

NC

1N/2-23E

RECEIVED

NOV 12 1965

MULT 1165

1N/2-23E

NOTICE TO WATER WELL CONTRACTOR  
The original and first copy  
of this report are to be  
filed with the  
STATE ENGINEER, SALEM, OREGON 97310  
within 30 days from the date  
of well completion.

WATER WELL REPORT

STATE ENGINEER

STATE OF OREGON

(Please type or print)

State Well No. 1N/2-23E

State Permit No.

(1) OWNER:

Name PARKROSE WATER DISTRICT  
Address 10424 N. E. FREMONT STREET  
PORTLAND OREGON

(2) LOCATION OF WELL:

County MULTNOMAH Driller's well number  
1/4 Section 23 T. 1N R. 2E W.M.  
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):

Well  Deepening  Reconditioning  Abandon   
Abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):

Domestic  Industrial  Municipal   
Irrigation  Test Well  Other  Water District

(5) TYPE OF WELL:

Rotary  Driven   
Cable  Jetted   
Dug  Bored

(6) CASING INSTALLED:

Threaded  Welded   
20" Diam. from 0 ft. to 40 ft. Gage 0.375  
22 OD Diam. from 54 ft. to 58 ft. Gage 0.375

(7) PERFORATIONS:

Perforated?  Yes  No  
Type of perforator used  
Size of perforations in. by in.  
perforations from ft. to ft.  
perforations from ft. to ft.  
perforations from ft. to ft.  
perforations from ft. to ft.  
perforations from ft. to ft.

(8) SCREENS:

Well screen installed?  Yes  No  
Manufacturer's Name Johnson (TELESCOPING)  
Stainless Steel Model No.  
Diam. 2 1/2" Slot size 250 Set from 40 ft. to 50 ft.  
Diam. 2 1/2" Slot size 125 Set from 50 ft. to 54 ft.

(9) CONSTRUCTION

Portland Cement 42 Sacks  
Well seal—Material used in seal Cement & Sand 2 to 1  
Depth of seal 0 to 24 ft. Was a packer used? No  
Diameter of well bore to bottom of seal 30 in.  
Were any loose strata cemented off?  Yes  No Depth  
Was a drive shoe used?  Yes  No  
Was well gravel packed?  Yes  No Size of gravel: 3/8 to 5/8  
Gravel placed from 24 ft. to 40 ft.  
Did any strata contain unusuable water?  Yes  No  
Type of water? depth of strata  
Method of sealing strata off

(10) WATER LEVELS:

Static level 24' 9" ft. below land surface Date 6/9/65  
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:

Drawdown is amount water level is lowered below static level  
Was a pump test made?  Yes  No If yes, by whom? BOTTNER DRILLING CO.  
Yield: 2450 gal./min. with 12 ft. drawdown after 24 hrs.  
" " " "  
" " " "  
" " " "  
Bailer test gal./min. with ft. drawdown after hrs.  
Artesian flow g.p.m. Date  
Temperature of water Was a chemical analysis made?  Yes  No

(12) WELL LOG:

Diameter of well below casing  
Depth drilled ft. Depth of completed well 58 ft.  
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

SEE	MATERIAL	FROM	TO
	Previous Log by Strasser Drilling		

Note:

Back filled gravel from 63' to 58'  
Welded on 4' of 22" O.D. casing to the bottom of the 24" screen, welded on a 3/8" plate to bottom of 22"

Installed Screen and the 20" casing, set on bottom to 58', pulled back the 24" casing to 40'. Gravel packed with 3/8" to 3/4" clean washed gravel to 25 ft., with coarse sand and bentonite from 25' to 24'. To stop the cement from going deeper than 24', by pull back method pumped in grout from 24' to surface.

Work started 5/17 19 65 Completed June 11 1965  
Date well drilling machine moved off of well June 15 1965

(13) PUMP:

Manufacturer's Name  
Type: H.P.

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME HAAKON BOTTNER DRILLING COMPANY  
(Person, firm or corporation) (Type or print)  
Address 3424 S.E. 174 th. LAVENUE

Drilling Machine Operator's License No. 246

[Signed] Haakon Bottner  
(Water Well Contractor)

Contractor's License No. 109 Date \_\_\_\_\_, 19\_\_\_\_

CONSTRUCTED &  
 REDEVELOPED and  
 TEST PUMPED  
 BY

HAAKON BOTNER  
 DRILLING COMPANY  
 PORTLAND OREGON  
 Lic. No. 109

JUN 1 1965

1/4" R CAP  
 WELDED TO TOP  
 OF CASING W/ 1/2"  
 PLUG & I.P. THREADS

CEMENT  
 GROUT  
 SEAL

LIMITS OF  
 EXIST. HOLES  
 EXIST. CASINGS  
 TO BE REMOVED  
 DURING CONST.

GRAVEL PACK

20" O.D. CASING  
 WELDED TO  
 TOP OF SCREEN

14 1/2" x 24" DIA.  
 TELESCOPING  
 SIZE STAIN. STL.  
 SCREEN W/  
 WELDING RINGS  
 AT BOTH ENDS

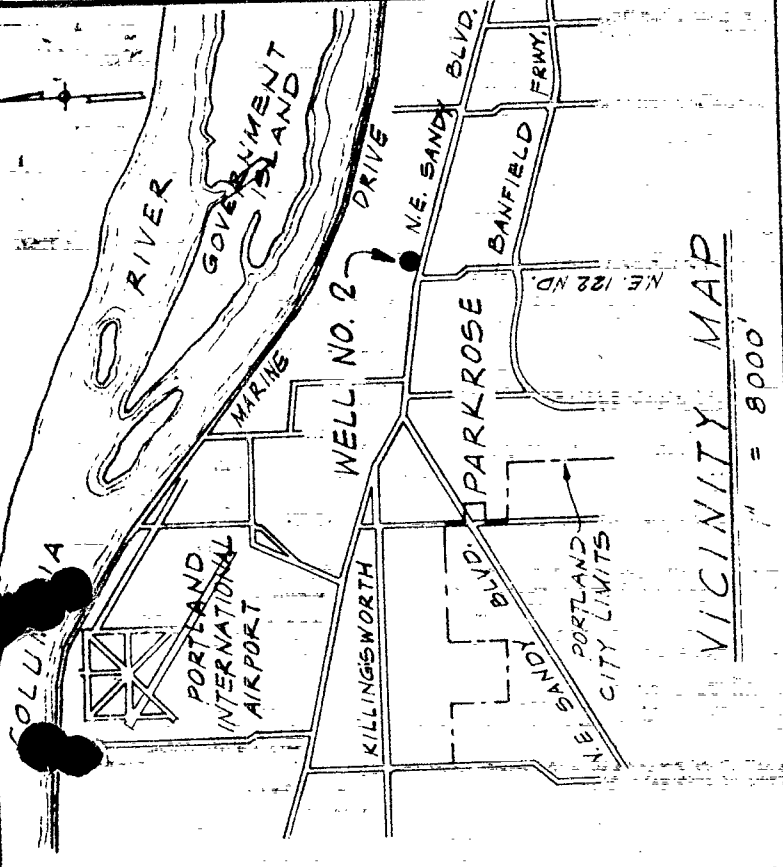
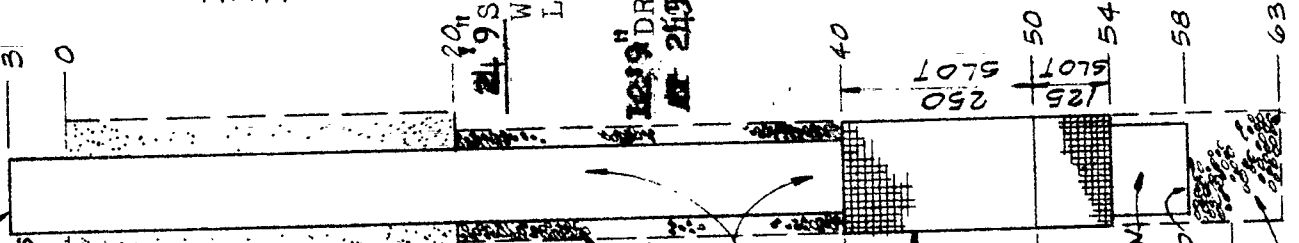
22" O.D. CASING  
 WELDED TO SCREEN

3/8" R WELDED TO  
 BOTT. OF 22" O.D.  
 CASING

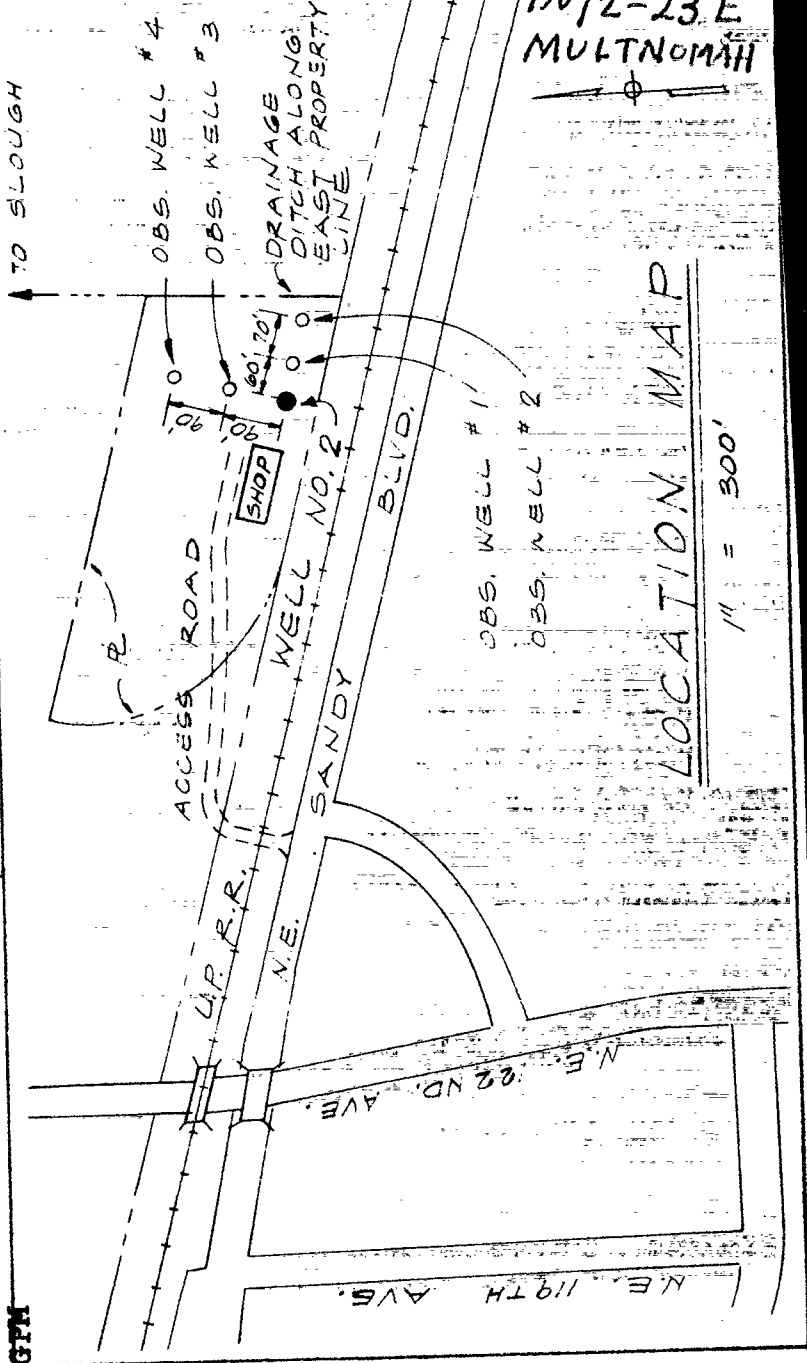
GRAVEL PACK

24.9 STATIC  
 WATER  
 LEVEL

12.9" DRAWDOWN  
 AT 2490 GPM



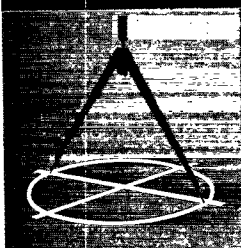
VICINITY MAP  
 1" = 800'



LOCATION MAP  
 1" = 300'

REGIEVE PARKROSE  
 NOV 12 1965  
 STATE ENGINEER WELL No. 2

IN/2-23.E  
 MULTNOMAH

**CH<sub>2</sub>M****CORNELL, HOWLAND, HAYES & MERRYFIELD  
CONSULTING ENGINEERS**LOGAN BUILDING • 500 UNION STREET • SEATTLE, WASHINGTON  
TELEPHONE: MAIN 4-3625 • AREA CODE 206  
OTHER OFFICES IN: CORVALLIS, OREGON • BOISE, IDAHO

S-2055

February 23, 1962

**RECEIVED**  
FEB 26 1962**STATE ENGINEER  
SALEM, OREGON**Well No. 2, Parkrose Water District,  
Portland, OregonMr. Jack Sceva  
State Engineers Office  
Salem, Oregon

Dear Mr. Sceva:

The proposed well at Parkrose, designated No. 2, has now been drilled and test-pumped with a 24" casing perforated between depths 30 and 55 feet. Logs of the 24" well and four 6" observation wells, with position and depths of perforations, are given on the enclosed drawing No. C-2055-8, together with a location map and semi-logarithmic hydrographs of the five wells throughout the 24-hour pumping test which was carried out on January 22/23, 1962. While we have only relative casing elevations not tied to USGS datum, El. 100.00 is very roughly equivalent to El. 30 USGS.

A preliminary pumping test on January 20 produced 1750 gpm with a drawdown of 7 feet at the end of 1-1/2 hours and it was therefore decided to pump at 1800 gpm on January 22. On the day before the longer test a Bristol pressure recorder, with its own source of pressure, was connected to the water level detector air line in Well No. 2 and no rise or fall of the general water table was detected overnight. The general slope of the water table was found by instrument to be 4 feet in 1200 feet between Well No. 2 and Deering Slough.

Static water levels before the pumping test were taken by chalked steel tape to the nearest hundredth of a foot, after which water level recorders were installed at Observation Wells No. 1 and 3. The recorder at No. 1 did not register too well and was taken off at 12:20 p.m. in favor of probing with the steel tape. The recorder at No. 3 gave an exceptionally good trace throughout the pumping test and short recovery period. The measuring datum for the pumped well was the top of the probe tube and for the observation wells, the top of the casing.

We mention this procedure in some detail to aid in assessing the degree of accuracy of the test information and interpreting the hydrographs.

Since the drawdown approached approximate equilibrium after 460 minutes at 1800 gpm, the pumping rate was increased to 2450 gpm and held there for the remainder of the test. You will note particularly that there are not as many test points at the higher rate as would be desirable to accurately estimate the probable drawdown after 90 days, but we think we have made a reasonable estimation. A difficulty arose in taking the probe readings at a drawdown in excess of 17 feet, water level depth about 40 feet. This may have been due to the contractor installing the probe tube end at 55 feet, the same level as the pump suction which we had asked to be avoided. However, the air line was at 54 feet and the Bristol chart, reading to 1 foot, indicated that the drawdown was approaching equilibrium near the end of the pumping test. Approaching is of course a relative term in this context. The discharge water temperature was about 50 degrees F throughout the test while the air temperature varied from 16 degrees F to 32 degrees F. There was very little evidence of sand in the discharge throughout the test except for a short period when the rate was increased from 1800 to 2450 gpm.

You will note that the hydrograph of observation well No. 3 does not immediately follow the normal pattern and we are unable satisfactorily to account for this, unless it be due to the varying extent and depth of the casing perforations compared with those in the other wells or else a difference in aquifer characteristics at that well causing a lag in drawdown response to pumping well No. 2.

In addition, distance drawdown curves of the wells, plotted at various specific times after pumping commenced, do not conform to the pattern to be expected. We have attempted to make an approximate correction for the slope of general water table which would tend to produce an elliptical area of influence around the pumped well with flow lines distorted from the normal radial pattern. However, it appears that the slope of the general water table is not sufficiently great to be considered.

We are considering recommending the installation of a 24-inch diameter telescope size, 125 slot Johnson stainless steel well screen, 15 feet in length permanently attached to a 20-inch well casing, the bottom of the screen being at depth 55 feet. This would permit a 16-inch pump to produce 2500 gpm over a continuous period for summer peaking purposes or 2000 gpm if used continuously throughout the year. The pump suction would



Jack Sceva  
February 23, 1962  
page 3

be set at 45 feet depth to allow drawdown below the static water level of 22.5' which is not expected to vary very much with the seasons or over a period of several years.

We are sending the test data and well logs for your information and would appreciate any comments you may wish to make. Please contact us if we have omitted to clearly describe the test and our interpretation of the data.

Very truly yours,

CORNELL, HOWLAND, HAYES & MERRYFIELD

*Antony B. Barnes.*

Antony B. Barnes

ABB/jb