Public Health Division

Center for Health Protection, Drinking Water Services

Tina Kotek, Governor

March 26, 2026

Mark Bjornson (mark@bjornsonwine.com)
Bjornson Vineyard
3635 Bethel Heights Rd NW
Salem, OR 97304

Sent by email only

Re: 1973 Well #1 - POLK995 (PR# 23-2026)
Bjornson Vineyard (PWS ID# 95772)
Site Plan & Well Evaluation

Dear Mr. Bjornson:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the well serving Bjornson Vineyard. On March 19, 2026 our office received land use documentation, photos, tank descriptions and a well log ID (POLK995). A plan review fee of $825 was received on February 15, 2026.

The project included using an existing 1973 well (POLK995), pressure tanks and cartridge filters to serve a house, winery and tasting room.

A regional geologist in our program evaluated the well driller's report and noted that the well seal did not meet construction standards (see enclosed well log evaluation results). This was also noted by the Oregon Water Resources Dept. in a review they conducted in 2006 after which the well was to be reconstructed to meet current construction standards or formally abandoned.

Due to the inadequate seal construction of the 1973 well, **the well cannot be approved at this time**.

If the well is reconstructed or formerly abandoned, please submit:

1. The well driller's report (well log).
2. Photo of the wellhead

3. Well pumping test information including static water level, pumping rate, drawdown and rate of recovery.
4. Pump information.
5. Raw (Untreated) Water Quality Data including coliform bacteria, nitrate, and arsenic. These are to be taken from the new well's raw water sample tap at the wellhead.
6. Plans that show the above-well structure detail including the well house, concrete slab, drainage, pump-to-waste piping and plans and specifications for reconnection of the well to the water system.
7. A copy of the Water Right Permit from WRD, if a water right permit is required. If you have further questions regarding water rights, please reach out to Joel Plahn for water rights information.

District-22 NW Region	Joel Plahn joel.m.plahn@water.oregon.gov	725 Summer Street NE, Suite A Salem, OR 97301	503-508-2394 (cell)

If you need assistance with reconstructing or abandoning this well, please reach out to Tommy Laird with the Oregon Water Resources Department (WRD).

Tommy Laird
Well Construction Program Coordinator
Tommy.K.LAIRD@water.oregon.gov
Cell 503-302-8618
Oregon Water Resources Department
725 Summer Street NE, Suite A Salem, OR 97301

If you decide to drill a new well, please submit a site map prior to construction showing the proposed location of the well that demonstrates no hazards are within 100-ft of the well and you own the property within 100-ft of the well.

Note: The site plan will need approval from our office prior to drilling the well.

Please refer to page 2 of our construction standards for wells for a list of hazards.

Construction standards *as indicated in the Oregon Administrative Rules* (OAR) 333-061-0050 *are online at:*

https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PLANREVIEW/Documents/OAR-333-061-0050.pdf

The above items should reference Plan Review #23-2026 and can be emailed to me at evan.e.hofeld@oha.oregon.gov.

If you have any questions, please feel free to email me at evan.e.hofeld@oha.oregon.gov or call me at 971-200-0288.

Sincerely,

Evan Hofeld, PE
Regional Engineer
Drinking Water Services

CC: Nancy Morrow, Bjornson Vineyard - nancy@bjornsonwine.com
Sarah Schwab, Oregon Dept of Agriculture (ODA) – Drinkingwater@oda.oregon.gov
Brian Hawkins, Oregon Dept. of Agriculture - Brian.HAWKINS@oda.oregon.gov
Christina Tisdell, Polk County Community Development – tisdell.christina@co.polk.or.us
Tommy Laird, Oregon Water Resources Dept.– Tommy.k.laird@water.oregon.gov
Joel Plahn, Oregon Water Resources Dept. - Joel.M.PLAHN@water.oregon.gov
Tom Pattee, Oregon Health Authority – DWS - Tom.PATTEE@oha.oregon.gov

Enclosures:

- Well Evaluation Results
- Well Log

Well Log Evaluation Results – POLK995

OHA geologist, Tom Pattee, evaluated the well log (POLK995) and found that the well did not meet construction standards due to an inadequate seal. More details regarding this evaluation are as shown below.

As Built Well Construction Evaluation for Plan Review and/or Setback Waiver:

☐ Well/Spring meets current construction standards.
  ☐ WRD special construction standards, see well log or Comments.
☒ Well/Spring construction does not meet construction standards.
  ☐ Not sealed to appropriate depth. Recommended depth: _____
  ☐ Not appropriate seal materials
  ☐ Open to more than one aquifer
  ☐ Seal info missing or unknown
  ☒ Seal not constructed properly (☒ Insufficient sealant volume ☐ Insufficient annular space)
☐ Susceptible construction, but grandfathered source. Consider for reconstruction if nitrate ≥ 5mg/L or confirmed *E. coli* at source.
☒ Susceptible well construction, **not approved for use**.

Comments: This well was drilled to a depth of 400 ft. The well is cased to a depth of 36 ft and is reported to have been sealed to a depth of 35 ft using 2 sacks of cement. The casing seal appears to be suspect due to an insufficient amount of cement used to create the seal. Calculations suggest that constructing a 35 ft seal in a 9-inch borehole with 6-inch casing would require about 5.5 sacks of cement, 3.5 sacks more than were reported on the well log. Therefore, the well does not appear to meet current construction standards. Water can enter the well through the uncased portion of the well from 36 to 400 ft below ground level. Sensitivity Analysis results suggest that well construction is highly sensitive to nearby land use practices due to the casing seal.

Nature of Aquifer Evaluation:

Aquifer Nature: ☒ Confined aquifer ☐ Semi-confined aquifer ☐ Unconfined aquifer

Comments: This well draws water from a confined layered basalt aquifer. The water-bearing zone appears to occur at a depth of 383 ft. The water-bearing zone is overlain by 357 ft of layered basalt that acts as a confining layer. Water in the aquifer is under pressure, rising 67 ft above the top of the likely water-bearing zone to a static water-level of 316 ft below ground. Sensitivity Analysis results suggest that the aquifer is not highly sensitive to nearby land use practices.

Reviewed by: Tom Pattee, R. G. Date: 03/25/2026

Oregon Water Resources Department evaluated the well in 2006 and also concluded that the well was not adequately constructed as indicated in the email below.

FW: Well Repair Data LL-1026

BYRD Kristopher R * WRD <Kristopher.R.BYRD@water.oregon.gov>
To LAIRD Tommy K * WRD

Reply | Reply All | Forward
Thu 3/26/2026 11:00 AM

From: Kristopher Byrd <Kristopher.R.BYRD@wrd.state.or.us>
Sent: Wednesday, January 3, 2007 1:29 PM
To: 'Mark F Bjornson' <mark_f_bjornson@uhc.com>
Cc: Jerry.K.SAUTER@wrd.state.or.us
Subject: RE: Well Repair Data LL-1026

Mark,

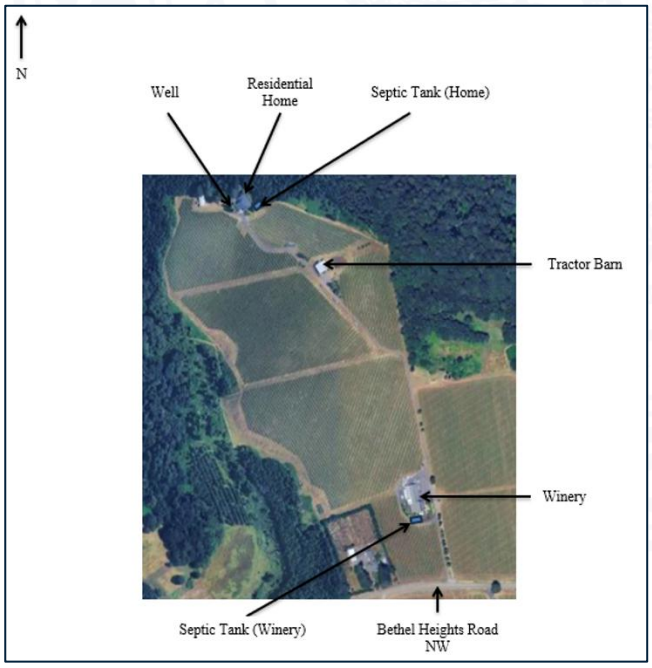
RE: LL-1026

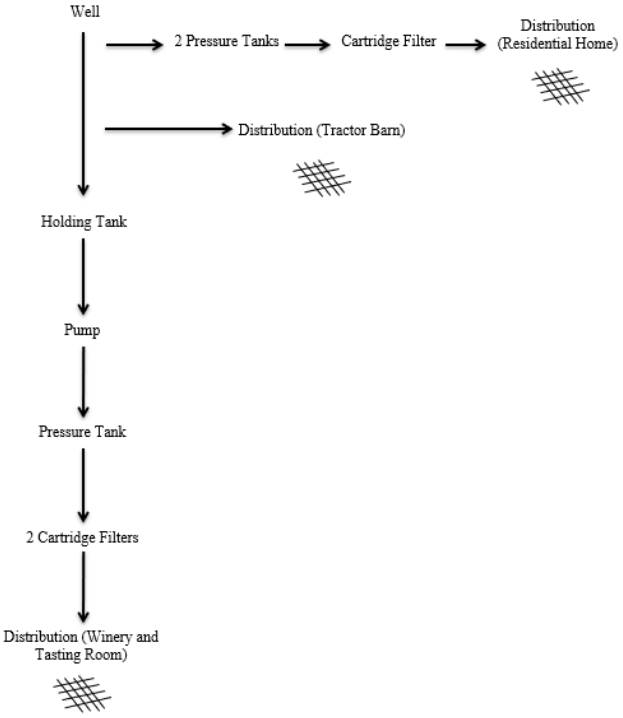
This note is just to address the construction of your well identified in Department records as "Polk 995". In order to meet the minimum construction standards your well must be constructed consistant with Oregon Administrative Rules (OAR's) 690-200 thru 690-225. More specifically the well must be cased and sealed to the proper depth with an adequate borehole diameter and an adequate amount of sealing material. If you contract with a local Water Supply Well Constructor to repair your well then it is the constructor's responsibility to make sure that the well meets current standards when completed. They will also submit all of the required paperwork to the Water Resources Department as far as the well repair is concerned. You would need to follow-up yourself with your limited license paperwork. Jerry Sauter is the contact here at the Department for that. His number is (503) 986-0817. If I can be of any further assistance please let me know.

Repair of this well may not satisfy any hydraulic connection issues.

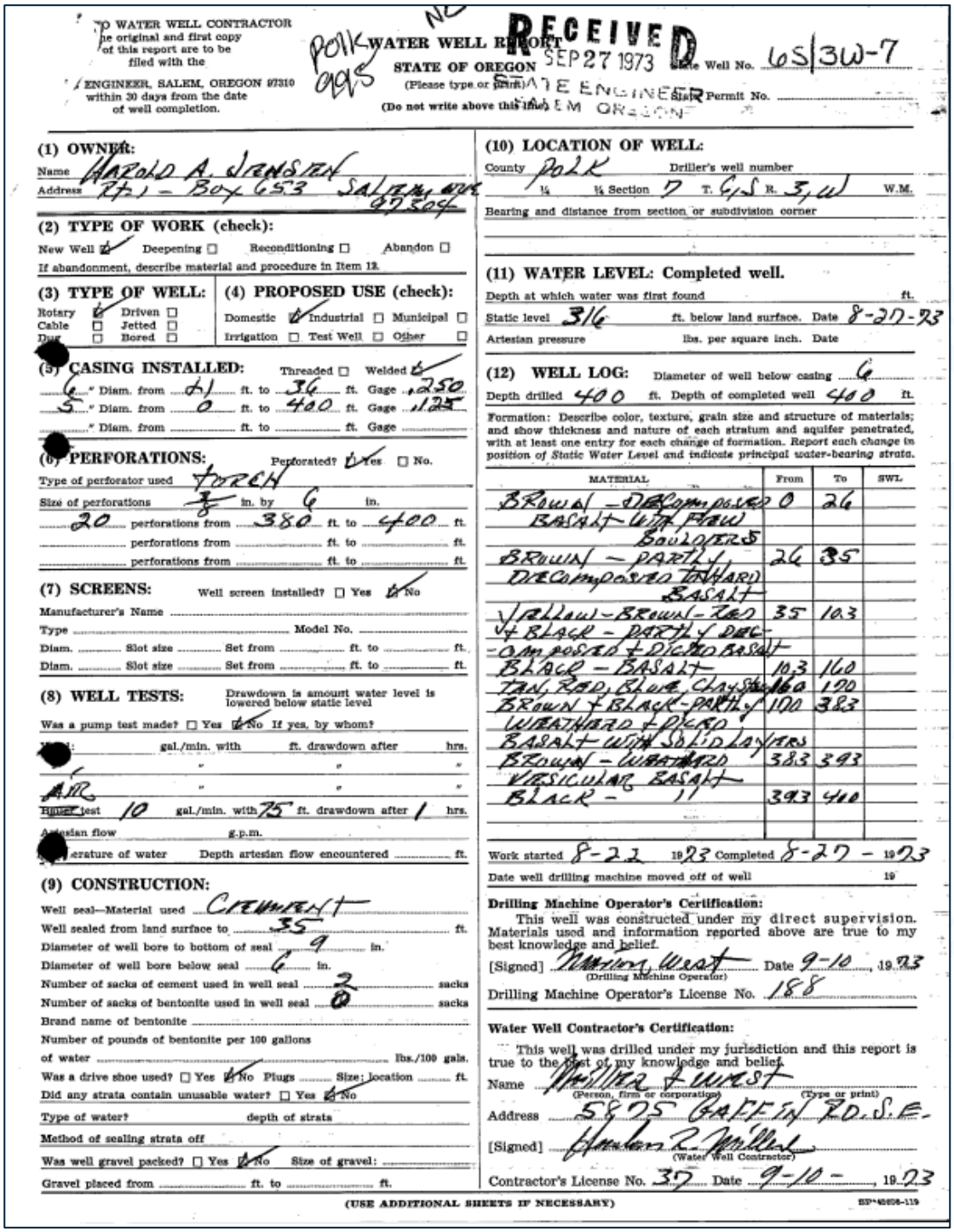
Kristopher Byrd
Well Construction Program Coordinator
Well Construction and Compliance Section
(503) 986-0851 Voice

Map Showing Approximate Location of Well





Well Log (POLK995):



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.

POLK 995 NO

WATER WELL REPORT
STATE OF OREGON
(Please type or print)
(Do not write above this line)

RECEIVED
SEP 27 1973
STATE ENGINEER
SALEM OREGON

State Well No. 6S/3W-7
State Permit No.

(1) OWNER:
Name HAROLD A. JENSEN
Address Rt 1 - Box 653 SALEM ORE 97304

(2) TYPE OF WORK (check):
New Well ☑ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary ☑ Driven ☐
Cable ☐ Jetted ☐
Dug ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☑ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) CASING INSTALLED: Threaded ☐ Welded ☑
6" Diam. from +1 ft. to 36 ft. Gage .250
5" Diam. from 0 ft. to 400 ft. Gage .125
" Diam. from ft. to ft. Gage

(6) PERFORATIONS: Perforated? ☑ Yes ☐ No.
Type of perforator used TORCH
Size of perforations 3/8 in. by 6 in.
20 perforations from 380 ft. to 400 ft.
perforations from ft. to ft.
perforations from ft. to ft.

(7) SCREENS: Well screen installed? ☐ Yes ☑ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(8) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☑ No If yes, by whom?
gal./min. with ft. drawdown after hrs.
" " " "
AIR
Bailer test 10 gal./min. with 75 ft. drawdown after 1 hrs.
Artesian flow g.p.m.
Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:
Well seal—Material used CEMENT
Well sealed from land surface to 35 ft.
Diameter of well bore to bottom of seal 9 in.
Diameter of well bore below seal 6 in.
Number of sacks of cement used in well seal 2 sacks
Number of sacks of bentonite used in well seal 0 sacks
Brand name of bentonite
Number of pounds of bentonite per 100 gallons of water lbs./100 gals.
Was a drive shoe used? ☐ Yes ☑ No Plugs Size; location ft.
Did any strata contain unusable water? ☐ Yes ☑ No
Type of water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☑ No Size of gravel:
Gravel placed from ft. to ft.

(10) LOCATION OF WELL:
County POLK Driller's well number
¼ ¼ Section 7 T. 6 S R. 3 W W.M.
Bearing and distance from section or subdivision corner

(11) WATER LEVEL: Completed well.
Depth at which water was first found ft.
Static level 3/6 ft. below land surface. Date 8-27-73
Artesian pressure lbs. per square inch. Date

(12) WELL LOG: Diameter of well below casing 6
Depth drilled 400 ft. Depth of completed well 400 ft.
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
BROWN - DECOMPOSED BASALT WITH FLOW BOULDERS	0	26	
BROWN - PARTLY DECOMPOSED TO HARD BASALT	26	35	
RUSTY BROWN - RED BLACK - PARTLY DECOMPOSED & DENSE BASALT	35	103	
BLACK - BASALT	103	160	
TAN, RED, BLUE, CLAY STREAKS	160	100	
BROWN & BLACK - PARTLY WEATHERED & DENSE BASALT WITH SOLID LAYERS	100	383	
BROWN - WEATHERED VESICULAR BASALT	383	393	
BLACK - "	393	400	

Work started 8-22 1973 Completed 8-27 1973
Date well drilling machine moved off of well 19

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] Marion West (Drilling Machine Operator) Date 9-10 1973
Drilling Machine Operator's License No. 188

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 WELLER & WEST (Person, firm or corporation) (Type or print)
Address 5825 GAFFIN RD. S.E.
[Signed] Harlan L. Weller (Water Well Contractor)
Contractor's License No. 37 Date 9-10- 1973

(USE ADDITIONAL SHEETS IF NECESSARY)