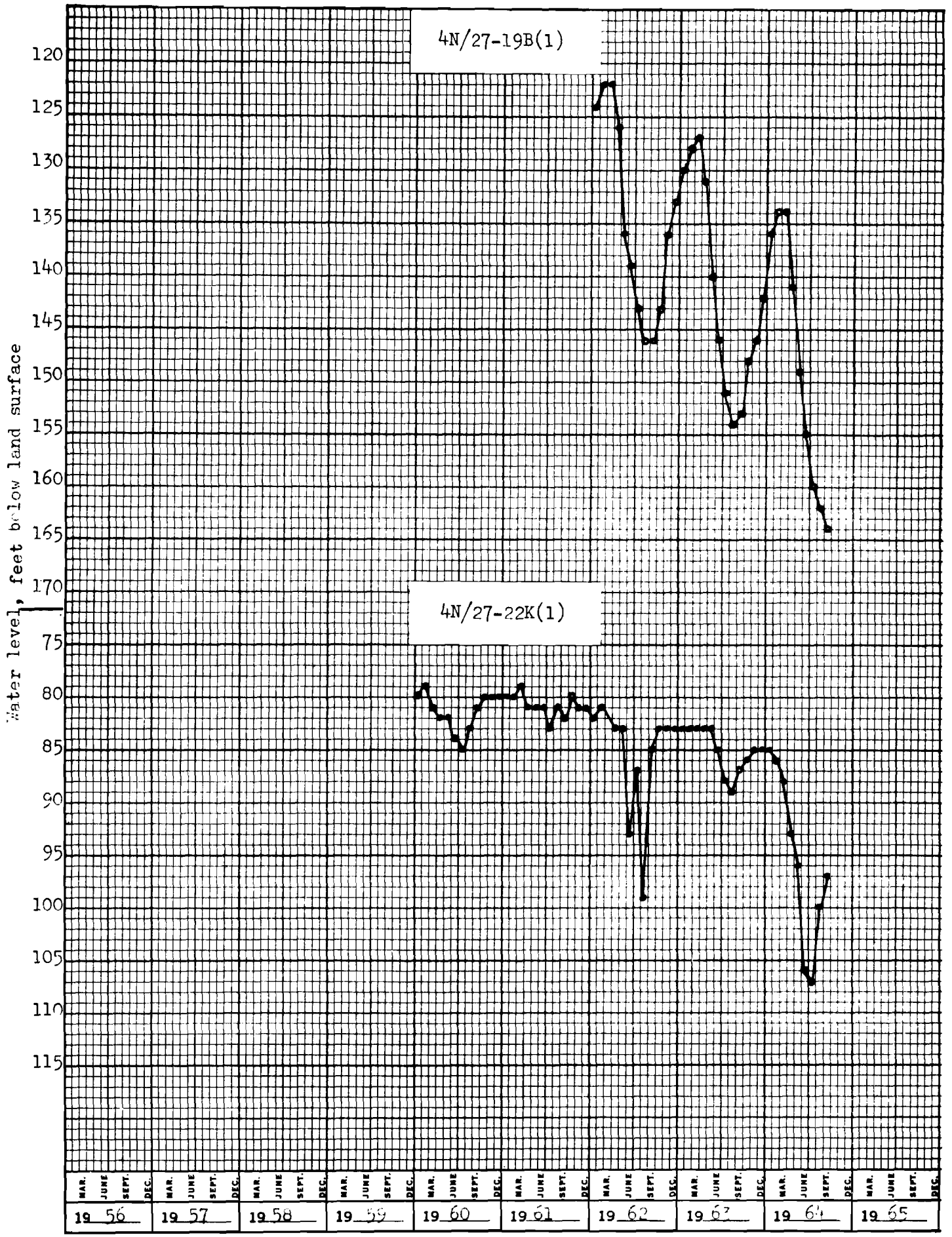


COLUMBIA SLOPE AREA (4)

4N/27-19B(1) (Umatilla Army Depot-Well No. 4) is a 600-foot well in basalt at Ordnance.

4N/27-22K(1) (Umatilla Army Depot-Well No. 2) is a 360-foot well in basalt at Ordnance.

COLUMBIA SLOPE AREA (4)



MILTON-FREEWATER AREA (5)

Milton-Freewater is located at the head of a large alluvial fan where the Walla Walla River flows out of the Blue Mountains. This fan which is in large part composed of coarse gravels is recharged by the Walla Walla River and by irrigation diversions. High water level in many of the wells occurs during the irrigation season.

The alluvial fan is underlain at depth by the Columbia River Basalt Formation. Some of the deep wells in the Milton-Freewater area, which develop ground water from the basalt, have been declining in recent years.

OBSERVATION WELLS

5N/35-1C(1) (Cecil Brodie) is a 37-foot dug well in gravel located near Milton-Freewater. Periodic water level measurements available from 1933 to date.

5N/35-2C(1) (E. J. McSherry) is a 23-foot dug well in sand and gravel located about one mile west of Milton-Freewater. Periodic water level measurements available from 1933 to date.

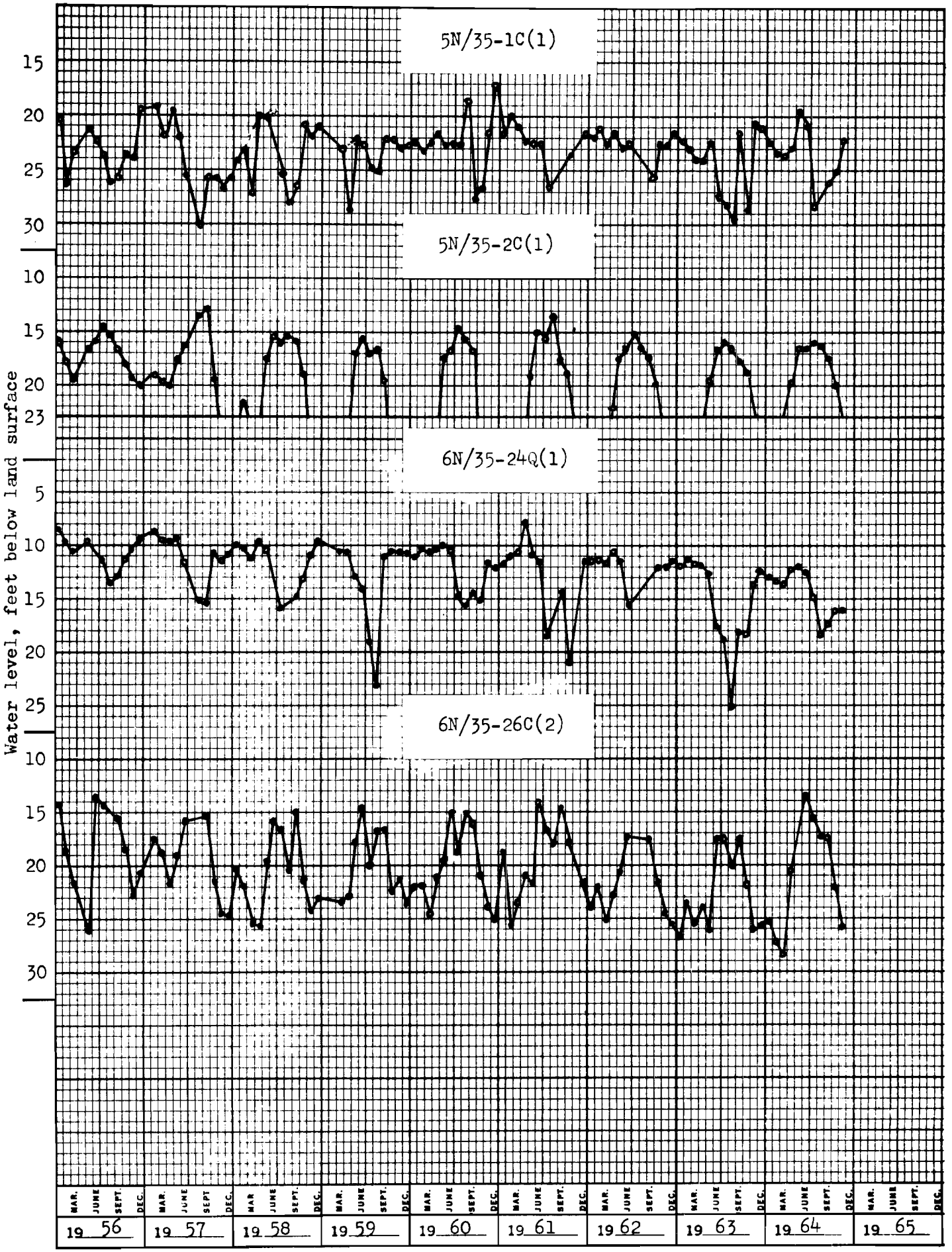
6N/35-24Q(1) (E. Miller) is a 165-foot dug and drilled well in gravel located about three miles north of Milton-Freewater. Periodic water level measurements available from 1933 to date.

6N/35-26C(2) (Earl Ransom) is a 110-foot dug and drilled well in gravel located about two miles north of Milton-Freewater. Periodic water level measurements available from 1933 to date.

REFERENCES

Newcomb, R. C., 1951, Preliminary report on the ground-water resources of the Walla Walla Basin, Washington-Oregon: U. S. Geological Survey open-file report.

MILTON-FREEWATER AREA (5)

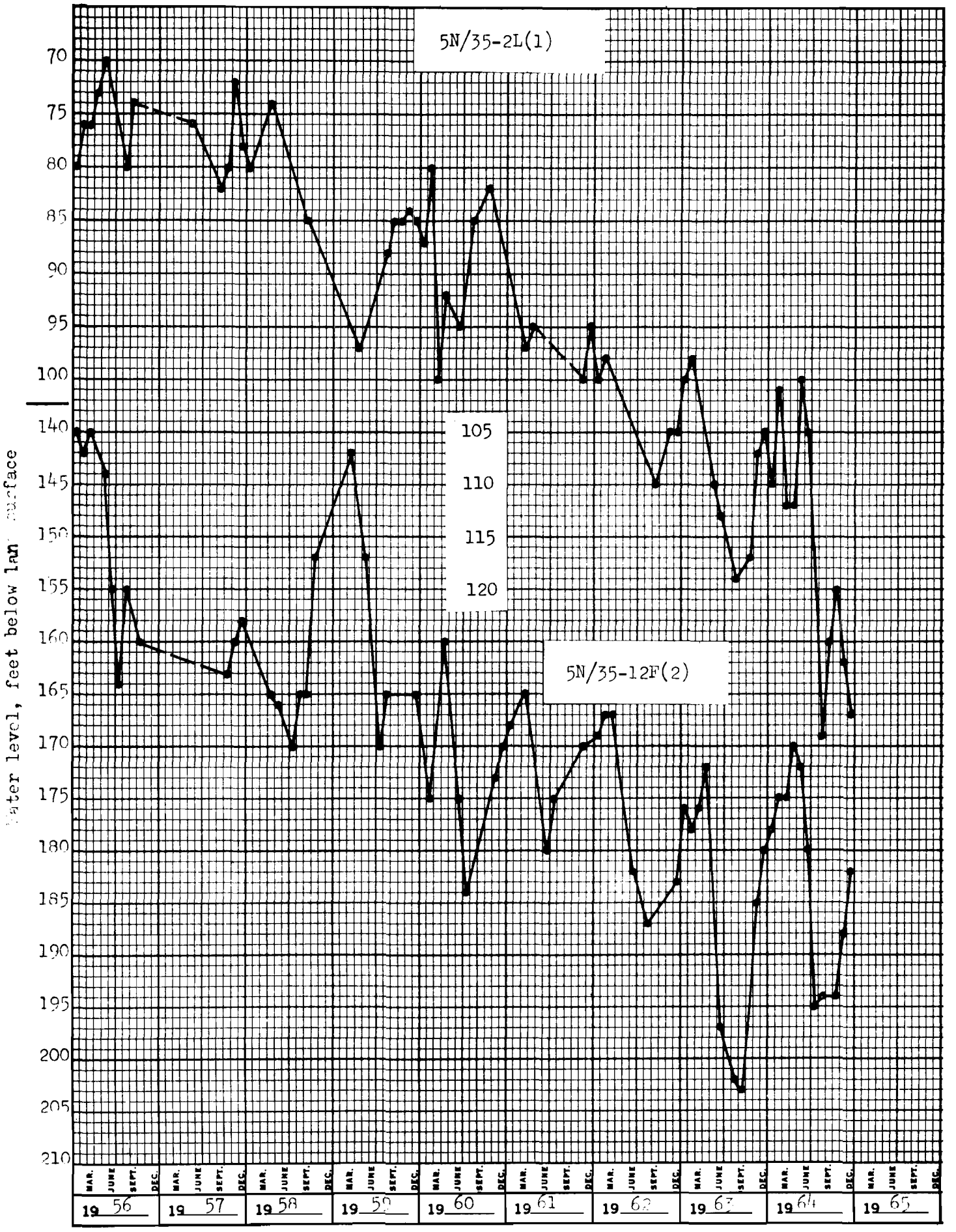


MILTON-FREEWATER AREA (5)

5N/35-2L(1) (City of Milton-Freewater, Well No. 6) is a 952-foot drilled well in the Columbia River Basalt formation. The well is located within the City of Milton-Freewater.

5N/35-12F(2) (City of Milton-Freewater, Well No. 1) is a 652-foot drilled well in the Columbia River Basalt formation. The well is located within the City of Milton-Freewater.

MILTON-FREEWATER AREA (5)



PENDLETON-PILOT ROCK AREA (6)

The Pendleton-Pilot Rock area lies in a structural valley in the Columbia River Basalt formation. This structural valley has been partially filled with sand and gravel deposits. The deep wells all develop water from the basalt formation.

OBSERVATION WELLS

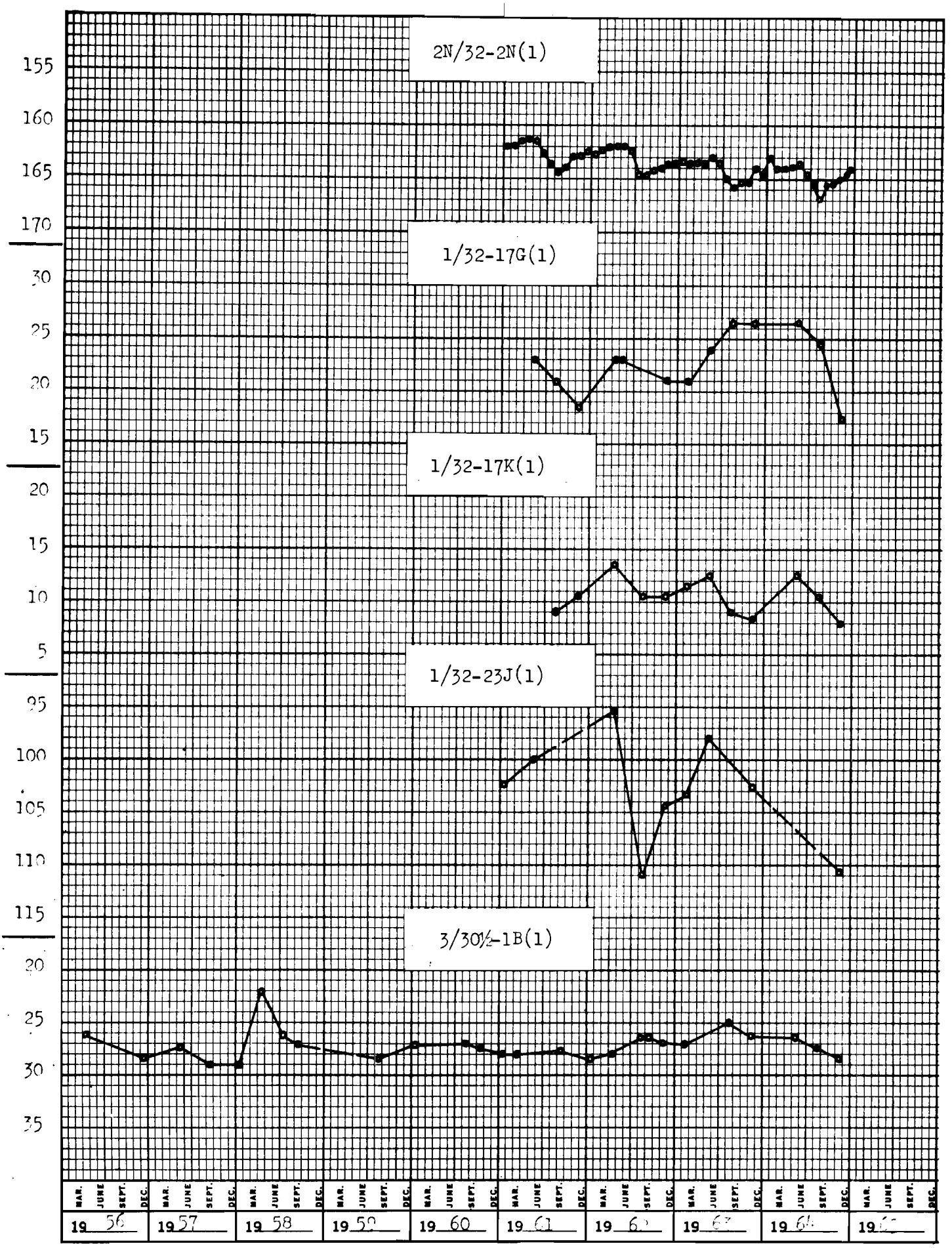
2N/32-2N(1)	(City of Pendleton - Stillman Park Well) is a 700-foot drilled well in the Columbia River Basalt formation. Well is located in Pendleton.
1/32-17G(1)	(City of Pilot Rock - Well No. 1) is a 309-foot drilled well developing confined ground water from the Columbia River Basalt formation.
1/32-17K(1)	(City of Pilot Rock - Well No. 2) is a 486-foot drilled well developing confined ground water from the Columbia River Basalt formation.
1/32-23J(1)	(Hilmer Horn) is a 774-foot drilled well in basalt located about four miles southeast of Pilot Rock.
3/30½-1B(1)	(Joseph Pedro) is a 99-foot drilled well in basalt located about ten miles southwest of Pilot Rock.

REFERENCES

Brown, Stuart G., 1955, Inquiry into the reported interference between artesian wells near Pilot Rock, Oregon: U. S. Geological Survey open-file report.

Hogenson, G. M., 1964, Geology and ground water of the Umatilla River Basin, Oregon: U. S. Geological Survey Water Supply Paper 1620.

PENDLETON-PILOT ROCK AREA (6)



GRANDE RONDE VALLEY (7)

The Grande Ronde Valley is a broad, deep, structural valley that has been partially filled with lake and stream deposited clays, silts, sands and gravels. The coarse-grained sand and gravel deposits are confined chiefly to the alluvial fans that have formed where the larger streams flow into the valley. The deeper materials in the basin fill are chiefly fine-grained silts and clays.

The basin is underlain by the Columbia River Basalt Formation which contains confined ground water. Wells drilled into the basalt generally flow at the surface. Many new irrigation wells have been drilled during the past year. Some of these develop several thousand gallons per minute from the sand and gravel deposits.

OBSERVATION WELLS

1N/38-21C(1) (Mr. Schmittel) is a 67-foot drilled well in gravel located about nine miles southwest of Elgin along Willow Creek.

1/38-24R(1) (H. L. Wagner) is a 1,150-foot artesian well in basalt located near Imbler. Periodic water level measurements available from 1950 to date.

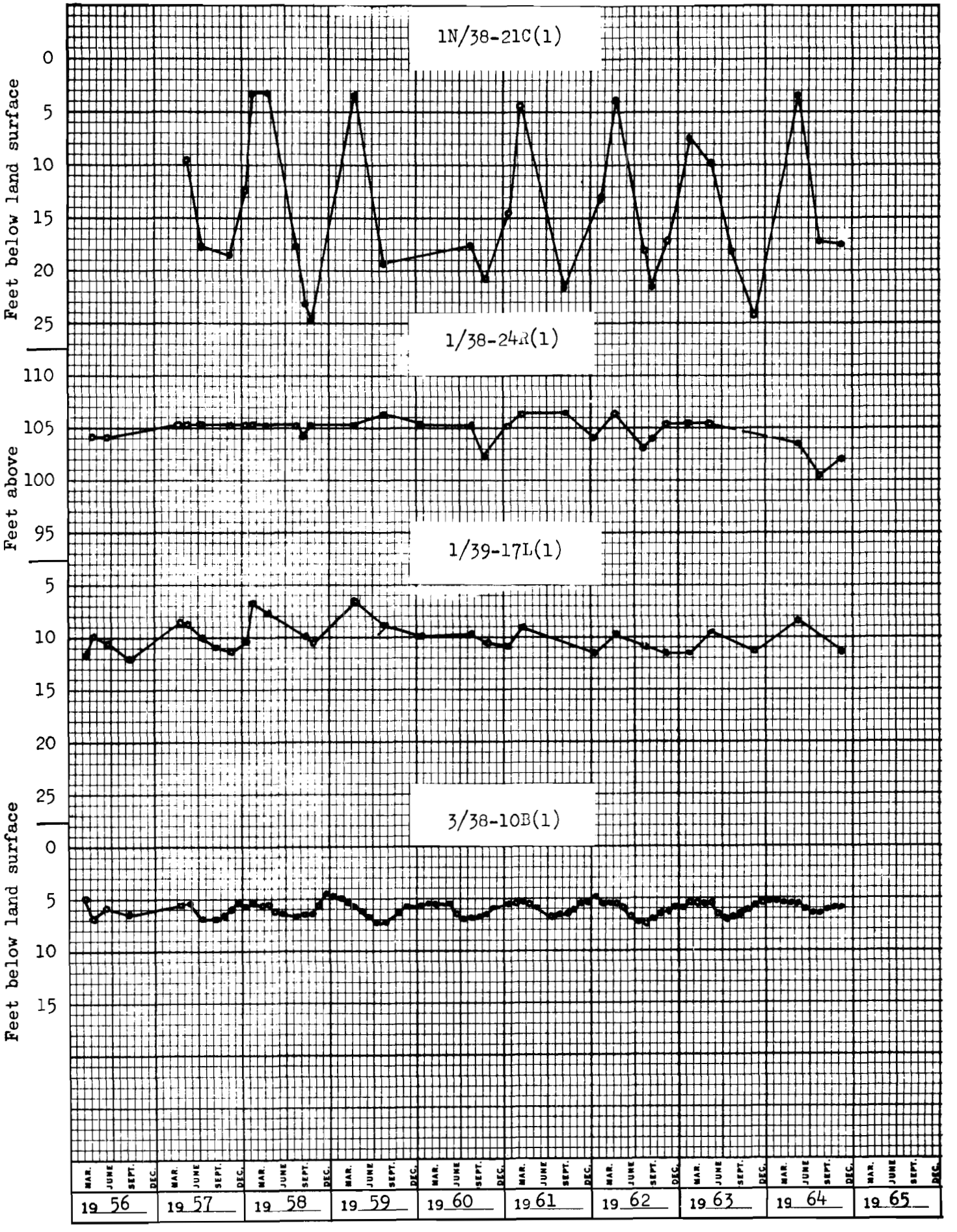
1/39-17L(1) (A. F. Furman) is a 44.6-foot drilled well in sand located near Imbler. Periodic water level measurements available from 1940 to date.

3/38-10B(1) (Union County) is a 11-foot dug well in sand and gravel located near the La Grande golf course. Periodic water level measurements available from 1936 and 1938 to date.

REFERENCES

Hampton, E. R. and Brown, S. G., 1964, Geology and ground-water resources of the Upper Grande Ronde River Basin Union County, Oregon: U. S. Geological Survey Water Supply Paper 1597.

GRANDE RONDE VALLEY (7)



GRANDE RONDE VALLEY (7)

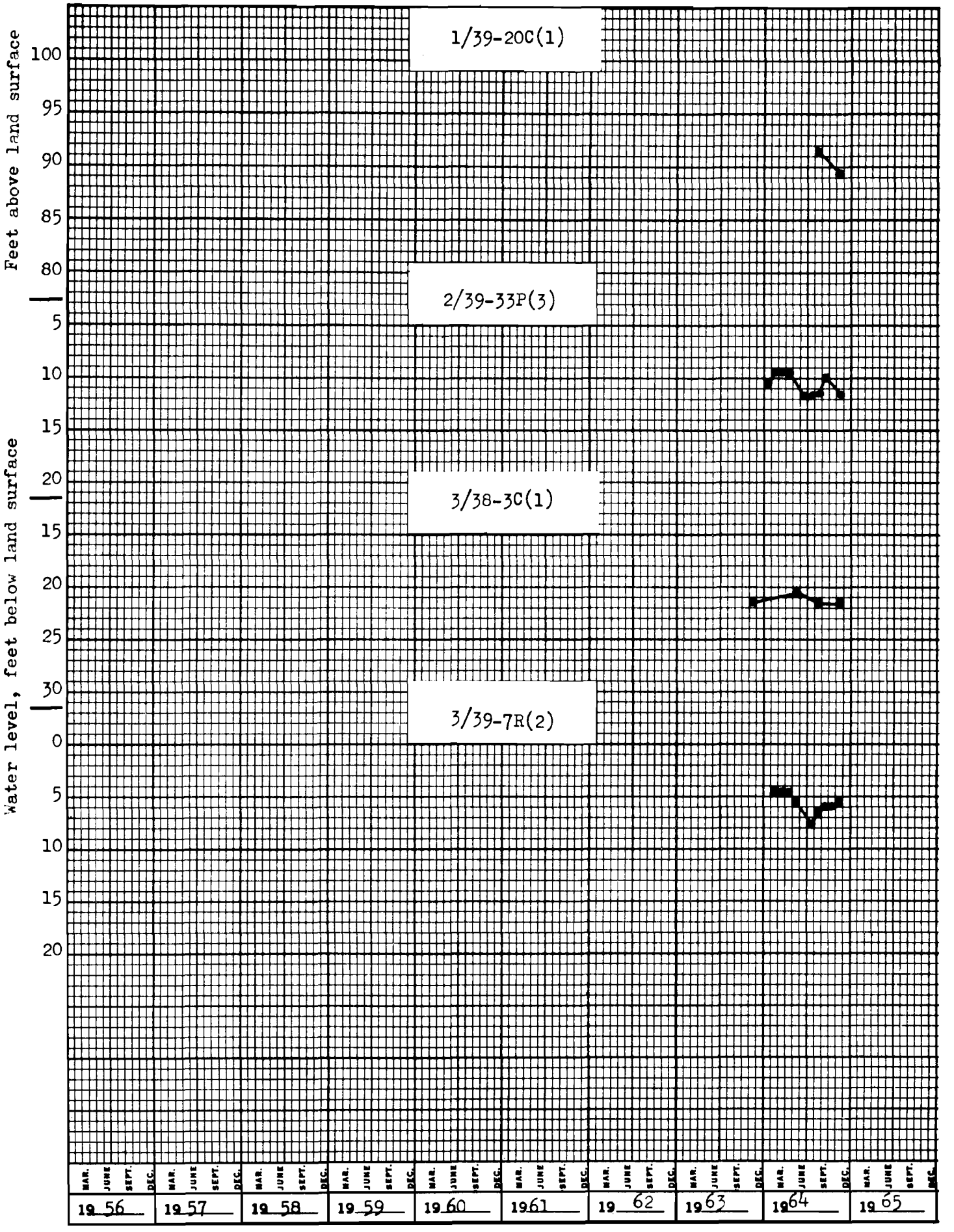
1/39-20C(1) (Clayton Fox) is a 1,468-foot artesian well in basalt located about one mile north of Imbler.

2/39-33P(3) (Wilfred Hamann) is a 430-foot test well located about seven miles east of La Grande.

3/38-3C(1) (Glen Lester) is a 315-foot well in Island City.

3/39-7R(2) (Stanley Weishaar) is a 394-foot test well located about five miles east of La Grande.

GRANDE RONDE VALLEY (7)



BAKER VALLEY (8)

The Baker Valley is a broad structural basin that has been partially filled with lake and stream deposits. The coarser-grained sand and gravel deposits are confined chiefly to the large alluvial fans that have been formed by streams flowing out of the Elkhorn Mountains.

At many places in the Baker Valley the water table is at or near land surface which indicates that the ground-water reservoirs are full. Ground-water developments in parts of the Valley would aid in solving drainage problems.

OBSERVATION WELLS

8/39-22F(1) (Baker County) is an 11-foot dug well in sand and gravel in the Baker Valley. Periodic water level measurements available for 1936 and from 1938 to date.

8/40-19D(1) (Baker County) is a 9-foot dug well in sand and gravel in the Baker Valley. Periodic water level measurements available for 1936 and from 1938 to date.

9/39-2N(1) (Kermit Hansen - formerly Chris Lee) is a 321-foot drilled well in the Baker Valley. Periodic water level measurements available from 1949 to date.

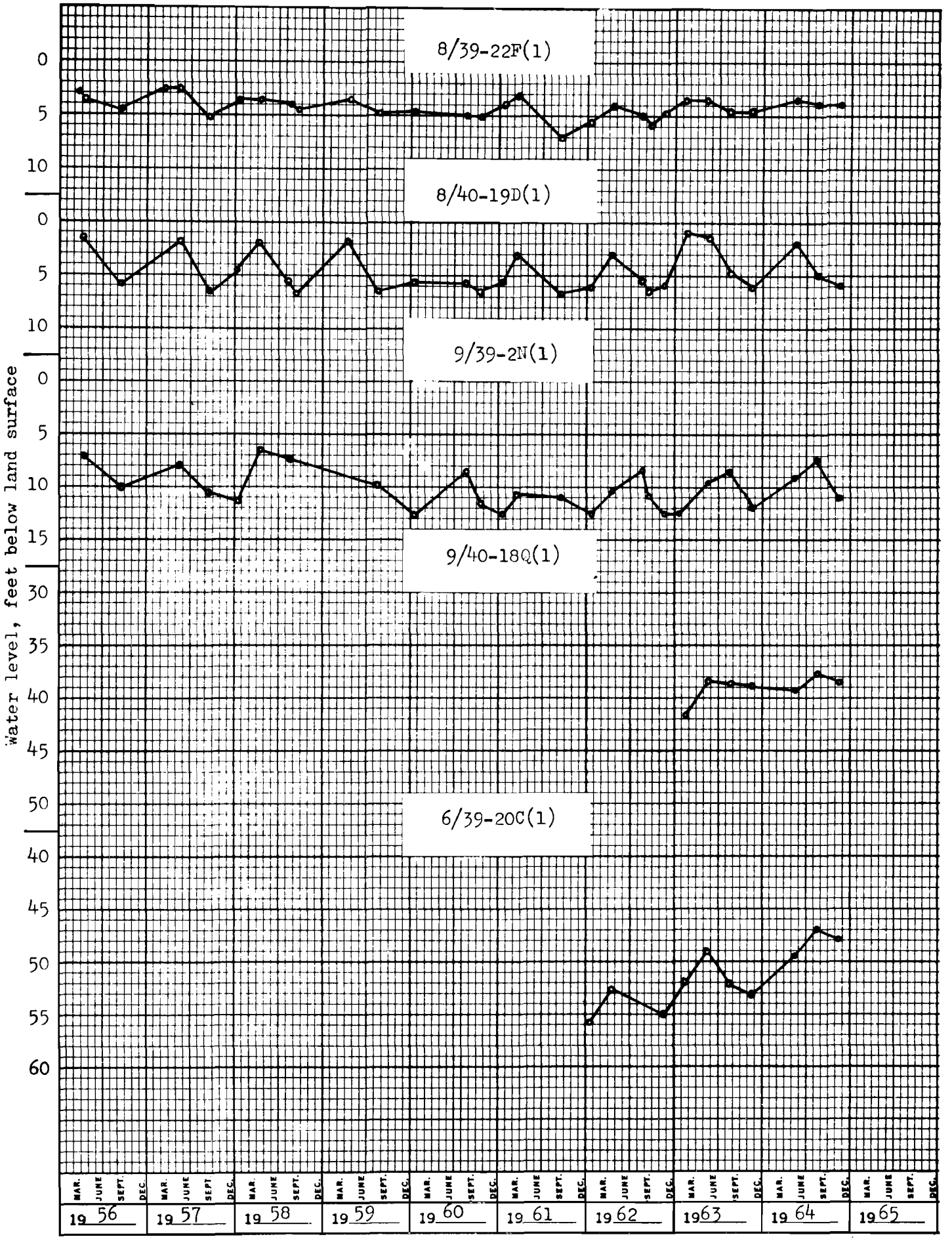
9/40-18Q(1) (Paul Hill) is a 575-foot drilled well in gravel in the Baker Valley.

6/39-20C(1) (Ed McCanse) is a 562-foot drilled well in gravel near North Powder.

REFERENCES

Trauger, Frederick D., 1951, Ground water resources of Baker Valley, Baker County Oregon: U. S. Geological Survey open-file report.

BAKER VALLEY (8)



UPPER JOHN DAY VALLEY (9)

The Upper John Day Valley is a long narrow valley. The valley floor is underlain with alluvial deposits of sand, gravel and boulders. The valley sides are underlain chiefly by the fine-grained John Day formation which is capable of yielding only small supplies of ground water. At places, layers of basalt, which overlie the John Day formation, extend beneath the valley floor and are generally capable of yielding moderate supplies of ground water.

OBSERVATION WELLS

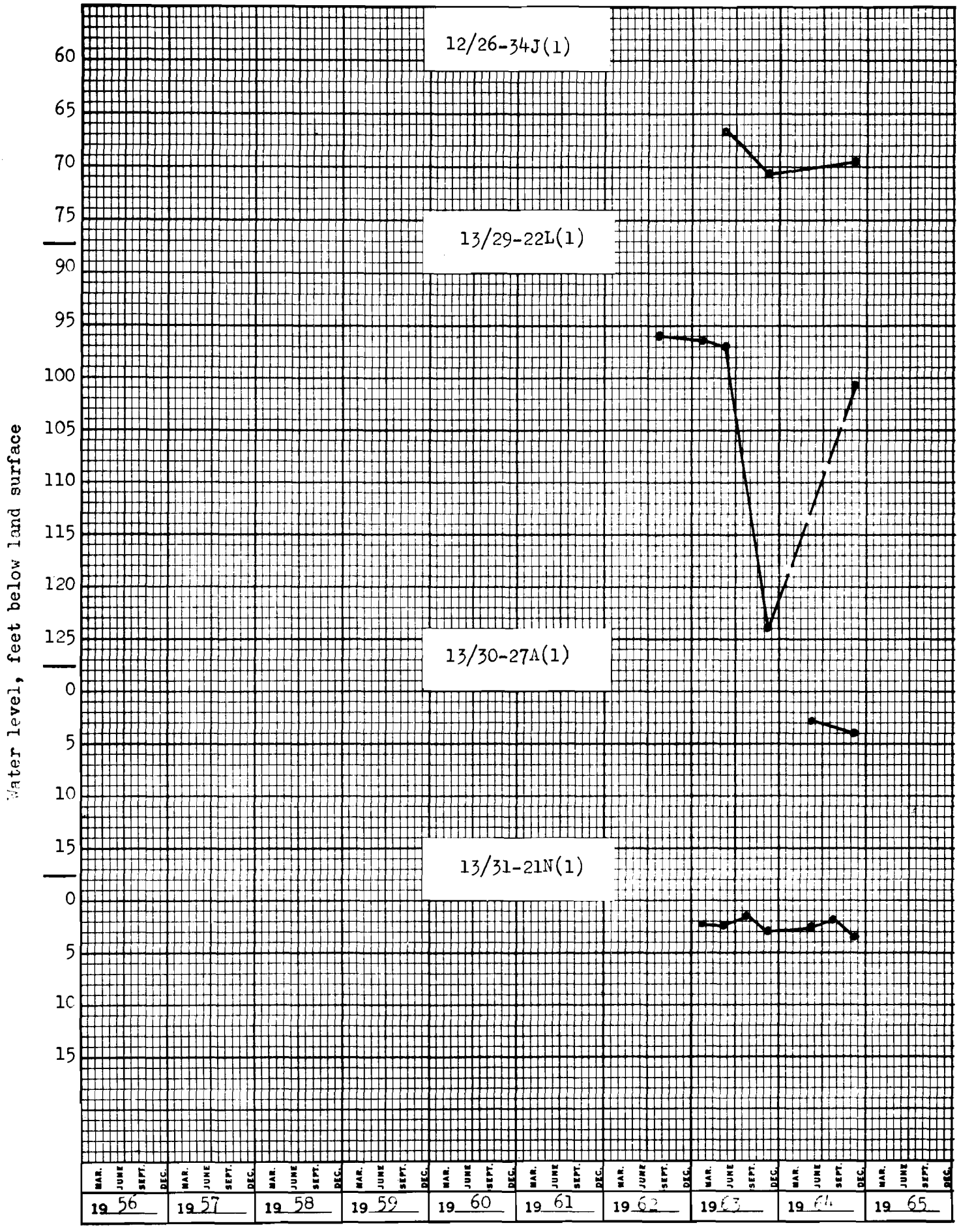
12/26-34J(1) (Dayville Cemetery) is a 465-foot well in sand and gravel located about three miles southwest of Dayville.

13/29-22L(1) (Curtis Martin) is a 215-foot drilled well in gravel located about six miles west of Mt. Vernon.

13/30-27A(1) (State Highway Department - Clyde Holiday Wayside Park) is a 155-foot domestic well in basalt located about one mile east of Mt. Vernon.

13/31-21N(1) (Mt. View Country Club) is a 10-foot dug well in gravel located about one mile west of John Day.

UPPER JOHN DAY VALLEY (9)



COW VALLEY AREA (10)

Cow Valley is a small upland basin in Northern Malheur County that has been determined as a critical ground-water area on the basis of declining water levels. This area has been closed to further ground-water developments and ground water withdrawals have been restricted to the duty of water which is 3 acre feet per acre of irrigated land.

OBSERVATION WELLS

15/40-2J(1) (Max Holloway #1) is a 421-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1950 to date.

15/40-2N(1) (Crow #2) is a 310-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1950 to date.

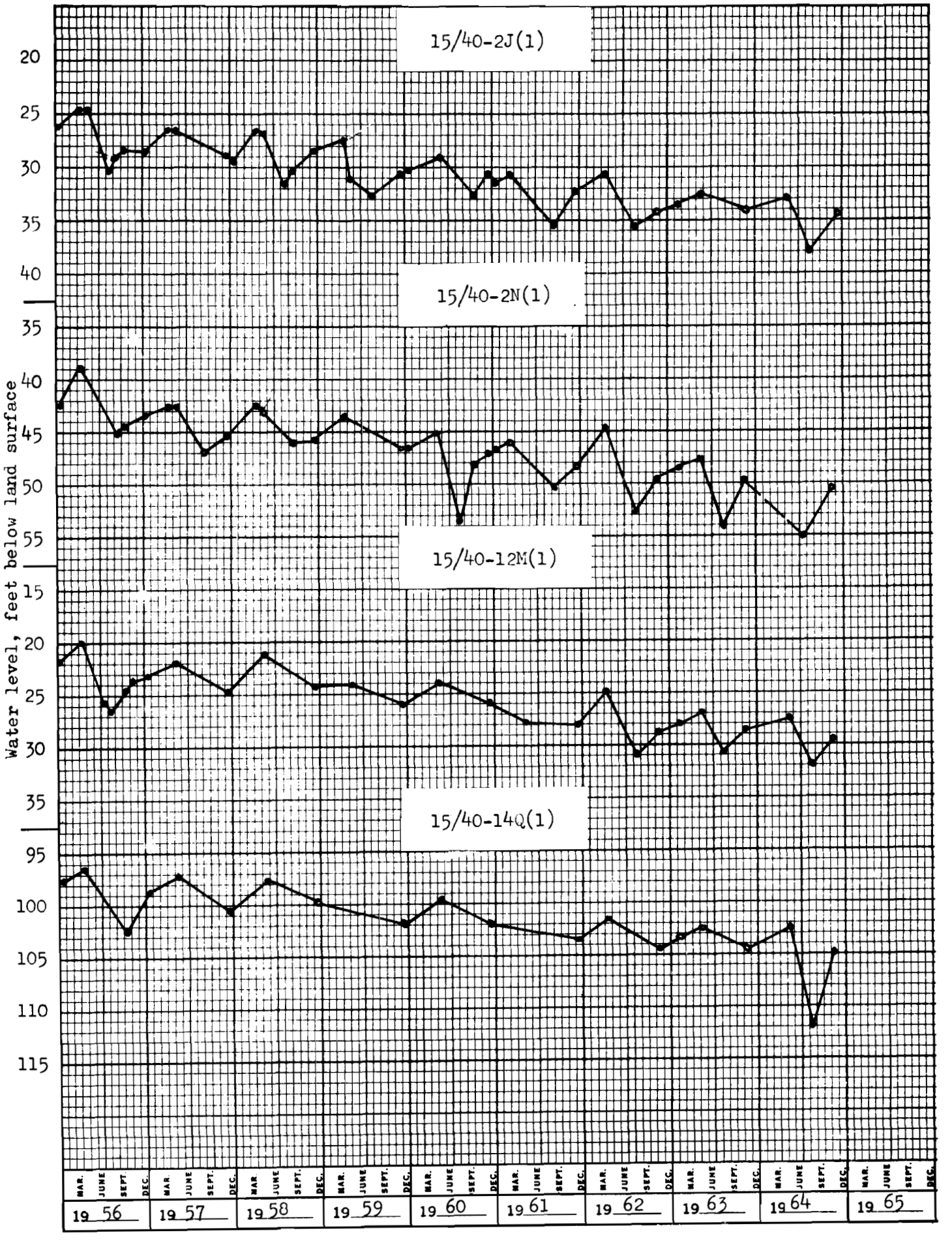
15/40-12M(1) (Davis #3) is a 280-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1955 to date.

15/40-14Q(1) (Crow #8) is a 248-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1954 to date.

REFERENCES

Brown, S. G., and Newcomb, R. C., 1962, Ground-water resources of Cow Valley, Malheur County, Oregon: U. S. Geological Survey Water Supply Paper 1619-M.

COW VALLEY AREA (10)



COW VALLEY AREA (10)

15/40-1C(1) (Anderson) is a 350-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1954 to date.

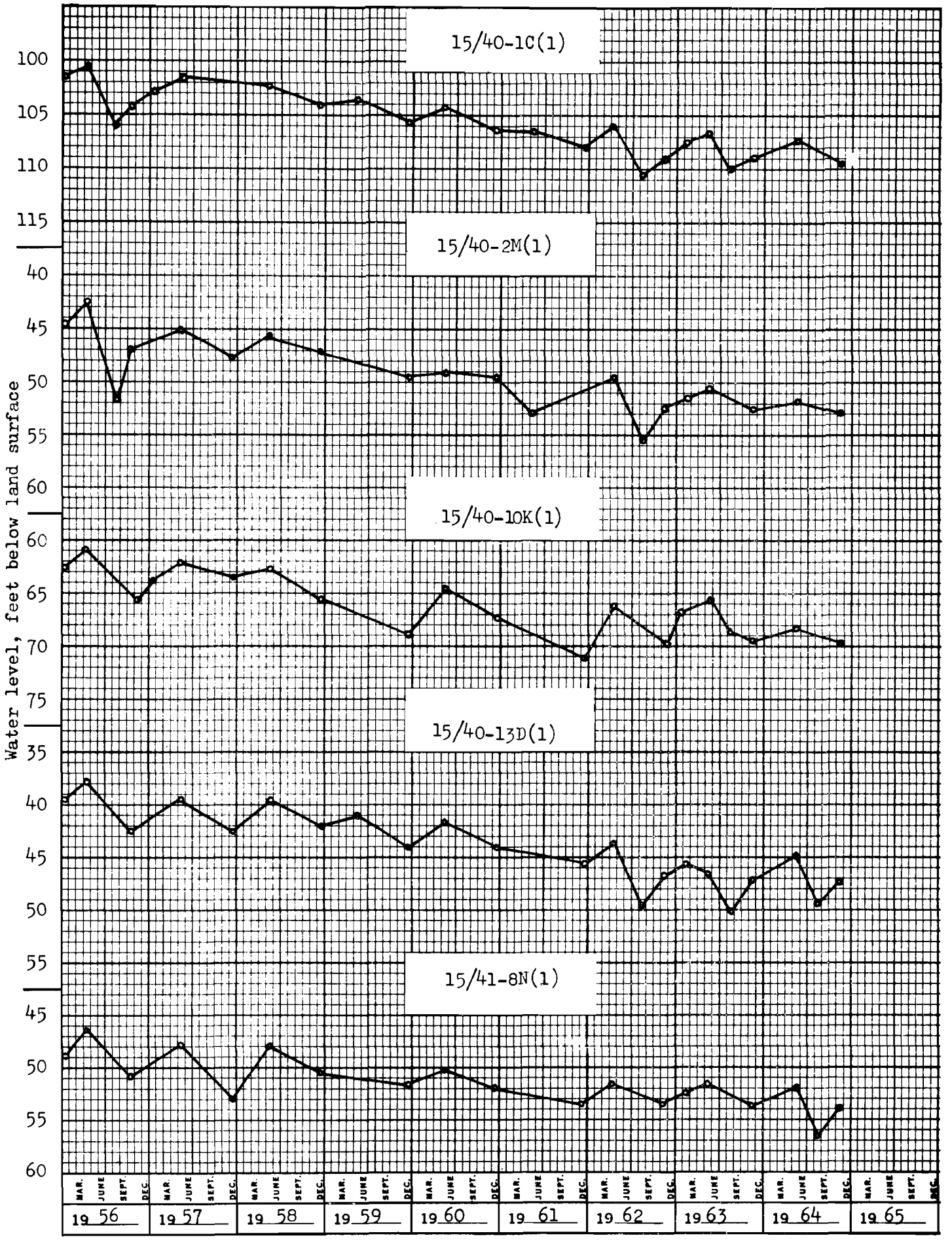
15/40-2N(1) (Max Holloway #2) is a 535-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1954 to date.

15/40-10K(1) (Crow #9) is a 1,000-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1954 to date.

15/40-13D(1) (Davis #1) is a 300-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1955 to date.

15/41-8N(1) (Crow #6) is a 338-foot drilled well in the Cow Valley Ground Water Reservoir. Periodic water level measurements available from 1963 to date.

COW VALLEY AREA (10)



SOUTHERN MALHEUR AREA (11)

A large part of this area is underlain by permeable volcanic rocks, but the low precipitation incident to the area limits the amount of ground water recharge. Much of the area lies high above the regional water table and deep wells would be required to develop ground water.

OBSERVATION WELLS

30/46-2H(1) (Jordan Valley Cemetery District) is a 221-foot drilled well in basalt located in Jordan Valley.

30/46-10N(5) (Jaca Bros.) is a 420-foot irrigation well in sand located about two miles southwest of Jordan Valley.

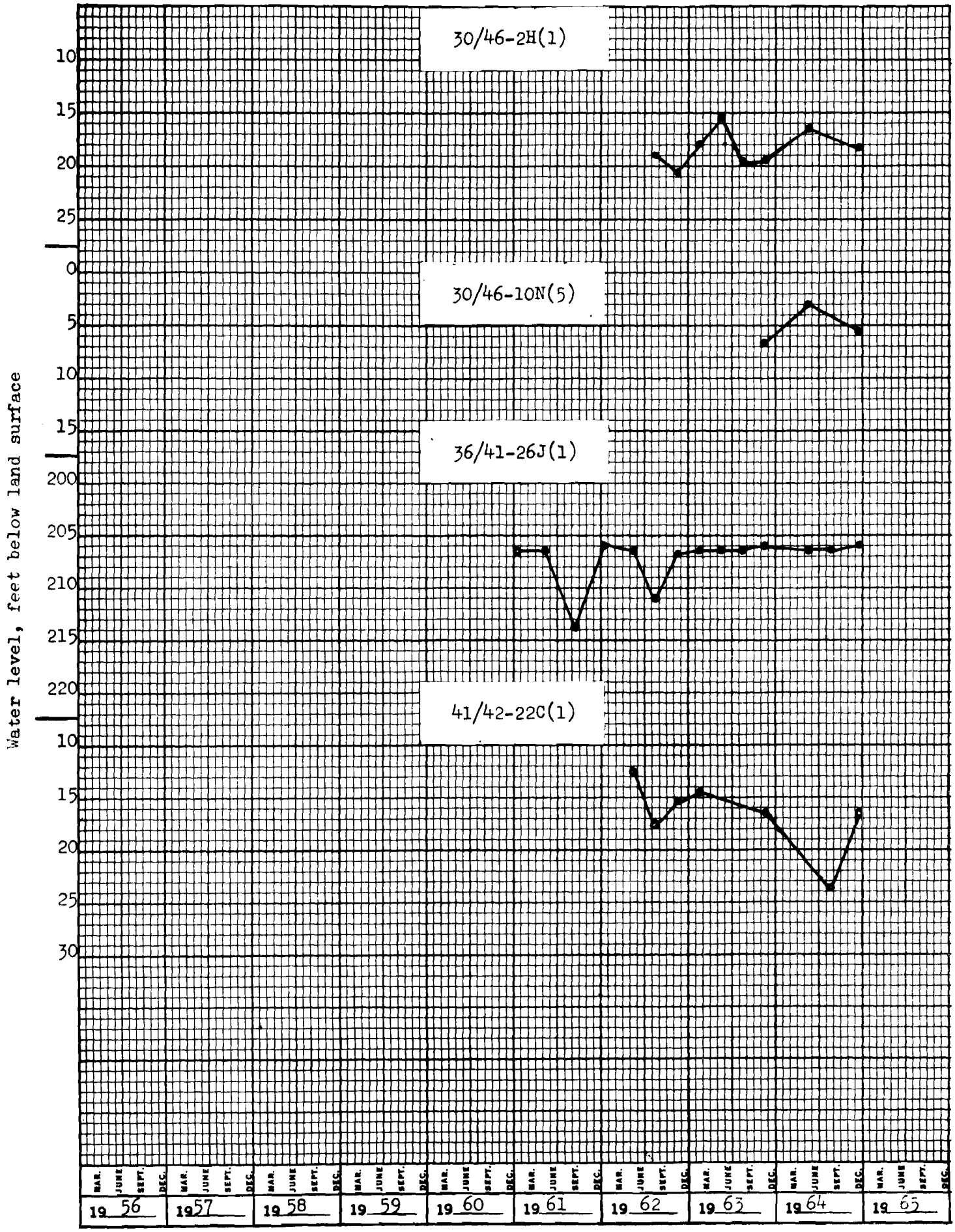
36/41-26J(1) (State Highway Department - Basque Maintenance Station) is a 222-foot drilled well in basalt about one mile northwest of Basque.

41/42-22C(1) (Lucky 7 Ranch - R. L. Campbell) is a 615-foot drilled well in gravel located about two miles west of McDermitt.

REFERENCES

Newcomb, R. C., 1961 Ground water in the western part of the Cow Creek and Soldier Creek grazing units, Malheur County, Oregon: U. S. Geological Survey Water Supply Paper 1475-E.

SOUTHERN MALHEUR AREA (11)



SOUTHERN HARNEY AREA (12)

Southern Harney County is broken into fault block mountains and basins. The mountains are composed chiefly of volcanic rocks and the basins have been partially filled with alluvial materials derived from the adjacent mountains. Ground water can generally be developed from the alluvial deposits in the basins and in the volcanic rocks where they are saturated.

OBSERVATION WELLS

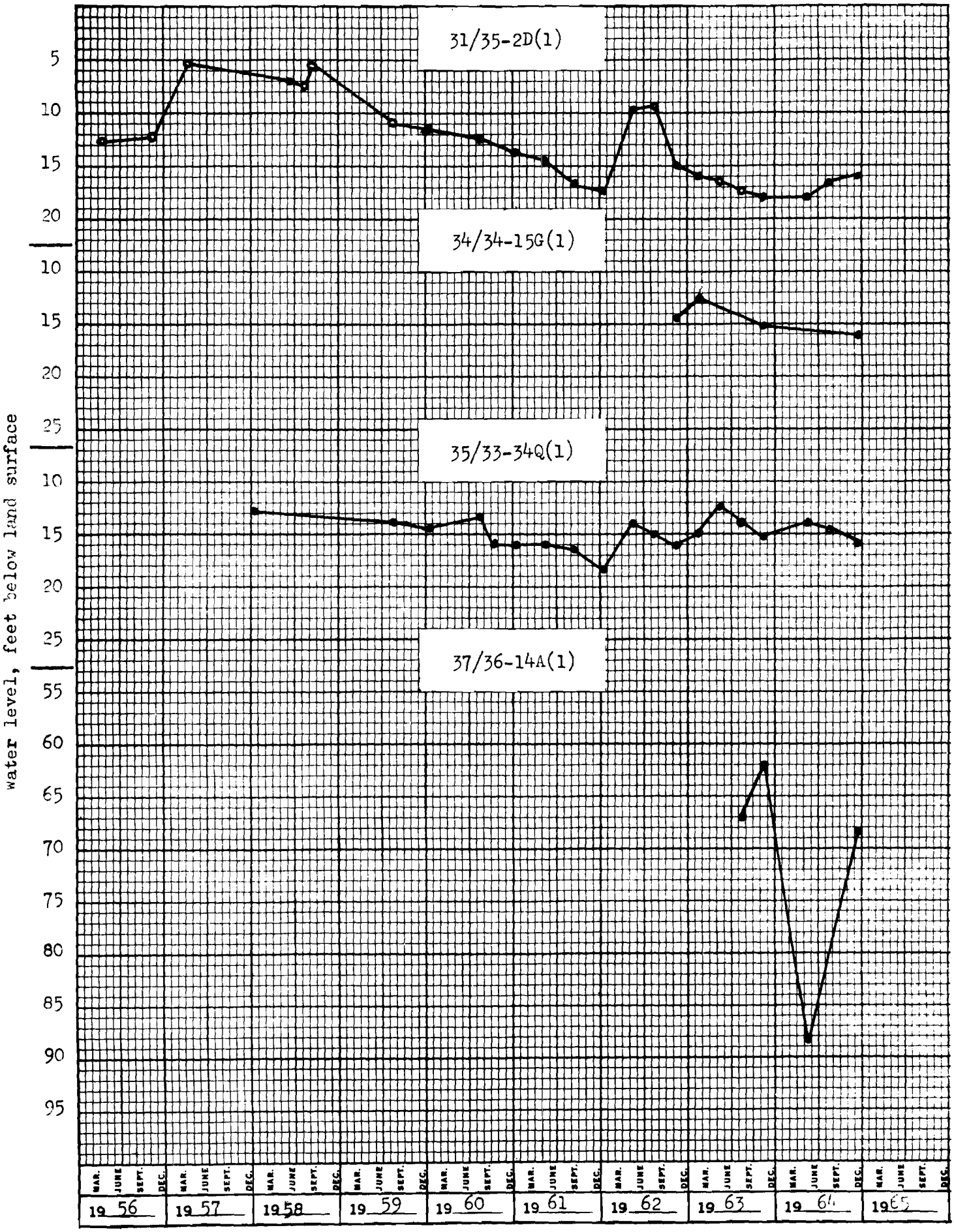
31/35-2D(1) (Fred Pallock) is a 32-foot drilled well near Juniper Lake.

34/34-15G(1) (Rocky Hill Inc.) is a 300 foot irrigation well in lava located about eight miles northeast of Andrews.

35/33-34a(1) (Andrew Shull) is a 170-foot drilled well in sand and gravel at Andrews.

37/36-14A(1) (Whitehorse Ranch) is a 792-foot drilled well in basalt located about 28 miles northeast of Fields.

SOUTHERN HARNEY AREA (12)



HARNEY BASIN (13)

The Harney Basin is a large closed structural basin that was partially filled with lake and stream deposits and volcanic debris.

The water table lies close to land surface beneath the entire basin floor and the underlying ground-water reservoirs are near full capacity. In some parts of the basin underlying materials are fine-grained and deep wells have been constructed in search of coarse-grained materials.

The availability of electric power and the subdivision of some of the larger ranches in the area has sparked the development of ground-water supplies for irrigation. Many new observation wells have been established to determine the effects of these new developments.

OBSERVATION WELLS

23/26-28D(1) (Unknown) is an unused drilled well in lava located about eight miles west of Riley.

23/31-16K(1) (T. Allen Jones) is a 300-foot drilled well in gravel located about two miles west of Burns. Periodic water level measurements available from 1930-1932, 1956 and 1960 to date.

24/30-26R(1) (John Campbell) is a 501-foot drilled well in sand and gravel located about nine miles southwest of Burns.

25/31-4M(1) (James Stahl) is a 170-foot drilled well in sand and gravel located about 10 miles southeast of Burns.

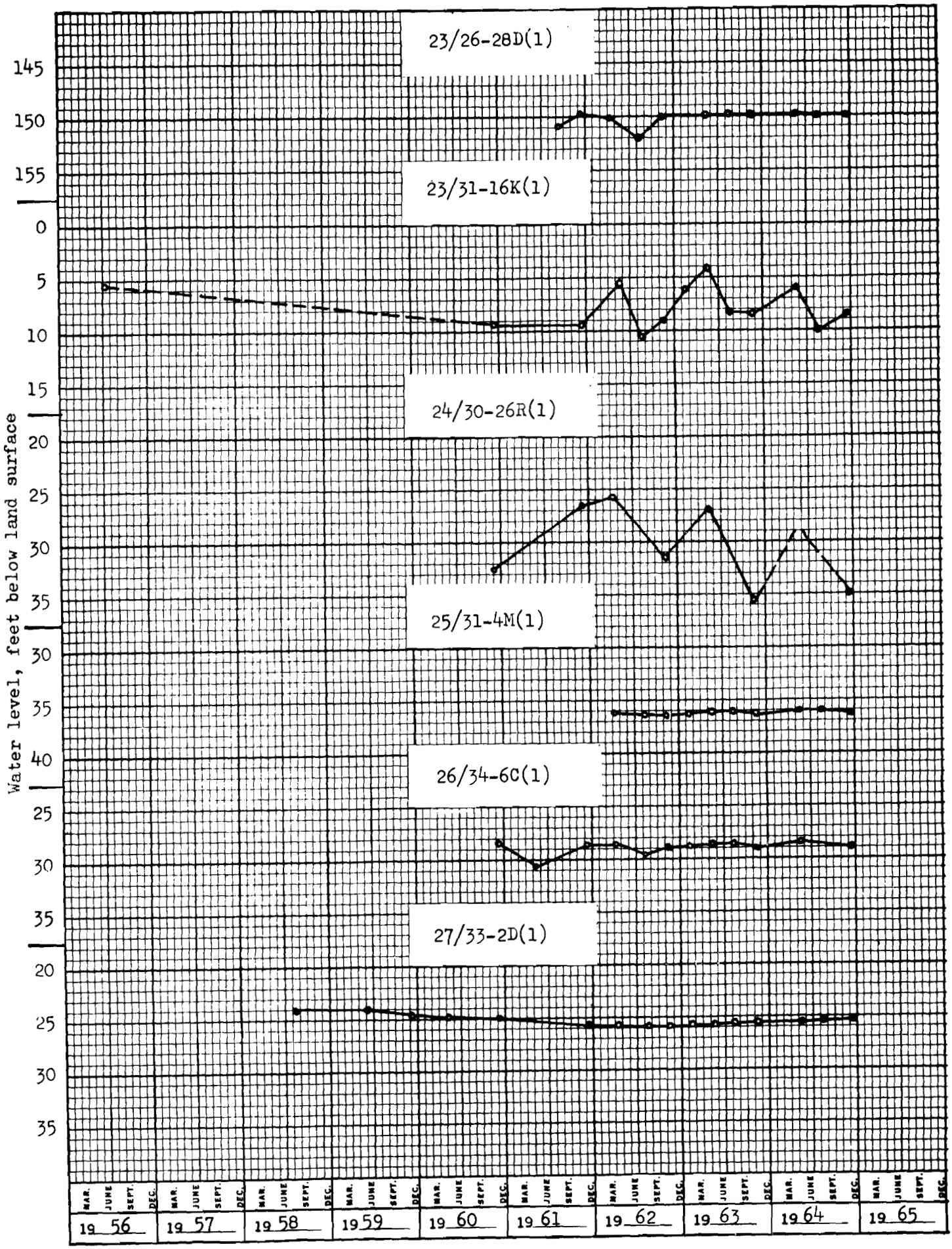
26/34-6C(1) (John Fecht) is a 260-foot drilled well in sand located about 4½ miles south of Crane.

27/33-2D(1) (R. F. Upton) is a 176-foot drilled well in lava and cinders located about two miles southwest of New Princeton.

REFERENCES

Piper, A. M., et al., 1939, Geology and ground-water resources of the Harney Basin Oregon: U. S. Geological Survey Water Supply Paper 841.

HARNEY BASIN (13)



22/31-34N(1) (L. F. Lazaus) is a 288-foot drilled well in sand, gravel and basalt located about three miles northeast of Burns. Periodic water level measurements available from 1930-1936 and 1938 to date.

23/31-11Q(1) (E. Sewell) is a 120-foot drilled well in gravel located about four miles east of Burns.

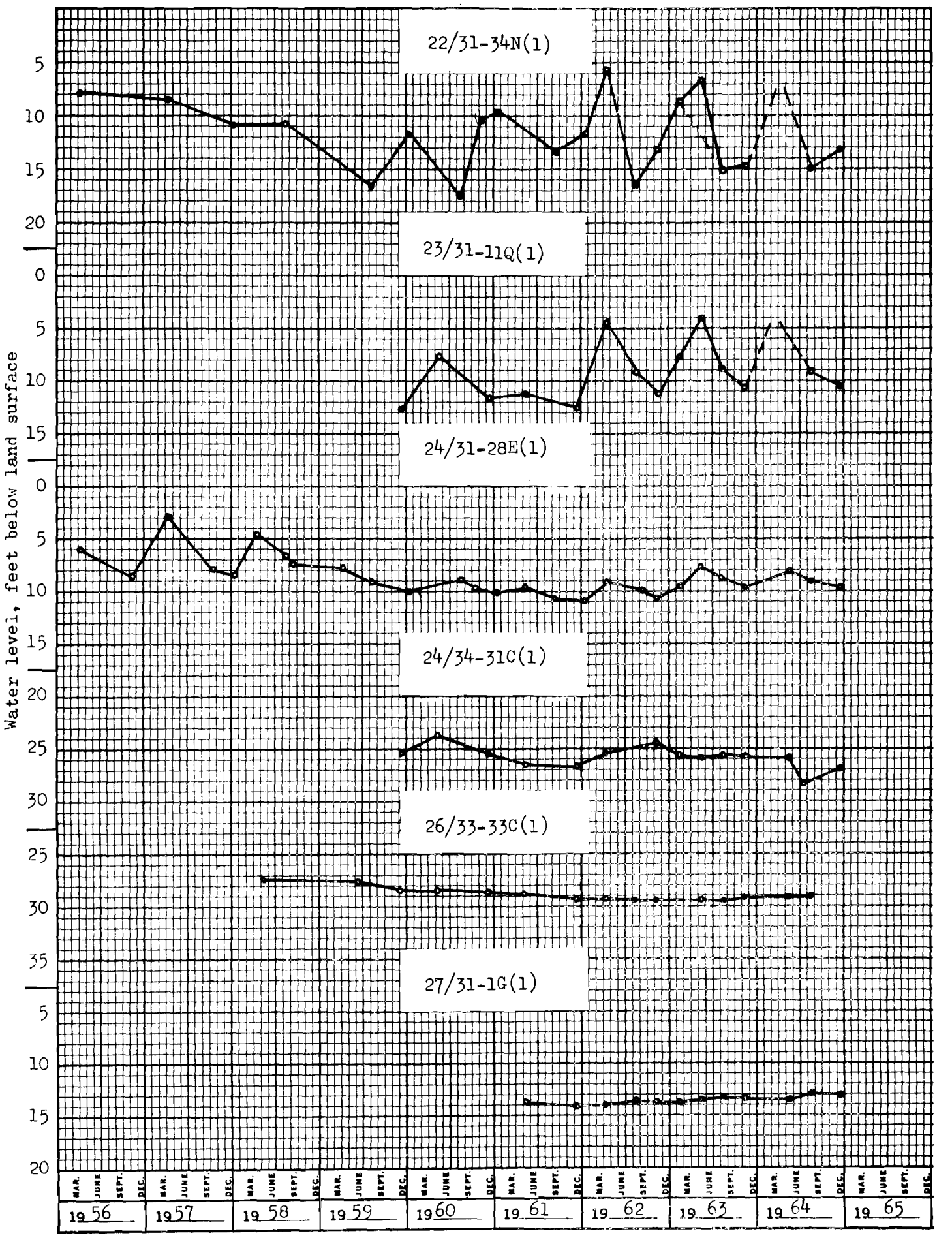
24/31-28E(1) (Harney County) is a 17-foot dug well in gravel located about nine miles southeast of Burns. Periodic water level measurements available from 1936 and 1938 to date.

24/34-31C(1) (John Rossberg) is a 305-foot drilled well in lava and cinders located about two miles north of Crane.

26/33-33C(1) (A. B. Hann) is a 300-foot drilled well in cinders located about 3½ miles west of New Princeton.

27/31-1G(1) (John Crow) is a 118-foot drilled well in basalt and cinders located near the south shore of Malheur Lake.

HARNEY BASIN (13)



WARNER VALLEY (14)

Warner Valley is a long narrow structural valley located in southeastern Lake County. In general, the valley is bordered by fault block mountains that have contributed materials for the partial filling of this basin. This valley was the site of the spectacular "hot water" geyser that developed in a deep test well on the Crump Ranch a few years back.

In general, most of the ground-water reservoirs underlying this basin are filled and water levels are at or near land surface. It is believed that large supplies of ground water underlie this valley.

OBSERVATION WELLS

35/24-9J(1) (U.S.B.L.M.) is a 376-foot drilled well in basalt located about eight miles north of Hart Lake. Periodic water level measurements available from 1949 to date.

36/24-27D(2) (Con Lynch) is a 255-foot drilled well located about one mile east of Plush.

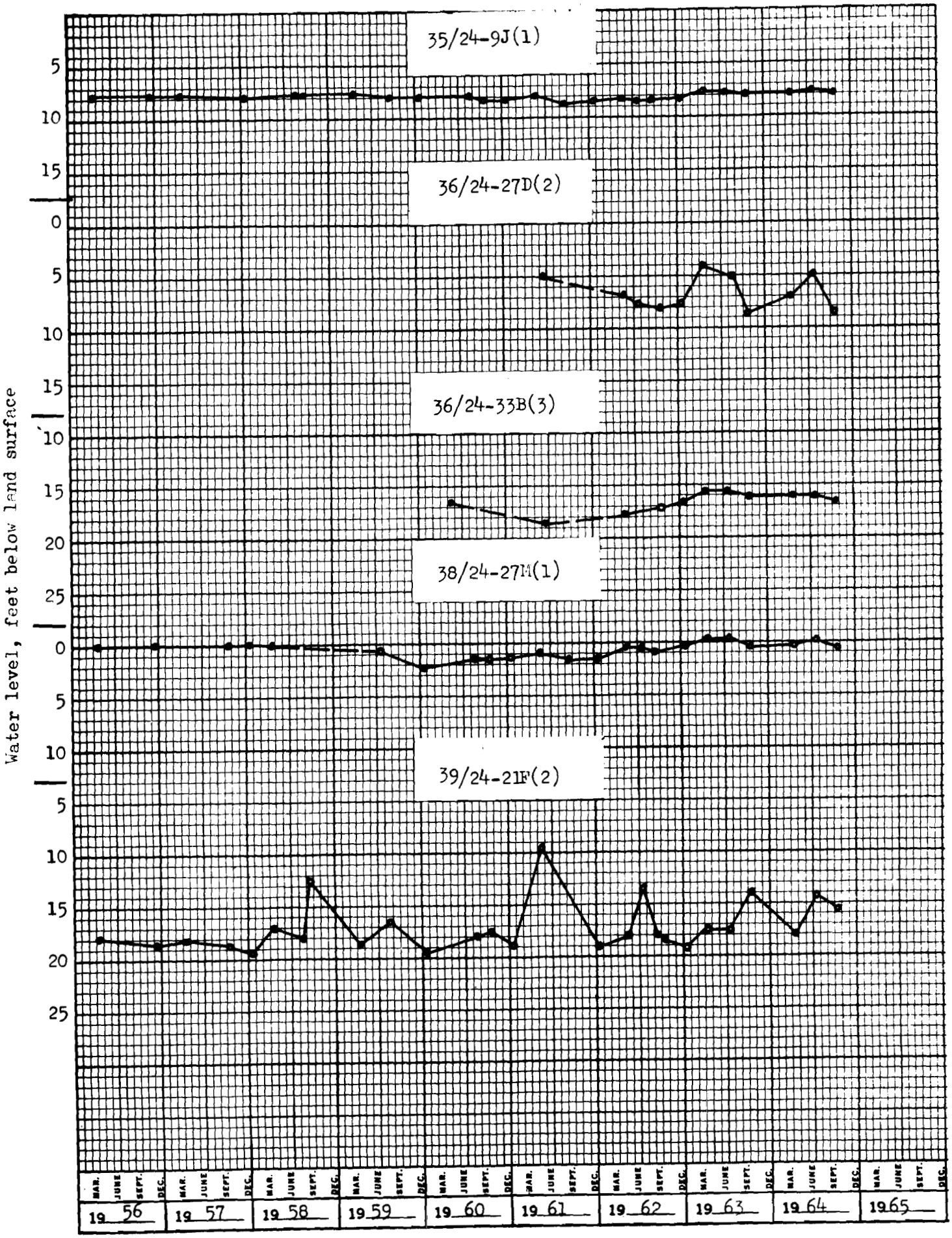
36/24-33B(3) (Con Taylor) is a 262-foot drilled well in gravel and lava located about one mile east of Plush.

38/24-27M(1) (Charles Crump) is a 81-foot drilled well in gravel located near Crump Lake. Periodic water level measurements available from 1948 to date.

39/24-21F(2) (J. G. Dyke) is a 164-foot drilled well in gravel located in Adel. Periodic water level measurements available from 1948 to date.

REFERENCES

Trauger, Frederick D., 1950, Basic ground-water data in Lake County Oregon: U. S. Geological Survey open-file report.


35/24-9J(1)
36/24-27D(2)
36/24-33B(3)
38/24-27M(1)
39/24-21F(2)
Water level, feet below land surface
5
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GOOSE LAKE BASIN (15)

The Goose Lake Basin is a large structural basin located in southeastern Lake County. This basin has been partially filled with stream and lake deposits. The stream deposited sands and gravels occur chiefly where alluvial fans have been built into the basin. Some of the alluvial deposits have been buried by fine-grained lake sediments which tend to confine the ground water and cause some wells to flow.

In general, the water table stands close to land surface and a large quantity of ground water is in storage in this basin. Ground-water developments for irrigation are few in number but are expected to increase.

OBSERVATION WELLS

37/20-34R(1) (Robert Weir) is a 808-foot drilled well in gravel located about nine miles north of Lakeview.

39/19-34H(1) (William Hoffman) is a 110-foot drilled well in sand and gravel located about seven miles west of Lakeview.

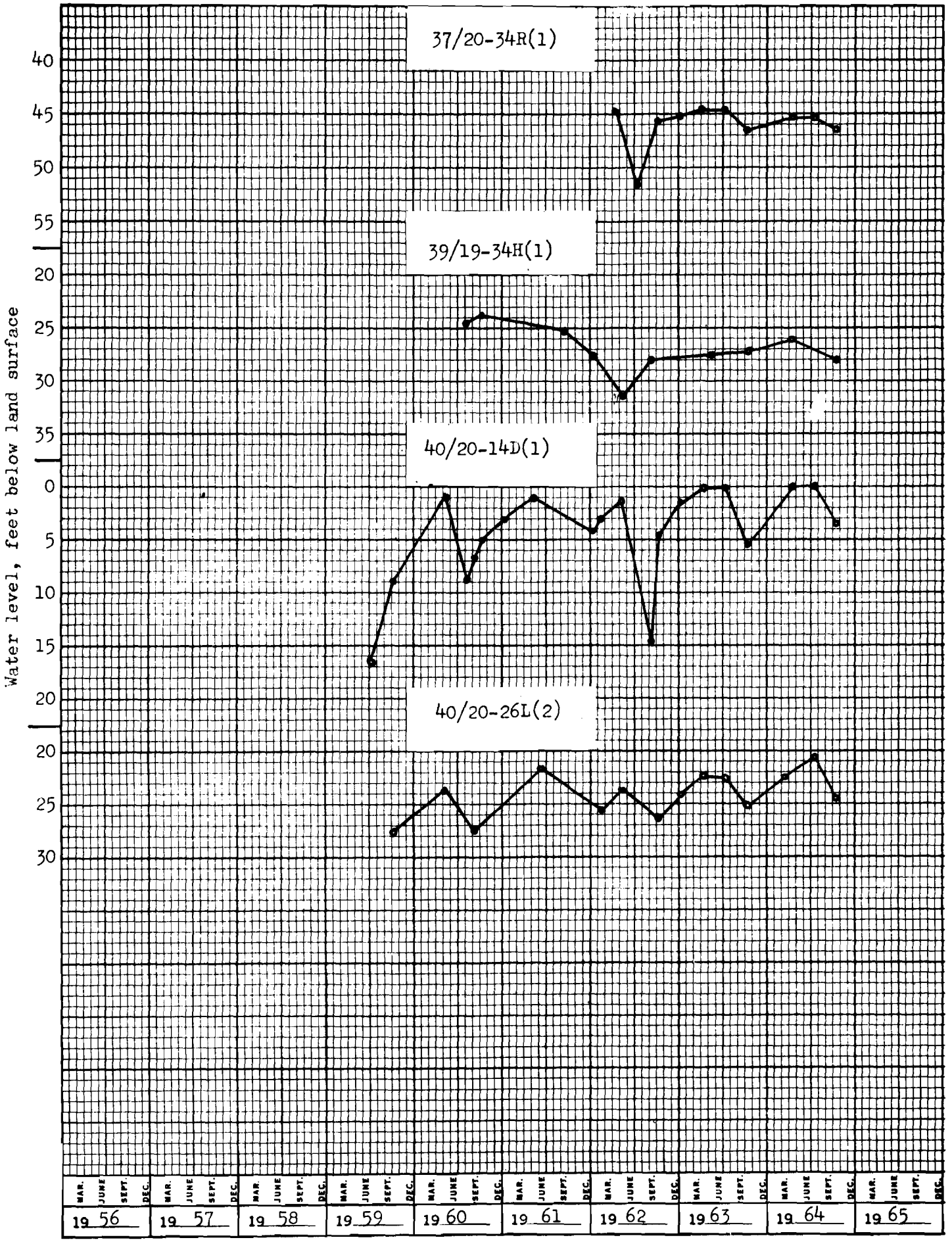
40/20-14D(1) (Snyder & Alexis) is a 305-foot drilled well in sand and gravel located about five miles south of Lakeview.

40/20-26L(2) (Neal Elliott) is a 140-foot drilled well in sand and gravel located about eight miles south of Lakeview.

REFERENCES

Trauger, Frederic D., 1950, Basic ground-water data in Lake County, Oregon: U. S. Geological Survey open-file report.

GOOSE LAKE BASIN (15)



YONNA VALLEY (16)

Yonna Valley is a broad basin in southern Klamath County that is bordered by fault-block ridges and mountains. Ground water occurs chiefly in lava flows and "cinder beds."

OBSERVATION WELLS

38/11-6R(1) (B. Jendrzejewski) is a 194-foot drilled well in broken lava located in Yonna Valley.

38/11½-12N(2) (Frank Challis) is a 150-foot drilled well in porous lava located in Yonna Valley. Periodic water level measurements available from 1949 to date.

38/11½-13N(1) (William Konig) is a 600-foot drilled well in diatomaceous material located in Yonna Valley. Periodic water level measurements available from 1948 to date.

38/11½-15R(1) (L. M. & Loyd Hankins) is a 495-foot drilled well in lava and cinders located in Yonna Valley. Periodic water level measurements available from 1948 and 1950 to date.

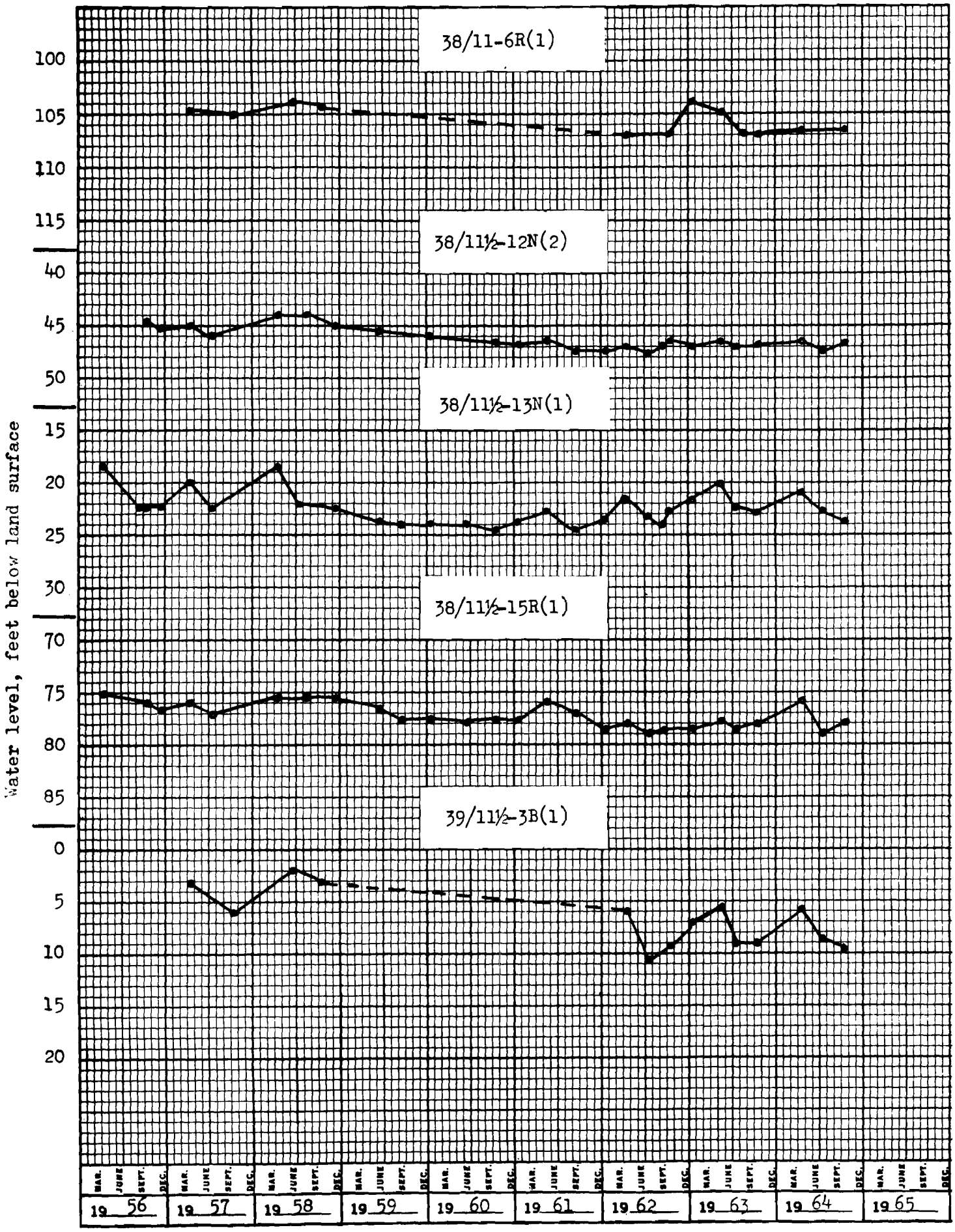
39/11½-3B(1) (L. J. Horton) is a 102-foot drilled well located about one mile south of Dairy in Yonna Valley.

REFERENCES

Meyers, Joseph D. and Newcomb, R. C., 1952, Geology and ground-water resources of the Swan Lake-Yonna Valleys area, Klamath County, Oregon: U. S. Geological Survey open-file report.

Newcomb, R. C. & Hart, D. H., 1958, Preliminary report on the ground-water resources of the Klamath River Basin, Oregon: U. S. Geological Survey open-file report.

YONNA VALLEY (16)



SWAN LAKE VALLEY (17)

The Swan Lake Valley is a structurally closed basin located immediately west of Yonna Valley. This basin, which is bordered by fault block ridges, has been partially filled with fine-grained lake deposits. Ground water which is used chiefly for irrigation is generally developed from the volcanic rocks and associated sediments that underlie or lie adjacent to the lake deposits.

OBSERVATION WELLS

37/10-8N(1) (Edgewood Ranch) is a 281-foot drilled well in lava located in Swan Lake Valley.

37/10-29K(2) (Edgewood Ranch) is a 800-foot drilled well in gravel located in Swan Lake Valley. Periodic water level measurements available from 1949 to date.

38/10-22C(1) (Mike Short) is a 460-foot drilled well in lava located in Swan Lake Valley.

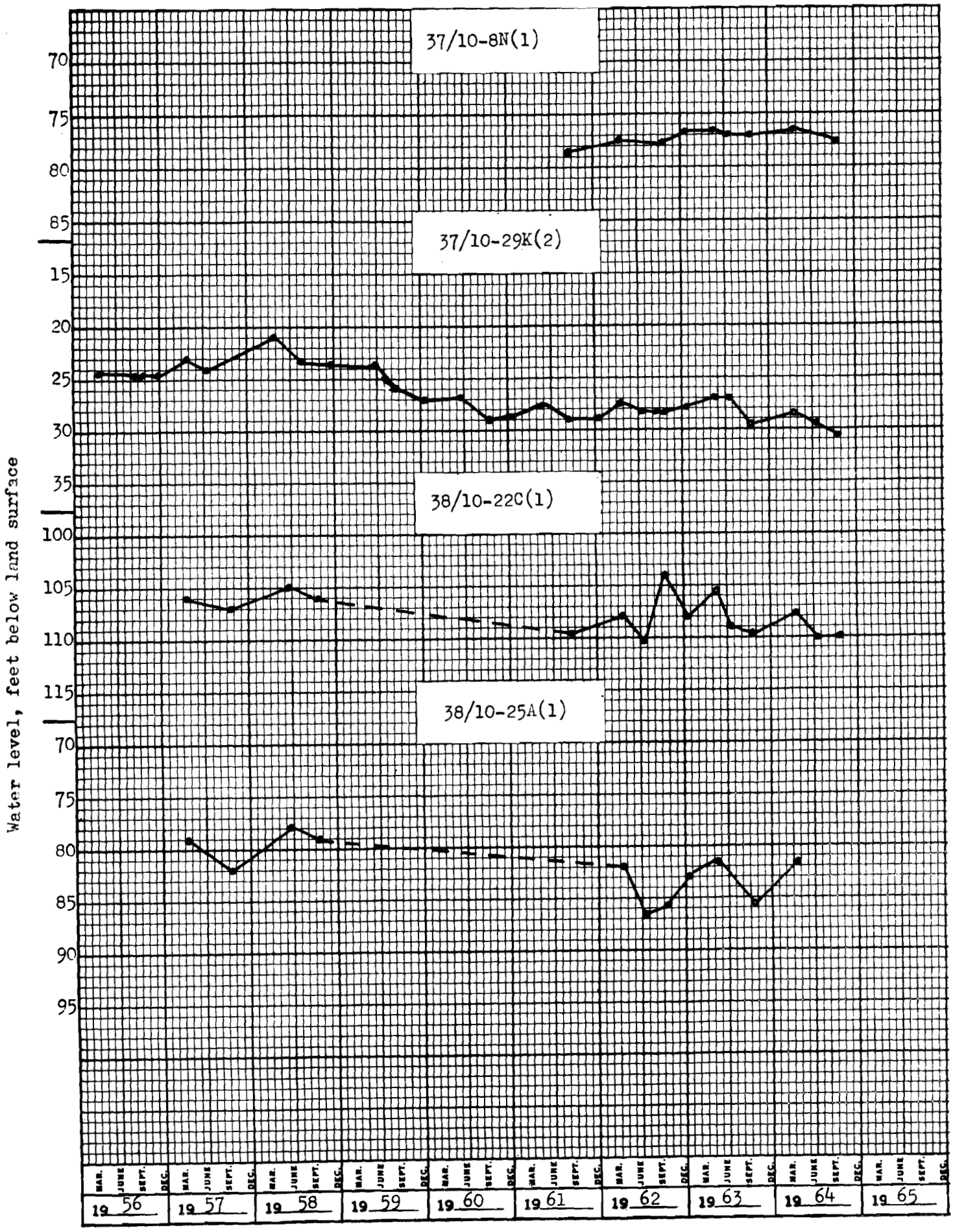
38/10-25A(1) (Garrison Mitchell) is a 524-foot drilled well in lava boulders and cinders located in Swan Lake Valley.

REFERENCES

Meyers, Joseph D. and Newcomb, R. C., 1952, Geology and ground-water resources of the Swan Lake-Yonna Valleys area, Klamath County, Oregon: U. S. Geological Survey open-file report.

Newcomb, R. C. & Hart, D. H., 1958, Preliminary report on the ground-water resources of the Klamath River Basin, Oregon: U. S. Geological Survey open-file report.

SWAN LAKE VALLEY (17)



SPRAGUE RIVER VALLEY (18)

The Sprague River Valley contains some of the most permeable ground-water reservoirs in the State. Some of the irrigation wells in the Bly area have been tested at capacities exceeding 3000 gpm. Confined ground water occurs in the deep ground-water reservoirs that underlie the area from Beatty to near the town of Sprague River.

OBSERVATION WELLS

35/8-1E(1) (Henry Wolff) is a 101-foot drilled well located about nine miles east of Chiloquin.

35/10-19B(1) (Ted Chrume) is a 360-foot drilled well in sand located about six miles northwest of Sprague River.

36/10-14G(1) (K. R. Newlun) is a 527-foot drilled well in volcanic rock located in Sprague River.

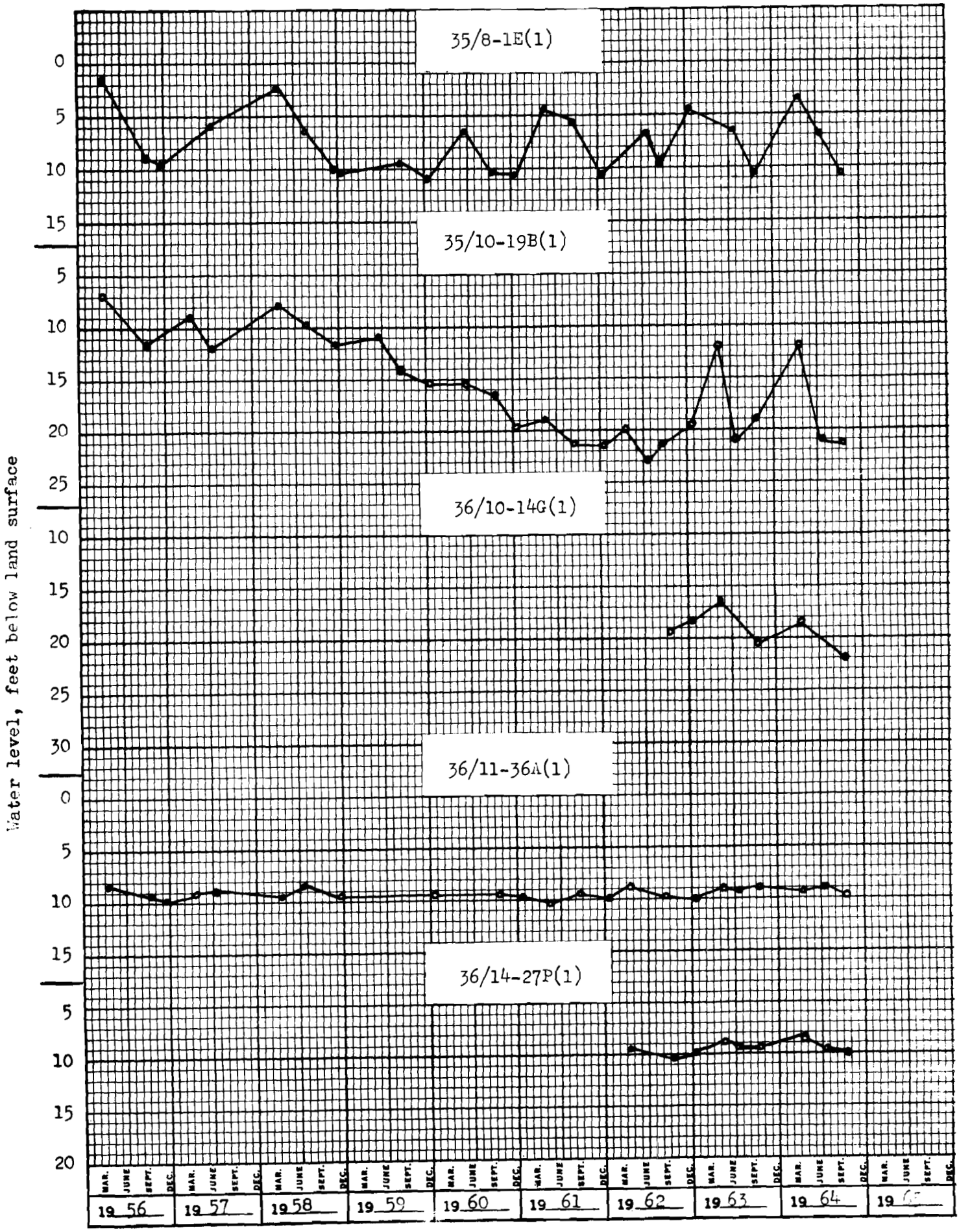
36/11-36A(1) (Frank McBain) is a 223-foot drilled well in volcanic rock located five miles southwest of Beatty.

36/14-27P(1) (Henry Gerber) is a 438-foot drilled well in volcanic rock located about one mile north of Bly.

REFERENCES

Newcomb, R. C., and Hart, D. H., 1958, Preliminary report on the ground-water resources of the Klamath River Basin, Oregon: U. S. Geological Survey open-file report.

SPRAGUE RIVER VALLEY (18)



FORT ROCK AREA (19)

The Fort Rock area is a broad structural basin in Northern Lake County and includes the Christmas Lake area and Fossil Lake area.

Recent subdivision of large tracts of land in this basin has sparked the construction of wells and the development of ground water supplies. Numerous water level measurements throughout the area show a marked similarity in the fluctuations of the water table. In general, the trend of water levels in this area is related to long term changes in the amount of annual precipitation occurring in the surrounding upland areas.

OBSERVATION WELLS

26/14-5A(1) (D. A. Busch) is a 83.4-foot drilled well located about one mile west of Fort Rock.

26/14-12C(1) (Elmer Kohler) is a 200-foot drilled well in sand located about 2½ miles southeast of Fort Rock.

26/15-29B(1) (Delbert Wilson) is a 230-foot drilled well in sand located about seven miles southeast of Fort Rock.

27/15-4G(1) (M. Y. Parks) is a 257-foot drilled well in lava and cinders located about nine miles southeast of Fort Rock. Periodic water level measurements available from 1932, 1935-36 and 1938 to date.

27/16-13B(1) (Bob Morehouse) is a 560-foot drilled well located in Christmas Lake Valley.

27/17-22R(2) (Century Ranch) is a 54-foot drilled well located in Christmas Lake Valley. Periodic water level measurements available from 1938, 1940-44 and 1946 to date.

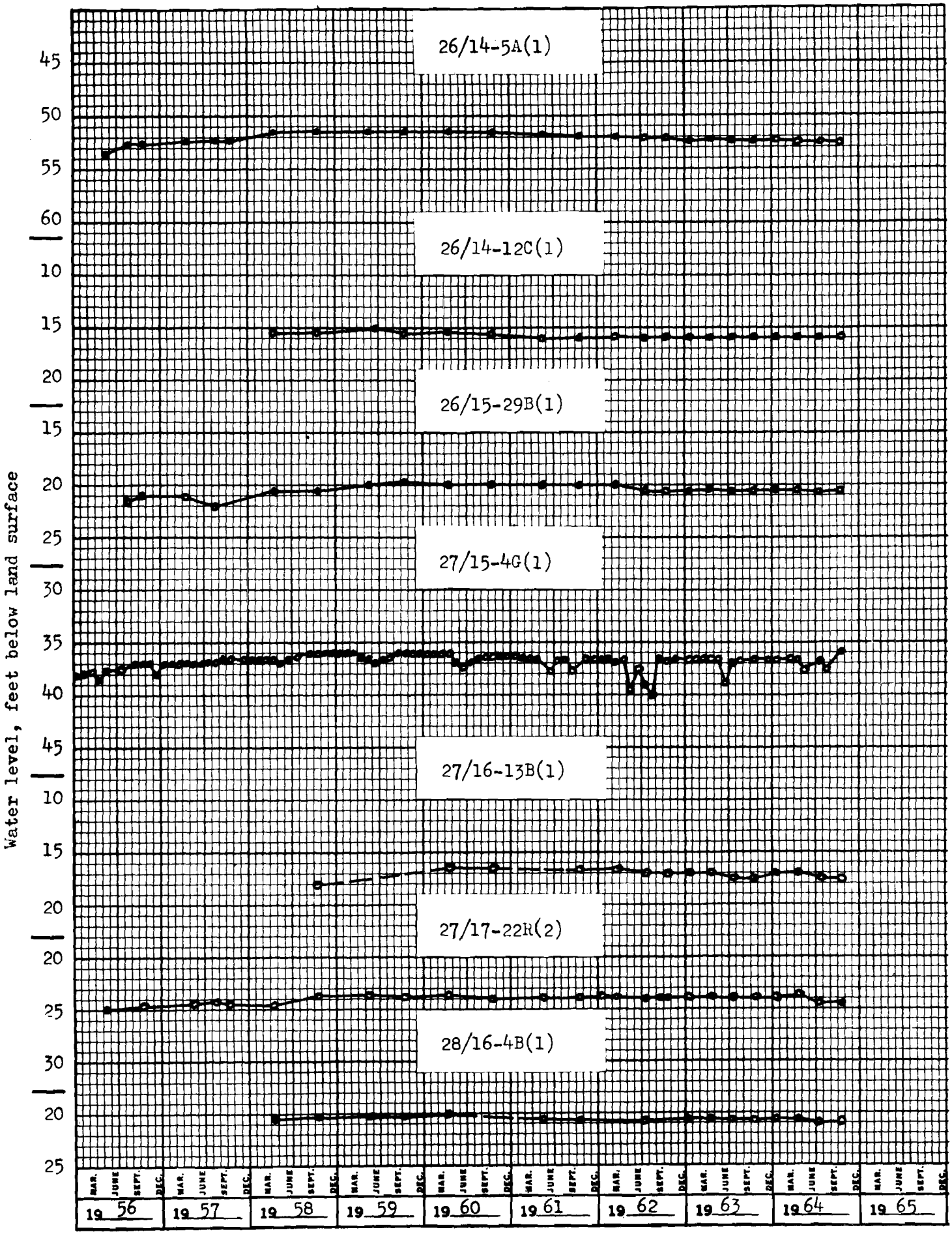
28/16-4B(1) (L. V. Gray) is a 707-foot drilled well in lava located in Christmas Lake Valley.

REFERENCES

Hampton, E. R., 1962, Geologic factors that control the occurrence and availability of ground water in the Fort Rock Basin, Lake County, Oregon: U. S. Geological Survey Professional Paper 383-B.

Trauger, F. D., 1950, Basic ground water data in Lake County, Oregon: U. S. Geological Survey open-file report.

FORT ROCK AREA (19)



CHEMULT-LAPINE-SISTERS AREA (20)

The eastern slope of the Cascade Mountains contain many ground-water reservoirs. The most permeable of these are generally associated with the younger volcanic rocks and associated cinder deposits. To date, very little ground water has been developed in this area except for domestic use and stock water.

The cause of the unusual decline observed in Well No. 30/7-11G(1) located near Klamath Marsh is not known.

OBSERVATION WELLS

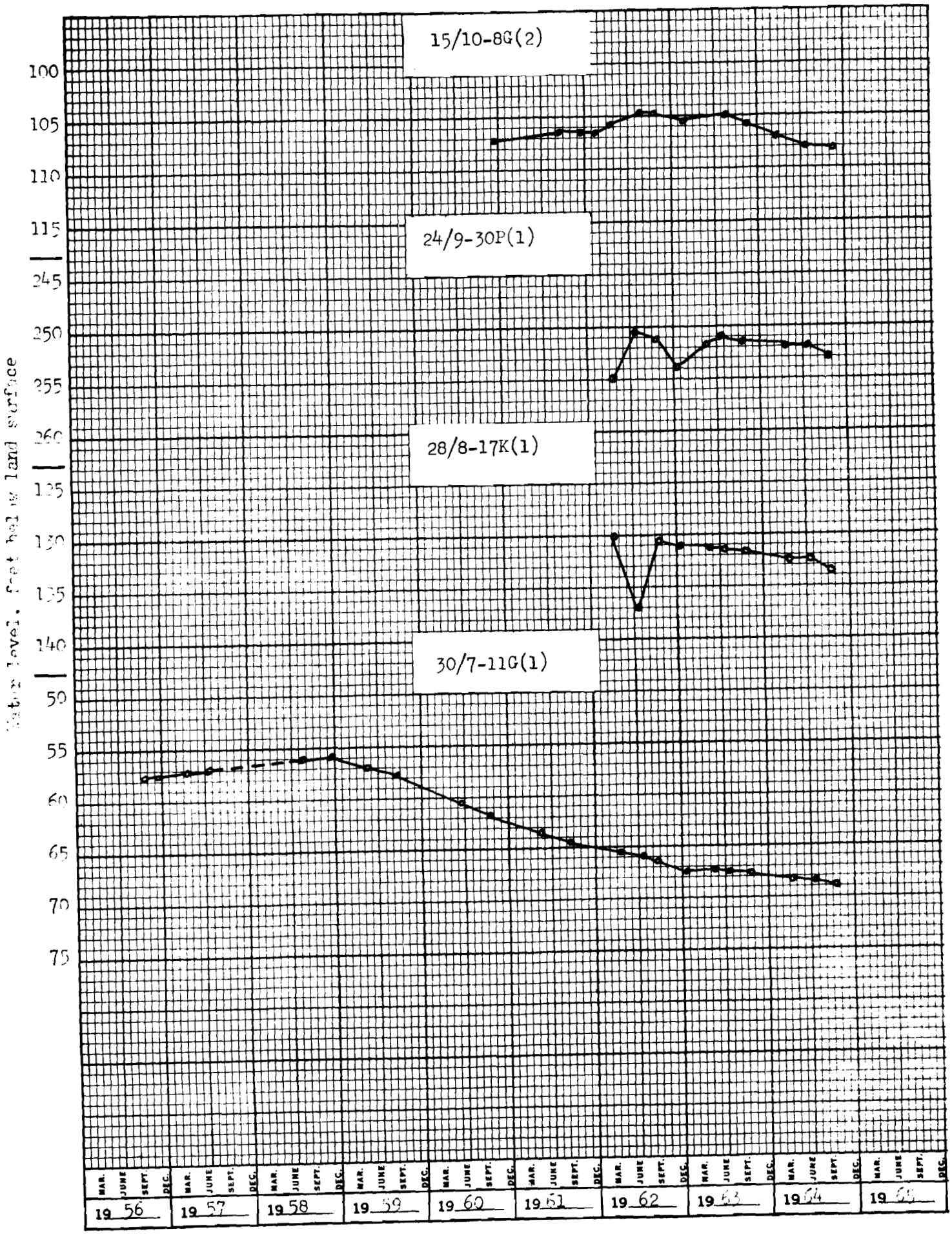
15/10-8G(2) (Ross Hammond) is a 228-foot drilled well in volcanic rock located near Sisters.

24/9-30P(1) (Crescent Ranger Station) is a 267-foot drilled well in basalt located in Crescent.

28/8-17K(1) (Winema Lumber Co.) is a 361-foot drilled well in lava located about seven miles south of Chemult.

30/7-11G(1) (Crown Zellerbach Corp.) is a 123-foot drilled well located near Klamath Marsh.

CHEMULT-LAPINE-SISTERS AREA (20)



PRINEVILLE AREA (21)

The Prineville area includes the Crooked River Valley in and around the City of Prineville. Ground water in this area occurs in the shallow fine-grained alluvial deposits and in a sand and gravel stratum that occurs at the base of the alluvial deposits. Ground water in this sand and gravel stratum is confined and many wells developing water from this zone flow at land surface.

In the past there was a marked decline in the artesian pressure and water levels in the Prineville area. Water levels appear to have stabilized in recent years.

OBSERVATION WELLS

14/15-15Q(1) (L. H. McPhetridge - formerly M. D. Colahan) is a 210-foot drilled artesian well in sand and gravel located about four miles northwest of Prineville. Periodic water level measurements available from 1945 to date.

14/16-19H(1) (Leslie Clauson) is a 47-foot drilled well in sand located about two miles northwest of Prineville. Periodic water level measurements available from 1944 and 1947 to date.

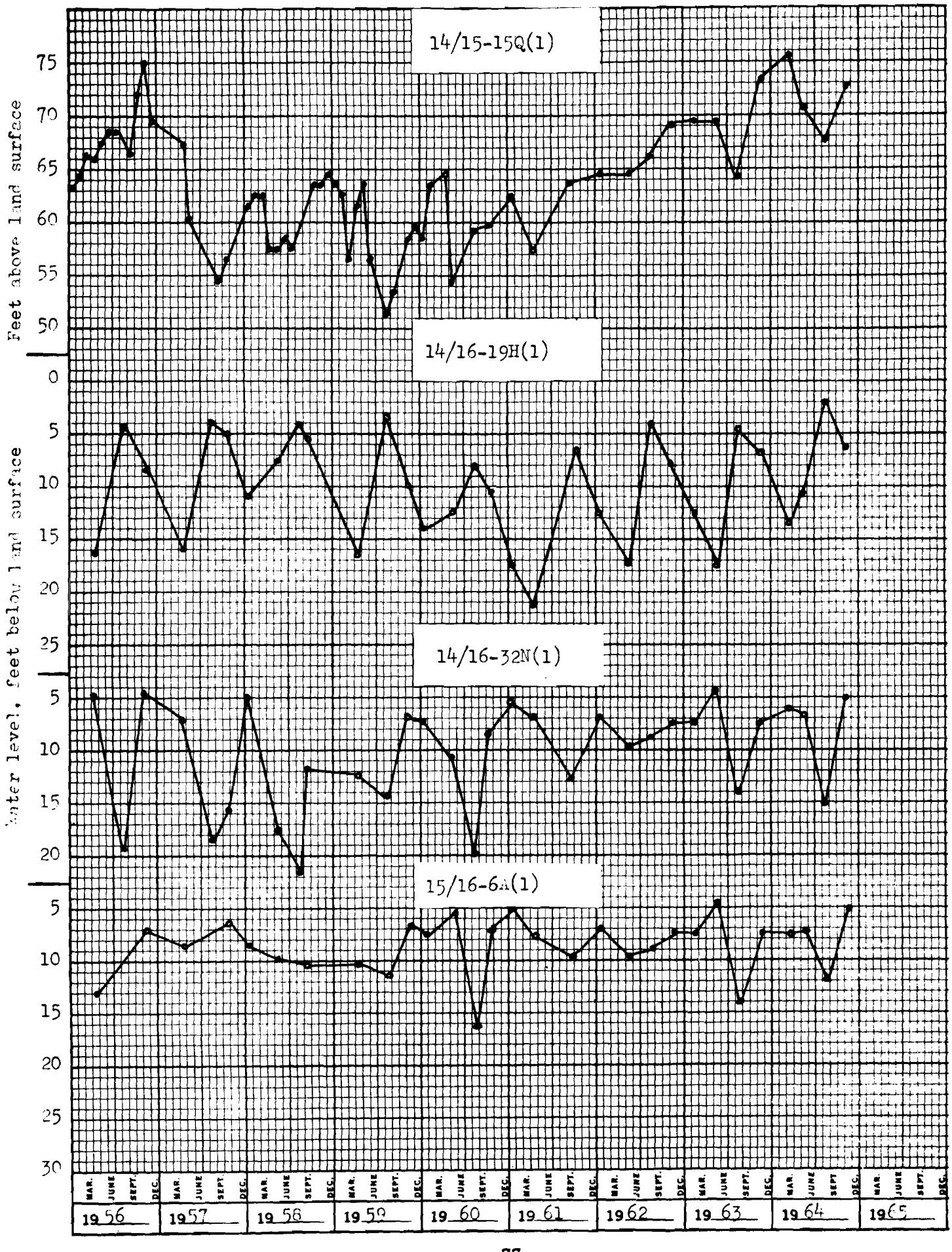
14/16-32N(1) (E. E. Wagoner) is a 160-foot drilled well in sand and gravel located in Prineville. Periodic water level measurements available from 1944 to date.

15/16-6A(1) (M. E. Gerow, et. al.) is a 240-foot drilled well in sand and gravel located in Prineville. Periodic water level measurements available from 1944 to date.

REFERENCES

Robinson, J. W., and Price, Don, 1963, Ground water in the Prineville Area, Crook County, Oregon: U. S. Geological Survey Water Supply Paper 1619-P.

PRINEVILLE AREA (21)



MEDFORD AREA (22)

The Medford area, like other parts of southwestern Oregon is noted for its lack of permeable ground-water resources. Most wells produce adequate domestic or small group domestic supplies, however, large yields for irrigation or industrial purposes are generally not obtainable.

OBSERVATION WELLS

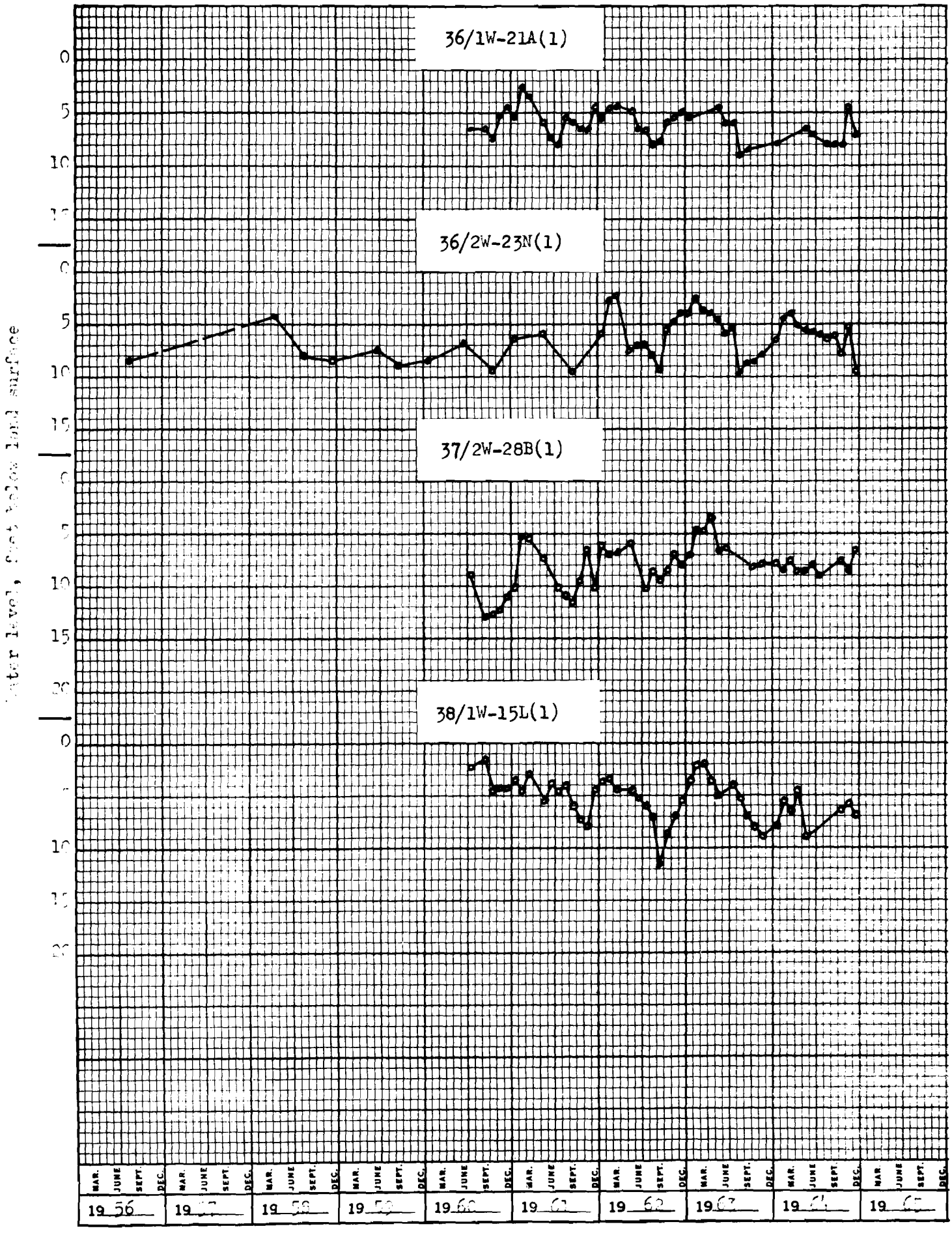
36/1W-21A(1) (Bud Hoover) is a 95-foot drilled well in shale located near White City.

36/2W-23N(1) (U.S.G.S.) is a 110-foot drilled well in sand and gravel located about three miles west of White City.

37/2W-28B(1) (Southern Oregon Experimental Station) is a 145-foot drilled well in sedimentary rock located about two miles northeast of Jacksonville.

38/1W-15L(1) (City of Phoenix) is a 700-foot drilled well in sedimentary rock located in Phoenix.

MEDFORD AREA (22)



GRANTS PASS AREA (23)

The Grants Pass area, like other parts of southwestern Oregon, is noted for the lack of permeable ground-water reservoirs. Most wells produce adequate domestic supplies or small group domestic supplies, however, large yields for irrigation or industrial purposes are generally not obtainable.

OBSERVATION WELLS

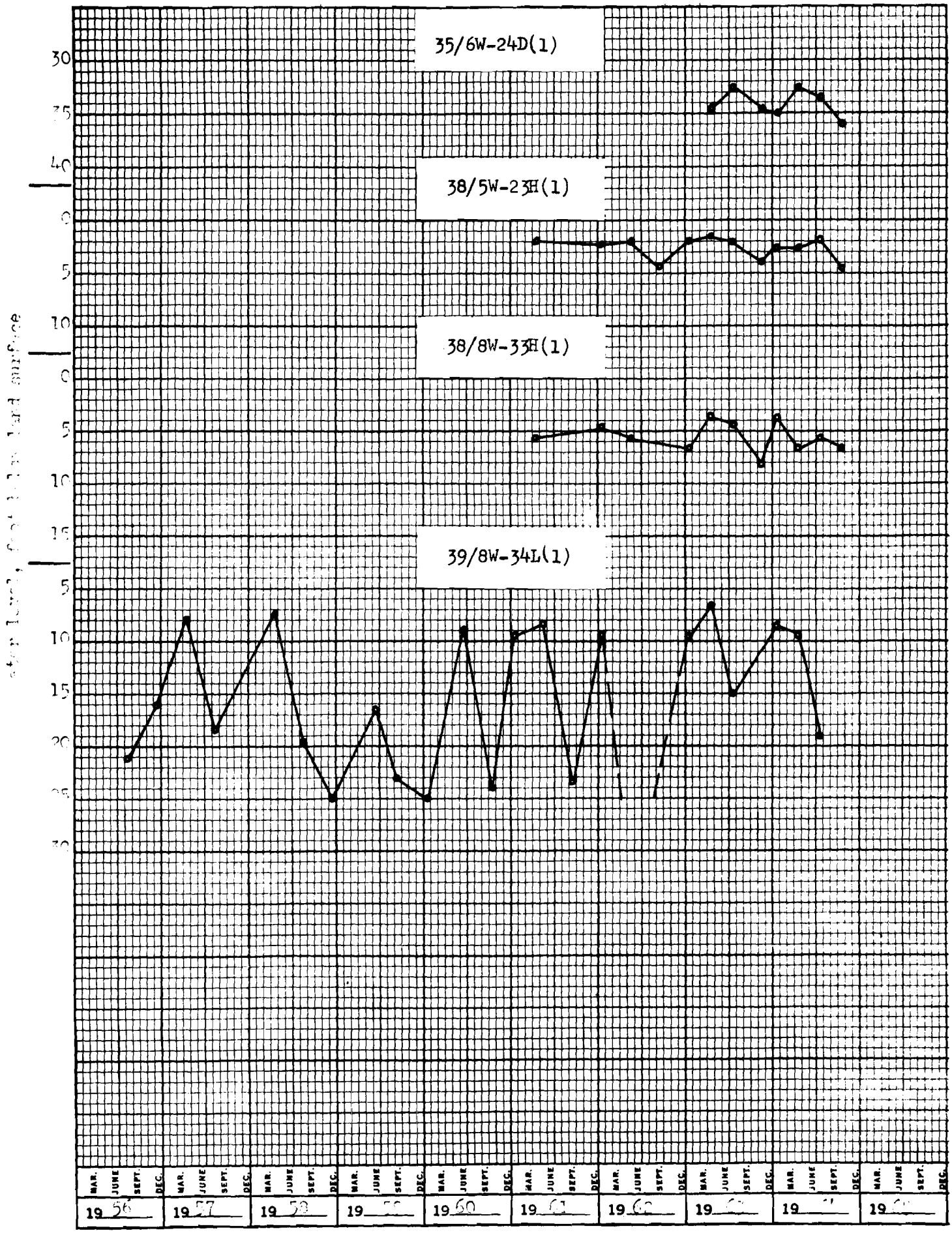
35/6W-24D(1) (Oregon State Highway Department) is a 123-foot drilled well in granite located about five miles northwest of Grants Pass.

38/5W-23H(1) (J. Katzenbach) is a 62-foot drilled well located about two miles southwest of Provolt.

38/8W-33H(1) (J. R. Smith) is a 29-foot drilled well in sand and gravel located about two miles north of Kerby.

39/8W-34L(1) (U.S.G.S.) is a 119-foot drilled well in sand and gravel located about three miles southeast of Cave Junction. Periodic water level measurements available from 1952 to date.

GRANTS PASS AREA (23)



COOS BAY AREA (24)

The sand dune area lying along the coast north of Coos Bay contains the most productive ground-water reservoirs in the entire coastal area. The dune sands which exceed several hundred feet in thickness, absorb large amounts of the relatively heavy precipitation. It is estimated that the sand dunes in this area are capable of sustaining a yield of over 2,000,000 gallons per day per square mile.

To date only a small part of the ground-water supply in this area has been developed and put to use.

OBSERVATION WELLS

27/13W-27C(1) (City of Coquille) is a 150-foot drilled well in sandstone located about three miles northwest of Coquille.

23/13W-34G(1) (Pacific Power & Light Co.) is a 137-foot drilled well in sand located about nine miles north of North Bend.

24/13W-10L(1) (Pacific Power & Light Co.) is a 505-foot drilled well in sand located about six miles north of North Bend. Water level information relates to sand formation encountered in first 120 feet.

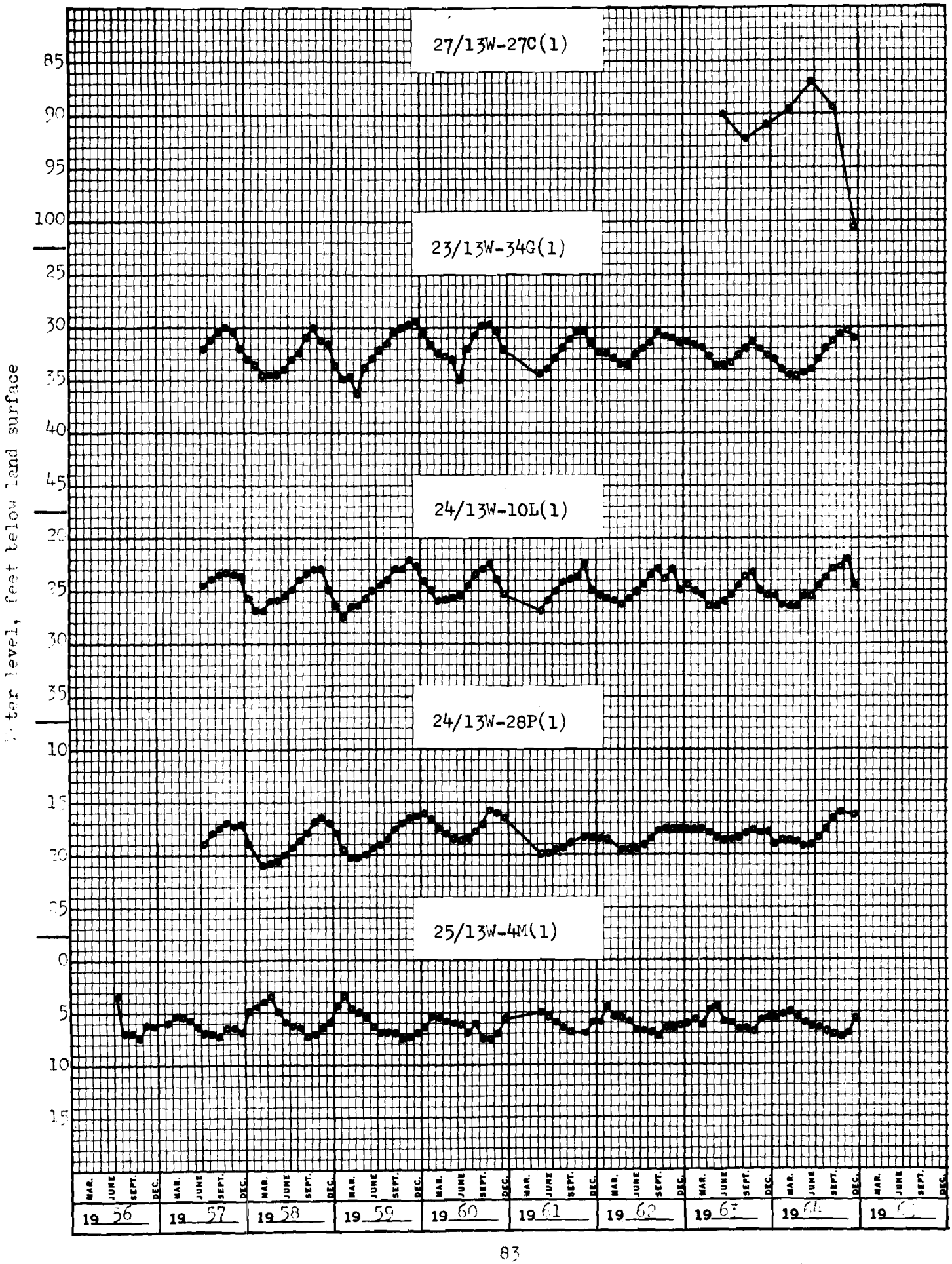
24/13W-28P(1) (Pacific Power & Light Co.) is a 179-foot drilled well in sand located about five miles northwest of North Bend.

25/13W-4M(1) (Pacific Power & Light Co.) is a 18.5-foot jetted well in sand located about one mile north of North Bend.

REFERENCES

Brown, S. G. & Newcomb, R. C., 1963, Ground-water resources of the coastal sand dune area north of Coos Bay, Oregon: U. S. Geological Survey Water Supply Paper 1619-D.

COOS BAY AREA (24)



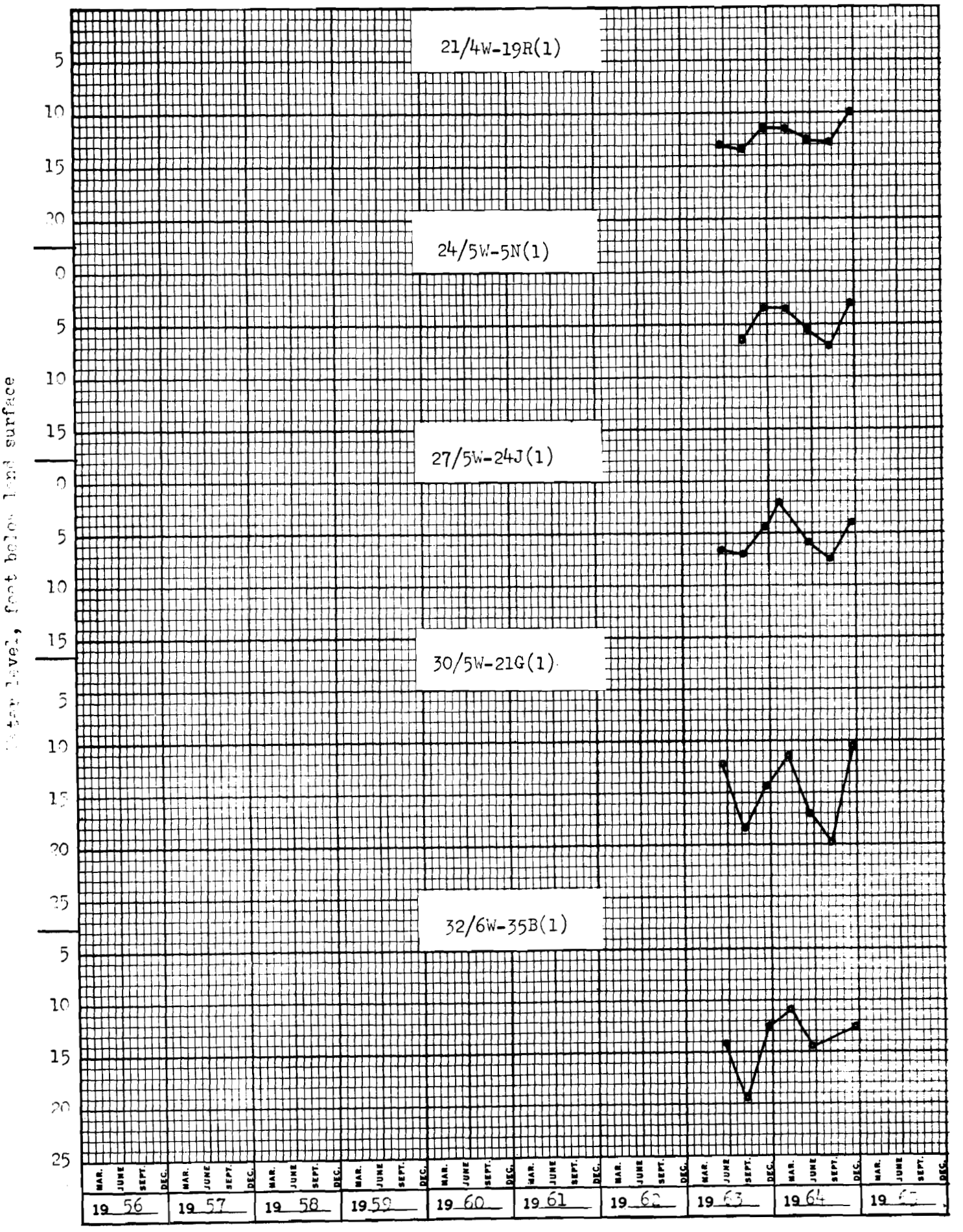
UMPQUA RIVER VALLEY (25)

The Umpqua River Valley, like most of southwestern Oregon, is underlain by relatively impermeable rock formations. Wells in this area generally yield only small supplies of water.

OBSERVATION WELLS

21/4W-19R(1)	(Douglas County Parks Department) is a 110-foot drilled well in Curtin.
24/5W-5N(1)	(Robert M. Crawford) is a 80-foot drilled well in shale located about six miles north of Oakland.
27/5W-24J(1)	(Douglas County Parks Department) is a 116-foot drilled well located about six miles east of Roseburg.
30/5W-21G(1)	(Douglas County Parks Department) is a 90-foot drilled well located about one mile north of Canyonville.
32/6W-35B(1)	(George H. Wells) is a 100-foot drilled well located about two miles southeast of Glendale.

UMPQUA RIVER VALLEY (25)



WILLAMETTE BASIN - LANE COUNTY (26)

The most productive ground-water reservoirs in Lane County are the sand and gravel alluvial deposits underlying the flood plains at the Willamette and McKenzie Rivers.

OBSERVATION WELLS

16/2W-34P(1) (M. A. Nadeau) is a 73-foot drilled well in sand and gravel located about one mile south of Mohawk.

16/3W-32G(1) (Leo Sidwell) is a 18-foot dug well in sand and gravel located near Coburg. Periodic water level measurements available from 1928-30, 1935-36 and 1938 to date.

17/2W-32C(1) (Weyerhaeuser Timber Co.) is a 175-foot drilled well in sand and gravel located near Springfield.

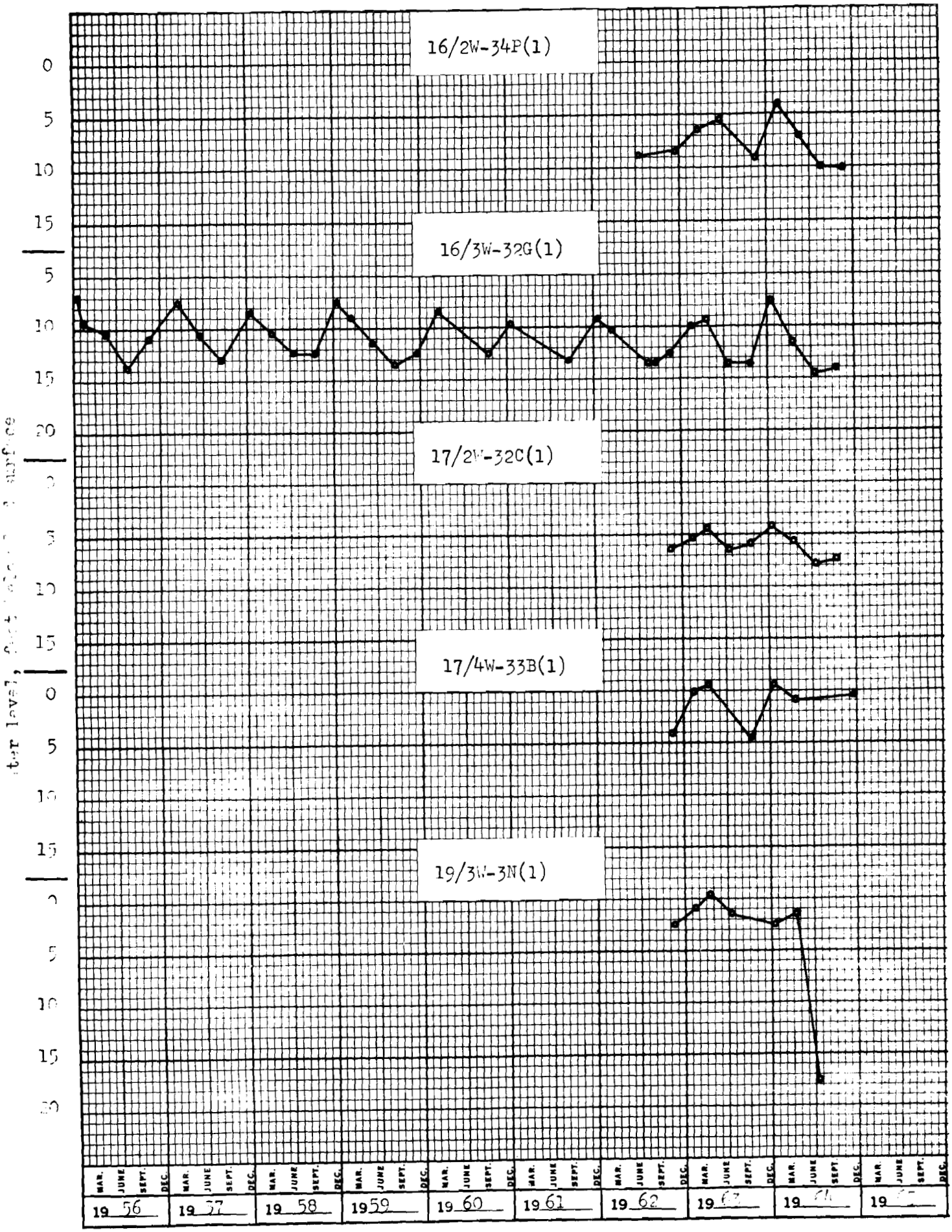
17/4W-33B(1) (Westlawn Memorial Cemetery) is a 150-foot drilled well in sand and gravel located about three miles west of Eugene.

19/3W-3N(1) (Oregon State Game Commission) is a 200-foot drilled well in sandstone located about four miles northwest of Creswell.

REFERENCES

Piper, Arthur, 1942, Ground-water resources of the Willamette Valley, Oregon: U. S. Geological Survey Water Supply Paper 890.

WILLAMETTE BASIN (26) - LANE COUNTY



9/1W-23P(1) (Charles Hecht) is a 93-foot drilled well in rock located about two miles southeast of Stayton.

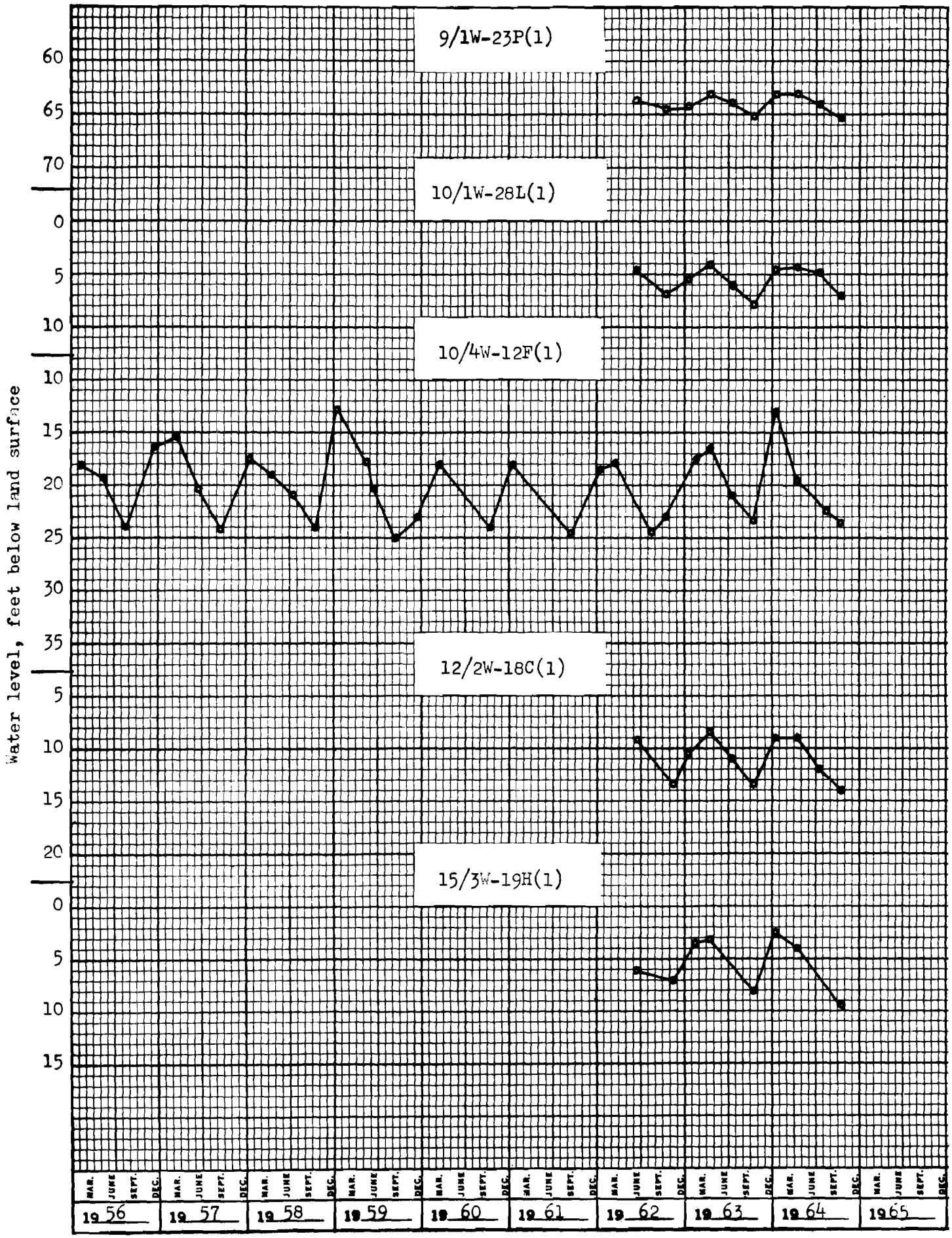
10/1W-28L(1) (Grant Farris) is a 172-foot drilled well in blue shale located about three miles southeast of Scio.

10/4W-12F(1) (Henry Hoefer) is a 25-foot dug well in gravel located about seven miles north of Albany. Periodic water level measurements available from 1928-30, 1935-36 and 1938 to date.

12/2W-18C(1) (Henry DeManette) is a 175-foot drilled well in rock located about four miles west of Lebanon.

15/3W-19H(1) (Edgar Grimes) is a 98-foot drilled well in sand and gravel located about four miles southeast of Harrisburg.

WILLAMETTE BASIN (26) - LINN COUNTY



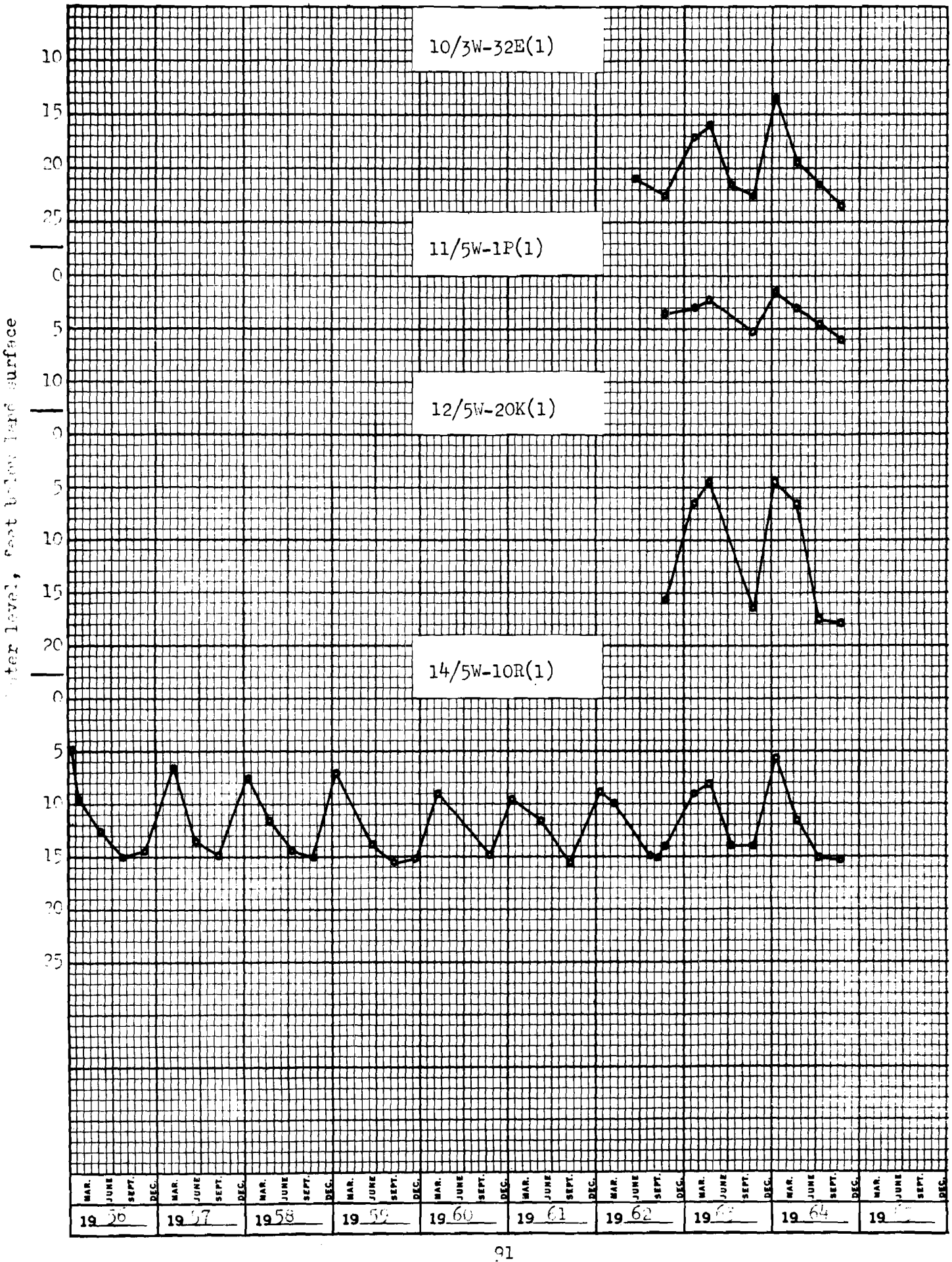
10/3W-32E(1) (D. E. Nebergall) is a 90-foot drilled well in sand located about one mile northeast of Albany.

11/5W-1P(1) (Karl Bruinsma) is a 89-foot drilled well in sand rock located about four miles northeast of Corvallis.

12/5W-20K(1) (C. A. McDonald) is a 100-foot drilled well in sand and gravel located about three miles southwest of Corvallis.

14/5W-10R(1) (Chris Lindseth) is a 19-foot driven well in silt located about four miles north of Monroe. Periodic water level measurements available from 1929-30, 1935-36 and 1938 to date.

WILLAMETTE VALLEY (26) -BENTON COUNTY



WILLAMETTE BASIN - POLK COUNTY (26)

The most productive ground-water reservoirs in Polk County are the sand and gravel deposits underlying the flood plain of the Willamette River. Most of the other rock units in Polk County, with the exception of the basaltic lava flows underlying the Eola Hills, are fine-grained and are generally capable of yielding only small supplies of ground water. The lavas underlying the Eola Hills are generally capable of yielding small to moderate supplies of water.

OBSERVATION WELLS

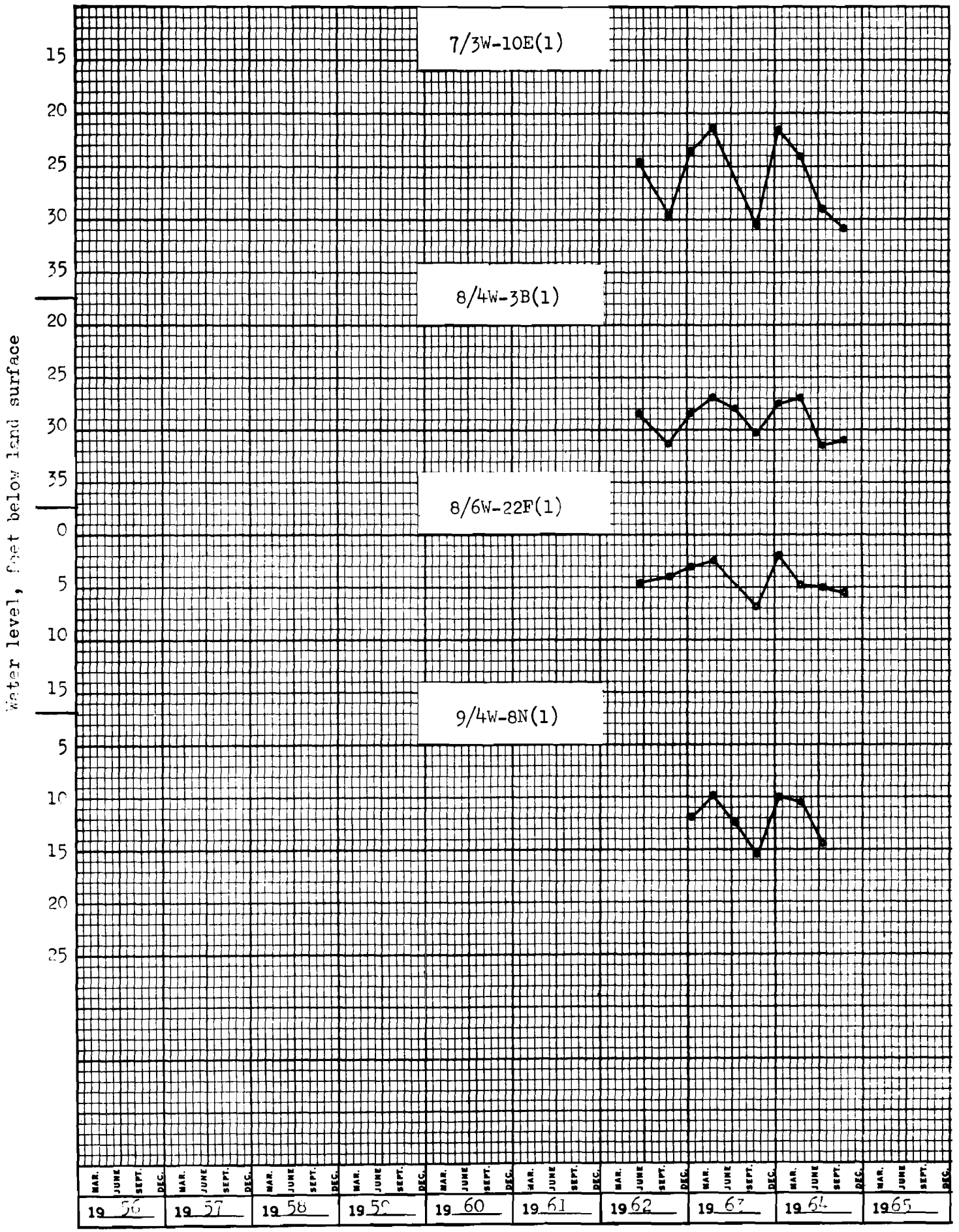
7/3W-10E(1) (Leland Brandt) is a 150-foot drilled well in sand and gravel about three miles north of Salem.

8/4W-3B(1) (Theodore Muller) is a 60-foot drilled well in gravel located about four miles southeast of Rickreall.

8/6W-22F(1) (Edward Bakke) is a 79-foot drilled well located near Falls City.

9/4W-8N(1) (D. W. Christianson) is a 120-foot drilled well in sand and gravel located about eight miles south of Independence.

WILLAMETTE BASIN (26) - POLK COUNTY



WILLAMETTE BASIN - MARION COUNTY (26)

The most productive ground-water reservoirs in Marion County are the alluvial gravels underlying the flood plain of the Willamette River and the older gravel strata underlying the French Prairie area.

OBSERVATION WELLS

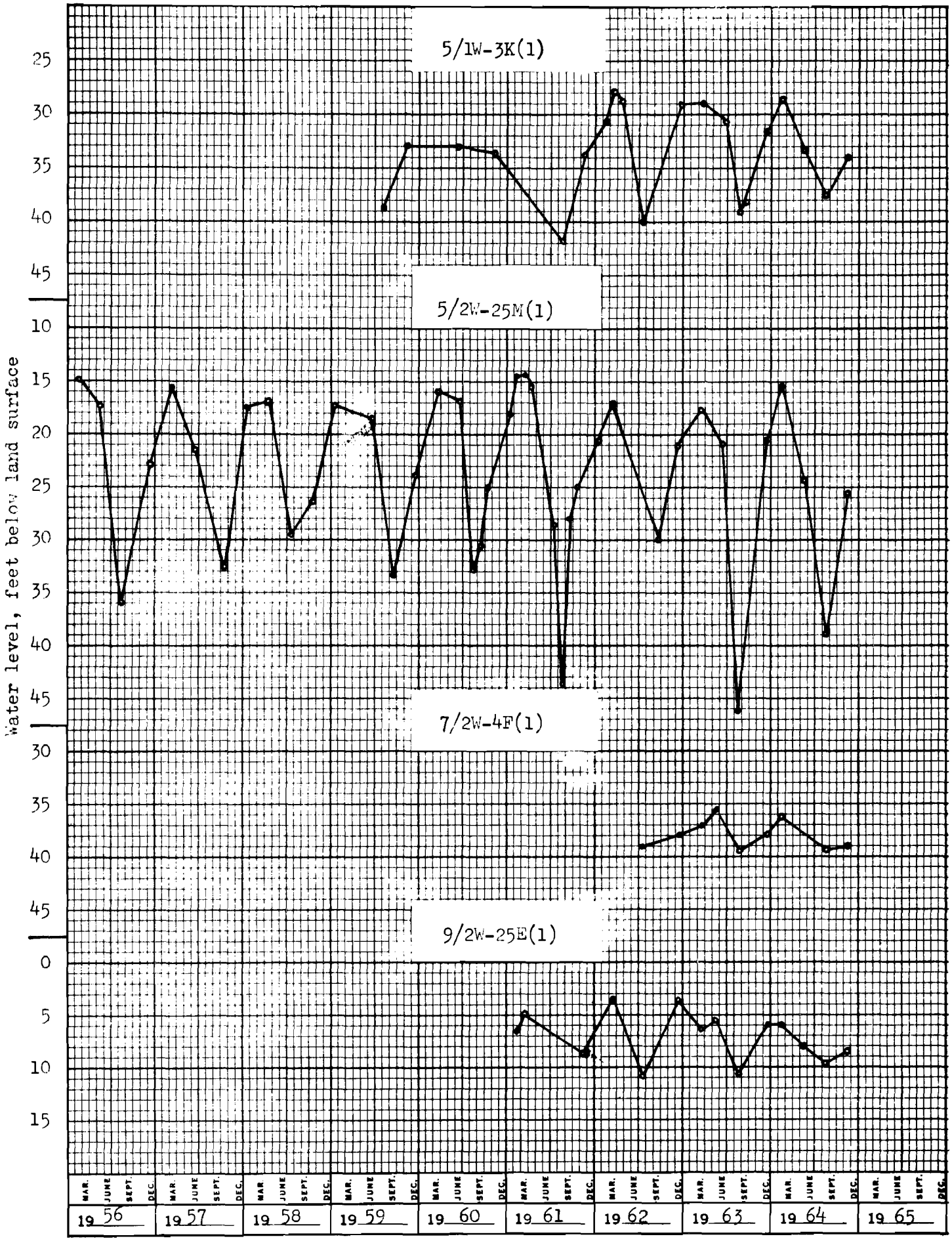
5/1W-3K(1) (Julius Ramlo) is a 102-foot drilled well in gravel located about one mile south of Hubbard.

5/2W-25M(1) (Sam Brown) is a 252-foot drilled well in sand and gravel located about one mile east of Gervais. Periodic water level measurements available from 1929-30, 1935-36 and 1938 to date.

7/2W-4F(1) (T. W. Woelke) is a 165-foot drilled well in sand and gravel located about four miles northeast of Salem.

9/2W-25E(1) (Louis Scofield) is a 25-foot drilled well in gravel located about three miles south of West Stayton.

WILLAMETTE VALLEY (26) - MARION COUNTY



4/1W-23G(1) (Donald Olmstead - formerly Julius Sather) is a 57-foot dug well in silt and sand located about three miles southwest of Aurora. Periodic water level measurements available from 1945 to date.

4/2W-22M(1) (Kirk Bros.) is a 117-foot drilled well in sand located about three miles east of St. Paul.

6/2W-18G(1) (E. A. Hillyer) is a 140-foot drilled well in sand and gravel located about two miles southwest of Brooks.

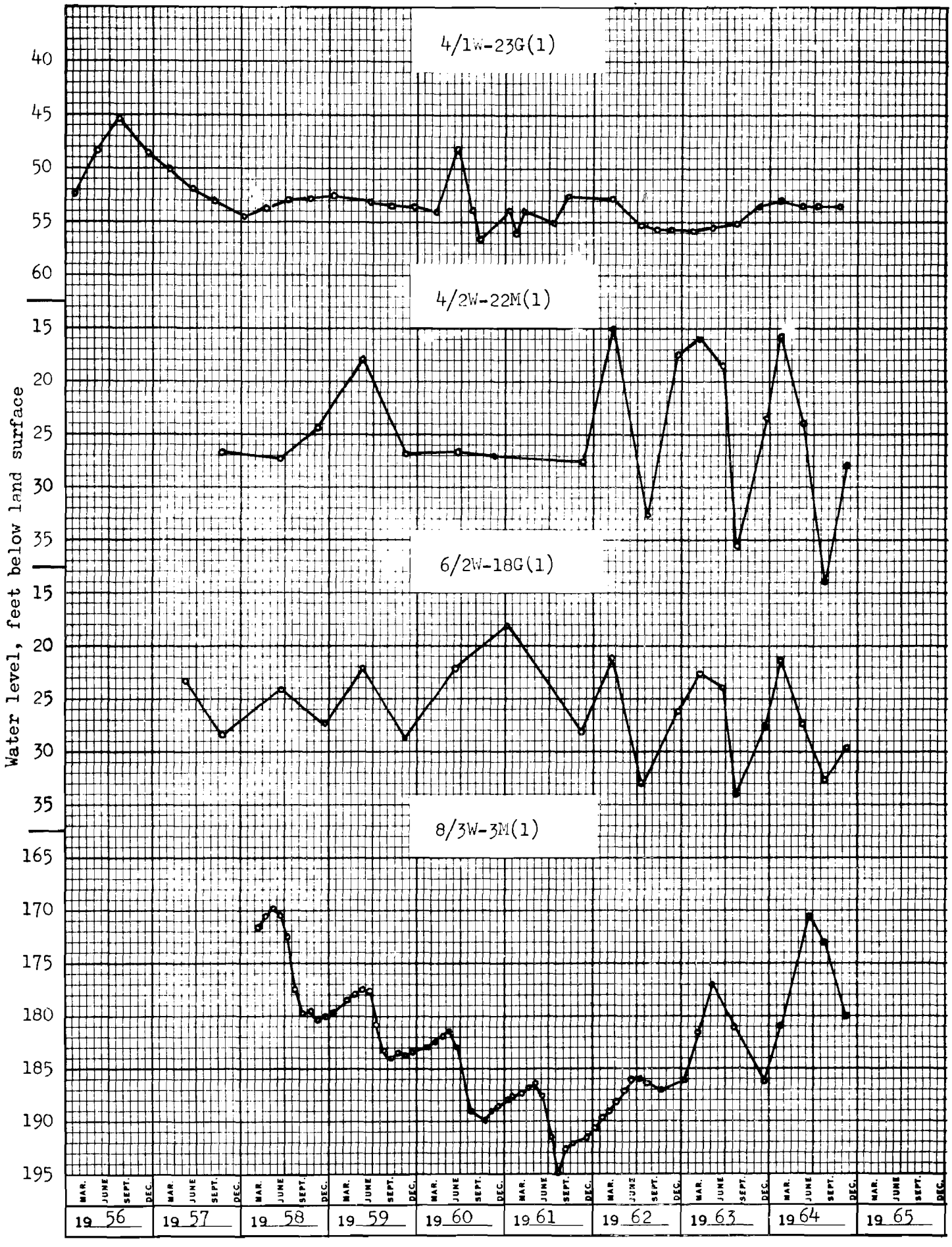
8/3W-3K(1) (Salem Heights Water District - Madronna Well) is a 350-foot drilled well in basalt located near Salem. Ground-water withdrawal from this reservoir greatly reduced in August 1961 because of completion of pipeline to the Salem municipal water system.

REFERENCES

Hampton, E. R., 1963, Records of wells, water levels and chemical quality of ground water in the Molalla-Salem Slope area, Northern Willamette Valley, Oregon: State Engineer Ground-Water Report No. 2.

Price, Don, 1961, Records of wells, water levels and chemical quality of ground water in the French Prairie-Mission Bottom Area, Northern Willamette Valley, Oregon: State Engineer Ground Water Report No. 1.

WILLAMETTE VALLEY (26) - MARION COUNTY



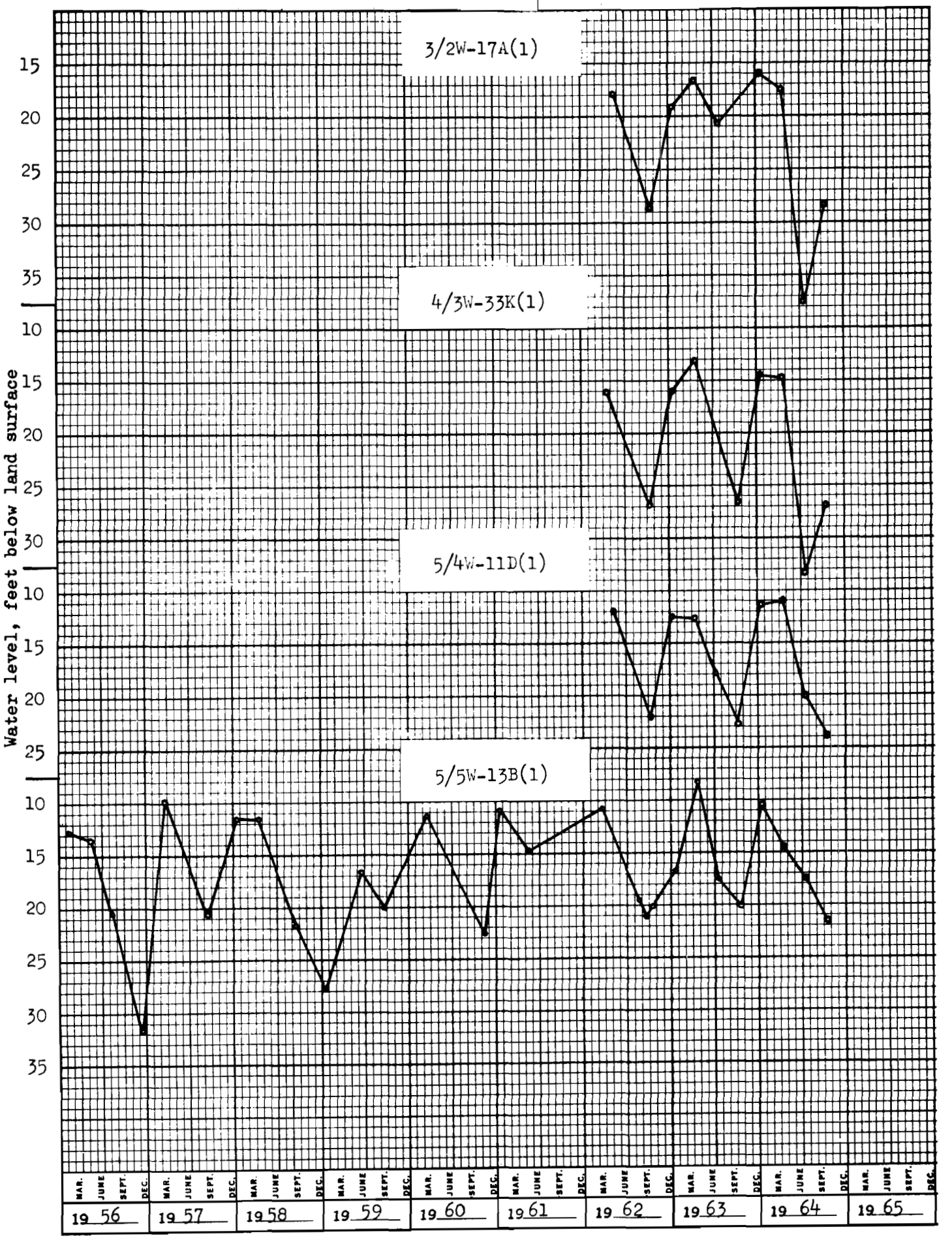
3/2W-17A(1) (Mack Bennett) is a 200.5-foot drilled well in basalt located about one mile northeast of Newberg.

4/3W-33K(1) (Clayton Trent) is a 220-foot drilled well in sand located about four miles south of Dayton.

5/4W-11D(1) (Norman Longhurst) is a 96-foot drilled well in black sand located about three miles east of Whiteson.

5/5W-13B(1) (George Fuller) is a 64-foot drilled well in sand and gravel located about seven miles southwest of McMinnville. Periodic water level measurements available from 1928-30, 1935-36 and 1938 to date.

WILLAMETTE BASIN (26) - YAMHILL COUNTY



2/2-15D(1) (Byrum Morehouse) is a 347-foot drilled well in sand and gravel locat d near Gladstone.

2/4-4R(1) (M. K. Smith) is a 400-foot drilled well in sand and gravel located about two miles east of Boring

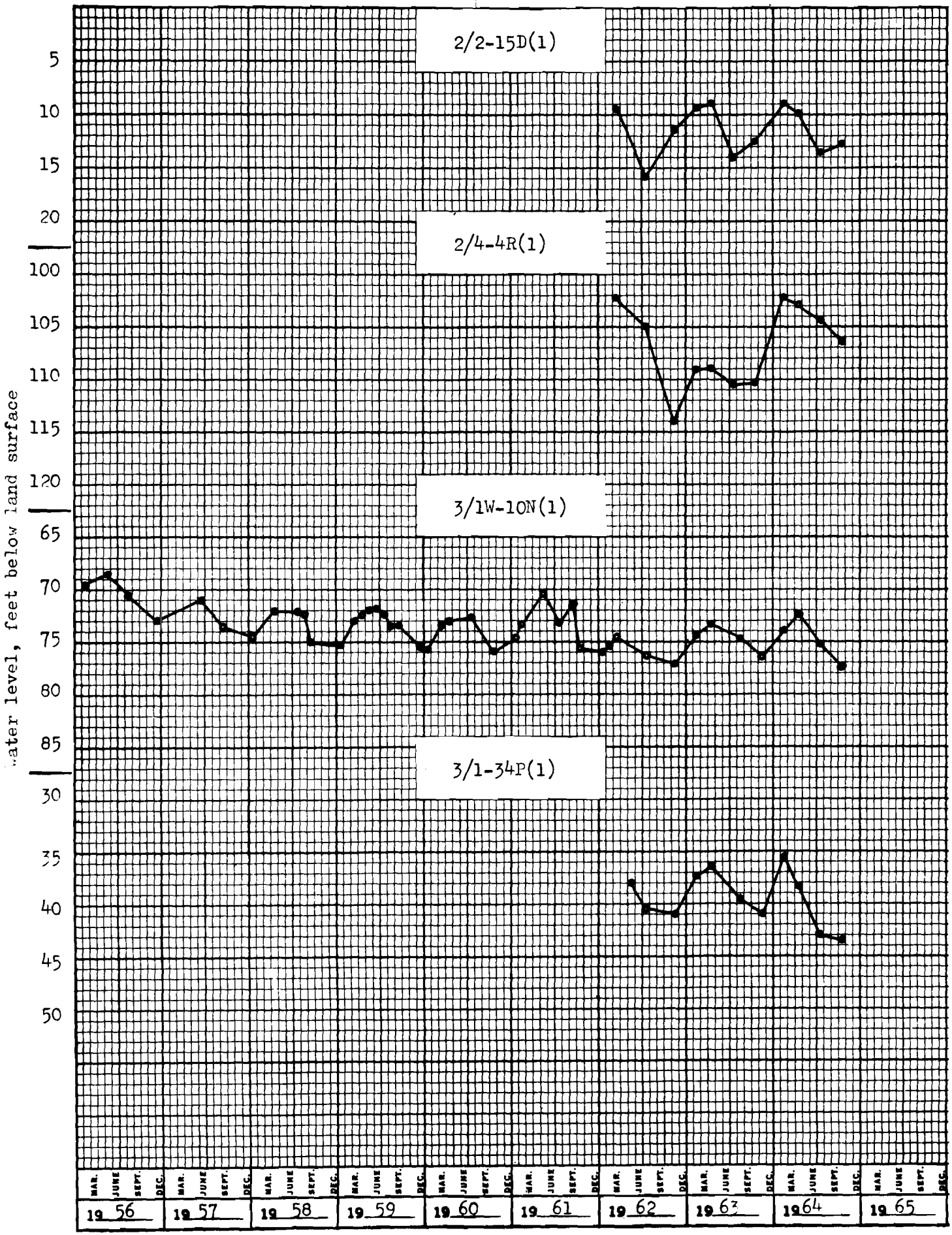
3/1W-10N(1) (Charles Jenkins) is a 115-foot drilled well in Columbia River Basalt located about two miles north of Wilsonville. Periodic water level measurements available from 1951 to date.

3/1-34P(1) (Frank Delforge) is a 218-foot drilled well in sand and gravel located about one mile east of Canby.

REFERENCES

Hampton, E. R., 1963, Records of wells, water levels and chemical quality of ground water in the Molalla-Salem Slope area, Northern Willamette Valley, Oregon: State Engineer Ground Water Report No. 2.

WILLAMETTE VALLEY (26) - CLACKAMAS COUNTY



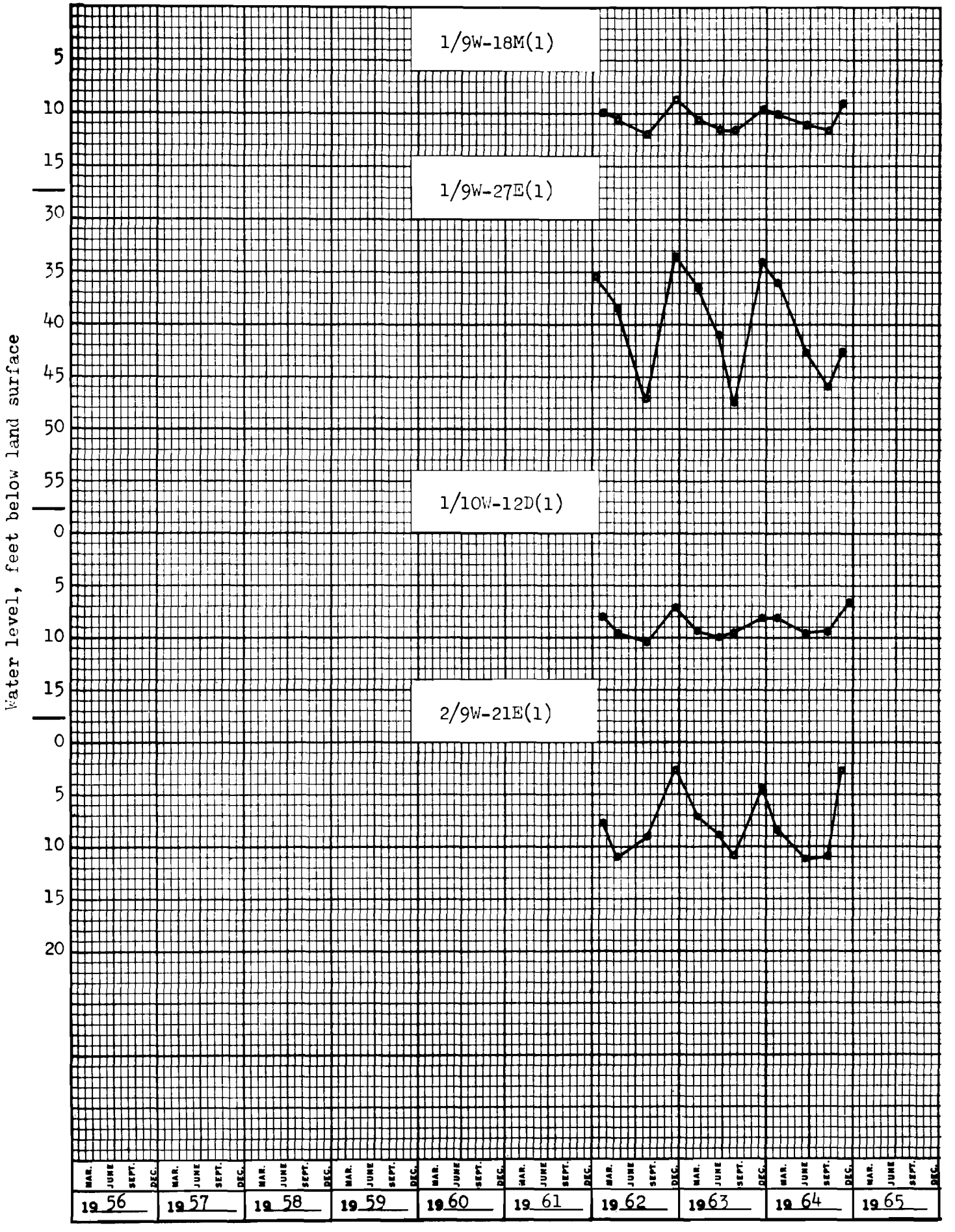
TILLAMOOK AREA (27)

The principal ground-water reservoirs in Tillamook County are the sand and gravel deposits underlying the flood plains of the Wilson and Trask River Valleys.

OBSERVATION WELLS

1/9W-18M(1)	(Green Acres Motel) is a 187-foot drilled well located about two miles north of Tillamook.
1/9W-27E(1)	(Virgil Chadwick) is a 197-foot drilled well in gravel located about 2½ miles east of Tillamook.
1/10W-12D(1)	(Leo & Robert Wassmer) is a 80-foot drilled well located near Idaville.
2/9W-21E(1)	(Vern Darby) is a 128-foot drilled well in gravel located about seven miles southeast of Tillamook.

TILLAMOOK AREA (27)



LIST OF OBSERVATION WELLS

BAKER COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
7/39-3B(1)	L. H. Williams	1963-
7/39-20N(1)	City of Baker	1936-
7/39-28D(1)	Martha Traverso et al	1963-
7/40-33K(1)	Walter Colton	1964-
8/39-22F(1)	Baker County	1936- 1/
8/40-19D(1)	Baker County	1936- 1/
8/40-23A(1)	Baker County	1936-
8/41-14B(1)	Steward-Morrissey	1963-
9/39-2N(1)	Kermit Hansen	1949- 1/
9/40-18Q(1)	Paul V. Hill	1963- 1/
13/37-17G(1)	Grant Morgan	1964-

BENTON COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
10/3W-32E(1)	D. E. Nebergall	1962- 1/
11/4W-19L(1)	Oregon Dairy Breeders Ass'n.	1962-
11/5W-1P(1)	Karl Bruinsma	1962- 1/
12/5W-8A(1)	Donald Russell	1962-
12/5W-20K(1)	C. A. McDonald	1962- 1/
12/6W-12P(1)	Hobin Lumber Company	1962-
14/5W-10R(1)	Chris Lindseth	1929- 1/

CLACKAMAS COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
2/1-2N(1)	City of Lake Oswego	1964-
2/1-4L(1)	Chester Bohlman	1963-
2/1-21N(1)	Paul Riegelmann	1963-
2/2-15D(1)	Byrum Morehouse	1962- 1/
2/3-2G(1)	Vernon DeYoung	1962-
2/3-6F(1)	Lewis Isaacs	1962-
2/3-10C(1)	Mas Fujimoto	1962-
2/3-31L(1)	Howard DeLano	1962-
2/4-4R(1)	M. K. Smith	1962- 1/
2/4-5M(1)	G. Kemp	1962-
2/4-7B(1)	William J. O'Shia	1962-
2/4-27D(1)	Sandy Farms	1962-
2/4-29J(1)	Virgil Nelson	1962-
2/5-18G(1)	Frank Leitheiser	1962-
3/1W-10N(1)	Charles Jenkins	1951- 1/
3/1W-14K(1)	Susan Seely	1951
3/1W-15L(1)	Dammasch State Hospital	1959-
3/1W-16R(1)	Dammasch State Hospital	1961-
3/1W-25K(1)	Oregon State Experimental Farm	1963-
3/1-7H(1)	Frank Hoyt	1963-
3/1-26E(1)	Amil Slaby	1962-
3/1-32R(1)	Christ Schlunsggar	1962-
3/1-34F(2)	Ivan Arneson	1962-
3/1-34P(1)	Frank Delforge	1962- 1/
3/1-36N(1)	Joe Demsher Jr.	1960-
3/1-36N(2)	L. H. Davis	1960-
3/2-35G(1)	Burt Deardorff	1964-
3/4-26P(1)	W. O. Youngberg	1963-
4/1-4G(1)	John W. Beck	1962-
5/1-5R(1)	A. D. Rogie	1962-
5/1-18F(1)	Warren Bremer	1962-
5/2-17G(1)	Howard Brockart	1963-
6/2-14A(1)	Harry Schoenborn	1963-

CLATSOP COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
8N/7W-24A(1)	Oregon State Game Commission	1963-
8N/8W-27C(1)	Howard T. Multhauf	1963-

COLUMBIA COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
4N/2W-13F(1)	Paul J. DeShazer	1963-

COOS COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
23/13W-34G(1)	Pacific Power & Light Company	1957- 1/
24/13W-10L(1)	Pacific Power & Light Company	1957- 1/
24/13W-28P(1)	Pacific Power & Light Company	1957- 1/
24/13W-33G(1)	Pacific Power & Light Company	1957-
25/13W-4M(1)	Pacific Power & Light Company	1956- 1/
27/13W-27C(1)	City of Coquille	1963- 1/

CROOK COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
14/15-15Q(1)	L. H. McPhetridge	1945- 1/
14/16-19H(1)	Leslie Clausen	1944- 1/
14/16-32N(1)	E. E. Wagoner	1944- 1/
15/16-6A(1)	M. E. Gerow et al	1944- 1/
20/22-25R(1)	Lelco Inc.	1964-
21/22-3D(1)	Lelco Inc.	1963-

DESCHUTES COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
14/10-7Q(1)	Indian Ford Guest Ranch	1963-
15/10-8G(2)	Ross Hammond	1960- 1/
21/10-25A(1)	Inez Kellems	1945-
22/21-8G(1)	Bar T Cattle Company, Inc.	1959-
22/21-16D(1)	Bar T Cattle Company, Inc.	1961-

DOUGLAS COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
21/4W-19R(1)	Douglas County Parks Dept.	1963- 1/
23/5W-15N(1)	W. S. Carlson	1963-
24/5W-5N(1)	Robert M. Crawford	1963- 1/
26/5W-6B(1)	Stanley Mohr	1963-
27/5W-24J(1)	Douglas County Parks Dept.	1963- 1/
30/5W-21G(1)	Douglas County Parks Dept.	1963- 1/
32/6W-35B(1)	George H. Wells	1963- 1/

GILLIAM COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1N/22-8B(1)	D. L. Lemon	1964-
3N/21-34B(1)	E. M. Hulden	1964-

GRANT COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
12/26-34J(1)	Dayville Cemetery	1963- 1/
13/29-22L(1)	Curtice Martin	1962- 1/
13/30-27A(1)	Oregon State Highway Dept.	1964- 1/
13/31-21N(1)	Mt. View Country Club	1963- 1/
13/31-23M(1)	City of John Day	1962-
13/31-26F(1)	City of John Day	1962-

HARNEY COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
22/31-34N(1)	L. F. Lazaus	1930- 1/
22/31-36C(1)	Harry Pon	1963-
23/26-28D(1)	Unknown	1961- 1/
23/27-30B(1)	Green Valley Ranch	1962-
23/31-3D(2)	Harney County	1936-
23/31-5B(1)	Harry Pon	1962-
23/31-11Q(1)	E. Sewell	1959- 1/
23/31-11Q(2)	E. Sewell	1959-
23/31-14A(3)	Harney County	1936-
23/31-16E(1)	Harney County	1936-
23/31-16K(1)	T. Allen Jones	1930- 1/
23/32-3A(1)	Meadowland Ranches	1963-
23/31-33E(1)	Harney County	1936-
23/32-7L(2)	Emmett Ray	1928-
23/32-30R(1)	Harney County	1936-
24/30-26R(1)	John Campbell	1960- 1/
24/31-28E(1)	Harney County	1936- 1/
24/32½-30R(1)	Ralph Catterson	1963-
24/34-31C(1)	John Rossburg	1959- 1/
24/34-31N(1)	John Rossburg	1963-
24/34-31P(1)	John Rossburg	1960-
24/34-31R(2)	John Rossburg	1959-
25/30-34B(1)	Forrest Reed	1963-
25/31-4M(1)	James Stahl	1962- 1/
25/31-29N(1)	Edgar Koeneman	1964-
25/34-30Q(1)	Forrest Skinner	1960-

LIST OF OBSERVATION WELLS

HARNEY COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
26/31-34R(1)	Marcus Haines	1964-
26/33-13J(1)	Lester Thompson	1962-
26/33-19N(1)	R. J. Corbin	1959-
26/33-19R(1)	R. J. Corbin	1959-
26/33-28Q(1)	A. B. Hann	1958-
26/33-33C(1)	A. B. Hann	1958- 1/
26/33-34G(1)	Guy Leslie	1956-
26/33-34N(2)	George H. Merrick	1958-
26/34-6C(1)	John J. Fecht	1960- 1/
26/34-6J(1)	H. C. Fitchett	1960-
26/34-19K(1)	F. E. Jones	1959-
27/31-1G(1)	John Crow	1961- 1/
27/33-2D(1)	R. F. Upton	1956- 1/
27/36-33G(1)	Floisa Holly	1963-
31/35-2D(1)	Fred Pallock	1954- 1/
34/34-15G(1)	Rocky Hill, Inc.	1962- 1/
35/33-34Q(1)	Andrew Shull	1958- 1/
36/33-3B(1)	Allied Properties, Inc.	1962-
37/36-10M(1)	Whitehorse Ranch	1962-
37/36-14A(1)	Whitehorse Ranch	1962- 1/
37/36-15M(1)	Whitehorse Ranch	1962-
39/35-4N(1)	Warren McLean	1964-

HOOD RIVER COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
2N/10-4K(1)	Gerald White	1964-
2N/10-4K(2)	B. Ross Evans	1964-

JACKSON COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
36/1W-21A(1)	Bud Hoover	1960- 1/
36/2W-23N(1)	U. S. Geological Survey	1953- 1/
36/2W-25H(1)	Alex Legler	1960-
37/2W-28B(1)	So. Oregon Experimental Sta.	1960- 1/
38/1W-15L(1)	City of Phoenix	1960- 1/

JEFFERSON COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
11/12-21A(1)	Portland General Electric Co.	1962-
11/12-26J(1)	Portland General Electric Co.	1962-
11/13-1D(1)	City of Madras	1964-
12/13-6D(1)	Fred Degner	1964-
13/14-33J(1)	Buckner Bros.	1964-

JOSEPHINE COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
33/6W-15N(1)	Southern Pacific Company	1963-
35/6W-21F(1)	Bate Lumber Company	1961-
35/6W-24D(1)	Oregon State Highway Dept.	1963- 1/
36/5W-31L(2)	Grants Pass Golf Club, Inc.	1964-
38/5W-23H(1)	John Katzenbach	1961 1/
38/8W-33H(1)	J. R. Smith	1961 1/
39/5W-6K(1)	Brown Bros. Lumber Co., Inc.	1962-
39/8W-17J(1)	Joseph Ollis	1961-
39/8W-34L(1)	U. S. Geological Survey	1952- 1/

KLAMATH COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
24/9-30P(1)	U. S. Forest Service	1962- 1/
27/8-20A(1)	U. S. Forest Service	1963-
28/8-17K(1)	Winema Lumber Company	1962- 1/
30/7-11G(1)	Crown Zellerbach, Inc.	1954- 1/
31/7-1H(1)	Yamsay Land & Cattle Company	1962-
34/7-9B(1)	Oregon State Parks Department	1955-
35/8-1E(1)	Henry Wolff	1954- 1/
35/10-19B(1)	Ted Chrume	1954- 1/
36/10-14G(1)	K. R. Newlun	1962- 1/
36/11-20Q(1)	William & D. M. Hess	1962-
36/11-36A(1)	Frank McBain	1954- 1/
36/12-12Q(1)	Weyerhaeuser Timber Company	1962-
36/12-14M(1)	Beatty Recreation Hall	1954-
36/12-28H(1)	Mike Deely	1962-
36/14-7H(1)	Harry Obenchain	1962-
36/14-25E(1)	Gerber & Campbell	1962-
36/14-27P(1)	Henry Gerber	1962- 1/
36/14-35R(1)	Basil Hall	1962-
37/10-8N(1)	Edgewood Ranch	1961- 1/
37/10-18B(1)	Mario Marengo	1961-
37/10-19H(1)	H. D. Whiteline	1961-
37/10-29K(1)	Edgewood Ranch	1949-
37/10-29K(2)	Edgewood Ranch	1949- 1/
37/10-30C(1)	Fred Coleman	1961-
37/11½-36H(1)	Donald Schreiner	1957-
38/10-9M(3)	Frank Riley	1949-
38/10-13D(1)	L. M. & Lloyd Hankins	1949-
38/10-16Q(2)	Mrs. Mauds Liskey	1957-
38/10-16R(2).	Daniel L. House	1962-
38/10-22C(1)	Mike Short	1957- 1/
38/10-23F(1)	Gene Carl	1957-
38/10-25A(1)	Garrison Mitchell	1957- 1/
38/11-6R(1)	B. J. Jendrzejewski	1957- 1/
38/11½-6L(1)	L. M. Hankins	1957-
38/11½-7R(1)	L. M. & Lloyd Hankins	1952-
38/11½-11H(1)	Frank & Mathilda Challis	1957-
38/11½-12N(2)	Frank Challis	1949- 1/
38/11½-13G(1)	R. M. Robertson	1948-
38/11½-13N(1)	William Konig	1948- 1/
38/11½-15R(1)	L. M. & Lloyd Hankins	1948- 1/
38/11½-25M(1)	Richard Hoefler	1949-
38/11½-26H(1)	Cliff Sewald	1957-
38/11½-30M(1)	L. M. & Lloyd Hankins	1957-
38/11½-30R(1)	Arthur L. Wheeler	1957-
38/11½-30R(3)	Arthur L. Wheeler	1948-
39/9-34P(1)	Harry Wagner	1964-
39/11-10R(1)	Lost River Cemetery	1963-
39/11½-3B(1)	L. J. Horton	1957- 1/
39/11½-28R(1)	W. Tuback	1954-
39/12-29K(1)	Robert Adams	1954-
39/12-36L(1)	Lloyd Crawford	1954-
40/11-11C(1)	A. W. Schaup	1954-
40/11-13F(2)	Laddie Rajnus & Sons	1963-
41/10-10L(1)	Fotheringham Bros.	1964-
41/12-3M(1)	George Rajnus	1954-
41/12-19G(1)	D. P. Reid	1954-
41/14-7R(1)	Charles Kilgore	1954-

LAKE COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
25/14-15E(1)	Ira A. Dutcher	1932-
25/14-16H(1)	U. S. Government	1956-
25/14-19R(1)	R. A. Long	1948-
25/14-22D(1)	C. B. Webster	1949-
25/14-29J(1)	R. A. Long	1956-
25/14-36N(1)	Joe & Minnie Stitz	1956-
25/19-31Q(1)	O. E. White	1963-
26/14-2D(1)	J. Kittridge	1948-
26/14-3D(1)	Andy Hergert	1956-
26/14-5A(1)	D. A. Busch	1940- 1/
26/14-12A(1)	Sheldon D. Kelley	1948-
26/14-12C(1)	Elmer Kohler	1958- 1/
26/14-13N(1)	Bob Grabar	1957-
26/14-20N(1)	R. A. Long	1940-
26/14-21R(2)	U. S. Government	1940-
26/14-23D(1)	Bureau of Land Management	1959-
26/14-24P(1)	Jack Kittridge	1956-
26/14-33C(1)	R. A. Long	1940-
26/15-5C(2)	George Wirth	1957-
26/15-6B(1)	Glenn Irwin	1955-
26/15-6H(1)	Glenn Irwin	1960-
26/15-17R(1)	Morehouse Ranch	1940-
26/15-20D(1)	Richard Schaub	1940-
26/15-20Q(1)	Hugh L. Wahl	1956-
26/15-22B(2)	U. S. Government	1932-
26/15-28J(1)	M. Y. Parks	1948-
26/15-29B(1)	Delbert M. Wilson	1956- 1/
26/15-29E(1)	Richard Schaub	1940-
26/15-31A(3)	Nick Klerk	1949-
26/15-31E(1)	Nick Klerk	1949-
26/15-31J(1)	Richard Schaub	1956-
26/15-32E(1)	Richard Schaub	1956-
26/15-32E(2)	Richard Schaub	1956-
26/15-33H(1)	Merritt Parks	1962-

LIST OF OBSERVATION WELLS

LAKE COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
26/15-34N(1)	Merritt Parks	1956-
26/15-34Q(1)	C. W. Boley	1956-
26/18-26B(1)	Robert Bothern	1963-
26/18-30H(1)	Sam K. Morehouse	1959-
27/15-2E(1)	C. C. Miles	1949-
27/15-2E(2)	C. C. Miles	1956-
27/15-2H(2)	B. Iverson	1949-
27/15-3B(1)	Easton Claridge	1956-
27/15-3J(1)	Easton Claridge	1949-
27/15-4G(1)	M. Y. Parks	1932- 1/
27/15-4G(2)	M. Y. Parks	1932-
27/15-11H(1)	K. O. Buick	1961-
27/15-11J(1)	K. O. Buick	1956-
27/15-13D(1)	Jess Miles	1949-
27/15-24C(1)	Darrell Bowen	1959-
27/15-24M(2)	Darrell Bowen	1961-
27/15-24N(1)	Darrell Bowen	1948-
27/15-25E(1)	E. E. Lander	1956-
27/16-7D(1)	Wayne Dubois	1956-
27/16-7F(1)	Wayne Dubois	1961-
27/16-7L(1)	Doris Liebhart	1960-
27/16-13A(1)	Robert Morehouse	1955-
27/16-13B(1)	Robert Morehouse	1958- 1/
27/16-13M(1)	Robert Morehouse	1955-
27/16-26P(1)	John Beck	1963-
27/16-32F(1)	Ralph Rawie	1956-
27/16-32Q(1)	Annette Shafer	1957-
27/16-34L(1)	Dr. George Mallett	1957-
27/17-10R(2)	M. Penn Phillips Company	1961-
27/17-14K(1)	Phil Pitman	1961-
27/17-21Q(1)	Century Ranch	1956-
27/17-22D(1)	Peggy Daly	1961-
27/17-22R(2)	Century Ranch	1938- 1/
27/17-27K(1)	Century Ranch	1961-
27/17-27L(1)	Century Ranch	1952-
27/18-6E(2)	Morici Aiassa	1940-
27/18-6F(1)	Morici Aiassa	1959-
27/18-6G(1)	Hugh L. Wahl	1956-
27/18-6H(1)	Hugh L. Wahl	1957-
27/18-6K(1)	Hugh L. Wahl	1956-
27/18-12A(1)	John Pettus	1961-
27/18-18N(1)	Jack Gillette	1959-
27/18-21A(1)	U. S. Government	1955-
27/19-18K(1)	View Point Ranch, Inc.	1957-
27/19-19Q(1)	View Point Ranch, Inc.	1957-
27/19-32C(1)	View Point Ranch, Inc.	1961-
27/19-32F(1)	View Point Ranch, Inc.	1958-
28/14-21K(1)	U. S. Forest Service	1963-
28/14-25	ZX Ranch	1964-
28/15-13P(1)	View Point Ranch, Inc.	1958-
28/15-14H(2)	View Point Ranch, Inc.	1956-
28/16-4B(1)	L. V. Gray	1958- 1/
28/16-4D(1)	L. V. Gray	1956-
28/16-5F(1)	Claude A. Shafer	1959-
28/16-5P(1)	Claude A. Shafer	1959-
28/16-5Q(1)	Claude A. Shafer	1959-
28/16-19C(1)	View Point Ranch, Inc.	1960-
29/23-3J(1)	U. S. Government	1945-
30/16-1F(1)	Mr. Williams, Sr.	1963-
33/18-13A(1)	Floyd Harris	1963-
34/19-16N(1)	Howard Beachler	1962-
34/19-23G(1)	ZX Ranch	1959-
35/24-9J(1)	Bureau of Land Management	1949- 1/
36/21-6B(1)	S. V. Carroll	1950-
36/24-4B(1)	Joe Banasco	1962-
36/24-27D(2)	Con Lynch	1961- 1/
36/24-28M(1)	Lloyd Grisel	1949-
36/24-28N(1)	Joe Hombo	1960-
36/24-32A(1)	James Kiely	1940-
36/24-33B(3)	Con Taylor Ranch, Inc.	1960- 1/
37/20-34R(1)	Robert Weir	1962- 1/
38/20-33F(1)	Jack Stooksberry	1964-
38/24-27M(1)	Charles Crump	1948- 1/
39/19-34H(1)	William Hoffman	1960- 1/
39/24-21F(2)	J. G. Dyke	1948- 1/
40/20-14D(1)	Snider & Alexis	1957- 1/
40/20-26L(2)	Neal Elliott	1959- 1/

LAKE COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
16/2W-34P(1)	M. A. Nadeau	1962- 1/
16/3W-32G(1)	Leo Sidwell	1950- 1/
17/2W-32C(1)	Weyerhaeuser Timber Company	1962- 1/
17/3W-17D(1)	Smith Gardens	1962-
17/3W-28Q(1)	Chase Gardens	1962-
17/4W-4Q(1)	Seneca Sawmill	1962-
17/4W-33B(1)	West Lawn Memorial Cemetery	1962- 1/
17/5W-13F(1)	Robert L. McClelland	1962-
17/6W-36Q(1)	Oscar E. Williams	1962-
18/4W-3L(1)	Miles Hult	1963-
18/10W-11A(1)	United States Plywood	1963-
18/12W-14P(4)	U. S. Geological Survey	1961-
19/2W-7R(1)	J. L. Getchell	1962-
19/3W-3N(1)	Oregon State Game Commission	1962- 1/
19/3W-11C(1)	O. C. Luchterhand	1963-

LINN COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
9/1W-14Q(1)	John Fery	1964-
9/1W-23F(1)	Charles Hecht	1962- 1/
10/1W-5L(1)	A. M. Hendrickson	1962-
10/1W-28L(1)	Grant Farris	1962- 1/
10/2W-8N(2)	William Uppstad	1957-
10/2W-21R(1)	H. C. Robertson	1962-
10/4W-12F(1)	Henry Hoefer	1928- 1/
11/2W-3D(1)	Sam Looney	1962-
11/2W-6E(1)	George C. Scheler	1962-
11/2W-29H(1)	Neal Hollingsworth	1962-
11/3W-13A(1)	Loren A. Nelson	1962-
11/3W-15C(1)	Joe Kennel	1962-
11/3W-26A(1)	Leonard Roth	1962-
12/1W-30R(1)	Pineway Golf Club, Inc.	1962-
12/2W-2E(1)	Ken Watters	1962-
12/2W-14P(1)	Sigurd H. Lanstrom	1941-
12/2W-18C(1)	Henry DeManette	1962- 1/
12/3W-5K(1)	George N. Chandler	1962-
12/3W-29P(1)	R. L. Wirth	1962-
12/4W-21L(1)	R. C. Mang	1962-
12/4W-35P(1)	Paul Pugh	1962-
13/3W-13A(2)	Frank Cochran	1962-
13/3W-34N(1)	Keeney School	1928-
13/3W-36H(1)	Thomas P. Irwin	1962-
13/1-27B(1)	U. S. Government	1964-
13/1-27F(1)	U. S. Government	1964-
13/1-27F(2)	U. S. Government	1964-
13/1-27F(3)	U. S. Government	1964-
13/1-27F(4)	U. S. Government	1964-
13/1-27F(5)	U. S. Government	1964-
13/1-27G(1)	Warren Vasey	1964-
13/1-27G(2)	U. S. Government	1964-
13/1-27G(3)	Lawrence Alvin	1964-
13/1-27L(1)	U. S. Government	1964-
13/1-27M(1)	Verdge Stephenson	1964-
13/1-27M(2)	Willard Frick	1964-
13/1-27M(3)	U. S. Government	1964-
13/1-27N(1)	Roy Lewis	1964-
13/1-27N(2)	Denver Davis	1964-
14/3W-7R(1)	Henry H. Kirk	1962-
15/3W-19H(1)	Edgar B. Grimes	1962- 1/

MALHEUR COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
14/38-27F(1)	Jerry Farley	1964-
14/39-21F(2)	Ralph Duncan	1962-
14/39-21Q(1)	Mary J. Molthan	1962-
14/39-29C(1)	John Molthan	1962-
14/39-29E(1)	John Molthan	1962-
14/39-32H(1)	Ray Duncan	1962-
14/41-32N(1)	Rankin Crow	1956-
15/40-1C(1)	Ed Anderson	1953- 1/
15/40-2J(1)	Max Holloway	1949- 1/
15/40-2L(1)	Max Holloway	1955-
15/40-2M(1)	Max Holloway	1952- 1/
15/40-2N(1)	Rankin Crow	1950- 1/
15/40-2Q(1)	Rankin Crow	1956-

LIST OF OBSERVATION WELLS

MALHEUR COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
15/40-10B(1)	Rankin Crow	1950-
15/40-10K(1)	Rankin Crow	1953- 1/
15/40-11P(1)	Rankin Crow	1950-
15/40-12M(1)	Guss Davis	1955- 1/
15/40-12Q(1)	Guss Davis	1954-
15/40-13D(1)	Guss Davis	1955- 1/
15/40-13G(1)	Guss Davis	1955-
15/40-14Q(1)	Rankin Crow	1951- 1/
15/41-6M(1)	Rankin Crow	1958-
15/41-8N(1)	Rankin Crow	1951- 1/
15/42-25B(1)	Mark J. Velsmeyer	1961-
16/43-16Q(1)	Ralph Altig	1962-
17/44-11K(1)	John Stringer	1961-
17/44-25H(1)	C. N. Durrett	1961-
18/41-8Q(1)	Roy C. Stewart	1963-
18/41-21D(1)	K. T. Loomis	1962-
18/46-19N(1)	Glen Hutchinson	1962-
18/46-23Q(1)	Kay Teramura	1962-
18/47-17D(1)	Earl Weaver	1950-
19/42-35D(1)	John E. O'Toole	1963-
19/43-2M(1)	Trenkel Bros.	1961-
19/43-3E(1)	Floyd Vaughn	1961-
19/43-3K(1)	Floyd Vaughn	1961-
19/43-10H(1)	Thomas J. Davis	1961-
20/46-28G(1)	George Mendazona	1962-
21/38-17Q(1)	Charles Wilson	1955-
21/38-17R(1)	U. S. Geological Survey	1958-
28/37-23R(1)	Earl Obenchain	1950-
29/37-19A(1)	George Renick	1950-
30/46-2H(1)	Jordan Valley Cemetery Dist.	1962- 1/
30/46-5D(1)	Cowgill Ranch	1964-
30/46-10N(5)	Jaca Brothers	1963- 1/
32/40-18K(1)	Keith Wallace	1950-
34/39-13L(1)	U. S. Government	1954-
36/41-26J(1)	Oregon State Highway Dept.	1961- 1/
41/42-22C(1)	Lucky 7 Ranch	1962- 1/
41/43-19A(1)	Victor Albisu	1955-

MARION COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
4/1W-2C(1)	W. F. Keil	1928-
4/1W-23G(1)	Donald Olmstead	1945- 1/
4/1W-32H(1)	Emmett T. Rose	1960-
4/2W-2G(1)	Oregon State Parks Dept.	1963-
4/2W-4C(1)	Dr. Bump	1928-
4/2W-4F(1)	John A. Gearin	1957-
4/2W-8G(1)	Nelson Tribbett	1960-
4/2W-15F(1)	Melvin R. DuRette	1957-
4/2W-17M(1)	Lester Ernst	1957-
4/2W-18A(1)	John P. McCarthy	1957-
4/2W-22M(1)	Kirk Brothers	1957- 1/
4/2W-28N(1)	J. B. Wolf	1957-
4/2W-29H(1)	Richard McKay	1960-
4/2W-34R(1)	Johnson School	1928-
5/1W-3K(1)	Julius Ramlo	1959- 1/
5/1W-7P(1)	City of Woodburn	1963-
5/1W-9L(1)	S. Gayken	1963-
5/1W-17L(2)	General Foods Corporation	1963-
5/1W-17M(2)	General Foods Corporation	1962-
5/1W-17N(1)	General Foods Corporation	1962-
5/1W-17N(2)	General Foods Corporation	1962-
5/1W-18C(1)	City of Woodburn	1962-
5/1W-18C(2)	City of Woodburn	1962-
5/1W-18C(3)	City of Woodburn	1962-
5/1W-18Q(1)	Lawrence J. Paradis	1962-
5/1W-18R(1)	Lawrence J. Paradis	1962-
5/2W-5E(1)	William J. Manegre	1957-
5/2W-16D(1)	James E. Davidson	1958-
5/2W-19Q(1)	Jess W. Lucas	1957-
5/2W-25M(1)	Sam H. Brown	1929- 1/
6/1W-1G(1)	James Butsch	1962-
6/1W-1P(1)	Mark Purdy	1962-
6/1W-18D(1)	James Hollin	1962-
6/1W-28F(1)	Tony Schultz	1962-
6/2W-5N(1)	Fred Zelinsky	1957-
6/2W-17J(2)	Sam Hamp	1962-
6/2W-18G(1)	E. A. Hillyer	1957- 1/
6/2W-35B(1)	Richard Tuve	1963-
6/3W-34C(1)	Paul Pierce	1957-
6/3W-34N(1)	Henry Schmidt	1963-
6/1-7M(1)	Sheldon Johnson	1928-
7/1W-8J(1)	Merle Kaufman	1964-
7/1W-27N(1)	Keith Johnson	1962-
7/2W-4F(1)	F. W. Woelke	1962- 1/
7/2W-18B(1)	Emery Alderman	1962-
7/2W-26G(1)	Cornelius Bateson	1962-
7/2W-31D(1)	Foreman Brothers	1963-
7/3W-11L(1)	Harvey Machine Company, Inc.	1960-
7/3W-23N(1)	Pacific Mutual Life Ins. Co.	1962-
7/3W-27A(3)	State of Oregon	1963-
7/3W-31G(1)	Carl Heyden	1962-
7/3W-31L(1)	E. C. Boje	1962-
7/3W-31P(1)	Illahe Country Club	1962-
7/3W-31Q(1)	Illahe Country Club	1962-
7/3W-32K(1)	Salem Golf Course	1962-
7/1-28A(1)	Willard Benson	1962-
8/1W-28G(1)	Josephine Gerspacher	1962-
8/1W-32D(1)	Daniel Elbert	1962-
8/1W-35C(1)	Richard Schumacher	1962-
8/2W-11P(1)	Reich Brothers	1962-
8/2W-33K(1)	Anna Etzel	1963-
8/3W-3M(1)	Salem Heights Water District	1958- 1/
8/3W-4M(1)	Carroll Nelson	1962-
8/3W-4M(2)	David Van Dyke	1964-
8/3W-5R(4)	E. A. Meola	1964-
8/3W-6B(1)	Illahe Country Club	1962-
8/3W-6D(1)	Harry Eyerly	1962-
8/3W-9P(1)	Salem Heights Water District	1960-
8/4W-27M(1)	4-D Farms	1963-
9/1W-1E(1)	Etzel Brothers	1958-
9/1W-2R(1)	Al Etzel	1963-
9/1W-12B(1)	William Ripp	1961-
9/2W-24L(2)	Boyd Hilton	1963-
9/2W-24R(1)	A. F. Keithley	1957-
9/2W-25E(1)	Louis Scofield	1961- 1/
9/3W-34J(2)	John A. Wimbush	1964-
9/3-30J(1)	Howard Fenner	1964-
10/3W-13C(1)	E. W. Hart	1962-
10/3W-13F(1)	E. W. Hart	1962-

MORROW COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1/29-3A(1)	A. J. Vey	1963-
2/24-36J(1)	Terrell Range	1964-
1N/26-26M(1)	S. Harold Beach	1963-
1N/27-3R(1)	Earl Wattenburger	1961-
1N/27-10G(1)	Earl Wattenburger	1963-
1N/27-10H(1)	School District	1961-
1N/27-24R(1)	A. J. Vey	1961-
1N/28-28C(1)	A. J. Vey	1960-
1N/28-28D(1)	A. J. Vey	1958-
2N/23-17R(1)	Hynd Bros. Company	1964-
2N/27-20J(1)	Ed Tucker	1961-
2N/27-28H(1)	Ed Tucker	1953-
3N/26-4A(1)	Mildred F. Cramer	1962-
3N/26-4C(1)	Mildred F. Cramer	1962-
3N/26-4L(1)	Luther W. Cramer	1962- 1/
3N/26-5M(1)	Otto J. Hellberg	1962-
3N/26-10G(1)	Waldo H. Cramer	1962-
3N/26-10J(1)	Ernest R. Cramer	1962-
3N/26-10K(1)	Ernest R. Cramer	1962-
4N/26-25E(1)	Unknown	1953-
4N/27-5B(1)	Umatilla Army Depot	1960- 1/
4N/27-5C(1)	Umatilla Army Depot	1962-
4N/27-8R(1)	Umatilla Army Depot	1961- 1/
4N/27-18P(1)	Umatilla Army Depot	1960-
4N/27-19B(1)	Umatilla Army Depot	1962- 1/
4N/27-28E(2)	Scott Chapman	1962-
4N/27-32B(1)	R. Holzapfel	1962-
4N/27-32J(1)	R. Holzapfel	1962- 1/
4N/27-33H(1)	McDole Brothers	1962-

LIST OF OBSERVATION WELLS

MULTNOMAH COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1/1-3D(3)	Pacific Power & Light Co.	1961- 1/
1/1-3D(4)	Pacific First Federal	1961-
1/1-3D(6)	Pacific Service Building	1961-
1/1-3E(1)	Oregonian Publishing Co.	1961-
1/1-3E(2)	Oregonian Publishing Co.	1961-
1/1-3E(3)	Oregonian Publishing Co.	1961-
1/1-3M(1)	Pacific Northwest Bell	1963-
1/1-3M(2)	Pacific Northwest Bell	1963-
1/1-4A(2)	Medical-Dental Building	1958-
1/1-10P(1)	J. Donald Kroeker	1961- 1/
1/3-10N(1)	Forest Lawn Memorial Park	1963- 1/
1/3-7N(1)	Meadowland Dairy	1964- 1/
1N/1-33C(2)	Good Samaritan Hospital	1961- 1/
1N/1-33L(1)	Fred Meyer Inc.	1961- 1/
1N/1-33Q(1)	U. S. National Bank	1946-
1N/1-34N(1)	Weisfield's Inc.	1940- 1/
1N/1-34N(3)	Equitable Savings & Loan	1961-
1N/1-34N(4)	Equitable Savings & Loan	1961-
1N/1-34N(5)	Equitable Savings & Loan	1958-
1N/1-34N(6)	Pittock Block Inc.	1961- 1/
1N/1-34N(8)	Lipman Wolfe & Company	1961-
1N/1-34N(10)	Dirks Medical Center	1961-
1N/1-34N(11)	Dirks Medical Center	1961- 1/
1N/1-34N(12)	Federal Reserve Bank	1961- 1/
1N/1-34N(13)	U. S. National Bank	1961-
1N/1-34N(14)	First National Bank	1959-
1N/1-34N(17)	Pacific Tel. & Tel. Company	1961-
1N/2-9N(1)	Port of Portland	1963- 1/
1N/3-26R(1)	Kazuo Fujii	1963- 1/

POLK COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
6/3W-7H(1)	D. L. Gingerich	1963-
6/4W-17K(1)	John Romig	1963-
7/3W-10E(1)	Leland P. Brandt	1962- 1/
8/4W-3B(1)	Theodore C. Muller	1962- 1/
8/4W-21E(2)	Boise Cascade Corporation	1962-
8/5W-13H(1)	Milo Jensen	1963-
8/6W-22F(1)	Edward Bakke	1962- 1/
8/6W-25R(1)	Ray Norton	1963-
9/4W-8N(1)	D. W. Christianson	1963- 1/

SHERMAN COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1N/17-4L(1)	Phillip G. O'Meara	1963-
1N/17-16C(1)	L. P. Haven	1964-
3/16-10N(1)	E. J. Hartley	1963-

TILLAMOOK COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1/9W-18M(1)	Green Acres Motel	1962- 1/
1/9W-19C(1)	Tillamook Veneer	1962-
1/9W-27B(1)	Gaylord Shively	1962-
1/9W-27E(1)	Virgil Chadwick	1962- 1/
1/9W-29E(1)	Norman Burdick	1962-
1/9W-29K(1)	Fairview Water Dist., Inc.	1962-
1/9W-29L(1)	Fairview Water Dist., Inc.	1962-
1/9W-31E(1)	Lester E. Armstrong	1962-
1/9W-31P(1)	Tillamook Water Commission	1962-
1/9W-32Q(1)	Elbert Leonnig	1962-
1/10W-12D(1)	Leo & Robert Wassmer	1962- 1/
1/10W-25E(1)	Alfred Marolf	1962-
1/10W-26B(1)	Rudolph John Fenk	1962-
1/10W-36R(1)	Frank Emmenegger	1962-
2/9W-5E(1)	Tillamook Water Commission	1962-
2/9W-6G(1)	M. J. Jenck	1962-
2/9W-6J(1)	Connie & Judy Dye	1962-
2/9W-21E(1)	Vern Darby	1962- 1/

UMATILLA COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1/32-9L(1)	Wayne Chapman	1961-
1/32-17G(1)	City of Pilot Rock	1961- 1/
1/32-17K(1)	City of Pilot Rock	1961- 1/
1/32-19F(1)	Arnold Hoeft	1964-
1/32-23J(1)	Hilmer Horn	1961- 1/
3/30½-1B(1)	Joseph Pedro	1953- 1/
2N/27-1F(1)	Claussie Ammon	1961-
2N/27-11H(1)	Clarence L. Hansen	1961-
2N/27-12D(1)	Clarence L. Hansen	1961-
2N/27-26L(1)	Sarvis Spring Farm	1962-
2N/27-27E(3)	John F. Kilkenny	1961-
2N/30-28F(1)	Cunningham Sheep Company	1961-
2N/32-2N(1)	City of Pendleton	1961- 1/
3N/27-25R(1)	George Wallace	1961-
3N/27-36H(2)	George Wallace	1961-
3N/28-18K(1)	Harry J. Andrews	1956-
3N/34-3D(1)	Berkley Davis	1953-
4N/27-22K(1)	Umatilla Army Depot	1960- 1/
4N/27-22P(1)	Umatilla Army Depot	1960-
4N/27-36D(1)	Lyle Miller	1961-
4N/29-5R(1)	John Hershey	1963-
4N/29-17N(2)	Ben Dreyer	1961- 1/
4N/29-18J(1)	Milton Culp	1961-
4N/29-32L(1)	City of Stanfield	1964-
4N/32-2M(1)	L. King	1953-
5N/28-22D(1)	Munson Auto Court	1953- 1/
5N/34-16R(1)	R. M. Thompson	1953-
5N/35-1C(1)	Cecil Brodie	1933- 1/
5N/35-2C(1)	E. J. McSherry	1933-
5N/35-2L(1)	City of Milton-Freewater	1954- 1/
5N/35-3H(1)	Walter Miller	1933-
5N/35-12F(2)	City of Milton-Freewater	1954- 1/
5N/35-14L(1)	Conrad Miller	1933-
6N/35-20G(1)	J. E. Courtney	1933-
6N/35-24Q(1)	Everett Miller	1933- 1/
6N/35-26C(2)	Earl Ransom	1933- 1/
6N/35-28H(1)	W. J. Rand	1933-
6N/35-28N(1)	Lottie McKnight	1933-
6N/35-30M(1)	Thad Shepard	1933-
6N/35-34C(1)	Mrs. Jessie Reese	1933-
6N/35-36C(1)	James Busch	1933-
6N/35-36H(1)	Walter Herman	1933-

UNION COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1N/38-21C(1)	Mr. Schmittel	1957- 1/
1N/39-4M(1)	Lee Smith	1964-
1N/39-15M(1)	Jim Morgan	1964-
1/38-24R(1)	H. L. Wagner	1950- 1/
1/39-17L(1)	A. F. Furman	1940- 1/
1/39-20C(1)	Clayton Fox	1964- 1/
2/39-33P(3)	Wilfred Hamann	1964- 1/
3/38-3C(1)	Glen Lester	1963- 1/
3/38-6H(1)	City of La Grande	1957-
3/38-6Q(1)	Dr. Gilstrap	1957-
3/38-10B(1)	Union County	1936- 1/
3/38-25B(1)	Union County	1936-
3/39-7R(2)	Stanley Weishaar	1964- 1/
4/39-11H(2)	W. H. Woodruff	1964-
6/39-20C(1)	Edson R. McCanse	1962- 1/
6/39-20Q(1)	Edson R. McCanse	1962-

WASCO COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1N/12-13N(1)	Julius Sandoz	1957- 1/
1N/12-13Q(1)	Kenneth Kortge	1957-
1N/12-23D(2)	Paul M. Martin	1962-
1N/12-28P(1)	Dalles City	1963-
1N/13-1F(1)	3-Mile Irrigation Coop. Inc.	1959-

LIST OF OBSERVATION WELLS

WASCO COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1N/13-3E(1)	Dalles City	1959- 1/
1N/13-3G(2)	Columbia Fruit Growers	1956-
1N/13-4C(1)	P. J. Stadelman	1960-
1N/13-4E(1)	Odd Fellows Cemetery	1956- 1/
1N/13-4F(1)	Dalles City	1959-
1N/13-4P(1)	Dalles City	1959- 1/
1N/13-5G(1)	Cherry Heights Irr. Coop.	1959-
1N/13-8A(1)	G. S. Williams	1960- 1/
1N/13-8M(1)	Mill Creek Irr. Coop.	1959-
1N/13-14L(1)	Dewey Wagonblast	1959- 1/
1N/13-15G(2)	Parklawn Memorial Gardens	1959-
1N/13-17C(1)	George M. Davis et al	1958-
1N/13-18M(1)	Gladys L. Rogers	1957-
1N/13-32G(1)	Milton F. Martin	1946-
1N/13-32G(2)	Milton F. Martin	1956-
1N/13-32M(1)	Dr. John H. Skirving	1957-
1N/13-33M(1)	Sanders Brothers	1960-
1N/13-34L(1)	W. O. Wright & W. Cruikshank	1960- 1/
2N/12-7E(1)	Darrel Evans	1963-
2N/12-7H(2)	A. Francois	1963-
2N/12-25R(1)	E. A. Kuck	1947-
2N/12-36F(1)	William Hertel	1962-
2N/12-36L(1)	Karl Thomsen	1962-
2N/12-36L(2)	J. Kenneth Fleck	1962-
2N/12-36L(3)	W. S. Nelson	1962- 1/
2N/13-28L(1)	Harvey Aluminum Company	1957-
2N/13-28M(1)	Harvey Aluminum Company	1957- 1/
2N/13-28N(1)	Harvey Aluminum Company	1957-
2N/13-28P(1)	Harvey Aluminum Company	1957-
2N/13-32A(1)	Chenowith Irrigation Coop.	1957- 1/
2N/13-32J(4)	Chenowith Irrigation Coop.	1957-
1/13-31Q(1)	Harvey McAllister	1962- 1/
4/13-9C(1)	E. J. Schilling	1962-

WASHINGTON COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
1N/1W-21L(1)	Cecil C. Schaefer	1964-
1N/2W-8E(1)	T. R. Connell	1951-
1N/2W-11C(1)	Albert Zander	1951-
1N/2W-35E(1)	E. L. Lewis	1951- 1/
1N/3W-15H(1)	Art Salzwedel	1951-
1N/3W-19C(1)	A. J. Giesbers	1951-
1N/3W-36R(2)	General Foods, Birdseye Div.	1951- 1/
2N/2W-30D(1)	Felix Devlaeminck	1964-
2N/3W-16A(1)	Dennis Hall	1964-
2N/4W-24F(1)	Erwin Mead	1963-
2N/4W-33G(1)	Julius Winterfield	1963-
1/1W-11L(1)	City of Beaverton	1964-
1/1W-17P(1)	Schuepbach Bros.	1959-
1/1W-19R(3)	Earle L. Miller	1961- 1/
1/1W-21R(1)	Elinore Shively	1948-
1/2W-13Q(1)	L. T. Wright	1961-
1/2W-24E(1)	Edward Berger	1957-
1/2W-26F(1)	Karl Schaefer	1958- 1/
1/2W-26G(1)	Baker Rock Crushing	1961-
1/2W-26Q(1)	Warren Northwest Inc.	1961-
1/3W-21C(2)	Ernest Meyer	1964-
1/4W-2H(1)	Myron Sheelar	1951- 1/
2/1W-3Q(1)	Leonard S. Davis	1962- 1/
2/1W-4C(2)	Harris H. Hanson	1962- 1/
2/1W-4G(1)	Tigard Water District	1962-
2/1W-10D(1)	Tigard Water District	1962-
2/1W-11E(1)	Tigard Water District	1962-
2/1W-11M(1)	Walter Engler	1962-
2/1W-13B(2)	Ralph Sittol	1960- 1/
2/1W-13K(2)	L. C. Endicott	1960-
2/1W-14N(1)	A. J. Martinazzi	1951-
2/1W-18J(1)	James Hasuike	1962-
2/1W-31K(1)	Ralph Reynolds	1963- 1/
2/1W-32F(3)	City of Sherwood	1963-
2/2W-6D(1)	S. R. Rotchstrom	1951- 1/
2/2W-16N(1)	Mountainside Cemetery	1964-

1/ Hydrograph of this well shown in this report.

WHEELER COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
12/23-14R(1)	Lillie Collins	1963-

YAMHILL COUNTY

WELL NO.	OWNER	RECORDS AVAILABLE
2/3W-30Q(1)	E. W. Leffler	1963-
2/4W-13G(1)	George Woell	1962-
3/2W-17A(1)	Mack Pennett	1962- 1/
3/3W-26G(1)	City of Dundee	1962-
3/3W-30J(2)	Trappist Abbey	1962-
3/4W-19N(1)	Austin Warner	1962-
4/3W-6N(1)	City of Lafayette	1962-
4/3W-33K(1)	Clayton J. Trent	1962- 1/
4/4W-24R(1)	Ross Cruickshank	1962-
4/4W-27D(1)	J. L. Wilcox	1962-
5/3W-9P(1)	Howard Baker	1962-
5/3W-21C(1)	Louis W. McGee	1962-
5/3W-21N(1)	Fred C. Stockhoff	1962-
5/3W-30R(1)	Russ Rogers	1962-
5/4W-1B(1)	Earle F. Day	1962-
5/4W-11D(1)	Norman J. Longhurst	1962- 1/
5/4W-20N(1)	City of Amity	1962-
5/4W-25G(1)	Peter Parvin	1962-
5/4W-27E(1)	Alf DeRaeve	1962-
5/5W-13B(1)	George Fuller	1928- 1/
6/3W-4D(1)	Lloyd L. Lind	1962-